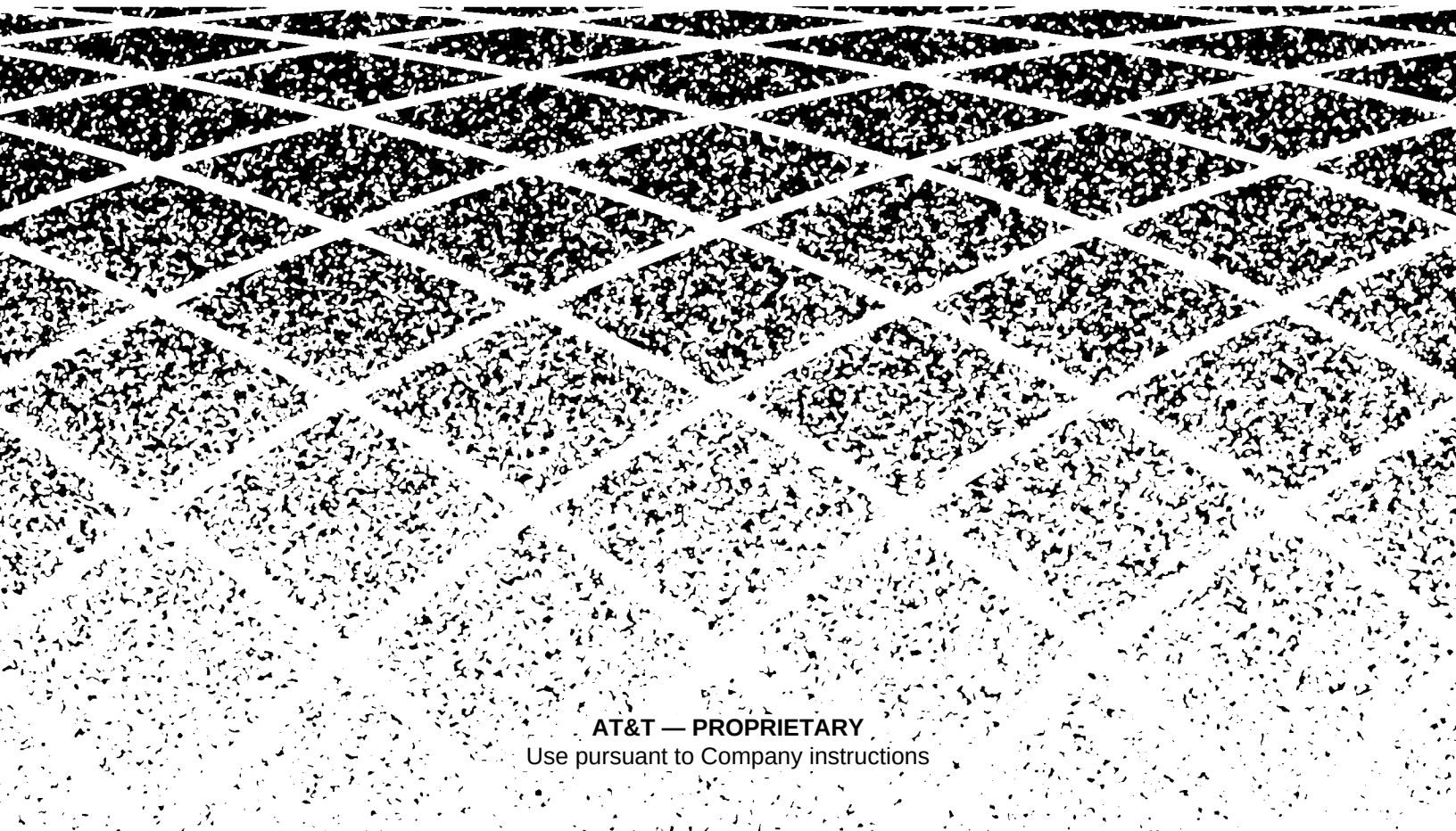
AT&T 365-353-012
Issue 2 (Revision 1)
April 1996

DACS II
Release 6.1.9, MML
Command and Message Manual

Volume I



AT&T — PROPRIETARY
Use pursuant to Company instructions

Copyright © 1996 AT&T
All Rights Reserved
Printed in U.S.A

Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

Security Statement

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such event, applicable tariffs require that the customer pay all network charges for traffic. AT&T cannot be responsible for such charges, and will not make any allowance or give any credit for charges that result from unauthorized access.

Documentation Ordering Information

The ordering number for this document is AT&T 365-353-012. To order this document, call the AT&T Customer Information Center in Indianapolis, Indiana, on 1-800-432-6600. For more ordering information, refer to "How to Order Documentation" in the section "About this Document."

Technical Support Telephone Number

The AT&T Regional Technical Assistance Center (RTAC) provides a technical assistance telephone number which is staffed 24 hours a day. For technical assistance, simply call 1-800-225-RTAC.

Documentation Support Telephone Number

AT&T provides a telephone number for you to report errors or to ask questions about the information in this document. The support telephone numbers are:

Outside North Carolina - 1-800-334-0404
Inside North Carolina - 1-919-727-6681.

Developed by The AT&T Document Development Organization

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume I

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume I

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

History-of-Revisions Sheet

Revisions to:

DACS II
Release 6.1.9, MML
Command and Message Manual

Always retain the latest History-of-Revisions Sheet. File it in the ring binder immediately following the Update Instructions Sheet (if retained) or immediately following the title page.

Revised Item	Revision Date	Reason for Revision
Revised RTRV,PRVG,TERM,USER,ALL and SET,PRVG,USER,TERM,ALL,INCL,LANG,P,M,F commands.	April 1996	Commands revised from DACS II Release 6.1 (new capabilities) for a specific customer.

Contents

	About This Document	vii
1	Introduction	1-1
2	Alphabetic Message List	2-1
3	Numeric Message List	3-1
4	Summary Of Input Commands	4-1
5	List Of Autonomous Messages	5-1
6	ABT - APPEND	6-1
7	BADVERB - BX2	7-1
8	CHG - CRTE	8-1

Contents

9	DELETE - DGN	9-1
10	DISC	10-1
11	DLT	11-1
12	EBX - EXC	12-1
13	IN - LIST	13-1
14	MOVE - MTC	14-1
15	OPR	15-1
16	REPT - RMV	16-1
17	RST	17-1

Contents

18	RTRV	18-1
19	SAVE - SW	19-1
IN	Index	IN-1

About This Document

Purpose

The *DACS II Release 6.0 Command and Message Manual* describes the input commands and output messages of Release 6.0 of the Digital Access and Cross-Connect System II (DACS II). This manual consists of three volumes as follows:

- **Volume I** - This volume contains general information about the document, a detailed introduction that defines DACS II messages, relates how to communicate with DACS II, introduces the administrative links, and discusses in detail NPC addressing, on-line help feature, system configuration and features a listing of related documentation and a glossary. Message listings in this volume include alphabetical and numerical, summary list of input commands and a list of autonomous messages. A comprehensive presentation of input commands and output messages (ABT through DISC) concludes this volume.
- **Volume II and III** - These two volumes contain input commands and output messages in the following order:
  - — **Volume II** - DLT through RMV
  - — **Volume III** - RST through SW

Intended Audiences

This manual is a catalog of messages intended for reference by a technician or craftperson who needs additional details about a message. It provides the user with supplemental information for the Digital Access and Cross-Connect System II (DACS II) that is programmed in the Man Machine Language (MML) language. An example of a user is someone performing a task from an operation and maintenance manual who needs the definition of a specific keyword to complete the task.

How to Order Documentation

To order additional copies of this document, send or call in an order as follows:

- To order by Mail:

  AT&T
  Customer Information Center
  Attention: Order Entry Section
  2855 N. Franklin Road
  P. O. Box 19901
  Indianapolis, IN 46219

- To order by Telephone (Monday through Friday);

  Within the United States of America:
  1-800-432-6600 (7:30 a.m. to 6:30 p.m. EST)

  From Canada:
  1-800-255-1242

  Worldwide:
  Toll: **1-317-352-8557**
  FAX: **1-317-352-8484**

For RBOC/BOC customers, process orders through your Company Documentation Coordinator.

For commercial customers, a check, money order, purchase order number, or charge card number is required with all orders. Make checks payable to AT&T.

AT&T entities should use Form IND 1-80.80 FA, available through the Customer Information Center.

One-time orders include a binder (if applicable) and the document contents for the current issue in effect at the time of order. After placing a one-time order, you can request a standing order for any document revisions *of that software release.* Documents for new software releases do *not* go to standing-order customers. You will only get those documents if you order the new software release.

How to Comment on This Document

A feedback form is located at the beginning of this publication, immediately after the title page. Please fill out the feedback form and return it (postage free) to the address on the back.

If the feedback form is missing, send comment on this publication to:

AT&T
DACS II Documentation Coordinator
Room 3B-337a
101 Crawford's Corner Road
Holmdel, NJ 07733-3030

About This Manual

Foreword

This manual contains message information regarding AT&T Bell Laboratories DACS II Release 6.0 software.

Who Should Use This Manual

This manual is a catalog of messages intended for a technician or craftsperson who needs additional details about a message. This manual provides the user with supplemental information for the Digital Access and Cross-Connect System II (DACS II) which is programmed in the Man-Machine Language (MML). An example of a user is someone performing a task from an operation and maintenance manual who needs the definition of a specific keyword to complete the task.

How To Use This Manual

The user refers to a particular message via the action verb or the message number. The messages are arranged in alphabetical order by action verb; for example, add, audit, broadcast, change, etc. A numerical list, alphabetical list, and a summary of input commands provide cross-referencing of messages and should help in locating a particular message.

A *message* is a communication between a user* and a DACS II. Input messages, or *commands*, are sent from a user to a DACS II. Output messages are originated by a DACS II and sent to the user. The terms *input command* and *input message* are used interchangeably throughout this manual.

How The Manual Is Organized

This manual or document consists of three volumes (binders) of messages in alphabetical verb sequence. The volumes are organized as follows:

Volume I Contents

- Introduction

---

* A *user* can be a person operating a DACS II or an Operations System (OS), such as TIRKS† system, SARTS, etc.

† TIRKS is a registered trademark of Bell Communications Research, Inc.

  - About This Manual
  - DACS II Messages
  - Communicating With DACS II
  - DACS II Administrative Links
  - NPC Addressing
  - On-Line Help Feature
  - System Configuration
  - Documentation Support
  - Glossary
- Message Lists
  - Alphabetical List of Messages
  - Numerical List of Messages
  - Summary of Input Commands
  - List of Autonomous Messages
- Messages (ABT through DISC).

Volume II Contents

- Messages (DLT through RMV).

Volume III Contents

- Messages (RST through SW).

DACS II Messages

How The Messages Are Formatted

Each message is presented in actual input command format with accompanying explanations of parameters. Additionally, all responses to the input command, such as the completion, the denial, and any autonomous messages generated from the input or activated by the machine, are shown.

Message Numbering

The messages are grouped alphabetically according to verb and keywords and are indexed

for reference by a *message number.*

IMPORTANT: Message numbers are used for organization and reference in this manual, and they appear in actual output messages.

Message numbers have the following format:

I.mmmmn	Input command
O.mmmmn	Output message reporting a successful completion (COMPLD) of the input message
O.mmmmn.pp	Output message reporting a denial (DENY) of the input message.

Input commands are prefixed by an I; output messages, by an O. All messages related to each other have the same mmmm digits. An input command may have more than one completion output message. In this case, the last digit, n, indicates the particular completion message. DENY output messages are referenced by the additional digits pp.

For example, consider the diagnose DSPI group of messages (mmmm = 4134). Below is the input command followed by the possible output messages for this group:

```
I.41341     DGN-EQPT:[xy]:UNIT-q:[ww]:DSPI[:CFT-X-vwxy];

O.41341        xy yy-mm-dd hh:mm:ss <link number>
            M  DGN EQPT::UNIT-q:[ww]:DSPI[:CFT-X-vwxy] COMPLD
               /* [O.41341] */
               "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
            ;

O.41341.01     xy yy-mm-dd hh:mm:ss <link number>
            M  DGN EQPT::UNIT-q:[ww]:DSPI[:CFT-X-vwxy] DENY
               m
               /* [O.41341.01] */
               /* <explanation of error condition code> */
            ;
```

Uppercase and Lowercase Characters

In the message format of this manual, uppercase and lowercase letters distinguish between information that is constant (uppercase) and information that is variable (lowercase). Any character written in uppercase appears on the output device exactly as it is written. A character represented by lowercase letters will be replaced on the output driver by the value listed on the manual page for that particular message under *Explanation of Parameters.*

Representation of Lines Longer Than the Page Width

Many message lines in this document exceed the width of the page on which they are

printed. Consequently, a way to present the message on more than one line while maintaining an accurate representation of the message's parameter fields and the character spacing between them has been devised. The backslash character is used in both input and output message representations to mark the point in the message text where the single line has been truncated and continued onto another line. This is consistent with the present use of the backslash character on input to enter a command whose length exceeds 80 characters. The user can easily construct the single-line representation because the backslash marks the extent of any blank characters in the message.

Rather than using the backslash convention discussed above, some utility (RTRV) output messages are printed in a smaller type font because of their volume.

Delimiters

Delimiters are used to enclose a field in a message.

[ ] Brackets indicate an optional field, one which may or may not be used in the input command or appear on the output message.

{ } Braces indicate a field containing alternate choices. For input commands, the user must select one of the choices. In output messages, braces indicate that only one of the fields within the braces will appear.

< > The less than and greater than symbols enclose an abbreviation representing information too lengthy to display in the manual. These delimiters are never used in actual DACS II input commands or output messages but are used only in describing the message format in this manual.

( ) Parentheses **are** part of the message text and must be entered where shown.

Message Layout and Heading Definitions

The layout for a message in this manual may contain the following major headings:

Input Message Format
  Nonhierarchical Format
  Hierarchical Format

Completion Messages
  Nonhierarchical Format
  Hierarchical Format

Denial Message (Not applicable to every message)
  Nonhierarchical Format
  Hierarchical Format

Autonomous Messages (Not applicable to every message)
  Nonhierarchical Format
  Hierarchical Format.

Explanation Of Message

Explanation Of Parameters

Input Message Format shows the message exactly as it appears when entered at the terminal. Some input commands are too long to be displayed on a single line; therefore, these commands are presented on multiple lines. Both the nonhierarchical and hierarchical NPC numbering formats are shown.

Completion Messages is the normal response to the input command and indicates the successful completion of the command or the task requested by the command.

Denial Message indicates that the input command has been denied and will not be executed. The denial message includes an error code describing the reason for denial.

Autonomous Message reports a change in the equipment/operations state of DACS II. For example, a frame audit message will be generated when a diagnostic and audit background test finds a problem with the equipment. The verb is always `REPT`, indicating a report.

Explanation Of Message explains the meaning of the message in general terms.

Explanation Of Parameters explains keywords and variables in detail, such as the specific entity, condition code, etc., for that message. The uppercase letters denote keywords and the lowercase letters denote variables.

Communicating With DACS II

Input Command Mode

An input command requests an action to be performed; this command contains necessary information for DACS II to accomplish the requested action. The user has two basic modes for entering commands: the command mode and the menu/prompt mode.

Command Mode

The command mode is for the experienced user or machine-machine operation. A command must be selected along with variables and entered within a single line. The user types a single-line command with the only carriage return occurring at the end. "Single-line" refers to the input *command*, not to the display of the command. *A long single-line command may extend for several lines on a display terminal.*

DACS II accepts up to 120 characters of input per command. If an input command exceeds 80 characters (the standard width of most terminal screens), the input will continue on the next line of the display beginning with the 81st character. However, the command line can be broken at a convenient place by typing a backslash (\) followed by a carriage return. The display of the input command will continue on the next line, but the command will be interpreted as a single-line command. If 120 characters is not sufficient or if the user finds entering long commands error-prone, the single-line command can be broken up into several smaller commands.

Entering a carriage return without the backslash terminates the input and causes the line to be interrupted. An exclamation point (!) also terminates the input command (that is, DACS interprets the carriage return and ! as the end of the command). If the carriage return is used, ! is echoed back to the terminal.

Menu/Prompt Mode

This optional on-line help mode assists the user in completing the input command. The menu/prompt mode aids the user by providing a list of alternative variables or keywords.

The user starts the menu/prompt mode by entering **?** (question mark) in the command line at the point in question. In response, DACS II presents a list of possible keywords. This list is presented to the user in menu or prompt form. At this point, the user may continue or return to the command line. If the user continues, he/she should refer to the detailed examples (menu form and prompt form) in the "On-Line Help Feature" section.

Aborting an Input Command or Output Message

The abort command is entered to interrupt an input command or to abort an output message. If the command is entered for a particular link, the output from this link will be interrupted just after the command is entered or after one or two output lines. The output message on the other links may or may not be interrupted. When this abort option is used, the command generating the output will be completed unless the autonomous message, `CMD ERR ABT` (Message O.01121), appears.

For a nonabortable message, the output message will not be affected.

If a nonabortable message is being printed out but DACS II is executing an abortable command, the abort command will stop that command and `CMD ERR ABT` will be output on all links.

Input Command Format

General

The general format of an input message (command) is represented below:

```
VERB[-MODIFIER][-MODIFIER]:[xy]:[zz]:[ww]: [d][,e]...[,z];
```

Brackets [ ] enclose modifiers, parameters, or other optional information. Parameters give the specific information that is required by the command verb in order to execute that command. All parameters are positional within the command line.

`:[xy]:[ww]:[d],[e],...,[z];` represent the input parameters and are separated by colons, but if they are logically connected (also called group, block, field), they are separated by commas. The colon (:) is used as a parameter field delimiter. Note: When entering a command the trailing or last colon may be omitted.

Verbs, modifiers, and parameters are positionally significant within the command line.

Input commands must be treated on a case-by-case basis. For example:

- If a parameter field has only a single value (letter or number), it is considered a keyword defined parameter field.
- A keyword defined parameter is not positional inside the parameter field and the comma (,) is omitted. A double comma (,,) in any keyword defined parameter field will be rejected.
- A value (letter or number) defined parameter is positional inside a parameter block.

Example of a Single-Line Input Command

```
RST-EQPT:05:NPC-097:12;
```

The above command requests DACS II to restore to service (RST) network processing circuit number 97 (NPC-097) in DACS II frame number 5 (05). The operator has arbitrarily assigned sequence number 12 (12) to the command.

Verbs (Keywords)

An input command consists of *keywords* combined with equipment and circuit identification. Some input commands allow some keywords to be entered in random order. A *keyword* is an alphanumeric string of characters representing:

- Verb (also referred to as an action verb, command verb, or keyword)
- Parameter addressing conventions
- Address specification
- Results of a command.

Verbs are keywords or action verbs that tell the system to do something. Table 1 contains a list of the command verbs and/or modifier(s).

Entity identification is a keyword that identifies a specific system or circuit pack within the system. For example, the keyword NPC refers to a network processing circuit.

Address specification is a keyword that refers to a specific address. TP 03, for example, refers to a specific test port (Test Port 03).

Keywords sometimes report the *results of a command.* In response to a diagnostic command, DACS II might return the keyword ATP to indicate "All Tests Passed."

The "Glossary" section contains a listing of all commonly used keywords and their definitions.

Input Command Control Characters

In addition to input commands, DACS II responds to the following input command control characters or symbols:

& (or **CONTROL-x**, or **CTRL-x**). *Abandon message.* Entering any one of these characters will cause the message to be abandoned and will return the DACS II system prompt.

^ h (or **CONTROL-h** or **CTRL-h**), _ (underline), **S** (or **BACKSPACE**). *Erase last character.* Depressing the CONTROL and the H keys simultaneously or depressing the UNDERLINE key or the BACKSPACE key causes DACS II to ignore the last character of a message and echo an underline ("_"). Entering *n* number of erase character symbols causes DACS II to ignore the last *n* characters of a message.

BREAK. *Interrupt output message.* The BREAK key interrupts an output message. The message continues after an allotted amount of time has passed or after the operator has finished entering an input command.

Input Command Acknowledgements

After DACS II has received the execute character of the input command, an immediate reply will appear with one of the following acknowledgements:

PF (Printout Follows)

DACS II received the input command and processed it. An output message will soon be returned. The output message will report the results of the work initiated by the command. If the system cannot complete the command, the reason will be printed.

RL (Retry Later)

DACS II cannot execute the requested command now because it does not currently have system resources available.

— The system could be temporarily overloaded.

— The command queue could be excessively long.

— The requested program may be busy, etc.

Wait, and enter the command later.

NG (No Good)

The basic format of the command is correct, but the system is in trouble. An example is when the MP is in the MCOND state.

NA (No Acknowledgement)

The command has been accepted by the parser, but processing control has been lost, thus making correct acknowledgement impossible. An example is when the communications interface (CI) has detected a local area network (LAN) failure.

If either NA or RL is sent as an input acknowledgement, a normal or error output message may not be sent. Also, if the input command itself is in error, the input acknowledgement will indicate this fact and either the normal or error message will not be sent.

Acknowledgement	*Meaning*
?V<cr><lf>	Command code error
?D<cr><lf>	Parameter block error
?E<cr><lf>	Error in command, cannot be identified as either ?V or ?D
?P<cr><lf>	Parity error occurred in the input
?T<cr><lf>	The time between characters exceeded timeout threshold
?X<cr><lf>	Command aborted in response to a <cancel> or <break> from user.

Output Message Format

There are three types of DACS II output messages. The normal or **completion message** indicates that the input command from the user has been executed and completed. An error response or **denial message** means that the input command has been denied and gives the reason or condition code for the denial. An **autonomous output message** reports a change in the operational state of the DACS II.

General Format of and Output Message

An output message consists of one or more segments. Each message segment is in the following format: a *header line* followed by a *primary line* which may be followed by one or more *secondary lines*.

Header Line

The message header contains the information of target identifier (TID or xy), date, time, and link number. The target identifier is the code for a DACS II frame and consists of up to 20 ASCII characters in length. The date is the current date presented in the format of `yy-mm-dd` (i.e., year-month-day). The time is the current time of day in the format of `hh:mm:ss` (i.e., hour:minute:second) where `hh` ranges from 00 to 23 and `mm` and `ss` range from 00 to 59. The link number is the administrative link/virtual circuit number in the format of `LINK-l[mm]:`

`l[mm]` = Input link

`l` = Physical link number (1 through 6)
`mm` = Virtual Circuit number (01 through 16)

An autonomous response does not contain the link number.

Primary Line

The primary line contains the information of priority of action (PA), command code, entity identifier (EID), correlation tag (CTAG), data parameters, and termination report. The priority of action indicates the type of output message which could be either a response to an input command or an autonomous message generated by DACS II. The priority of action field may have one of the following values:

Value	*Meaning*
*C	Immediate action, critical alarm (autonomous response)
**	Immediate action, major alarm (autonomous response)
*	Action, minor alarm (autonomous response)
M	Result of manual action (response to an input command)
A	Autonomous message, not an alarm
I	Autonomous informational message, not an alarm

The command code consists of the action verb and one or more possible modifiers. In a normal or error response, the correlation tag is the same as that specified in the input command. The correlation tag in an autonomous response is generated by DACS II. The data parameters further specify the action performed on the entity. The termination report indicates whether the input command is successfully completed or denied, and it takes on one of the following values:

Value	*Meaning*
COMPLD	Input command completed successfully
DENY	Input command denied

Secondary Lines

The secondary lines contained in the output message are of two types: free-format and fixed-format. The free-format secondary lines provide information for the user to understand the data contained in the fixed-format lines. The free-format secondary lines are enclosed by "/*" and "*/". The fixed-format secondary lines contain data generated by DACS II and are arranged in a format so as to be parsed by a machine. The fixed-format secondary lines are enclosed by double quotes (").

Output Message Segment

The header line is the same for each message segment except for the time and possibly the date. The primary line is exactly the same for all message segments.

A multisegmented output message uses the greater-than sign (>) and the semicolon (;) to terminate the message segments. The greater-than sign is the terminating character (the last printable character) for the first and all intermediate message segments. The semicolon terminates the final message segment. A message segment should be no larger than 4096 bytes.

Normal Response

A normal response reports a successfully completed input command. The general formats of this type of output message are shown below:

Single-Segment Completion Message Without Secondary Lines

```
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[ MODIFIER][ MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] COMPLD
;
```

Single-Segment Completion Message With Secondary Lines

```
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[ MODIFIER][ MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] COMPLD
   /* [output message number] */
   /* free-format secondary line */
   "fixed-format secondary line"
;
```

Multisegmented Completion Message

```
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[ MODIFIER][ MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] COMPLD
   /* [output message number] */
   /* free-format secondary line */
   "fixed-format secondary line"
   "fixed-format secondary line "
       .....  .....  .....
       .....  .....  .....
   "fixed-format secondary line"
>
       .....  .....  .....
       .....  .....  .....
>
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[ MODIFIER][ MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] COMPLD
   /* [output message number] */
   /* free-format secondary line */
   "fixed-format secondary line"
   "fixed-format secondary line"
       .....  .....  .....
       .....  .....  .....
   "fixed-format secondary line"
;
```

The following example shows the normal response to a cross-connect command (Message 11001) for cross-connecting digroup 123, channel 022 with digroup 345, channel 015. The output message (Message O.11001) does not contain secondary lines.

```
   DACS2FRAME1 88-08-01 20:27:12 LINK-2
M  CONN CRS T0::123-022,345-015:CMDSEQ1:CUS::NORM,NORM COMPLD
;
```

Error Response

An error response reports a denial to an input command. The general error response formats are similar to the normal response. The header line is exactly the same and the primary line differs only in the termination report (DENY). The termination report DENY indicates that the input command was not executed. The first secondary line begins with a 4-character error code (mmmm). This error code describes the reason for the denial of the input command. A free-format secondary line can give more details about the error code. A complete list of error codes is given in Table 2 at the end of this section.

Two error response formats follow:

Error Response Without Free-Format Secondary Line

```
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[-MODIFIER][-MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] DENY
   mmmm
;
```

Error Response with Free-Format Secondary Line

```
   TID yy-mm-dd hh:mm:ss LINK-l[mm]
M  VERB[-MODIFIER][-MODIFIER]::[b]:[CTAG]:[d][,e]...[,z] DENY
   mmmm
   /* [output message number] */
   /* free-format secondary line */
;
```

Autonomous Response

An autonomous response reports a change in the DACS II system state. The header line of the autonomous response contains the information of source identifier (SID), date, and time. The primary line contains an alarm code (ALMCDE), an autonomous message tag (ATAG), and a verb with modifiers. The verb is always REPT, indicating a report.

Single-Segment Autonomous Response

```
        SID yy-mm-dd hh:mm:ss
ALMCDE ATAG REPT[-MODIFIER][-MODIFIER]
        /* [output message number] */
        /* free-format secondary line */
        "fixed-format secondary line"
;
```

Multisegmented Autonomous Response

```
        SID yy-mm-dd hh:mm:ss
ALMCDE ATAG REPT[-MODIFIER][-MODIFIER]
        /* [output message number] */
        /* free-format secondary line */
        "fixed-format secondary line"
        "fixed-format secondary line"
        ..... ..... .....
        ..... ..... .....
        "fixed-format secondary line"
>
        ..... ..... .....
        ..... ..... .....
>
        SID yy-mm-dd hh:mm:ss
ALMCDE ATAG REPT[-MODIFIER][-MODIFIER]
        /* [output message number] */
        /* free-format secondary line */
        "fixed-format secondary line"
        "fixed-format secondary line"
        ..... ..... .....
        ..... ..... .....
        "fixed-format secondary line"
;
```

The alarm code indicates an alarm for a trouble condition or a nonalarm condition for a DACS II system state change which does not trigger any alarms; it identifies the severity reported by DACS II as shown below:

Value	*Meaning*
*C	Critical alarm message
**	Major alarm message
*	Minor alarm message
A	Autonomous nonalarm message

The autonomous message tag (ATAG) is used to check for a skipped output message and for correlation of previous autonomous messages. Some similarity exists with the correlation tag (CTAG) of an input message, but DACS II generates an autonomous message tag for all autonomous output messages. The form of this parameter is xxx[.yyy] where xxx is a 3-digit number and ranges from 050 through 099 (050 ≤ xxx ≤ 099). The yyy is optional; but if used, it may be used as a correlation tag with previous autonomous messages or for association with an action verb. For example, yyy can indicate the number of times that a particular REPT message has been issued (001 ≤ yyy ≤ 999). Value 000 is not used for xxx or yyy.

The free-format secondary line may assist the user in reading the data in the fixed-format secondary line. The message number above the line is used in referring to the manual for more detailed information.

The fixed-format secondary line contains actual message information. This information is described within the individual messages.

Table 1. DACS II Verb/Keyword and/or Modifier(s)

VERB/KEYWORD	MEANING
ABT-CMD	Abort or terminate a previous input command that has not completed its execution.
ABT-PROC	Abort or terminate a currently active process or macro.
ALW-LPBK	Allow loopback or inhibit automatic switch protection.
ALW-SW	Allow switching or automatic switch protection.
CHG-LGN	Change password and/or user identification code.
CHG-RPATH-TO	Change the return path for the digroups and ranges, beginning with the initial channels given in the TOX argument list.
CHG-TACC-TO	Change the modes of a test session under a specified test port.
CHG-TL-TO	Change the modes of a terminate and leave state of a circuit(s).
CONN-BDCST-TO	Connect a broadcast cross-connection (from source NPC) to a multiple number of other terminations in one direction of transmission.
CONN-CRS1-TO	Connect a one-way cross-connect circuit or a range of one-way circuits.
CONN-CRS-TO	Connect a two-way cross-connect circuit or a range of two-way circuits.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
CONN-HUB-T0	Connect a hubbing mode test access via test port kk with trunk conditioning to the T0 termination.
CONN-TACC-T0	Connect a monitor connection between a digroup (designated T0) and a test port (designated TP).
CPY-MEM	Copy data from one memory to another, such as disk (PRI) to tape (SEC) or RAM (WKG).
CRTE-CNFGRN	Create connectivity in the system data base.
CRTE-CRS	Create cross-connections in the cross-connect network.
CRTE-EQPT	Create equipment entities in the system database.
CRTE-LGN	Create or add a new user to the system.
DGN-EQPT	Run diagnostics on equipment at the user's request and report details. Equipment such as cross-connect buffer (CCB), cross-connect network interface (CCNI), communications interface (CI), disk unit (DISK), link number (LINK), main controller (MC), main processor (MP), network processing circuit (NPC), secondary storage controller (SSC), synchronizer (SYNC), tape unit (TAPE), time slot interchange (TSI), and ftu, dspc, or ds3u unit (UNIT).
DISC-BDCST-T0	Disconnect a broadcast connection (from source NPC) to a multiple number of other terminations in one direction of transmission.
DISC-CRS-T0	Disconnect a two-way cross-connect circuit or a range of two-way circuits.
DISC-CRS1-T0	Disconnect a one-way cross-connect circuit or a range of one-way circuits.
DISC-EQPT	Disconnect (degrowth) equipment, multiple interface units, and/or multiplexers.
DISC-TACC-T0	Disconnect a test access session under a specified test port and restore the original cross-connection.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
DLT-CRS	Delete a cross-connection from the system data base.
DLT-FPKG	Delete a feature package from the system data base.
DLT-LGN	Delete a password and user identification code. Only the "super-user" can invoke this command.
DLT-MACRO or MAP	Delete a macro or map.
DLT-PRMTR	Delete a parameter from the system data base.
ED-CNFGRN-EQPT	Edit the current connectivity and entity state of a specified equipment unit.
ED-CONN	Edit a connection.
ED-CRTE	Edit a create activity.
ED-DATE	Edit the system date and time clock.
ED-ADD-MAP	Enter NPCs into the map.
ED-DLT-MAP	Delete NPCs from the map.
ED-OPT-T1	Edit the programmable thresholds for the facility performance parameters of an NPC.
ED-PRMTR-EQPT	Modify the provisioning information associated with equipment.
ED-PRMTR-LINK	Modify the provisioning information associated with user interface links.
ED-PRMTR-MAP,MACRO	Modify the existing map or macro with new information.
ED-PRMTR-NE	Modify the provisioning information associated with the DACS II network element.
ED-PRMTR-T0	Modify the provisioning information associated with digroup.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
ED-STATE-EQPT	Edit the maintenance state of equipment in ways other than via a remove or restore function.
ENT-EQPT	Manually provision equipment entities (those that are not automatically provisioned).
ENT-MACRO,MAP	Manually create the open session of an alternate map or a macro.
EXC-MACRO,MAP	Execute the existing map or macro.
INH-LPBK	Inhibit an automatic loopback switch protection.
INH-SW	Inhibit an automatic switch protection.
INIT-LOG	Initialize the ERR log file.
INIT-REG	Initialize the DACS II registers.
INIT-SYS	Initialize the DACS II processor system.
LGN-USER	Allow the user to identify himself/herself to the system with his/her <id>.
LGT-USER	Allow the user to logoff from the system.
OPR-ACO-ALL	Cut off the office audible alarm indications without changing the local alarm indications. This function does not clear other alarm indicators and does not disable future alarms from sounding audibles (so a release ACO function is not needed).
OPR-LPBK-T0	Request a loopback on a specified equipment unit or facility in the system.
RLS-LPBK-T1	Release the 1.544 Mb/s loopback.
REPT-ALM-EQPT	Report alarms associated with equipment failures.
REPT-ALMDET-EQPT	Supplement the information about the trouble generated by the REPT-ALM.
REPT-ALM-T0	Report alarms associated with DS0 facility failures.
REPT-CMPR-MEM	Report frame audit memory comparison mismatches.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
REPT-DGN-EQPT	Report the results of diagnostic routines that have been initiated autonomously by the system.
REPT-EVT-EQPT	Report events which do not require alarm notifications but indicate the maintenance condition of the system.
REPT-RMV-EQPT	Report the autonomous removal of equipment from service.
REPT-RST-EQPT	Report the autonomous restoration of equipment to service.
REPT-SW-EQPT	Report the autonomous switch of an entity to protection (auto-removal) or to working (auto-restoration).
RMV-CNFGRN	Remove connectivity equipment from service.
RMV-EQPT	Remove equipment from service.
RMV-LINK	Remove a user interface link from service.
RST-CNFGRN	Restore connectivity equipment to service.
RST-EQPT	Restore equipment to service.
RST-PASSWD	Restore or recover the frame administrator password.
RST-LINK	Restore a user interface link to service.
RTRV-ALM-EQPT	Retrieve the current status of all automatically-reported equipment indicators (alarm or status).
RTRV-ALM-NE	Retrieve the current alarm state of the DACS II network element.
RTRV-ALM-T0	Retrieve the current status of all automatically-reported digroup indicators (alarm or status).
RTRV-BDCST-T0	Retrieve the cross-connect map for a single NPC or a range of NPCs.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
RTRV-BKUP-SCHED	Retrieve the scheduled autonomous backup from a primary memory to a local nonvolatile backup memory.
RTRV-COND-EQPT	Retrieve condition types associated with equipment indicators (alarm or status).
RTRV-COND-T0	Retrieve condition types associated with NPC indicators (alarm or status).
RTRV-CNFGRN-EQPT	Retrieve the current connectivity and entity state of a specified equipment unit.
RTRV-CRS-T1	Retrieve the cross-connect map information associated with NPCs.
RTRV-HDR	Retrieve the header information associated with the DACS II network element.
RTRV-LOC-EQPT	Retrieve a physical location of a plug-in entity.
RTRV-LOG	Report the result of a request to dump the contents of the log file.
RTRV-MAP-COM,EQPT	Query the map.
RTRV-MACRO-COM	Query the macro.
RTRV-OPT-T1	Retrieve the option (threshold) value for parameter.
RTRV-PRMTR-EQPT	Retrieve the provisioning information and service data associated with equipment.
RTRV-PRMTR-LINK	Retrieve provisioning information and service data associated with user interface links.
RTRV-PRMTR-MACRO,MAP	Retrieve information of the components associated with the macro or map.
RTRV-PRMTR-NE	Retrieve provisioning information and service data associated with the network element.

Table 1. DACS II Verb/Keyword and/or Modifier(s) (Contd)

VERB/KEYWORD	MEANING
RTRV-PRMTR-T0	Retrieve the provisioning information and service data associated with NPC channels.
RTRV-PRVG-USER,LINK	Retrieve privilege parameters associated with login users or link.
RTRV-RECOVY-EQPT	Retrieve information of the error source register (ESR) for a specific processor.
RTRV-REG-EQPT	Retrieve information of the error source register (ESR) for the main processor.
RTRV-STATE-COM	Retrieve the common information associated with equipment (such as TLIs and SYNCs).
RTRV-STATE-EQPT	Retrieve the state information associated with equipment.
RTRV-STATE-T0	Retrieve the state information associated with NPCs.
RTRV-TACC-T1	Retrieve information about all test access activity of the test port.
RTRV-TACC-T0	Retrieve information about all test access activity in the system.
SCHED-BKUP-MEM	Schedule an autonomous backup from a primary memory to a local nonvolatile memory.
SCHED-PMREPT-ALL	Schedule an autonomous midnight performance monitoring report.
SET-ATTR-EQPT	Set the attributes that are associated with a specified event.
SET-PRVG-USER,TERM	Assign the user or link privilege for the input prioritizing and output screening.
STA-LOCL-RST	Transfer a database from DISK to RAM or from TAPE to RAM.
SW-DX-EQPT	Request all digroup circuits to select data and clocks from cross-connect side A.

Table 2. Error Codes and Conditions

CODE	CONDITION
AETN	Not valid for access type
ENAC	Equipage, not equipped with alarm cutoff
ENDG	Equipage, not equipped with diagnostic capability
ENDS	Equipage, not equipped with duplex switching
ENEC	Equipage, not established channel
ENEQ	Equipage, not equipped
ENFE	Equipage, feature not provided
ENIE	Equipage, not identical entities
ENMB	Equipage, not a multipoint bridge
ENMD	Equipage, not equipped with memory device
ENRE	Equipage, not recognized
ERLC	Equipage, a red-lined circuit
IBEX	Input, extra block
IBNC	Input, block not consistent
ICNV	Input, command not valid
IDMS	Input, data missing
IDNV	Input, data not valid
IDRG	Input, data out of range
IIAC	Input, invalid access identifier
IICM	Input, invalid command
IICT	Input, invalid correlation tag
IIDT	Input, invalid data parameter
IIFM	Input, invalid data format
IITA	Input, invalid TID (target identifier)
INAC	Input, access number not correct
IORD	Input, out of range of data
IPNV	Input, parameter not valid
ISCH	Input, syntax character error
ISPC	Input, syntax punctuation error
NCON	No condition
PICC	Privilege, illegal command code
PIOC	Privilege, illegal operations channel
PIPW	Privilege, illegal password/user id code
RABY	Resource, all test ports busy
RTBY	Resource, request test port busy
RTEN	Resource, request test port does not exist
SAAL	Status, already allowed

Table 2. Error Codes and Conditions (Contd)

CODE	CONDITION
SAAS	Status, already assigned
SABT	Status, aborted
SACC	Status, already cross-connected
SADC	Status, already disconnected
SAIN	Status, already inhibited
SAIS	Status, already in-service
SAMS	Status, already in maintenance state
SAOS	Status, already out-of-service
SARL	Status, already released
SAWS	Status, already in working state
SCAT	Status, circuit already connected to another test port
SCNA	Status, command not able to be aborted
SCNS	Status, circuit not is split condition
SCOS	Status, channel out of service
SDAS	Status, diagnostic already started
SDFA	Status, duplex unit failed
SDNA	Status, duplex unit not available
SDNS	Status, diagnostic not started yet
SNAS	Status, not in pending state
SNCC	Status, not cross-connected
SNIS	Status, not in-service
SNML	Status, no monitor line established
SNOS	Status, not out-of-service
SNST	Status, execution could not be started
SNVS	Status, not in valid state
SOSF	Status, out-of-service, failed
SOST	Status, out-of-service testing
SPFA	Status, protection unit failed
SRCN	Status, request condition already exists
SROF	Status, requested operation failed
SRTN	Status, unable to release test port
SSTP	Status, execution stopped before completion
STAB	Status, test aborted
STOS	Status, test port out of service
STTI	Status, test port idle
SWFA	Status, working unit failed

DACS II Administrative Links

The DACS II can be administered (managed, operated) from a local terminal or remotely from an OS connected via an administrative link. Six physical links can be connected to the DACS II frame. Links 1–4 are asynchronous links. Links 5 and 6 can be asynchronous or synchronous depending on the communications interface. Sixteen virtual circuits may be established on a synchronous link.

Variables n and vv are used within the message formats to represent the physical and virtual link numbers, respectively.

A level of message screening can be assigned to each link. A user may choose to always receive an output message to his/her input commands, to receive selected messages, or to receive all messages from the other links. Autonomous messages may be blocked for a particular link to prevent other link messages from being interspersed among the user's messages. Some uses of an administrative link are:

- DS0 channel and clear DS1 signal cross-connections and test access
- Subrate data feature cross-connections
- Common equipment and feature equipment provisioning and maintenance
- Equipment and channel status information
- DS1 and DS3 facility provisioning and maintenance
- DS1 and DS3 facility performance readings
- DS3 facility alarm surveillance and control (AS&C) and DS3 performance monitoring using telemetry asynchronous block serial (TABS) protocol.

Administrative links carry output messages in response to one of the following occurrences:

- An input command

  The output message reports that the input command was either completed successfully or denied; additionally, it may contain information requested by the input command. A *normal response* is an output message reporting a successful completion; an *error response* is an output message reporting a denial.

- An autonomous change in DACS II operation state

  The output message reports a change in the DACS II system operation state which includes alarms and other trouble indications. This type of output message is referred to as an *autonomous response*.

NPC Addressing

Two addressing or numbering methods for network processing circuits are available: the **nonhierarchical or extended format** and the **hierarchical** format. The numbering

methods are used to provide a means of locating network processing circuits.

Hierarchical Numbering

The hierarchical method consists of three parts: the unit number (uv), the module or group number within the unit (m), and the NPC number within the module (np) for a total of five digits (uv-m-np) with dashes separating the parts.

Nonhierarchical Numbering

The nonhierarchical or extended method uses consecutive numbering to count through the units in the frame. Each unit has a fixed starting number (for example, [0]061 for unit 2; [0]321 for unit 3; [0]481 for unit 4). The starting number is the same for the FTU or the DSPU type units.

On-Line Help Feature

Description

The DACS II provides on-line assistance to the user when constructing commands at the terminal. This assistance is in the form of a menu-driven help routine. Different menus are displayed during the routine to provide the user with information on all the command fields. The menu items include:

- Verbs (Action or command)
- Applicable keywords for a command
- Possible choices or number range for a variable field
- Definitions of keywords.

An inappropriate selection will bring an error response.

The help routine may be used to the degree needed to complete the command: either through the entire command in every field or only for a particular part of the command. Using help to construct the entire command will probably not be applicable after some experience is gained at entering commands, since all the commands are documented and the direct entry of commands is so much faster.

There are two operators or keyboard controls used to invoke the different levels of the help routine. These operators are: [SHIFT] [?] and [RETURN] . The question mark is used to initiate the routine or to go into a deeper level (more explanation), and the [RETURN] is used to see the alternative choices at a given point. The dialogue may be terminated either by entering a CTRL-x or by completing the current command line when it is displayed.

Summary: The Help Feature

By entering [SHIFT] [?] , the user may ask DACS II for help at any time before or during the construction of an input command.

In the help mode, DACS II will offer the user menus for the selection of the message keywords and/or prompt for values of variable fields. Entering [SHIFT] [?] provides a greater detail of information on the keywords or variables.

When looking at a menu of choices for a command field, you can select an item and then either continue the process or return to the current position on the command line. To continue the process, use the question mark and the next menu will appear. To return to the command line, use the [RETURN] key. When looking at a prompt to enter a value, you can enter a value, look at the next choice, or request more information. To look at the next choice or to repeat the choices, use the [RETURN] key. To obtain more information in order to enter a value, use the question mark. You can continue this process using the question mark after each entry to complete and submit the command via the dialogue. Alternatively, you can use the [RETURN] key after an entry to obtain the current command line. Then, you can directly enter the remainder of the command line just as you would any DACS command.

Constructing An Entire Command Using Help

The following demonstrates the menus in the help routine in constructing a simple RTRV (retrieve) command. Only portions of the long menus are shown, but these examples serve to demonstrate how selections are made.

(1) To invoke the help routine at the start level, enter [SHIFT] [?]. The DACS will respond with OK and the following menu:

```
Select from:

     1.  ABT
     2.  ALW
     3.  CHG
          .
          .
          .
    25.  SW

Selection?
```

(2) To obtain more of an explanation, enter SHIFT ?. The DACS will respond with OK and the following list:

```
Select from:

     1.  ABT  (perform an abort)
     2.  ALW  (perform an allow operation)
     3.  CHG  (perform a change)
     4.  CONN (perform a cross-connection)
           .
           .
           .
    21.  RTRV (perform a retrieve information)

Selection?
```

(3) You may enter either 21 or RTRV followed by SHIFT ?. The DACS responds with this menu:

```
Select from:

     1.  ALM
     2.  BDCST
           .
           .
           .
    21.  STATE
    22.  TACC

Selection?
```

(4) Again you select the desired verb modifier by entering either 21 or STATE.

(5) The DACS responds with:

```
Select from:

     1.  COM
     2.  EQPT
     3.  T3
     4.  TS
```

(6) Select 2 and enter RETURN to see the command line developed so far.

```
RTRV-STATE-EQPT
```

(7) Enter [SHIFT] [?] to see the next part of the command which is:

```
1-20 character Target Id (optional).
```

Since the frame target ID is optional, it can be omitted which is confirmed by entering [RETURN] . This lists the alternative

```
go to address block (YES/NO)?
```

(8) Answer `Y` and notice the double colons that are added to the end of the command line to close the target ID field. After this, enter a `?` to obtain the next selection.

```
units (YES/NO)?
specify ftu unit number (YES/NO)?
specify dspc unit number (YES/NO)?
specify ds3u unit number (YES/NO)?
timeslot interchange (YES/NO)?
```

(9) Select `4`, bringing the resultant command line. Entering a question mark brings the response

```
1-10 character Correlation Tag (optional)
```

Again this is optional, and entering a [RETURN] requests that you go on to the next field `EQPD block (YES/NO)?`, which is the alternative to entering the Correlation Tag.

(10) Answer `Y` and after the current command line is displayed, enter [RETURN] . At this point, the DACS returns the command line as follows:

```
RTRV-STATE-EQPT::TSI::EQPD;
```

The command line is complete.

```
EXECUTE (YES/NO)?
```

(11) Now simply answer `Y` followed by [RETURN] and the command will be executed.

Obtaining Help at a Particular Point on a Command Line

DACS II's on-line help not only can be used to construct a command from scratch, it can also be used to obtain information on particular fields of a command. If the command format is not known or if the keywords or variables are not clear, the help dialogue can be initiated at any point by entering [SHIFT] [?] .

(1) Assume the following multipoint circuit CONN-CRS command was entered and denied because one of the NPCs named in the command must be an MB-type.

```
 CONN-CRS-T0::01-1-01-01,01-1-02-03::TRSP::SYM,LEG::; ?D
 xy 90-10-15  13:12:10  LINK-4
M  CMD ::::INERR,BAD_SYNTAX STOPPED
 /* [O.01131] */
 /* CONN-CRS-T0::01-1-01-01,01-1-02-03::TRSP::=SYM=,LEG::; */
;
```

(2) The equal signs around the word SYM indicate a problem because it is a multipoint bridge circuit.

(3) Start over using the help command to obtain information. For example, enter

CONN-CRS-T0:: and ?

The DACS responds with

```
ds3u unit number = OK
ftu unit number =
```

Since you are working with a DMB which is in a DSPU, if you enter only RETURN , the next option will be displayed, which turns out to be

```
dspu unit number =
```

(4) To get more information at this point, enter SHIFT ? . The DACS responds with:

```
dspu unit number = OK
 /* decimal integer:, range 1 - 6 */
```

(5) This is where the trouble occurred; one of the NPCs in the range must be an MB-type.

(6) Enter "05" after the equal sign. The DACS responds with:

```
CONN-CRS-T0::05
dspu module number = OK
 /* decimal integer:, range 1 - 8 */
```

(7) Enter "1" after the question mark. The DACS responds with:

```
CONN-CRS-T0::05-1
dspu npc number = OK
 /* decimal integer:, range 1 - 2 */
```

(8) Enter "1" after the question mark. The DACS responds with:

```
dspu npc number = 1 OK
CONN-CRS-T0::05-1-1
dmb conference number = OK
 /* decimal integer:, range 1 - 85 */
```

(9) In response to `dmb conference number =`, enter the SHIFT ? to get more information. The DACS responds with:

```
/*decimal integer, range 1 - 85 */
dmb conference number =
```

(10) Enter your conference number (2 for example), and SHIFT ?.

(11) In response to `ftu npc number =`, enter a question mark to get more information. The DACS responds with:

```
/* 3 digit decimal integer, range 01-10-1--04-4-32 */
ftu npc number =
```

(12) Now that the difference between the NPC numbers for the DSPU and FTU sides of the circuit is clear, terminate the dialogue by entering the required `ftu npc` number followed by a RETURN. This will cause the command line developed through the dialogue to be displayed. Enter the remaining information from the original command to complete the command.

System Configuration

Frame Configuration and Bay Growth

This section discusses the frame configuration for a standard DACS II Release 5.1 Capacity Expansion Frame (CEF) and for a retrofitted CEF. In addition, it details the bay growth schemes and requirements for the CEF. The same command is used to configure a non-CEF system, however, the responses will vary since a non-CEF system can have a maximum of two interface bays.

Frame Configuration

A DACS II Release 5.1 CEF supports one switch bay and up to six interface bays. The switch bay, always bay 2, controls the overall DACS II system operations and provides the switch matrix, power, timing and alarm, and administrative links connections. The interface bay terminates digital facilities and/or provides the digital signal processing function. Interface bays 1, 3, 4, and 5 support three unit positions, while interface bays 6 and 7 support two units. Therefore, a CEF can be equipped with a total of 16 units. Two interface

bay types are supported in Release 5.1:

- Original Interface Bay

  The original interface bay supports two facility terminating units (FTUs) in its two upper unit positions and one digital signal processing unit (DSPU) or DS3 unit (DS3U) in its lower unit position. The original interface bay only appears in a retrofitted Release 5.1 CEF. An interface bay used for a CEF can be an original interface bay only if the frame is a retrofit CEF. In such a case, the original interface bay can only be in bays 1 and 3. Bay 3 can be an original interface bay only if the CEF is retrofitted from a 3-bay frame. If bay 3 of a CEF is an original interface bay, bay 1 must also be an original interface bay.

- Flexible Interface Bay

  The flexible interface bay allows fully flexible unit provisioning. Each of the unit positions can be independently equipped as an IFTU, DSPU, or DS3U. The flexible interface bay can occupy any interface bay location; that is, it can occupy bay 1, 3, 4, 5, 6, or 7. The flexible interface bay is the standard interface bay type for the Release 5.1 CEF.

Bay Growth

The minimum bay equipage for a CEF is two bays: bay 1 (an interface bay) and bay 2 (the switch bay). DACS II allows additional peripheral units and/or bays to be added to an in-service CEF without causing a hit to the existing service.

The bay choices and growth are provisioned by entries to the configuration file using the configuration file command:

```
[I.35021]
INIT-SYS:[xy]:FRAME:[ww];
```

After all data is entered into the configuration file and it is accepted, DACS II outputs the following response:

```
[O.35021]
   xy yy-mm-dd hh:mm:ss <link number>
M  INIT SYS::FRAME:[ww] COMPLD
;
```

Procedure for Configuring the Frame

When the configuration file command is entered, DACS II leads the user to complete the entry of the file by displaying the Main Menu below:

```
1:  Initialize/Reset Configuration File
2:  Add new bay(s) and unit(s)
3:  Add unit(s) to existing bay(s)
4:  Change unit(s) type
5:  Remove unit(s) OR bay(s) and unit(s)
```

```
6:  Recall configuration data
7:  Exit
```

Option 1, Initialize/Reset Configuration File

If Option 1 (initializing or resetting the configuration file) is selected, DACS II leads the user through the steps detailed below.

Note: A default option has been assigned to each step and each time a step is entered, DACS II presents its default option unless a user has previously selected an option. In such case, the user-selected option is displayed.

Step 1. Choose the Software Serial Number.

Default = 1234567890.

Step 2. Choose the height of the bay.

The options are:

```
1: 7'0''
2: 11'6''

Default = 7'0''.
```

Step 3. Choose the Cross-Connect Network designation.

Choose ECCN for a CEF
Choose CCN1 for a non-CEF multibay frame
Choose CCN2 for a single-bay frame (SBF)

Step 4. Choose the allowable nonhierarchical NPC addressing scheme.

The options are:

```
1: Both 3-digit and 4-digit are allowed
2: Only 3-digit is allowed
3: Only 4-digit is allowed

Default = Option 1 (both 3-digit and 4-digit).
```

Selection of option 1 or 3 will be denied if the frame is non-CEF. Selection of option 3 on a CEF will be denied if there is one or more administrative link or if the user has chosen the 3-digit scheme. Similarly, the selection of option 2 on a CEF will be denied if there is one or more administrative links or users using the 4-digit scheme. The denial causes an error message to be displayed; after that, DACS II returns to the Main Menu. In this case, all the choices entered in the previous steps are discarded. Once the Main Menu is shown, the user can either exit to change the provisioning of the link (or user) or select another option from the menu.

Note that for domestic DACS II frames, the 3-digit NPC addressing scheme is the default for DACS II administrative links/users. Also, since the hierarchical NPC addressing scheme does not restrict the frame configuration, there is no selection needed here.

Step 5. Choose total number of bays.

The options are:

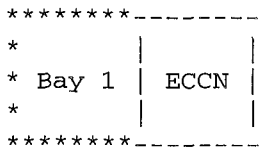
```
1: 1 bay
2: 2 bays
3: 3 bays
4: 4 bays
5: 5 bays
6: 6 bays
7: 7 bays

Default = 2 bays (Option 2).
```

Option 1 above (1 bay) is not allowed for a CEF. Options 4 through 7 must not be selected for a non-CEF. Options 4 through 7 are allowed only if the 4-digit scheme (i.e., Option 3 of Step 4) is selected. Otherwise, an error message will be generated and Step 4 will be displayed again.

Step 6. Choose bays.

Step 6.1 If the total number of bays selected is 2, choose bays 1 and 2.

Choose bay 1 type. In the figure below, the boxes shown represent the physical relationship between the switch bay (bay 2) and the bay selected; that is, the one surrounded by asterisks (*).




```
SELECT BAY 1 TYPE

1: Flexible Interface Bay (Units 1, 2, 5)
2: Original Interface Bay (Units 1, 2, 5)

Default = Option 1 (Flexible Interface Bay).
```

Step 6.2 If the total number of bays selected is 3, choose the third bay as below.

```
********-----------------********
*       |       |       |       *
* Bay 4 | Bay 1 | ECCN  | Bay 3 *
*       |       |       |       *
********-----------------********

SELECT THE NEXT BAY POSITION

1: Bay 3, Flexible Interface Bay (Units 3, 4, 6)
2: Bay 3, Original Interface Bay (Units 3, 4, 6)
3: Bay 4 (Units 7, 8, 11)

Default = Option 1 Bay 3, Flexible Interface Bay
```

Step 6.3 If the total number of bays selected is 4, select the fourth bay.

Depending on which bay is selected as the third bay, the options chosen for the fourth bay will be one of the following:

Step 6.3.1 If bay 3 is the third bay configured, the fourth bay can only be one of the following:

```
********-------------------------********
*       |       |       |       |       *
* Bay 4 | Bay 1 | ECCN  | Bay 3 | Bay 5 *
*       |       |       |       |       *
********-------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 4 (Units 7, 8, 11)
2: Bay 5 (Units 9, 10, 12)

Default = Option 1.
```

Step 6.3.2 If bay 4 is the third bay configured, the fourth bay can only be one of the following:

```
********-------------------------********
*       |       |       |       |       *
* Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 *
*       |       |       |       |       *
********-------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 3, Flexible Interface Bay (Units 3, 4, 5)
2: Bay 3, Original Interface Bay (Units 3, 4, 5)
3: Bay 6 (Units 13, 14)

Default = Option 1.
```

Bay 1 must also be an original interface bay. If this rule is violated, the type for both bays (bays 1 and 3) must be reentered.

Step 6.4 If the total number of bays is 5, choose the fifth bay.

Depending on the third and fourth bays selected, the selection for the fifth bay will be one of the following:

Step 6.4.1 If bays 3 and 4 are the third and fourth bays (in any order), the options are:

```
********-----------------------------********
*       |       |       |       |       |       *
* Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 *
*       |       |       |       |       |       *
********-----------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 5 (Units 9, 10, 12)
2: Bay 6 (Units 13, 14)

Default = Option 1.
```

Step 6.4.2 If bays 3 and 5 are the third and fourth bays (in any order), the options are:

```
********-----------------------------------********
*       |       |       |       |       |       *
* Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 | Bay 7 *
*       |       |       |       |       |       *
********-----------------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 4 (Units 7, 8, 11)
2: Bay 7 (Units 15, 16)

Default = Option 1.
```

Step 6.4.3 If bays 4 and 6 are the third and fourth bays, the options are:

```
-----------------------------********
|       |       |       |       |       *
| Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 *
|       |       |       |       |       *
-----------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 3, Flexible Interface Bay (Units 3, 4, 6)
2: Bay 3, Original Interface Bay (Units 3, 4, 6)

Default = Option 1.
```

Note: Option 2 is allowed only if bay 1 is an original interface bay. If this rule is violated, the bay type for both bays (bays 1 and 3) must be reentered.

Step 6.5 If the total number of bays is 6, choose the sixth bay.

Depending on which bays are already configured, the option displayed will be one of the following:

Step 6.5.1 If bays 3, 4, and 5 were chosen, select the next bay.

```
********-----------------------------------------********
*       |       |       |       |       |       |       *
* Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 | Bay 7 *
*       |       |       |       |       |       |       *
********-----------------------------------------********

SELECT THE NEXT BAY POSITION

1: Bay 6 (Units 13, 14)
2: Bay 7 (Units 15, 16)

Default = Option 1.
```

Step 6.5.2 If bay 4 has not been chosen, choose bay 4 as the sixth bay configured.

```
********-----------------------------------
*       |       |       |       |       |       |
* Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 | Bay 7 |
*       |       |       |       |       |       |
********-----------------------------------

    THE NEXT BAY IS BAY 4
```

Step 6.5.3 If bay 5 was not selected, choose bay 5 as the sixth bay configured.

```
-----------------------------------********
|       |       |       |       |       |       *
| Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 *
|       |       |       |       |       |       *
-----------------------------------********

    THE NEXT BAY IS BAY 5
```

Step 6.6 If the 7-bay option is selected, determine if the bay type for bays 1 and 3 has already been stored in the data base. If so, go to Step 7. Otherwise, choose these two bays.

Step 6.6.1 Choose the type for bay 1:

```
-----------------*******-----------------------------------
|       |       |       |       |       |       |       |
| Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 | Bay 7 |
|       |       |       |       |       |       |       |
-----------------*******-----------------------------------

SELECT BAY 1 TYPE

1: Flexible Interface Bay (Units 1, 2, 5)
2: Original Interface Bay (Units 1, 2, 5)

Default = Option 1.
```

Step 6.6.2 Choose the type for bay 3:

```
-----------------------------------*******-----------------
|       |       |       |       |       |       |       |
| Bay 6 | Bay 4 | Bay 1 | ECCN | Bay 3 | Bay 5 | Bay 7 |
|       |       |       |       |       |       |       |
-----------------------------------*******-----------------

SELECT BAY 3 TYPE

1: Flexible Interface Bay (Units 3, 4, 6)
2: Original Interface Bay (Units 3, 4, 6)

Default = Option 1.
```

Step 7. Choose unit types.

Step 7.1 For original interface bay 1, the unit types are:

Units 1, 2: FTU or NONE

Unit 5: DS3U, DSPU, or NONE

Default for units 1 and 2 = FTU.
Default for unit 5 = DSPU.

Step 7.2 For the flexible interface bay 1, unit types are:

Units 1, 2, 5: IFTU, DSPU, DS3U or NONE

Default = IFTU. Only one type of IFTU is available in Release 5.0. Thus, no version selection is necessary.

Step 7.3 For original interface bay 3, the unit types are:

Units 3, 4: FTU or NONE

Unit 6: DSPU, DS3U or NONE

Default for units 3 and 4 = FTU.
Default for unit 6 = DSPU.

Step 7.4 For flexible interface bay 3, the unit type can be:

Units 3, 4, 6: IFTU, DSPU, DS3U or NONE

Default = IFTU.

Step 7.5 Bay 4 is restricted to the flexible interface bay type, and the unit type can be:

Units 7, 8, 11: IFTU, DSPU, DS3U or NONE

Default = IFTU.

Step 7.6 Bay 5 is restricted to a flexible interface bay type, and the unit type can be:

Units 9, 10, 12: IFTU, DSPU, DS3U or NONE

Default = IFTU.

Step 7.7 Bay 6 is restricted to the flexible interface bay type, and the unit type can be:

Units 13, 14: IFTU, DSPU, DS3U or NONE

Default = IFTU.

Step 7.8 Bay 7 is restricted to a flexible interface bay type, and the unit type can be:

Units 15, 16: IFTU, DSPU, DS3U or NONE

Default = IFTU.

Note: It is acceptable for all units to be configured with the option NONE. Also, if the software used on the frame does not support the DS3 termination feature, the DS3U option will not be displayed.

Step 8. After all unit types are chosen and accepted by DACS II, the following will be displayed:

```
Are the Frame # and UID to be unprotected?

  1: YES
  2: NO

  Default = unprotected.
```

When all required data for initializing/resetting the configuration file is entered, the user must press the carriage return to view the Main Menu. Recalling data, changing data or exiting must be implemented through the Main Menu. Note that DACS II does not back up the configuration data to DISK until the user exits.

To interrupt the data entry and exit, press the DELETE key followed by the RETURN key. Once this interrupt signal is received, DACS II denies the input command, and all newly entered data is discarded. In this case, the input message I.35021 must be reentered to allow initialization or editing of the configuration file.

Option 2, Add New Bay(s) and Unit(s)

To add new bay(s) and/or unit(s) from the Main Menu, DACS II first verifies that the action is allowed. The action of adding new bay(s) and/or unit(s) (option 2 from Main Menu) will be denied if any of the following conditions exist:

a. The configuration file is not initialized.

b. All bays are configured.

c. DACS II is a single bay frame (SBF) or a 3-bay non-CEF.

d. DACS II is a 3-bay CEF equipped with bays 1, 2 and 3, and at least one of its links/users is using the 3-digit scheme.

Once the selection is accepted, DACS II displays the allowable nonhierarchical NPC addressing scheme. If DACS II is currently a 2-bay frame, DACS II displays the same choices as displayed in Step 4 above, except that, instead of the default option, the currently recorded option is displayed.

If the frame is already equipped with three or more bays, DACS II displays the following:

```
THE NONHIERARCHICAL NPC ADDRESS SCHEME IS THE 4-DIGIT SCHEME
```

Option 3, Add Unit(s) to Existing Bay(s)

To add unit(s) to an existing bay from the Main Menu, enter option 3. Units listed are those configured as type NONE. DACS II lists the units in ascending order, with the first unit

listed being the default.

Once the unit is selected, DACS II displays the unit type as shown in Step 7 above. However, DACS II only shows up to three options (IFTU/FTU, DSPU, and DS3U) for each unit, depending on the feature package used. The NONE option will not be shown.

After the unit type is selected, if there are other units configured as NONE, DACS II asks the user if another unit is to be added. If the answer is yes, the unit list will be shown again and the same procedure must be repeated. Otherwise, DACS II will allow the user to return to the Main Menu.

The selection of option 3 from the Main Menu will be denied if either of the following two conditions exists:

a. The configuration file is not initialized.

b. No units are configured as NONE.

Option 4, Change Unit(s) Type

To change the unit(s) type, enter option 4 from the Main Menu. Units listed are types IFTU, DSPU and DS3U. Note that an FTU cannot be changed to another unit type and vice versa. DACS II lists the units in ascending order. The first unit listed is the default.

Once the unit is selected, DACS II shows the two allowable choices of the new unit type.

If the original unit type is IFTU, the choice is:

```
1: DSPU
2: DS3U
```

If the original unit type is DSPU, the choice is:

```
1: IFTU
2: DS3U
```

If the original unit type is DS3U, the choice is:

```
1: IFTU
2: DSPU
```

Note: The DS3U option will not be displayed if the DS3 termination feature is not supported by the frame.

After the new type unit is selected, DACS II asks the user if another unit is to be changed to a new type. If the answer is yes, the same procedure must be repeated.

The choice of option 4 from the Main Menu will be denied if one of the following conditions exists:

a. The configuration file is not initialized.

b. The selected unit is grown by the GRTH command.

c. All units are configured with type NONE or FTU.

Option 5, Delete Unit(s) or Bay(s) and Unit(s)

To delete unit(s) or bay(s) and units(s) from the Main Menu choose the unit number. The units listed are those of a type other than NONE. DACS II lists the units in ascending order, and the first unit listed is the default.

Once the unit is selected, DACS II shows that the unit type is NONE and asks if another unit is to be deleted. If the answer is yes, the same procedure must be repeated. If the answer is no, DACS II then checks to verify if there is a bay with all units as type NONE. If such a bay exists and the bay is not bay 1, DACS II queries the user if the bay is to be deleted. If the response is yes, DACS II deletes the bay and its units from the configuration file. DACS II repeats the routine for each qualified bay. Note that although all three units of bay 1 can be designated as NONE, bay 1 cannot be deleted from the frame. After verification is complete, DACS II continues to complete the configuration.

Note: If all units are configured as type NONE when the option is selected, DACS II immediately starts the bay deletion check.

The deletion of the unit is denied if either of the following conditions exists:

a. The configuration file is not initialized.

b. The selected unit is grown by the GRTH command.

Option 6, Recall Configuration Data

If option 6 is entered from the Main Menu, DACS II presents the configuration file from the most recently completed session. If no session has previously been completed, the file stored before the current command is entered will be displayed.

A 7-bay configuration is shown below as an example:

```
Bay6      Bay4      Bay1      Bay2      Bay3      Bay5      Bay7

Unit14    Unit8     Unit2               Unit4     Unit10    Unit16
TYPE      TYPE      TYPE                TYPE      TYPE      TYPE

Unit13    Unit7     Unit1     ECCN      Unit3     Unit9     Unit15
TYPE      TYPE      TYPE                TYPE      TYPE      TYPE

------    Unit11    Unit5               Unit6     Unit12    ------
          TYPE      TYPE                TYPE      TYPE
```

```
Bay 1 Type:                          Original Interface Bay
Bay 3 Type:                          Flexible Interface Bay
Height of Bay:                       7'0''
Software Serial Number:              1234567890
Frame Number:                        UNINITIALIZED (UNPROTECTED)
Unique Id:                           UNINITIALIZED
Nonhierarchical NPC Address Scheme: 4 digits
```

Note that the TYPE can be IFTU, DSPU, DS3U, or NONE, depending on the type provisioned. The bay type for bays 1 and 3 can be either the original interface bay or flexible interface bay. The word "UNINITIALIZED" is shown for the frame number and for the unique ID number if these numbers are not entered. Otherwise, the number and/or ID stored will be output instead of the word "UNINITIALIZED." DACS II shows whether or not the frame number is protected (in parentheses).

If a specific bay has not been selected, its space will be filled with blanks. An example of a 3-bay frame configuration follows:

```
Bay1      Bay2      Bay3

Unit2               Unit4
TYPE                TYPE

Unit1     ECCN      Unit3
TYPE                TYPE

Unit5               Unit6
TYPE                TYPE
```

After the configuration file is recalled, DACS II instructs the user to return to the Main Menu. If the configuration file is not initialized, the recall option will be denied.

Option 7, Exit

If Option 7 is selected from the Main Menu, DACS II shows all data in the configuration file as if the "recall" option were chosen. In addition, DACS II displays the following:

```
Is the above data correct ? (if not, reenter the data)
  1: YES
  2: NO
IS DATA CORRECT ?
```

If the answer is yes, DACS II displays the following menu:

```
Preparing to write Configuration File to DISK
Please wait while writing to disk
Are you sure? (YES/NO)
```

If the answer is yes, DACS II begins writing the configuration file to DISK. When the configuration file backup is completed, output message O.35021 appears. DACS II backs up the configuration file to DISK before generating message O.35021.

Note: DACS II generates the completion message even if the content of the configuration file is unchanged.

Configuration File Completion

This configuration file command can be executed only if the conditions listed are met:

1. The MC is in maintenance condition.
2. The command is entered from link 1.
3. The command is entered by the superuser.

The configuration file command allows the configuration information to be entered all at once or at the time that a new bay or unit is added to the frame. The entry of unit types into the unit positions in the configuration file does not equip these units; rather it limits unit equipage to be consistent with the configuration file and makes the equipment locate function available to assist the craft installation operations before the equipment has been placed in service.

Documentation Support

The following sections provide descriptions of the following types of DACS II documents:

- Customer Reference Manual
- Operation and Maintenance Manual
- Command and Message Manual
- Quick Reference Guide
- Customer Information Releases

Customer Reference Manual

This manual provides the overall description of the DACS II equipment and features including physical, functional, application, and capability considerations and administrative link connections.

The following table lists the Customer Reference Manual by select code, issue, and applicable software release.

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-301-002	DACS II Customer Reference Manual	1	X					
		2			X			
		3			X	X		
		4				X	X	
365-352-000	DACS II Customer Reference Manual	1	X	X	X	X	X	
365-353-000 *	DACS II Customer Reference Manual	1	X	X	X	X	X	X

* Most recent version.

Operation and Maintenance Manuals

The operation and maintenance manuals contain instructions on how to operate the DACS II and how to clear trouble messages. These manuals are intended to be the guide for daily use and for troubleshooting before requesting technical help. The operation and maintenance manuals for the basic core software and all features are available in both MML and PDS versions.

The following table lists the Operation and Maintenance Manual by select code, issue, and applicable software release.

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-301-601	DACS II Operation and Maintenance Manual	1	X					
365-301-605	DACS II (PDS)	1		X				
365-301-606	DACS II (MML)	1		X				
365-301-615	DACS II (PDS)	1			X	X		
365-301-616	DACS II (MML)	1			X	X		
365-301-617	DACS II (PDS) Subrate Feature	1 2			X X	X X	 X	
365-301-618	DACS II (MML) Subrate Feature	1 2			X X	X X	 X	
365-301-619	DACS II (PDS) *SLC*® 96 Carrier Feature	B 2			X X	X X	 X	
365-301-620	DACS II (MML) *SLC*® 96 Carrier Feature	A 2			X X	X X	 X	
365-301-615AI	DACS II (PDS) 2.048 Mb/s and Enhanced 2.048 Mb/s Features	Prel. 1			X X	 X		
365-301-616AI	DACS II (MML) 2.048 Mb/s and Enhanced 2.048 Mb/s Features	1 2			X X	 X		
365-301-621	DACS II (PDS) Gateway Feature	1			X	X		
365-301-622	DACS II (MML) Gateway Feature	1			X	X		
365-301-623	DACS II PDS Domestic	2				X		

Table 5-2. (Continued)

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-352-001	DACS II PDS Domestic	1				X	X	
365-352-011	DACS II MML Domestic	1				X	X	
365-352-021	DACS II PDS 2.048 Mb/s	1				X	X	
365-352-031	DACS II MML 2.048 Mb/s	1				X	X	
365-301-627	DACS II Capacity Expansion Frame, (PDS) Core with DS1, DS3, and Gateway Features	1					X	
365-301-627AI	DACS II Capacity Expansion Frame, (PDS) Core with 2.048 Mb/s and Enhanced 2.048 Mb/s Features	1					X	
365-301-628	DACS II Capacity Expansion Frame, (MML) Core with DS1, DS3, and Gateway Features	1					X	
365-301-628AI	DACS II Capacity Expansion Frame, (MML) Core with 2.048 Mb/s and Enhanced 2.048 Mb/s Features	1					X	
365-353-001	DACS II PDS Domestic	1						X
365-353-011	DACS II MML Domestic	1						X
365-353-021	DACS II PDS 2.048 Mb/s	1						X
365-353-031	DACS II MML 2.048 Mb/s	1						X

Command and Message Manuals

The command and message manuals are the reference documents for all the input and output messages and explanations of all message fields. These manuals are available in both MML and PDS versions.

The following table lists the Command and Message Manuals by select code, title, issue,

and applicable software release.

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-301-603	Volumes I and II	1	X					
365-301-606	DACS II PDS	1		X				
365-301-610	DACS II MML	1		X				
365-301-651	DACS II (PDS) Core	1			X	X		
365-301-651AI	DACS II (PDS) 2.048 Mb/s and Enhanced 2.048 Mb/s	1			X	X		
365-301-652	DACS II (MML) Core	1			X	X		
365-301-652AI	DACS II (MML) 2.048 Mb/s and Enhanced 2.048 Mb/s	1			X	X		
365-301-653	DACS II (PDS) Subrate Feature	1			X	X		
365-301-654	DACS II (MML) Subrate Feature	1			X	X		
365-301-655	DACS II (PDS) *SLC*® Carrier Feature	1			X	X		
365-301-656	DACS II (MML) *SLC*® Carrier Feature	1			X	X		

Table 5-3. (Continued)

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-301-657	DACS II (PDS) Gateway Feature	1			X	X		
365-301-658	DACS II (MML) Gateway Feature	1			X	X		
365-301-661	DACS II (PDS)	1			X	X		
365-301-662	DACS II (MML)	1			X	X		
365-301-661AI	DACS II (PDS) 2.048 Mb/s	1			X	X		
365-301-662AI	DACS II (MML) 2.048 Mb/s	1			X	X		
365-301-663	DACS II (PDS)	1					X	
365-301-663AI	DACS II (PDS) 2.048 Mb/s	1					X	
365-301-664	DACS II (MML)	1					X	
365-301-664AI	DACS II (MML) 2.048 Mb/s	1					X	

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-352-002	DACS II PDS 24 Channel	1				X	X	
365-352-012	DACS II MML 24 Channel	1				X	X	
365-352-022	DACS II PDS 2.048 Mb/s	1				X	X	
365-352-032	DACS II MML 2.048 Mb/s	1				X	X	
365-353-002	DACS II PDS 24 Channel	1						X
365-353-012	DACS II MML 24 Channel	1						X
365-353-022	DACS II PDS 2.048 Mb/s	1						X
365-353-032	DACS II MML 2.048 Mb/s	1						X

Quick Reference Guides

These guides contain frequently used commands organized into categories of functions, tables and illustrations of cross-connections, a summary of corrective action for frame audit messages, and for PDS, the meanings of the command denial condition codes. The guides are intended to support the experienced user and to serve as a handy reference for commands. Different guides cover two feature set: 2.048 Mb/s alone or subrate SLC® carrier, DS1, DS3, and clear-DS1. Both MML and PDS versions are available for each feature set.

The following table lists each Quick Reference Guide by select code, title, issue, and applicable software release.

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-301-602	DACS II Quick Reference Guide	1	X					
365-301-607	DACS II PDS	1		X				
365-301-608	DACS II MML	1		X				
365-301-625	DACS II (PDS) 24 Channel	1			X			
		2			X	X		
		3					X	
365-301-626	DACS II (MML) 24 Channel	1			X			
		2			X	X		
		3					X	
365-301-625AI	DACS II (PDS) 30 Channel	1			X	X		
		2					X	
365-301-626AI	DACS II (MML) 30 Channel	1			X			
		2			X	X		
		3					X	
365-352-003	DACS II PDS 24 Channel	1				X	X	
365-352-013	DACS II MML 24 Channel	1				X	X	
365-352-023	DACS II PDS 2.048 Mb/s	1				X	X	
365-352-033	DACS II MML 2.048 Mb/s	1				X	X	

Select Code	Subject	Iss.	Release					
			1	2	3	4	5	6
365-353-003	DACS II PDS 24 Channel	1						X
365-353-013	DACS II MML 24 Channel	1						X
365-353-023	DACS II PDS 2.048 Mb/s	1						X
365-353-033	DACS II MML 2.048 Mb/s	1						X

Customer Information Releases

Customer Information Releases (CIRs) are designed both to assist sales personnel and as a vehicle to get new feature information to customers.

The following table lists CIRs by number, issue and title.

Customer Information Releases

CIR No.	Iss.	Title
365-099-031NP	2	Digital Access and Cross-Connect System II
365-099-032NP	1	Multiple DACS Complex
365-099-053TS	1	DACS II, Technical Specification
365-099-055TD	1	DACS II, Release 2 Features
365-099-059TD	1	DACS II, Stratum 2 Clock
365-099-091NP	1	DACS II, Release 2 Features
365-099-093TD	1	DACS II, Release 3 Features
365-099-095IR	1	DACS II Communication Interfaces Circuit Pack Ordering Information
365-099-098IR	1	New DACS II Dual Digroup Card Announcement and Ordering Information
365-099-100MA	1	Normal Tape Operations for the DACS II, DACS III-2000, and DACS IV-2000 Systems
365-099-105TD	1	DACS II Release 4 Technical Description
365-099-111TD	1	DACS II Release 5.0 Technical Description
365-099-123IR	1	UL Listed DACS II Digital Access and Cross-Connect System

Customer Information Releases

CIR No.	Iss.	Title
365-099-126TS	1	Digital Access and Cross-Connect System II (DACS II) Release 5.0 Technical Specification
365-099-124TD	1	DACS II Release 5.1 Technical Description
365-099-127TD	1	DACS II DS1 Multipoint Junction Unit Shelf Technical Description
365-099-129TD	1	DACS II Release 6.0 Technical Description
365-099-130TS	1	DACS II Release 6.0 Technical Specification

Glossary

Note: Some keywords are used in a generic manner by DACS II. For example, CCN also represents ECCN. Some other keywords used in this manner are: MIU and EMIU, MXR and EMXR, and FTU and IFTU.

TERM/KEYWORD	MEANING
ABT	Abort
ACO	Alarm Cutoff
ACTVERB	Action Verb
AIS	Alarm Indication Signal (Also known as all 1s signal)
ALM	Alarm
ALMDET	Alarm Detected
ARG	Argument
ARGEND	Argument End
AS&C	Alarm Surveillance and Control
ASGN	Assigned
ATP	All Tests Passed
ATTR	Attribute
AUD	Audit
BADVERB	Bad Verb
BBL	Backbone Leg
BC	Bus Controller
BCAST	Broadcast
BDCST	Broadcast
BER	Bit Error Rate
BM	Backup Memory
BMTR	Backup Memory Transfer
BOOT	Boot Memory
BPV	Bipolar Violation
BRDIS	Broadcast Disconnect
BRDLEG	Broadcast Disconnect Leg
BX	Bus Extender
CAS	Channel Associated Signaling
CATP	Conditional All Tests Passed
CCB	Cross-Connect Buffer
CCIS	Common Channel Interoffice Signal
CCN	Cross-Connect Network
CCNI	Cross-Connect Network Interface
CCS	Common Channel Signaling
CFA	Carrier Failure Alarm
CFR	Configure
CFT	Craft

Glossary (Contd)

TERM/KEYWORD	MEANING
CGA	Carrier Group Alarm
CHAN	Channel
CHG	Change
CHGIE	Change Input Error
CI	Communications Interface
CIRESET	Communications Interface Reset
CIU	Craft Interface Unit
CL	Circuit Layout
CLF	Carrier Line Failure
CLR	Clear
CRS	Cross
CMAP	Channel Map
CMD	Command
COFA	Change-Of-Frame Alignment
COMPLD	An input command has been completed
COND	Condition
CONFER	Conference Error
CONN	Connectivity
CONN CRS	Cross-Connect
CONV	The circuit has been converted to a broadcast circuit
COT	Central Office Terminal
CP	Circuit Pack
CPR	C-Bit Processor
CPU	Central Processing Unit
CRO	Clock Reference Oscillator
CRS	Cross-Connection
CRS1	One-Way Cross-Connection
CRTE	Create
CSR	Clock Status Receiver
CUS	Customer Control Flag
CW	Conference Width
DACS	Digital Access and Cross-Connect System
DACS-OSS	DACS Operations Support System
DC	Digroup Circuit
DCC	Disconnect Code
DCPT	Decision Point
DCTP	Digroup Circuit for Test Ports
DCZ	Digroup Circuit Zero
DDC	Dual Digroup Circuit
DDS	Digital Data System
DENY	An input command has been denied
DGN	Diagnose
Digroup	24 DS0 Channels

Glossary (Contd)

TERM/KEYWORD	MEANING
DISC	Disconnect
DIU	Digital Interface Unit
DL	Data Link
DLC	Digital Loop Carrier
DLT	Delete
DM	Dual Multiplexer
DMA	Deferred Maintenance Alarm
DMAP	Digroup Map
DMI	Digital Multiplex Interface
DMATE	Duplex Mate
DMB	Digital Multipoint Bridge
DOM	Digital Office Manager
DP	Digital Signal Processing
DPC	Dual Primary Circuit
DPLL	Digital Phase Locked Loop
DRU	DACS Remote Unit
DS	Digital Signal
DS0	Digital Signal Level 0 (64 kb/s)
DS1	Digital Signal Level 1 (1.544 Mb/s)
DS1C	Digital Signal Level 1 (3.125 Mb/s)
DS3	Digital Signal Level 3
DS3U	DS3 Unit
DSP	Digital Signal Processor
DSPI	Digital Signal Processing Interface
DSPU	Digital Signal Processing Unit
DTPU	Digroup Terminal
ED	Edit
ENT	Enter
ENTYERR	Entity Error
EOM	End Of Message
EOP	End Of Part
EQL	Equalization
EQPD	Equipped
EQPL	Equipment Location
EQPT	Equipment
ERR	Error Rate
ERS	Errored Seconds
ES	Echo Suppression
ESF	Extended Superframe
ESR	Error Source Register
EVT	Event
EXDB	External Data Base
EXC	Execute

Glossary (Contd)

TERM/KEYWORD	MEANING
EXJ	Excessive Jitter
FAC	Facility
FAL	Fuse Alarm Lamp
FAST	Facility Alarm, Surveillance, and Test
FC	Format Converter
FDL	Facility Data Link Channel
FLI	Facility Line Interface
FMC	Facility Maintenance Channel
FMT	Formatter
FP	Feature Package
FPA	Facility Performance Analysis
FPLL	Fast Start Phase-Locked Loop
FRADTS	Frame Audits
FRAMERR	Frame Error
FRER	Frame (bit) Error
FRM	Frame
FT	Facility Terminating (Type)
FTM	Facility Terminating Module
FTMI	Facility Terminating Module Interface
FTU	Facility Terminating Unit
GIW	Growth Insertion Word
HDB	High Density Bipolar
HUB	Hubbing Mode (Test Access)
HW	Hardware
INA	Integrated Network Access
INACT	Inactive
ID	Identification
IDLD	Idled
INCL	Inclusive
INERR	Input Error
INIT	Initialize
ISDN	Integrated Services Digital Network
IU	Interface Unit
IW	Insertion Word
IXL	Index List
KB	Kilobits
LAN	Local Area Network
LANG	Language (PDS or MML)
LED	Light Emitting Diode
LEN	Loss of Energy
LF	Line Feed

Glossary (Contd)

TERM/KEYWORD	MEANING
LGT	Log Out (Off)
LINK	The link identified by "a" or "i." A virtual circuit may be identified by link "5" or "6."
LLB	Line Loopback
LMA	Local Multiframe Alarm
LN	Line
LOC	Location
LOCL	Local
LOK	Link OK
LOS	Loss of Signal
LPD	Looped
LPBK	Loopback
LTYPE	Link Type
MACRO	An Executable List of Functions (Machine Routine)
MAJ	Major Framing Error Rate
MAP	An Executable List of Cross-Connect Functions
MB	Multipoint Bridge
MC	Main Controller
MCP	Main Controller Power
MCOFF	Maintenance Condition Off
MCON	Maintenance Condition On
MCOND	Maintenance Condition
MCR	Microprocessor Clock Receiver
MDF	Main Distributing Frame
MDNT	Midnight
MHZ	Megahertz
MIN	Minor Framing Error Rate
MIU	Multiple Interface Unit
MJ	Major (Alarm)
MJU	Multipoint Junction Unit
MLD	Message Language Description
MML	Man-Machine Language
MN	Minor (Alarm)
MODE	Operating Mode (Fast, Holdover, Normal, etc.)
MON	Monitor
MP	Main Processor
MPDBASE	Main Processor Data Base
MPDIS	Multipoint Disconnect
MPM	Multipoint Mode
MSG	Message
MTC	Maintenance
MUX	Multiplexer Out of Sync
MXR	Multiplexer

Glossary (Contd)

TERM/KEYWORD	MEANING
NA	Not Applicable
NAM	No A-law to μ-law Conversion
NCC	Not Connected Code
NE	Network Equipment (Frame)
NEW-STATE	New Termination State
NFW	Not Framing Word
NG	Noise Guard
NMON	Not Monitor
NOBBL	No Backbone Leg
NORM	Two-Way Cross-Connection (Default)
NPC	Network Processing Circuit
NPCOP	NPC Option
NPCTP	NPC Test Port
NSA	Nonsignaling Associated
NSO	Not in Sequence Order
NSUP	Not Supported in Equipment Hierarchy
NTLA	Not in TLA mode
NTR	No Transmit
NUTST	Not Under Test
NZCS	No Zero Code Suppression
OOF	Out-Of-Frame
OOS	Out-Of-Service
OPR	Operator
OPT	Option
OS	Operations System
PASSWD	Password
PBA	Primary Block Associated
PBX	Private Branch Exchange
PCB	Process Control Block
PDS	Program Documentation Standards (Language)
PFS	Primary Frequency Supply
PHS	Phase Step
PIC	Replica, as in MACRO Feature
PLL	Phase-Locked Loop
PMA	Prompt Maintenance Alarm
PRMTR	Parameters
PROG	Program
PRVG	Provisioning
PTCOL	Protocol
PTLA	Presently in TLA
PWR	Power
QRY	Query
QTEND	Quit End

Glossary (Contd)

TERM/KEYWORD	MEANING
RDLD	Red Lined Circuit
RDM	Read Memory
REFMAP	Reference MAP
REG	Register
REPT	Report
RMOFF	Restricted Maintenance Off
RMON	Restricted Maintenance On
RMS—D	Remote Measurement System—Digital
RMV	Remove
RNG	Range
RNGIE	Range Input Error
ROM	Read Only Memory
RPATH	Return Path
RPT	Repeat
RST	Restore
RTP	Remote Test Port
RTRV	Retrieve
RTS	Ready-To-Send
RTSI	Receive Time Slot Interchange
RTV	Real Time Violation
SAFE	Shelf Alarm Far End
SANE	Shelf Alarm Near End
SARTS	Switched Access Remote Test System
SCC	Subrate Cross-Connect
SCCS	Switching Center Control System
SCCSAI	Snider Link
SCR	Screening
SECH	Subrate Establish Command
SEQ	Sequence
SEQERR	Sequence Error
SERS	Severe Errored Seconds
SETOP	Set Option
SFW	Software
SI	Synchronous Interface
SIB	Software Identification Block
SLIM	Subscriber Loop Interface Module
SMM	Subrate High Density Memory
SMS	Subrate Microprocessor System
Snider	An Administration Link
SPLT	Split
SRDC	Subrate Data Cross-Connect
SSC	Secondary Storage Controller
SSMS	Special Services Management System

Glossary (Contd)

TERM/KEYWORD	MEANING
SSP	Select Synchronization Port
STA	Status or State
STF	Some Tests Failed
STI	Subrate Transmit Interchange
STR	Status Register
SVC	Switched Virtual Circuit
SWCH	Switch
SYM	Symmetrical
SYNC	Synchronizer
TABS	Telemetry Asynchronous Block Serial
TACC	Test Access
TAD	Test Access Digroup
TASC	Telemetry Alarm Surveillance and Control System
TB	Time Base
TC	Trunk Conditioning
TCAS	T-Carrier Administration System
TCC	Trunk Conditioning Code
TD	Timing Distributor
TDS2	Timing Distributor Sine Wave (2.048 MHz)
TE	Timing Extractor
TERM	Two-Way Terminated Cross-Connections
TIF	Tandem Interface Frame
TLA	Terminate and Leave Activate
TLI	Timing Link Interface
TLP	Transmission Level Point
TLR	Terminate and Leave Release
TN	Transaction
TOD	Time-of-Day
TOTAL	Total Number of Lines in a Macro
TOX	Multiple (X) TOs
TP	Test Port
TPMAX	Maximum Number of Test Ports
TPR	Test Port Release
TPS	Test Ports
TRANS	Transient
TRB	Trouble Code
TRSP	Transparent
TS	Time Slot
TSI	Time Slot Interchange
TTSI	Transmit Time Slot Interchange
TTST	Two-Way Test
UAC	Unassigned Channel Code
UASGN	Unassigned

Glossary (Contd)

TERM/KEYWORD	MEANING
UBX	Unit Bus Extender
UC	Unit Controller
UCR	Unit Clock Receiver
UD	Unit Controller for a DSPU
UEQD	Unequipped
UF	Unit Controller for an FTU, a DSPU, or a DS3U.
UID	Unique Identifier
UMC	Unassigned Multiplex Code
UMP	Unmapped
URC	Unit Reply Circuit
UTST	Under Test
VC	Virtual Circuit
VERSN	Version
XC	Cross-Connect
XDC	Cross-Connect Digroup Circuits
ZBTSI	Zero Byte Time Slot Interchange

Alphabetic Message List

ABT,CMD	55711
ABT,PROC	39311
ALW,LPBK,T1,DGA,DGB,DGC,DGD	26101
ALW,PMREPT,T1,NPC,ALL	51171
ALW,SW,EQPT,UNIT,MMFG,PROTN	35301
ALW,SW,T1,NPC,RT,INCL	39411
APPEND,END	19041
BADVERB,CMD,BAD,SYNTAX,STOPPED	01101
BADVERB,CMD,INERR,STOPPED	01131
BOOT,FROM,DISK,TAPE	01241
BX2,STF,ATP	01271
CHG,ACCMD,T1,AIS,INCL	20101
CHG,LGN,PASSWD	38301
CHG,RPATH,T0,INCL	18001
CHG,RPATH,T1,INCL	18011
CHG,TACC,T0,MON	21011
CHG,TACC,T0,SPLT	23001
CHG,TACC,T0,TG,MON	21031
CHG,TACC,T0,TG,SPLT	23021
CHG,TACC,T1,INCL	20111
CHG,TACC,TS,MON	19626
CHG,TACC,TS,SPLT	19656
CHG,TL,T0,TERM,F,T,B,L,G,A,NOT	25101
CHG,TL,T0,TG,TERM,F,T,B	25121
CHG,TL,TS,TERM,F,T,B	19661
CI,ECI,RESET	01201
CI,ECI,STARTUP,STF,ATP	01211
CMD,MC,OOS,MCOND,INSERVICE	01111
CONN,BDCST,T0,RDLD,CUS,INCL	13001
CONN,BDCST,T0,RDLD,CUS,INCL	13002
CONN,BDCST,T1,RDLD,CUS,INCL	13011
CONN,BDCST,T1,RDLD,CUS,INCL	13021
CONN,CRS,T0,RDLD,CUS,INCL,AIS	11001
CONN,CRS,T0,RDLD,CUS,INCL,NTR	11021
CONN,CRS,T1,RDLD,CUS,INCL,NORM	11011

CONN,CRS,TS,MJU,RATE,MA,NORM	19221
CONN,CRS,TS,MJU,RATE,MA,TERM	19321
CONN,CRS,TS,RATE,NORM	19201
CONN,CRS,TS,RATE,NORM	19211
CONN,CRS,TS,RATE,TERM	19301
CONN,CRS,TS,RATE,TERM	19311
CONN,CRS1,T0,RDLD,CUS,INCL	11101
CONN,CRS1,T0,RDLD,CUS,INCL	11121
CONN,CRS1,T1,RDLD,CUS,INCL	11131
CONN,HUB,T0	24001
CONN,HUB,T0,TG	24021
CONN,HUB,T1,INCL	20031
CONN,TACC,T0,MON	21001
CONN,TACC,T0,TG,MON	21021
CONN,TACC,T1,AIS,INCL	20001
CONN,TACC,TS,MON	19601
CONN,TACC,TS,MON,MJU	19621
CONN,TACC,TS,SPLT	19631
CONN,TACC,TS,SPLT,MJU	19651
COPY,EQPT,NPC	31521
CPY,MEM,PROG,DBASE,INSTL,INCL	55701
CRTE,CNFGRN,EQPT,UNIT	31211
CRTE,CRS,TS,DS0A,DS0B,SEC,PCH	19101
CRTE,CRS,TS,RATE,DP,PCH	19111
CRTE,EQPT,NPC	31351
CRTE,EQPT,NPC,IW,X	31371
CRTE,EQPT,NPC,IW,X,INCL,AIS	31341
CRTE,EQPT,NPC,IW,X,INCL,AIS	31352
CRTE,EQPT,NPC,NPCTG	31401
CRTE,EQPT,NPC,NPCTP	31381
CRTE,EQPT,SYNC	31101
CRTE,EQPT,SYNC,TLI	31111
CRTE,EQPT,SYNC,TLI,SSP,SRC	31121
CRTE,EQPT,TG	31421
CRTE,EQPT,TP	31411
CRTE,EQPT,UNIT,FTMI,EQL	31321
CRTE,EQPT,UNIT,MIU	31501
CRTE,EQPT,UNIT,MXR,BERM,BERT	31511
CRTE,LGN,NEW,PASSWD,REENTER	36101
DELETE,END	19051
DGN,EQPT,CCB,CFT,X	41211
DGN,EQPT,CCI,CFT,X	41251

DGN,EQPT,CCNI,CFT,X	41201
DGN,EQPT,CI,CFT,X	41031
DGN,EQPT,DISK,CFT,X,VERIFY	41051
DGN,EQPT,ETSI,CFT,X	41261
DGN,EQPT,ETSIS,ECCN,ALL	41271
DGN,EQPT,IN,PROGRESS	41004
DGN,EQPT,LINK,CFT,X	41011
DGN,EQPT,MC,CFT,X	41001
DGN,EQPT,MP,CFT,X	41021
DGN,EQPT,NPC	41361
DGN,EQPT,NPC,SIDE,CFT,X	41351
DGN,EQPT,SSC,CFT,X	41041
DGN,EQPT,SYNC	41101
DGN,EQPT,SYNC,TLI,CRO	41111
DGN,EQPT,SYNC,TLI,SSP	41121
DGN,EQPT,TAPE,CFT,X,PROG,DBASE	41061
DGN,EQPT,TSI,CCN,ALL	41241
DGN,EQPT,TSI,CCN,UNIT	41232
DGN,EQPT,TSI,CFT,X	41221
DGN,EQPT,UNIT,DSPI,CFT,X	41341
DGN,EQPT,UNIT,FC,CFT,X	41331
DGN,EQPT,UNIT,FLI,CFT,X	41401
DGN,EQPT,UNIT,FMT,CFT,X	41411
DGN,EQPT,UNIT,FTMI,CFT,X	41321
DGN,EQPT,UNIT,MIU,CFT,X	41431
DGN,EQPT,UNIT,MXR,DEV,CFT,X	41421
DGN,EQPT,UNIT,UC,CFT,X	41311
DISC,BDCST,T0,INCL,OOS,DCC	15201
DISC,BDCST,T0,INCL,OOS,DCC	15211
DISC,BDCST,T1,INCL,OOS,CONV	15221
DISC,BDCST,T1,INCL,OOS,CONV	15231
DISC,CRS,T0,INCL,DCC,OOS	15002
DISC,CRS,T0,INCL,OOS,DCC	15001
DISC,CRS,T1,INCL,OOS	15011
DISC,CRS,TS,MJU,RATE	19421
DISC,CRS,TS,MJU,RATE,ALL	19431
DISC,CRS,TS,RATE	19401
DISC,CRS,TS,RATE	19411
DISC,CRS1,T0,INCL,OOS,DCC	15101
DISC,CRS1,T0,INCL,OOS,DCC	15102
DISC,CRS1,T1,INCL,OOS	15111
DISC,EQPT,NPC	32341
DISC,EQPT,NPC,NPCTG,TGR	32401
DISC,EQPT,NPC,NPCTP,TPR	32381
DISC,EQPT,SYNC,TB	32101
DISC,EQPT,SYNC,TLI,SSP	32121

DISC,EQPT,TG	32421
DISC,EQPT,TP	32411
DISC,EQPT,UNIT	32211
DISC,EQPT,UNIT,FTMI	32321
DISC,EQPT,UNIT,MIU	32511
DISC,EQPT,UNIT,MXR	32501
DISC,TACC,T0,ALL,OOS	27002
DISC,TACC,T0,OOS	27001
DISC,TACC,T0,RLS,F,T,B,L,G,A	25501
DISC,TACC,T0,TG,OOS	27021
DISC,TACC,T0,TG,RLS,F,T,B	25521
DISC,TACC,T1,ALL,OOS	20202
DISC,TACC,T1,OOS	20201
DISC,TACC,TS	19671
DISC,TACC,TS,ALL,LINKS	19681
DISC,TACC,TS,RLS,F,T,B	19666
DLT,CRS,TS,PCH,DCC	19151
DLT,FPKG	37301
DLT,LGN	37101
DLT,MACRO,MAP	37201
DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD	37211
EBX,STARTUP,STF,ATP	01272
ED,ADD,MAP,NPC	36021
ED,CNFGRN,EQPT,UNIT	38101
ED,CONN,TS	19581
ED,CONN,TS,MPTM	19591
ED,CRS,T0,INCL	14001
ED,CRTE,TS,PCH,DCC	19501
ED,DATE,INT	51021
ED,DLT,MAP,NPC	37001
ED,MACRO,MAP	19001
ED,OPT,T1,NPC,TYPE,ALL	38201
ED,PRMTR,EQPT,DGA,DGB,DGC,DGD	36201
ED,PRMTR,EQPT,NPC	38221
ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT	38281
ED,PRMTR,EQPT,NPC,IW,X,INCL	38211
ED,PRMTR,EQPT,NPC,IW,X,INCL	38271
ED,PRMTR,EQPT,NPC,RT,DL,TYPE	38241
ED,PRMTR,EQPT,RT,DL	38351
ED,PRMTR,EQPT,RT,RTF,SWMN	38361
ED,PRMTR,EQPT,SYNC,MASTER	35013
ED,PRMTR,EQPT,SYNC,STR2,STR3	35012
ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC	38011
ED,PRMTR,EQPT,TYPE	38231

ED,PRMTR,EQPT,UNIT,FTMI,EQL	38111
ED,PRMTR,LINK,APPL,ASCS,ASCD	36007
ED,PRMTR,LINK,K,T1,T3,N2,A,B	36003
ED,PRMTR,LINK,PTCOL,S,X,T,M	36001
ED,PRMTR,LINK,W,P,T20,T22,T23	36005
ED,PRMTR,MACRO,MAP	38501
ED,PRMTR,MAP	19031
ED,PRMTR,NE,ECLOC,MJU,SRM	38261
ED,PRMTR,NE,FRAME,CHAR	30101
ED,PRMTR,NE,HUBID,O	38251
ED,PRMTR,T0,INCL,TERM,RLS,F,T	17001
ED,PRMTR,T0,INCL,TLP,NG,ES	17002
ED,PRMTR,T1,INCL,TERM,RLS,F,T	17011
ED,PRMTR,T3,UNIT,DS3,BERM,BERT	38601
ED,PRMTR,TS,MJU,TERM,RLS	19561
ED,PRMTR,TS,TERM,RLS	19551
EMTC,STARTUP,STF,ATP	01282
ENT,EQPT,SYNC,FPLL	35011
EXC,MACRO	39301
EXC,MAP,CLR,INCL	39201
IN,PROGRESS	55703
INH,LPBK,T1,DGA,DGB,DGC,DGD	26111
INH,PMREPT,T1,NPC,ALL	51161
INH,SW,EQPT,UNIT,MMFG,PROTN	35311
INH,SW,T1,NPC,RT,FRC,INCL	39421
INIT,LOG,ERR,HWER,SWER	56061
INIT,REG,ALL	56011
INIT,REG,NPC	56051
INIT,REG,NPC,RT,DL	56001
INIT,REG,PWR,BMTRALM	56052
INIT,REG,T1,NPC,ALL	56071
INIT,SYS,FRAME	35021
LGN,USER	39001
LGT,TERM,USER,INCL	39101
LINE	19071
LIST,END	19061

MOVE,END	19091
MP,STARTUP,STF,ATP	01221
MTC,STF,ATP	01281
OPR,ACO,ALL	51111
OPR,LPBK,T0	29001
OPR,LPBK,T0,TG	29021
OPR,LPBK,T1	26141
OPR,LPBK,T1,DGA,DGB,DGC,DGD	26121
OPR,LPBK,T1,LPBKT,INCL	20301
OPR,TSIG,T1	28101
REPT,ALM,EQPT,AR01,MISC,NPC	65021
REPT,ALM,EQPT,AR01,MISC,NPC,MJ	65011
REPT,ALM,EQPT,BMTR,TAPE,MN	65056
REPT,ALM,EQPT,BOOT,FAILED,BAD	65053
REPT,ALM,EQPT,CCN,MJ,IDLD,OOS	65054
REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS	65055
REPT,ALM,EQPT,NPC,IDLD	65041
REPT,ALM,EQPT,NPC,MJ,MN,INFO	65031
REPT,ALM,EQPT,RESET,DATE,TOD	65051
REPT,ALM,EQPT,SC,ALARM,NPC,RT	65131
REPT,ALM,EQPT,SC,ALARM,RT,COMP	65171
REPT,ALM,EQPT,SC,DPLX,ALARM	65151
REPT,ALM,SC,ALARM,MC,UC,FTMI	65161
REPT,ALM,SC,ALARM,RT,DL,FE	65141
REPT,ALM,T3,IDLD,UNIT,DS3	66011
REPT,ALM,T3,UNIT,DS3	66001
REPT,ALMDET,EQPT,ANALYSIS	01391
REPT,ALMDET,EQPT,ERR,HARDWARE	01392
REPT,AUD,EQPT,MP,CI,DISK,TAPE	82004
REPT,DGNDET,EQPT	82002
REPT,DGNDET,EQPT	82003
REPT,DGNDET,EQPT,DEV	82001
REPT,EVT,EQPT	01337
REPT,EVT,EQPT,CCB,TN,X,EVENT	01351
REPT,EVT,EQPT,CCI,TN,X,EVENT	01354
REPT,EVT,EQPT,CCNI,TN,X,EVENT	01352
REPT,EVT,EQPT,CMD,ERR,ABT,TN,X	01121
REPT,EVT,EQPT,ERR,SOFTWARE,MC	01362
REPT,EVT,EQPT,ETSI,TN,X,EVENT	01355
REPT,EVT,EQPT,LINK,TN,X,ERR	01321
REPT,EVT,EQPT,MC,MCOND	58011
REPT,EVT,EQPT,MC,MP,CI,SSC,TN	01312
REPT,EVT,EQPT,MC,MP,TN,X,EVENT	01311

REPT,EVT,EQPT,MC,RESET,DACSII	01261
REPT,EVT,EQPT,NPC,SIDE,TN,X	01371
REPT,EVT,EQPT,NPC,TN,X,EVENT	01372
REPT,EVT,EQPT,PWR,TN,X,ERR	01301
REPT,EVT,EQPT,RESET,DATE,TOD	01393
REPT,EVT,EQPT,SYNC,MODE,FAST	01366
REPT,EVT,EQPT,SYNC,TLI,SSP,NPC	01335
REPT,EVT,EQPT,SYNC,TLI,SSP,TN	01333
REPT,EVT,EQPT,SYNC,TLI,SSP,TN	01341
REPT,EVT,EQPT,SYNC,TLI,TN,X	01342
REPT,EVT,EQPT,SYNC,TN,X,EVENT	01331
REPT,EVT,EQPT,TABS	55705
REPT,EVT,EQPT,TABS,IN,PROGRESS	55704
REPT,EVT,EQPT,TSI,TN,X,EVENT	01353
REPT,EVT,EQPT,UNIT,DSPI,TN,X	01365
REPT,EVT,EQPT,UNIT,FC,TN,X	01364
REPT,EVT,EQPT,UNIT,FLI,TN,X	01401
REPT,EVT,EQPT,UNIT,FMT,TN,X	01402
REPT,EVT,EQPT,UNIT,FTMI,TN,X	01363
REPT,EVT,EQPT,UNIT,MIU,TN,X	01404
REPT,EVT,EQPT,UNIT,MXR,DEV,TN	01403
REPT,EVT,EQPT,UNIT,UC,MC,CI,MP	01381
REPT,EVT,EQPT,UNIT,UC,UBX,TN,X	01361
REPT,EVT,T1,NPC,CONDTYPE	65061
REPT,INVID,SFW,SOFTWARE,ID	01291
REPT,OPR,ACO,ALL	65071
REPT,PM,T1,NPC,PARAM,COUNT	61011
REPT,RECOVY,EQPT,COND,RTRV,IN	55021
RESET,STOPPED	01251
RLS,LPBK,T1	26151
RLS,LPBK,T1,DGA,DGB,DGC,DGD	26131
RLS,TSIG,T1	28201
RMV,CNFGRN,EQPT,UNIT,CCN,TSIS	33231
RMV,EQPT,CCB	33202
RMV,EQPT,CCI	33251
RMV,EQPT,CCN,TSIS	33241
RMV,EQPT,CCNI	33201
RMV,EQPT,DISK,TAPE	33211
RMV,EQPT,ETSI	33261
RMV,EQPT,ETSIS,ECCN	33271
RMV,EQPT,LINK	33011
RMV,EQPT,MC	33001
RMV,EQPT,NPC,SIDE,INCL	33351
RMV,EQPT,SYNC	33101

RMV,EQPT,SYNC,TLI,SSP	33121
RMV,EQPT,TLI,CRO	33111
RMV,EQPT,TSI	33221
RMV,EQPT,UNIT,FC	33331
RMV,EQPT,UNIT,FLI	33401
RMV,EQPT,UNIT,FMT	33411
RMV,EQPT,UNIT,FTMI,DSPI	33321
RMV,EQPT,UNIT,MIU,INCL	33431
RMV,EQPT,UNIT,MMFG,FRC,INCL	33421
RMV,EQPT,UNIT,UC	33311
RST,CNFGRN,EQPT,UNIT,CCN,TSIS	34231
RST,EQPT,CCB	34202
RST,EQPT,CCI	34251
RST,EQPT,CCNI	34201
RST,EQPT,DISK,TAPE,CLR,CLEAN	34211
RST,EQPT,ETSI	34261
RST,EQPT,ETSIS,ECCN	34271
RST,EQPT,LINK	34011
RST,EQPT,MC,MCOND,TAPE,NOJRNL	34001
RST,EQPT,NPC,SIDE	34351
RST,EQPT,SYNC	34101
RST,EQPT,SYNC,TLI,SSP	34121
RST,EQPT,TLI,CRO	34111
RST,EQPT,TSI	34221
RST,EQPT,TSIS,CCN	34241
RST,EQPT,UNIT,FC	34331
RST,EQPT,UNIT,FLI	34401
RST,EQPT,UNIT,FMT	34411
RST,EQPT,UNIT,FTMI,DSPI	34321
RST,EQPT,UNIT,MIU,INCL	34431
RST,EQPT,UNIT,MMFG,INCL	34421
RST,EQPT,UNIT,UC	34311
RST,PASSWD	51081
RTRV,ALM,EQPT	53111
RTRV,ALM,EQPT,DBASE	53151
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS	81001
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS	81002
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS	81004
RTRV,ALM,EQPT,RT,DL	53141
RTRV,ALM,T3	56331
RTRV,BDCST,T0	52111
RTRV,BDCST,T0,ALL	52101
RTRV,BDCST,T1,FROM	52121
RTRV,BKUPSCHED,MEM,SEC,DATA	51061
RTRV,CNFGRN,EQPT,UNIT,EQPD	53031

RTRV,COND,EQPT,NPC,CS	53121
RTRV,CRS,T1,MAP	52011
RTRV,CRS,T1,NPC,MAP	52031
RTRV,CRS,T1,RTMAP,DLMAP	52311
RTRV,CRS,TS	52511
RTRV,EQPT,TS,SRHDW	52531
RTRV,EVT,EQPT,NPC,BER,FTU,DS3U	81003
RTRV,EVT,EQPT,NPC,BER,NPCS	81005
RTRV,EVT,TS,SROOF,ALL	56501
RTRV,FPKG,NE	51121
RTRV,HDR	51031
RTRV,HDR,NE	51041
RTRV,LOC,EQPT	56401
RTRV,LOG,ERR,SWER,HWER,INT	55011
RTRV,MACRO	54121
RTRV,MACRO,COM	54131
RTRV,MAP,COM	54101
RTRV,MAP,EQPT,NPC	54111
RTRV,OPT,T1,NPC,ALL	53051
RTRV,PM,T1,NPC,ALL	56091
RTRV,PMREPT,SCHED,CFA,MONDAT	51071
RTRV,PMSCHED,T1,NPC,ALL	51151
RTRV,PRMTR,EQPT,LOAD,TOTAL	52581
RTRV,PRMTR,EQPT,NPC,ALL	56031
RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS	56021
RTRV,PRMTR,EQPT,NPC,RT,DL	56041
RTRV,PRMTR,EQPT,NPC,SCDG,STATE	52321
RTRV,PRMTR,LINK	55113
RTRV,PRMTR,MACRO,ATTR,ALL	54211
RTRV,PRMTR,MACRO,MAP,SPACE,ALL	54221
RTRV,PRMTR,MAP,ATTR,ALL	54201
RTRV,PRMTR,NE	51091
RTRV,PRMTR,NE,ECLOC	51511
RTRV,PRMTR,NE,HUBID	51501
RTRV,PRMTR,SQN	51131
RTRV,PRMTR,T0,FROM	52051
RTRV,PRMTR,T0,MARK	52211
RTRV,PRMTR,T0,TO	52041
RTRV,PRMTR,T1,FROM	52071
RTRV,PRMTR,T1,MARK	52201
RTRV,PRMTR,T1,TO	52061
RTRV,PRMTR,T3,LBO	53231
RTRV,PRMTR,T3,UNIT,BERMT	53221
RTRV,PRMTR,TS	52521
RTRV,PRVG,TERM,USER,ALL	54001
RTRV,PRVG,USER,LOG,ALL	54011
RTRV,REG,EQPT,CCN,ESR	55401

RTRV,REG,EQPT,ECCN,ESR	55411
RTRV,REG,EQPT,MP,ESR	55111
RTRV,REG,EQPT,NPC,SIDE,ESR	55601
RTRV,REG,EQPT,SYNC,STR	55201
RTRV,REG,EQPT,SYNC,TLI,SSP,STR	55321
RTRV,REG,EQPT,SYNC,TLI,STR	55311
RTRV,REG,EQPT,UNIT,DSPI,ESR	55531
RTRV,REG,EQPT,UNIT,ESR	55501
RTRV,REG,EQPT,UNIT,FC,ESR	55521
RTRV,REG,EQPT,UNIT,FLI,ESR	55801
RTRV,REG,EQPT,UNIT,FMT,ESR	55811
RTRV,REG,EQPT,UNIT,FTMI,ESR	55511
RTRV,REG,EQPT,UNIT,MIU,ESR	55831
RTRV,REG,EQPT,UNIT,MXR,ESR	55821
RTRV,REG,EQPT,XC,STR	55191
RTRV,REG,EQPT,XCSB,UNIT	55181
RTRV,ROLL,T0,NPC,ALL,UNIT	52081
RTRV,ROLL,T1,NPC,ALL,UNIT	52091
RTRV,STATE,COM,ALL	53104
RTRV,STATE,COM,EQPD	53109
RTRV,STATE,COM,PEST,FAIL,OOS	53105
RTRV,STATE,EQPT,ACO	54340
RTRV,STATE,EQPT,ETSI,EQPD	53022
RTRV,STATE,EQPT,MIU,EQPD	53201
RTRV,STATE,EQPT,MXR,EQPD	53211
RTRV,STATE,EQPT,NPC	56311
RTRV,STATE,EQPT,NPC	56314
RTRV,STATE,EQPT,NPC,EQPD,TOTAL	53041
RTRV,STATE,EQPT,NPC,TSIG	53161
RTRV,STATE,EQPT,SYNC	56301
RTRV,STATE,EQPT,SYNC,EQPD	53001
RTRV,STATE,EQPT,TSI,EQPD	53021
RTRV,STATE,EQPT,UNIT,ALL	53101
RTRV,STATE,EQPT,UNIT,EQPD	53011
RTRV,STATE,EQPT,UNIT,EQPD	53108
RTRV,STATE,EQPT,UNIT,FTMI	53071
RTRV,STATE,EQPT,UNIT,PEST,FAIL	53103
RTRV,STATE,EQPT,UNIT,PROTN	56511
RTRV,STATE,T3,UNIT,DS3	56361
RTRV,STATE,TS	52501
RTRV,SYSID	51181
RTRV,TACC,T0,NPCTG	53091
RTRV,TACC,T0,TG	53081
RTRV,TACC,T1	53061
SAVE	19081

SCHED,BKUP,MEM,SEC,DATA,HR	51051
SCHED,PMREPT,ALL,CFA,FAC,X	51011
SCHED,PMREPT,T1,NPC	51141
SET,ATTR,EQPT,ALM	51101
SET,PRVG,TERM,USER,INCL,SCR,GR	38401
SET,PRVG,USER,TERM,ALL,INCL	36103
SSC,STARTUP,STF,ATP	01231
STA,LOCL,RST,PRI,SEC,CLR	58001
SW,BDCST,T0,INCL	14021
SW,BDCST,T1,INCL	14061
SW,DISC,T0,OOS	14041
SW,DISC,T1,OOS	14081
SW,DX,EQPT,XC,INCL	35001
SW,ROLL,T0,INCL,FRC,OOS	14031
SW,ROLL,T1,INCL,FRC,OOS,TWAY	14071
SW,TOPROTN,EQPT,UNIT,FLI	35101
SW,TOPROTN,EQPT,UNIT,MMFG,FRC	35111
SW,TOPROTN,T1,NPC,RT,INCL	39401
SW,TOWKG,EQPT,UNIT,FLI	35105
SW,TOWKG,EQPT,UNIT,MMFG	35121
SW,TOWKG,T1,NPC,RT,DL,INCL	39431

Numeric Message List

01101 BADVERB,CMD,BAD,SYNTAX,STOPPED
01111 CMD,MC,OOS,MCOND,INSERVICE
01121 REPT,EVT,EQPT,CMD,ERR,ABT,TN,X
01131 BADVERB,CMD,INERR,STOPPED
01201 CI,ECI,RESET
01211 CI,ECI,STARTUP,STF,ATP
01221 MP,STARTUP,STF,ATP
01231 SSC,STARTUP,STF,ATP
01241 BOOT,FROM,DISK,TAPE
01251 RESET,STOPPED
01261 REPT,EVT,EQPT,MC,RESET,DACSII
01271 BX2,STF,ATP
01272 EBX,STARTUP,STF,ATP
01281 MTC,STF,ATP
01282 EMTC,STARTUP,STF,ATP
01291 REPT,INVID,SFW,SOFTWARE,ID
01301 REPT,EVT,EQPT,PWR,TN,X,ERR
01311 REPT,EVT,EQPT,MC,MP,TN,X,EVENT
01312 REPT,EVT,EQPT,MC,MP,CI,SSC,TN
01321 REPT,EVT,EQPT,LINK,TN,X,ERR
01331 REPT,EVT,EQPT,SYNC,TN,X,EVENT
01333 REPT,EVT,EQPT,SYNC,TLI,SSP,TN
01335 REPT,EVT,EQPT,SYNC,TLI,SSP,NPC
01337 REPT,EVT,EQPT
01341 REPT,EVT,EQPT,SYNC,TLI,SSP,TN
01342 REPT,EVT,EQPT,SYNC,TLI,TN,X
01351 REPT,EVT,EQPT,CCB,TN,X,EVENT
01352 REPT,EVT,EQPT,CCNI,TN,X,EVENT
01353 REPT,EVT,EQPT,TSI,TN,X,EVENT
01354 REPT,EVT,EQPT,CCI,TN,X,EVENT
01355 REPT,EVT,EQPT,ETSI,TN,X,EVENT
01361 REPT,EVT,EQPT,UNIT,UC,UBX,TN,X
01362 REPT,EVT,EQPT,ERR,SOFTWARE,MC
01363 REPT,EVT,EQPT,UNIT,FTMI,TN,X
01364 REPT,EVT,EQPT,UNIT,FC,TN,X
01365 REPT,EVT,EQPT,UNIT,DSPI,TN,X
01366 REPT,EVT,EQPT,SYNC,MODE,FAST
01371 REPT,EVT,EQPT,NPC,SIDE,TN,X
01372 REPT,EVT,EQPT,NPC,TN,X,EVENT
01381 REPT,EVT,EQPT,UNIT,UC,MC,CI,MP
01391 REPT,ALMDET,EQPT,ANALYSIS
01392 REPT,ALMDET,EQPT,ERR,HARDWARE
01393 REPT,EVT,EQPT,RESET,DATE,TOD
01401 REPT,EVT,EQPT,UNIT,FLI,TN,X

01402 REPT,EVT,EQPT,UNIT,FMT,TN,X
01403 REPT,EVT,EQPT,UNIT,MXR,DEV,TN
01404 REPT,EVT,EQPT,UNIT,MIU,TN,X

11001 CONN,CRS,T0,RDLD,CUS,INCL,AIS
11011 CONN,CRS,T1,RDLD,CUS,INCL,NORM
11021 CONN,CRS,T0,RDLD,CUS,INCL,NTR
11101 CONN,CRS1,T0,RDLD,CUS,INCL
11121 CONN,CRS1,T0,RDLD,CUS,INCL
11131 CONN,CRS1,T1,RDLD,CUS,INCL

13001 CONN,BDCST,T0,RDLD,CUS,INCL
13002 CONN,BDCST,T0,RDLD,CUS,INCL
13011 CONN,BDCST,T1,RDLD,CUS,INCL
13021 CONN,BDCST,T1,RDLD,CUS,INCL

14001 ED,CRS,T0,INCL
14021 SW,BDCST,T0,INCL
14031 SW,ROLL,T0,INCL,FRC,OOS
14041 SW,DISC,T0,OOS
14061 SW,BDCST,T1,INCL
14071 SW,ROLL,T1,INCL,FRC,OOS,TWAY
14081 SW,DISC,T1,OOS

15001 DISC,CRS,T0,INCL,OOS,DCC
15002 DISC,CRS,T0,INCL,DCC,OOS
15011 DISC,CRS,T1,INCL,OOS
15101 DISC,CRS1,T0,INCL,OOS,DCC
15102 DISC,CRS1,T0,INCL,OOS,DCC
15111 DISC,CRS1,T1,INCL,OOS
15201 DISC,BDCST,T0,INCL,OOS,DCC
15211 DISC,BDCST,T0,INCL,OOS,DCC
15221 DISC,BDCST,T1,INCL,OOS,CONV
15231 DISC,BDCST,T1,INCL,OOS,CONV

17001 ED,PRMTR,T0,INCL,TERM,RLS,F,T
17002 ED,PRMTR,T0,INCL,TLP,NG,ES
17011 ED,PRMTR,T1,INCL,TERM,RLS,F,T

18001 CHG,RPATH,T0,INCL
18011 CHG,RPATH,T1,INCL

19001 ED,MACRO,MAP
19031 ED,PRMTR,MAP
19041 APPEND,END
19051 DELETE,END
19061 LIST,END

19071 LINE
19081 SAVE
19091 MOVE,END
19101 CRTE,CRS,TS,DS0A,DS0B,SEC,PCH
19111 CRTE,CRS,TS,RATE,DP,PCH
19151 DLT,CRS,TS,PCH,DCC
19201 CONN,CRS,TS,RATE,NORM
19211 CONN,CRS,TS,RATE,NORM
19221 CONN,CRS,TS,MJU,RATE,MA,NORM
19301 CONN,CRS,TS,RATE,TERM
19311 CONN,CRS,TS,RATE,TERM
19321 CONN,CRS,TS,MJU,RATE,MA,TERM
19401 DISC,CRS,TS,RATE
19411 DISC,CRS,TS,RATE
19421 DISC,CRS,TS,MJU,RATE
19431 DISC,CRS,TS,MJU,RATE,ALL
19501 ED,CRTE,TS,PCH,DCC
19551 ED,PRMTR,TS,TERM,RLS
19561 ED,PRMTR,TS,MJU,TERM,RLS
19581 ED,CONN,TS
19591 ED,CONN,TS,MPTM
19601 CONN,TACC,TS,MON
19621 CONN,TACC,TS,MON,MJU
19626 CHG,TACC,TS,MON
19631 CONN,TACC,TS,SPLT
19651 CONN,TACC,TS,SPLT,MJU
19656 CHG,TACC,TS,SPLT
19661 CHG,TL,TS,TERM,F,T,B
19666 DISC,TACC,TS,RLS,F,T,B
19671 DISC,TACC,TS
19681 DISC,TACC,TS,ALL,LINKS

20001 CONN,TACC,T1,AIS,INCL
20031 CONN,HUB,T1,INCL
20101 CHG,ACCMD,T1,AIS,INCL
20111 CHG,TACC,T1,INCL
20201 DISC,TACC,T1,OOS
20202 DISC,TACC,T1,ALL,OOS
20301 OPR,LPBK,T1,LPBKT,INCL

21001 CONN,TACC,T0,MON
21011 CHG,TACC,T0,MON
21021 CONN,TACC,T0,TG,MON
21031 CHG,TACC,T0,TG,MON

23001 CHG,TACC,T0,SPLT
23021 CHG,TACC,T0,TG,SPLT

24001 CONN,HUB,T0
24021 CONN,HUB,T0,TG

25101 CHG,TL,T0,TERM,F,T,B,L,G,A,NOT
25121 CHG,TL,T0,TG,TERM,F,T,B
25501 DISC,TACC,T0,RLS,F,T,B,L,G,A
25521 DISC,TACC,T0,TG,RLS,F,T,B

26101 ALW,LPBK,T1,DGA,DGB,DGC,DGD
26111 INH,LPBK,T1,DGA,DGB,DGC,DGD
26121 OPR,LPBK,T1,DGA,DGB,DGC,DGD
26131 RLS,LPBK,T1,DGA,DGB,DGC,DGD
26141 OPR,LPBK,T1
26151 RLS,LPBK,T1

27001 DISC,TACC,T0,OOS
27002 DISC,TACC,T0,ALL,OOS
27021 DISC,TACC,T0,TG,OOS

28101 OPR,TSIG,T1
28201 RLS,TSIG,T1

29001 OPR,LPBK,T0
29021 OPR,LPBK,T0,TG

30101 ED,PRMTR,NE,FRAME,CHAR

31101 CRTE,EQPT,SYNC
31111 CRTE,EQPT,SYNC,TLI
31121 CRTE,EQPT,SYNC,TLI,SSP,SRC
31211 CRTE,CNFGRN,EQPT,UNIT
31321 CRTE,EQPT,UNIT,FTMI,EQL
31341 CRTE,EQPT,NPC,IW,X,INCL,AIS
31351 CRTE,EQPT,NPC
31352 CRTE,EQPT,NPC,IW,X,INCL,AIS
31371 CRTE,EQPT,NPC,IW,X
31381 CRTE,EQPT,NPC,NPCTP
31401 CRTE,EQPT,NPC,NPCTG
31411 CRTE,EQPT,TP
31421 CRTE,EQPT,TG
31501 CRTE,EQPT,UNIT,MIU
31511 CRTE,EQPT,UNIT,MXR,BERM,BERT
31521 COPY,EQPT,NPC

32101 DISC,EQPT,SYNC,TB
32121 DISC,EQPT,SYNC,TLI,SSP

32211 DISC,EQPT,UNIT
32321 DISC,EQPT,UNIT,FTMI
32341 DISC,EQPT,NPC
32381 DISC,EQPT,NPC,NPCTP,TPR
32401 DISC,EQPT,NPC,NPCTG,TGR
32411 DISC,EQPT,TP
32421 DISC,EQPT,TG
32501 DISC,EQPT,UNIT,MXR
32511 DISC,EQPT,UNIT,MIU

33001 RMV,EQPT,MC
33011 RMV,EQPT,LINK
33101 RMV,EQPT,SYNC
33111 RMV,EQPT,TLI,CRO
33121 RMV,EQPT,SYNC,TLI,SSP
33201 RMV,EQPT,CCNI
33202 RMV,EQPT,CCB
33211 RMV,EQPT,DISK,TAPE
33221 RMV,EQPT,TSI
33231 RMV,CNFGRN,EQPT,UNIT,CCN,TSIS
33241 RMV,EQPT,CCN,TSIS
33251 RMV,EQPT,CCI
33261 RMV,EQPT,ETSI
33271 RMV,EQPT,ETSIS,ECCN
33311 RMV,EQPT,UNIT,UC
33321 RMV,EQPT,UNIT,FTMI,DSPI
33331 RMV,EQPT,UNIT,FC
33351 RMV,EQPT,NPC,SIDE,INCL
33401 RMV,EQPT,UNIT,FLI
33411 RMV,EQPT,UNIT,FMT
33421 RMV,EQPT,UNIT,MMFG,FRC,INCL
33431 RMV,EQPT,UNIT,MIU,INCL

34001 RST,EQPT,MC,MCOND,TAPE,NOJRNL
34011 RST,EQPT,LINK
34101 RST,EQPT,SYNC
34111 RST,EQPT,TLI,CRO
34121 RST,EQPT,SYNC,TLI,SSP
34201 RST,EQPT,CCNI
34202 RST,EQPT,CCB
34211 RST,EQPT,DISK,TAPE,CLR,CLEAN
34221 RST,EQPT,TSI
34231 RST,CNFGRN,EQPT,UNIT,CCN,TSIS
34241 RST,EQPT,TSIS,CCN
34251 RST,EQPT,CCI
34261 RST,EQPT,ETSI
34271 RST,EQPT,ETSIS,ECCN

34311 RST,EQPT,UNIT,UC
34321 RST,EQPT,UNIT,FTMI,DSPI
34331 RST,EQPT,UNIT,FC
34351 RST,EQPT,NPC,SIDE
34401 RST,EQPT,UNIT,FLI
34411 RST,EQPT,UNIT,FMT
34421 RST,EQPT,UNIT,MMFG,INCL
34431 RST,EQPT,UNIT,MIU,INCL

35001 SW,DX,EQPT,XC,INCL
35011 ENT,EQPT,SYNC,FPLL
35012 ED,PRMTR,EQPT,SYNC,STR2,STR3
35013 ED,PRMTR,EQPT,SYNC,MASTER
35021 INIT,SYS,FRAME
35101 SW,TOPROTN,EQPT,UNIT,FLI
35105 SW,TOWKG,EQPT,UNIT,FLI
35111 SW,TOPROTN,EQPT,UNIT,MMFG,FRC
35121 SW,TOWKG,EQPT,UNIT,MMFG
35301 ALW,SW,EQPT,UNIT,MMFG,PROTN
35311 INH,SW,EQPT,UNIT,MMFG,PROTN

36001 ED,PRMTR,LINK,PTCOL,S,X,T,M
36003 ED,PRMTR,LINK,K,T1,T3,N2,A,B
36005 ED,PRMTR,LINK,W,P,T20,T22,T23
36007 ED,PRMTR,LINK,APPL,ASCS,ASCD
36021 ED,ADD,MAP,NPC
36101 CRTE,LGN,NEW,PASSWD,REENTER
36103 SET,PRVG,USER,TERM,ALL,INCL
36201 ED,PRMTR,EQPT,DGA,DGB,DGC,DGD

37001 ED,DLT,MAP,NPC
37101 DLT,LGN
37201 DLT,MACRO,MAP
37211 DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD
37301 DLT,FPKG

38011 ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC
38101 ED,CNFGRN,EQPT,UNIT
38111 ED,PRMTR,EQPT,UNIT,FTMI,EQL
38201 ED,OPT,T1,NPC,TYPE,ALL
38211 ED,PRMTR,EQPT,NPC,IW,X,INCL
38221 ED,PRMTR,EQPT,NPC
38231 ED,PRMTR,EQPT,TYPE
38241 ED,PRMTR,EQPT,NPC,RT,DL,TYPE
38251 ED,PRMTR,NE,HUBID,O
38261 ED,PRMTR,NE,ECLOC,MJU,SRM
38271 ED,PRMTR,EQPT,NPC,IW,X,INCL

38281 ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT
38301 CHG,LGN,PASSWD
38351 ED,PRMTR,EQPT,RT,DL
38361 ED,PRMTR,EQPT,RT,RTF,SWMN
38401 SET,PRVG,TERM,USER,INCL,SCR,GR
38501 ED,PRMTR,MACRO,MAP
38601 ED,PRMTR,T3,UNIT,DS3,BERM,BERT

39001 LGN,USER
39101 LGT,TERM,USER,INCL
39201 EXC,MAP,CLR,INCL
39301 EXC,MACRO
39311 ABT,PROC
39401 SW,TOPROTN,T1,NPC,RT,INCL
39411 ALW,SW,T1,NPC,RT,INCL
39421 INH,SW,T1,NPC,RT,FRC,INCL
39431 SW,TOWKG,T1,NPC,RT,DL,INCL

41001 DGN,EQPT,MC,CFT,X
41004 DGN,EQPT,IN,PROGRESS
41011 DGN,EQPT,LINK,CFT,X
41021 DGN,EQPT,MP,CFT,X
41031 DGN,EQPT,CI,CFT,X
41041 DGN,EQPT,SSC,CFT,X
41051 DGN,EQPT,DISK,CFT,X,VERIFY
41061 DGN,EQPT,TAPE,CFT,X,PROG,DBASE
41101 DGN,EQPT,SYNC
41111 DGN,EQPT,SYNC,TLI,CRO
41121 DGN,EQPT,SYNC,TLI,SSP
41201 DGN,EQPT,CCNI,CFT,X
41211 DGN,EQPT,CCB,CFT,X
41221 DGN,EQPT,TSI,CFT,X
41232 DGN,EQPT,TSI,CCN,UNIT
41241 DGN,EQPT,TSI,CCN,ALL
41251 DGN,EQPT,CCI,CFT,X
41261 DGN,EQPT,ETSI,CFT,X
41271 DGN,EQPT,ETSIS,ECCN,ALL
41311 DGN,EQPT,UNIT,UC,CFT,X
41321 DGN,EQPT,UNIT,FTMI,CFT,X
41331 DGN,EQPT,UNIT,FC,CFT,X
41341 DGN,EQPT,UNIT,DSPI,CFT,X
41351 DGN,EQPT,NPC,SIDE,CFT,X
41361 DGN,EQPT,NPC
41401 DGN,EQPT,UNIT,FLI,CFT,X
41411 DGN,EQPT,UNIT,FMT,CFT,X
41421 DGN,EQPT,UNIT,MXR,DEV,CFT,X
41431 DGN,EQPT,UNIT,MIU,CFT,X

51011 SCHED,PMREPT,ALL,CFA,FAC,X
51021 ED,DATE,INT
51031 RTRV,HDR
51041 RTRV,HDR,NE
51051 SCHED,BKUP,MEM,SEC,DATA,HR
51061 RTRV,BKUPSCHED,MEM,SEC,DATA
51071 RTRV,PMREPT,SCHED,CFA,MONDAT
51081 RST,PASSWD
51091 RTRV,PRMTR,NE
51101 SET,ATTR,EQPT,ALM
51111 OPR,ACO,ALL
51121 RTRV,FPKG,NE
51131 RTRV,PRMTR,SQN
51141 SCHED,PMREPT,T1,NPC
51151 RTRV,PMSCHED,T1,NPC,ALL
51161 INH,PMREPT,T1,NPC,ALL
51171 ALW,PMREPT,T1,NPC,ALL
51181 RTRV,SYSID
51501 RTRV,PRMTR,NE,HUBID
51511 RTRV,PRMTR,NE,ECLOC

52011 RTRV,CRS,T1,MAP
52031 RTRV,CRS,T1,NPC,MAP
52041 RTRV,PRMTR,T0,TO
52051 RTRV,PRMTR,T0,FROM
52061 RTRV,PRMTR,T1,TO
52071 RTRV,PRMTR,T1,FROM
52081 RTRV,ROLL,T0,NPC,ALL,UNIT
52091 RTRV,ROLL,T1,NPC,ALL,UNIT
52101 RTRV,BDCST,T0,ALL
52111 RTRV,BDCST,T0
52121 RTRV,BDCST,T1,FROM
52201 RTRV,PRMTR,T1,MARK
52211 RTRV,PRMTR,T0,MARK
52311 RTRV,CRS,T1,RTMAP,DLMAP
52321 RTRV,PRMTR,EQPT,NPC,SCDG,STATE
52501 RTRV,STATE,TS
52511 RTRV,CRS,TS
52521 RTRV,PRMTR,TS
52531 RTRV,EQPT,TS,SRHDW
52581 RTRV,PRMTR,EQPT,LOAD,TOTAL

53001 RTRV,STATE,EQPT,SYNC,EQPD
53011 RTRV,STATE,EQPT,UNIT,EQPD
53021 RTRV,STATE,EQPT,TSI,EQPD
53022 RTRV,STATE,EQPT,ETSI,EQPD

53031 RTRV,CNFGRN,EQPT,UNIT,EQPD
53041 RTRV,STATE,EQPT,NPC,EQPD,TOTAL
53051 RTRV,OPT,T1,NPC,ALL
53061 RTRV,TACC,T1
53071 RTRV,STATE,EQPT,UNIT,FTMI
53081 RTRV,TACC,T0,TG
53091 RTRV,TACC,T0,NPCTG
53101 RTRV,STATE,EQPT,UNIT,ALL
53103 RTRV,STATE,EQPT,UNIT,PEST,FAIL
53104 RTRV,STATE,COM,ALL
53105 RTRV,STATE,COM,PEST,FAIL,OOS
53108 RTRV,STATE,EQPT,UNIT,EQPD
53109 RTRV,STATE,COM,EQPD
53111 RTRV,ALM,EQPT
53121 RTRV,COND,EQPT,NPC,CS
53141 RTRV,ALM,EQPT,RT,DL
53151 RTRV,ALM,EQPT,DBASE
53161 RTRV,STATE,EQPT,NPC,TSIG
53201 RTRV,STATE,EQPT,MIU,EQPD
53211 RTRV,STATE,EQPT,MXR,EQPD
53221 RTRV,PRMTR,T3,UNIT,BERMT
53231 RTRV,PRMTR,T3,LBO

54001 RTRV,PRVG,TERM,USER,ALL
54011 RTRV,PRVG,USER,LOG,ALL
54101 RTRV,MAP,COM
54111 RTRV,MAP,EQPT,NPC
54121 RTRV,MACRO
54131 RTRV,MACRO,COM
54201 RTRV,PRMTR,MAP,ATTR,ALL
54211 RTRV,PRMTR,MACRO,ATTR,ALL
54221 RTRV,PRMTR,MACRO,MAP,SPACE,ALL
54340 RTRV,STATE,EQPT,ACO

55011 RTRV,LOG,ERR,SWER,HWER,INT
55021 REPT,RECOVY,EQPT,COND,RTRV,IN
55111 RTRV,REG,EQPT,MP,ESR
55113 RTRV,PRMTR,LINK
55181 RTRV,REG,EQPT,XCSB,UNIT
55191 RTRV,REG,EQPT,XC,STR
55201 RTRV,REG,EQPT,SYNC,STR
55311 RTRV,REG,EQPT,SYNC,TLI,STR
55321 RTRV,REG,EQPT,SYNC,TLI,SSP,STR
55401 RTRV,REG,EQPT,CCN,ESR
55411 RTRV,REG,EQPT,ECCN,ESR
55501 RTRV,REG,EQPT,UNIT,ESR
55511 RTRV,REG,EQPT,UNIT,FTMI,ESR

55521 RTRV,REG,EQPT,UNIT,FC,ESR
55531 RTRV,REG,EQPT,UNIT,DSPI,ESR
55601 RTRV,REG,EQPT,NPC,SIDE,ESR
55701 CPY,MEM,PROG,DBASE,INSTL,INCL
55703 IN,PROGRESS
55704 REPT,EVT,EQPT,TABS,IN,PROGRESS
55705 REPT,EVT,EQPT,TABS
55711 ABT,CMD
55801 RTRV,REG,EQPT,UNIT,FLI,ESR
55811 RTRV,REG,EQPT,UNIT,FMT,ESR
55821 RTRV,REG,EQPT,UNIT,MXR,ESR
55831 RTRV,REG,EQPT,UNIT,MIU,ESR

56001 INIT,REG,NPC,RT,DL
56011 INIT,REG,ALL
56021 RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS
56031 RTRV,PRMTR,EQPT,NPC,ALL
56041 RTRV,PRMTR,EQPT,NPC,RT,DL
56051 INIT,REG,NPC
56052 INIT,REG,PWR,BMTRALM
56061 INIT,LOG,ERR,HWER,SWER
56071 INIT,REG,T1,NPC,ALL
56091 RTRV,PM,T1,NPC,ALL
56301 RTRV,STATE,EQPT,SYNC
56311 RTRV,STATE,EQPT,NPC
56314 RTRV,STATE,EQPT,NPC
56331 RTRV,ALM,T3
56361 RTRV,STATE,T3,UNIT,DS3
56401 RTRV,LOC,EQPT
56501 RTRV,EVT,TS,SROOF,ALL
56511 RTRV,STATE,EQPT,UNIT,PROTN

58001 STA,LOCL,RST,PRI,SEC,CLR
58011 REPT,EVT,EQPT,MC,MCOND

61011 REPT,PM,T1,NPC,PARAM,COUNT

65011 REPT,ALM,EQPT,AR01,MISC,NPC,MJ
65021 REPT,ALM,EQPT,AR01,MISC,NPC
65031 REPT,ALM,EQPT,NPC,MJ,MN,INFO
65041 REPT,ALM,EQPT,NPC,IDLD
65051 REPT,ALM,EQPT,RESET,DATE,TOD
65053 REPT,ALM,EQPT,BOOT,FAILED,BAD
65054 REPT,ALM,EQPT,CCN,MJ,IDLD,OOS
65055 REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS
65056 REPT,ALM,EQPT,BMTR,TAPE,MN
65061 REPT,EVT,T1,NPC,CONDTYPE

65071 REPT,OPR,ACO,ALL

65131 REPT,ALM,EQPT,SC,ALARM,NPC,RT
65141 REPT,ALM,SC,ALARM,RT,DL,FE
65151 REPT,ALM,EQPT,SC,DPLX,ALARM
65161 REPT,ALM,SC,ALARM,MC,UC,FTMI
65171 REPT,ALM,EQPT,SC,ALARM,RT,COMP

66001 REPT,ALM,T3,UNIT,DS3
66011 REPT,ALM,T3,IDLD,UNIT,DS3

81001 RTRV,ALM,EQPT,NPC,CFA,CGA,LOS
81002 RTRV,ALM,EQPT,NPC,CFA,CGA,LOS
81003 RTRV,EVT,EQPT,NPC,BER,FTU,DS3U
81004 RTRV,ALM,EQPT,NPC,CFA,CGA,LOS
81005 RTRV,EVT,EQPT,NPC,BER,NPCS

82001 REPT,DGNDET,EQPT,DEV
82002 REPT,DGNDET,EQPT
82003 REPT,DGNDET,EQPT
82004 REPT,AUD,EQPT,MP,CI,DISK,TAPE

Summary of Input Commands

[I.55711]

```
ABT-CMD;
```

[I.39311]

```
ABT-PROC:[<xy>]::[ww]:[l[mm]];
```

[I.26101]

```
ALW-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}\
:[ww]:LLB:[{TO|FROM}]:RT-ffff;
```

[I.51171]

```
ALW-PMREPT-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

[I.51171]

```
ALW-PMREPT-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

[I.35301]

```
ALW-SW-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG};
```

[I.39411]

```
ALW-SW-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[INCL];
```

[I.39411]

```
ALW-SW-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[INCL];
```

[I.19041]

```
APPEND[:[<xy>]:{<line number>|END}:[ww]:];
```

[I.20101]

```
CHG-ACCMD-T1:[<xy>]:[s]abc[&[t]def]:[ww]:<tmode>:[AIS]:[INCL];
```

[I.20101]

```
CHG-ACCMD-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:<tmode>:[AIS]:[INCL];
```

[I.38301]

```
CHG-LGN:[<xy>]::[ww]:[<old password>:<new password>];
```

[I.38301]

```
CHG-LGN:[<xy>]::[ww];
      OLD PASSWD: (user enters the old password)
      NEW PASSWD: (user enters the new password)
      PASSWD: (user re-enters the new password \
for verification)
```

[I.18001]

```
CHG-RPATH-T0:[<xy>]:[s]abc-ddd[&[t]ghi-jjj&[u]klm-nnn&..]:[ww]\
:[INCL];
```

[I.18001]

```
CHG-RPATH-T0:[<xy>]:uv-m-np-ddd[&wx-k-qr-jjj&ed-h-fg-nnn&..]\
:[ww]:[INCL];
```

[I.18011]

```
CHG-RPATH-T1:[<xy>]:[s]ghi[&[t]jkl][&[v]mno][...]:[ww]:[INCL];
```

[I.18011]

```
CHG-RPATH-T1:[<xy>]:uv-m-np[&wx-k-qr][&ed-h-fg][...]:[ww]\
:[INCL];
```

[I.21011]

```
CHG-TACC-T0:[<xy>]::[ww]:kk:[<tc>]:MON;
```

[I.23001]

```
CHG-TACC-T0:[<xy>]::[ww]:kk:SPLT;
```

[I.21031]

```
CHG-TACC-T0:[<xy>]::[ww]:TG-mmm:MON;
```

[I.23021]

```
CHG-TACC-T0:[xy]::[ww]:TG-mmm:SPLT;
```

[I.20111]

```
CHG-TACC-T1:[<xy>]:[s]abc[&[t]def]:[ww]:\
{[<emode>][,<fmode>]}:[INCL];
```

[I.20111]

```
CHG-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:\
{[<emode>][,<fmode>]}:[INCL];
```

[I.19626]

```
CHG-TACC-TS:[<xy>]::[ww]:kk:MON;
```

[I.19656]

```
CHG-TACC-TS:[<xy>]::[ww]:kk:SPLT;
```

[I.25101]

```
CHG-TL-T0:[<xy>]::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv];
```

[I.25101]

```
CHG-TL-T0:[<xy>]::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-uv-m-np-vvv];
```

[I.25121]

```
CHG-TL-T0:[xy]::[ww]:TG-mmm:TERM{F|T|B};
```

[I.19661]

```
CHG-TL-TS:[<xy>]::[ww]:kk:TERM{F|T|B};
```

[I.13001]

```
CONN-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj\
[&[t]klm-nnn&..]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM];
```

[I.13001]

```
CONN-BDCST-T0:[xy]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj\
[&ed-h-fg-nnn&..]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM];
```

[I.13002]

```
CONN-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM];
```

[I.13002]

```
CONN-BDCST-T0:[xy]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM];
```

[l.13011]

```
CONN-BDCST-T1:[xy]:[s]abc,[u]ghi[&[v]jkl][&[t]mno]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}];
```

[l.13011]

```
CONN-BDCST-T1:[xy]:uv-m-np,wx-k-qr[&ed-f-hg][&st-m-no]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}];
```

[l.13021]

```
CONN-BDCST-T1:[<xy>]:[s]abc,[t]def:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}];
```

[l.13021]

```
CONN-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}];
```

[l.11001]

```
CONN-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}];
```

[l.11001]

```
CONN-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}];
```

[l.11021]

```
CONN-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}];
```

[l.11021]

```
CONN-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}];
```

[l.11011]

```
CONN-CRS-T1:[<xy>]:abc,ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}];
```

[l.11011]

```
CONN-CRS-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}];
```

[I.19221]

```
CONN-CRS-TS:<xy>:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM];
```

[I.19221]

```
CONN-CRS-TS:<xy>:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM];
```

[I.19321]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM;
```

[I.19321]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM;
```

[I.19201]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM];
```

[I.19201]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM];
```

[I.19211]

```
CONN-CRS-TS:<xy>:[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:[NORM,NORM];
CONN-CRS-TS:<xy>:[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:\
[ww]:RATE-rr:[NORM,NORM];
```

[I.19211]

```
CONN-CRS-TS:<xy>:uv-m-np-ddd&&-eee[-01],\
wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:[NORM,NORM];
CONN-CRS-TS:<xy>:uv-m-np-ddd-ff&&-mm,\
wx-k-qr-jjj-ll&&-nn:[ww]:RATE-rr:[NORM,NORM];
```

[I.19301]

```
CONN-CRS-TS:<xy>:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM;
```

[I.19301]

```
CONN-CRS-TS:<xy>:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM;
```

[I.19311]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:TERM,TERM;
```

[I.19311]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:\
[ww]:RATE-rr:TERM,TERM;
```

[I.19311]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd&&-eee[-01],\
wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:TERM,TERM;
```

[I.19311]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd-ff&&-mm,\
wx-k-qr-jjj-ll&&-nn:[ww]:RATE-rr:TERM,TERM;
```

[I.11101]

```
CONN-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:[{NORM|TERM}];
```

[I.11101]

```
CONN-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:[{NORM|TERM}];
```

[I.11121]

```
CONN-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}];
```

[I.11121]

```
CONN-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}];
```

[I.11131]

```
CONN-CRS1-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}];
```

[I.11131]

```
CONN-CRS1-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}];
```

[I.24001]

```
CONN-HUB-T0:[<xy>]:[t]ghi-jjj:[ww]:kk:<tc>;
```

[I.24001]

```
CONN-HUB-T0:[<xy>]:uv-m-np-jjj:[ww]:kk:<tc>;
```

[I.24021]

```
CONN-HUB-T0:[xy]:[s]abc-ddd,[t]ghi-jjj:[ww]:TG-mmm:[<tc>];
```

[I.24021]

```
CONN-HUB-T0:[xy]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:TG-mmm:[<tc>];
```

[I.20031]

```
CONN-HUB-T1:[<xy>]:[s]abc,[t]jkl:[ww]:[INCL];
```

[I.20031]

```
CONN-HUB-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL];
```

[I.21001]

```
CONN-TACC-T0:[<xy>]:[t]ghi-jjj:[ww]:kk:[<tc>]:MON;
```

[I.21001]

```
CONN-TACC-T0:[<xy>]:uv-m-np-jjj:[ww]:kk:[<tc>]:MON;
```

[I.21021]

```
CONN-TACC-T0:[xy]:[t]ghi-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON;
```

[I.21021]

```
CONN-TACC-T0:[xy]:wx-k-qr-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON;
```

[I.20001]

```
CONN-TACC-T1:[<xy>]:[s]abc[&[t]def],[u]ghi[,[v]jkl]:[ww]:<tmode>\
:[AIS]:[INCL];
```

[I.20001]

```
CONN-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr],eg-h-ij[,jk-l-mn]:[ww]:<tmode>\
:[AIS]:[INCL];
```

[I.19601]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:MON;
```

[I.19601]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:MON;
```

[I.19621]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:MON:MJU-ssss\
:[BRi];
```

[I.19621]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:MON:MJU-ssss\
:[BRi];
```

[I.19631]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:SPLT;
```

[I.19631]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:SPLT;
```

[I.19651]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi];
```

[I.19651]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi];
```

[I.31521]

```
COPY-EQPT:[<xy>]:NPC-[s]abc,[t]def[&&-[u]ghi]:[ww];
```

[I.31521]

```
COPY-EQPT:[<xy>]:NPC-uv-m-np,wx-k-qr[&&&-gh-i-kl]:[ww];
```

[I.55701]

```
CPY-MEM:[<xy>]::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL];
```

[I.31211]

```
CRTE-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:\
[a[,b[,c[,d[,e [,f]]]]]]:[utxyz];
```

[I.31211]

```
CRTE-CNFGRN-EQPT:[<xy>]:UNIT-[q]q:[ww]::[utxyz];
```

[I.19101]

```
CRTE-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}];
```

[I.19101]

```
CRTE-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}];
```

[I.19111]

```
CRTE-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}];
```

[I.19111]

```
CRTE-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}];
```

[I.31351]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:mnxyz;
```

[I.31351]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:mnxyz;
```

[I.31371]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:DSxyz:\
[rr/m[&rr/m [...]]]:[IW-X-pq];
```

[I.31371]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:\
DSxyz:[rr/m[&rr/m [...]]]:[IW-X-pq];
```

[I.31341]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:mnxyz:[rr/m][&rr/m]\
[...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}];
```

[I.31341]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz:[rr/m][&rr/m]\
[...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}];
```

[I.31352]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][&...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}];
```

[I.31352]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[mnxyz]:\
[rr/m][&rr/m][&...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}];
```

[I.31401]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:NPCTG-rrr;
```

[I.31401]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:NPCTG-rrr;
```

[I.31381]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:NPCTP-n;
```

[I.31381]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:NPCTP-n;
```

[I.31101]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TBpqr;
```

[I.31111]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TBpqr:TLI-3;
```

[I.31121]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TLI-m:\
{texyz,SSP-a,SRC-p|TDxyz};
```

[I.31421]

```
CRTE-EQPT:[<xy>]:TG-mmm:[ww]:rrr-eee[&&-fff],sss-www[&&-xxx]\
:[<tc>];
```

[I.31411]

```
CRTE-EQPT:[<xy>]:TP-kk:[ww]:[<tc>];
```

[I.31321]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:EQL-1,r;
```

[I.31501]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[mnxyz];
```

[I.31511]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c[&&-d]:[mnxyz]:[BERM-s]\
[,BERT-t][,LBO-<b>];
```

[I.36101]

```
CRTE-LGN:[<xy>]::[ww]:<user id>[,NEW];
```

PASSWD: (The frame administrator enters user password.)

REENTER PASSWD: (The frame administrator again enters the user password.)
[I.36101]

```
CRTE-LGN:[<xy>]::[ww]:<user id>,[NEW],<user password>;
```

[I.19051]

```
DELETE[:[<xy>]:{<starting line>|END}[-{<ending line>|END}]:\
[ww]:];
```

[I.41211]

```
DGN-EQPT:[<xy>]:CCB-sf:[ww]:[CFT-X-vwxy];
```

[I.41251]

```
DGN-EQPT:[<xy>]:CCI-s:[ww]:[CFT-X-vwxy];
```

[I.41201]

```
DGN-EQPT:[<xy>]:CCNI-s:[ww]:[CFT-X-vwxy];
```

[I.41031]

```
DGN-EQPT:[<xy>]:CI:[ww]:[CFT-X-vwxy];
```

[I.41051]

```
DGN-EQPT:[<xy>]:DISK:[ww]:[CFT-X-vwxy]:[VERIFY];
```

[I.41261]

```
DGN-EQPT:[<xy>]:ETSI-sqq:[ww]:[CFT-X-vwxy];
```

[I.41271]

```
DGN-EQPT:[<xy>]:ETSIS:[ww]:ECCN-s:ALL;
```

[I.41011]

```
DGN-EQPT:[<xy>]:LINK-a:[ww]:[CFT-X-vwxy];
```

[I.41001]

```
DGN-EQPT:[<xy>]:MC:[ww]:[CFT-X-vwxy];
```

[I.41021]

```
DGN-EQPT:[<xy>]:MP:[ww]:[CFT-X-vwxy];
```

[I.41361]

```
DGN-EQPT:[<xy>]:NPC-[s]abc&&-[t]def:[ww];
```

[I.41361]

```
DGN-EQPT:[<xy>]:NPC-uv-m-np&&&-uv-k-qr:[ww];
```

[I.41351]

```
DGN-EQPT:[<xy>]:NPC-[s]abc:[ww]:[[SIDE-s]:[CFT-X-vwxy]];
```

[I.41351]

```
DGN-EQPT:[<xy>]:NPC-uv-m-np:[ww]:[[SIDE-s]:[CFT-X-vwxy]];
```

[I.41041]

```
DGN-EQPT:[<xy>]:SSC:[ww]:[CFT-X-vwxy];
```

[I.41101]

```
DGN-EQPT:[<xy>]:SYNC-a:[ww];
```

[I.41111]

```
DGN-EQPT:[<xy>]:SYNC:[ww]:TLI-3:CRO;
```

[I.41121]

```
DGN-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

[I.41061]

```
DGN-EQPT:[<xy>]:TAPE:[ww]:[{CFT-X-vwxy|PROG|DBASE}];
```

[I.41241]

```
DGN-EQPT:[<xy>]:TSI:[ww]:CCN-s:ALL;
```

[I.41232]

```
DGN-EQPT:[<xy>]:TSI:[ww]:CCN-s:UNIT-q\
:[a[,b[,c[,d[,e[,f]]]]]];
```

[I.41221]

```
DGN-EQPT:[<xy>]:TSI-sft:[ww]:[CFT-X-vwxy];
```

[I.41341]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:DSPI:[CFT-X-vwxy];
```

[I.41331]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb:[CFT-X-vwxy];
```

[I.41401]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k:[CFT-X-vwxy];
```

[I.41411]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy];
```

[I.41321]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:[CFT-X-vwxy];
```

[I.41431]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c:[CFT-X-vwxy];
```

[I.41421]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c:[DEV-devc\
:[CFT-X-vwxy]];
```

[I.41311]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC:[CFT-X-vwxy];
```

[I.15201]

```
DISC-BDCST-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC][,CONV];
```

[I.15201]

```
DISC-BDCST-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC][,CONV];
```

[l.15211]

```
DISC-BDCST-T0:[<xy>]:[s]abc-ddd[&&-eee],\
[t]ghi-jjj[&[u]klm-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV];
```

[l.15211]

```
DISC-BDCST-T0:[<xy>]:uv-m-np-ddd[&&-eee],\
wx-k-qr-jjj[&ed-h-fg-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV];
```

[l.15221]

```
DISC-BDCST-T1:[<xy>]:[s]abc,[t]ghi[&[u]jkl][&[v]mno][...]:\
[ww]:[INCL]:[OOS][,CONV];
```

[l.15221]

```
DISC-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr[&ed-h-fg][&op-q-rs][...]:\
[ww]:[INCL]:[OOS][,CONV];
```

[l.15231]

```
DISC-BDCST-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS][,CONV];
```

[l.15231]

```
DISC-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS][,CONV];
```

[l.15002]

```
DISC-CRS-T0:[<xy>]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]:\
[DCC][,OOS];
```

[l.15002]

```
DISC-CRS-T0:[<xy>]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]:\
[DCC][,OOS];
```

[l.15001]

```
DISC-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[s]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

[l.15001]

```
DISC-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

[l.15011]

```
DISC-CRS-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS];
```

[I.15011]

```
DISC-CRS-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS];
```

[I.19421]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>];
```

[I.19421]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>];
```

[I.19431]

```
DISC-CRS-TS::[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL];
```

[I.19431]

```
DISC-CRS-TS::[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL];
```

[I.19401]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:\
[ww]:[RATE-rr];
```

[I.19401]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:\
[ww]:[RATE-rr];
```

[I.19411]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd{&&-eee[-01]|-ff&&-mm},\
[t]ghi-jjj{&&-kkk[-01]|-ff&&-mm}:[ww]:[RATE-rr];
```

[I.19411]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd{&&-eee[-01]|-ff&&-mm},\
wx-k-qr-jjj{&&-kkk[-01]|-ll&&-nn}:[ww]:[RATE-rr];
```

[I.15101]

```
DISC-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

[I.15101]

```
DISC-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC];
```

[I.15102]

```
DISC-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

[I.15102]

```
DISC-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC];
```

[I.15111]

```
DISC-CRS1-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS];
```

[I.15111]

```
DISC-CRS1-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS];
```

[I.32341]

```
DISC-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

[I.32341]

```
DISC-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww];
```

[I.32401]

```
DISC-EQPT:[xy]:NPC-[s]abc:[ww]:NPCTG-rrr:[TGR];
```

[I.32401]

```
DISC-EQPT:[xy]:NPC-uv-m-np:[ww]:NPCTG-rrr:[TGR];
```

[I.32381]

```
DISC-EQPT:[xy]:NPC-[s]abc:[ww]:NPCTP-n:[TPR];
```

[I.32381]

```
DISC-EQPT:[xy]:NPC-uv-m-np:[ww]:NPCTP-n:[TPR];
```

[I.32101]

```
DISC-EQPT:[<xy>]:SYNC:[ww]:TB;
```

[I.32121]

```
DISC-EQPT:[<xy>]:SYNC:[ww]:TLI-m:[SSP-a];
```

[I.32421]

```
DISC-EQPT:[<xy>]:TG-mmm[&&-nnn]:[ww];
```

[I.32411]

```
DISC-EQPT:[<xy>]:TP-kk:[ww];
```

[I.32211]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww];
```

[I.32321]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d;
```

[I.32511]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d];
```

[I.32501]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c[&&-d];
```

[I.27002]

```
DISC-TACC-T0:[<xy>]::[ww]:ALL:[OOS];
```

[I.27001]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:[OOS];
```

[I.25501]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:RLS{F|T|B|L|G|A}\
:[NOT-[t]rst-vvv];
```

[I.25501]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:RLS{F|T|B|L|G|A}\
:[NOT-uv-m-np-vvv];
```

[I.27021]

```
DISC-TACC-T0:[xy]::[ww]:TG-mmm[&&-nnn]:[OOS];
```

[I.25521]

```
DISC-TACC-T0:[xy]::[ww]:TG-mmm:RLS{F|T|B};
```

[I.20202]

```
DISC-TACC-T1:[<xy>]::[ww]:ALL:[OOS];
```

[I.20201]

```
DISC-TACC-T1:[<xy>]:[s]abc[&[t]def]:[ww]:[OOS];
```

[I.20201]

```
DISC-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:[OOS];
```

[I.19671]

```
DISC-TACC-TS:[<xy>]::[ww]:kk;
```

[I.19681]

```
DISC-TACC-TS:[<xy>]::[ww]:{ALL|LINKS};
```

[I.19666]

```
DISC-TACC-TS:[<xy>]::[ww]:kk:RLS{F|T|B};
```

[I.19151]

```
DLT-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC];
```

[I.19151]

```
DLT-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC];
```

[I.37301]

```
DLT-FPKG:[<xy>]::[ww]:nnnnnnnn;
```

[I.37101]

```
DLT-LGN:[<xy>]::[ww]:<user id>;
```

[I.37201]

```
DLT-{MACRO|MAP}:[<xy>]::[ww]:{<macro name>|<map name>}:\
[<user id>];
```

[I.37211]

```
DLT-PRMTR-EQPT:[<xy>]:[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd] [,DGP-[s]ppp]:[ww]:{RT|DL}-ffff;
```

[I.37211]

```
DLT-PRMTR-EQPT:[<xy>]:[DGA-uv-j-ab][,DGB-uv-k-cd]\
[,DGC-uv-l-ef][,DGD-uv-m-gh][,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff;
```

[I.36021]

```
ED-ADD-MAP:[<xy>]:NPC-{[s]abc&&-[t]def|[s]abc[&-[s]ghi]....\
[&-[t]def]};
```

[I.36021]

```
ED-ADD-MAP:[<xy>]:NPC-{uv-m-np&&&-wx-k-qr|\
uv-m-np[&-ab-c-de]....[&-wx-k-qr]};
```

[I.38101]

```
ED-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:a[,b[,c[,d[,e[,f]]]]];
```

[I.19581]

```
ED-CONN-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww];
```

[I.19581]

```
ED-CONN-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww];
```

[I.19591]

```
ED-CONN-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:MPTM;
```

[I.19591]

```
ED-CONN-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
MPTM;
```

[I.14001]

```
ED-CRS-T0:[xy]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL];
```

[I.14001]

```
ED-CRS-T0:[xy]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL];
```

[I.19501]

```
ED-CRTE-TS:[<xy>]:[s]abc-ddd[-eee],[t]ghi-jjj[-kkk]:[ww]\
:[PCH-ppp]:[DCC];
```

[I.19501]

```
ED-CRTE-TS:[<xy>]:uv-m-np-ddd[-eee],wx-k-qr-jjj[-kkk]:[ww]\
:[PCH-ppp]:[DCC];
```

[I.51021]

```
ED-DATE:[<xy>]::[ww]:[ce]yr-mo-da:[INT-ii];
```

[I.51021]

```
ED-DATE:[<xy>]::[ww]:,hr-mn-sc;
```

[I.37001]

```
ED-DLT-MAP:[<xy>]:NPC-{[s]abc&&-[s]def|[s]abc[&-[s]ghi]....\
[&-[t]def]};
```

[I.37001]

```
ED-DLT-MAP:[<xy>]:NPC-{uv-m-np&&&-wx-k-qr|uv-m-np\
[&-ab-c-de]....[&-wx-k-qr]};
```

[I.19001]

```
ED-{MACRO|MAP}:[<xy>]::[ww]:{<macro name>|<map name>};
```

[I.38201]

```
ED-OPT-T1:[<xy>]:NPC:[ww]:{TYPE-mn|ALL}:rr:a,b,c;
```

[I.36201]

```
ED-PRMTR-EQPT:[<xy>]:[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:\
[ww]:{RT|DL}-ffff,g[g]:[{sss|NDL|RTF}];
```

[I.36201]

```
ED-PRMTR-EQPT:[<xy>]:[DGA-uv-j-ab][,DGB-uv-k-cd]\
[,DGC-uv-l-ef][,DGD-uv-m-gh] [,DGP-uv-j-pr]:[ww]:\
{RT|DL}-ffff,g[g]:[{sss|NDL|RTF}];
```

[I.38221]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc:[ww]:rr/m[&rr/m][...];
```

[I.38221]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np:[ww]:rr/m[&rr/m][...];
```

[I.38281]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[t]ghi]:[ww]:{ALMOPT|PLOPT}:\
{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}};
```

[I.38281]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}};
```

[I.38211]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc:[ww]:mnxyz:[IW-X-pq[,INCL]];
```

[I.38211]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np:[ww]:mnxyz:[IW-X-pq[,INCL]];
```

[I.38271]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:mnxyz\
:[IW-X-pq[,INCL]];
```

[I.38271]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz\
:[IW-X-pq[,INCL]];
```

[I.38241]

```
ED-PRMTR-EQPT:[<xy>]:{NPC-[s]abc|RT-ffff|DL-ffff|TYPE-mnxyz}:\
[ww]:rr/m[&rr/m...];
```

[I.38241]

```
ED-PRMTR-EQPT:[<xy>]:{NPC-uv-m-np|RT-ffff|DL-ffff|TYPE-mnxyz}:\
[ww]:rr/m[&rr/m...];
```

[I.38351]

```
ED-PRMTR-EQPT:[<xy>]::[ww]:{RT|DL}-ffff:{RT|DL}-gggg;
```

[I.38361]

```
ED-PRMTR-EQPT:[<xy>]::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x];
```

[I.35013]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:{MASTER|SLAVED};
```

[I.35012]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:{STR2|STR3|TOLL|LOCAL};
```

[I.38011]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:TLI-m:SSP-b:texyz;
```

[I.38011]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:SRC-i/a,b[&j/c,d[&k/e,f[&l/g,h]]];
```

[I.38231]

```
ED-PRMTR-EQPT:[<xy>]:TYPE-mnxyz:[ww]:rr/m[&rr/m][...];
```

[I.38111]

```
ED-PRMTR-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:EQL-l,r;
```

[I.36007]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:APPL-{ASCS|ASCD|PM}[,L2AD-aa]\
[,POLL-ttt];
```

[I.36003]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:[K-b][,T1-eee][,T3-ggg][,N2-aa]\
[,FRMAD-{A|B}];
```

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-{S|X|T|M}[,BAUD-bb]\
[,ALM-k][,BS-e][,ENQ-q][,XON-x]:[INIT];
```

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-S[,BAUD-bb][,ALM-k]\
[,BS-e][,ENQ-q][,XON-x]:[INIT];
```

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-X[,ALM-k]:[INIT];
```

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-T[,BAUD-bb][,ALM-k]\
:[INIT];
```

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-M[,ALM-k]:[INIT];
```

[I.36005]

```
ED-PRMTR-LINK:[<xy>]:l[mm]:[ww]:[W-c][,P-ddd][,T20-iii]\
[,T22-jjj][,T23-kkk][,T25-lll][,T26-mmm][,R20-nn][,R22-p]\
[,R23-qq][,R25-r][,DBIT-v][,VC-ppss&-gghh];
```

[I.38501]

```
ED-PRMTR-{MACRO|MAP}:[<xy>]::[ww]:sss;
```

[I.19031]

```
ED-PRMTR-MAP:[<xy>]::[ww]:<new map name>,\
<reference map name>;
```

[I.38261]

```
ED-PRMTR-NE:[<xy>]::[ww]:ECLOC:{MJU|SRM};
```

[I.30101]

```
ED-PRMTR-NE:[<xy>]::[ww]:<uid>[,FRAME-fg]:[CHAR-m];
```

[I.38251]

```
ED-PRMTR-NE:[<xy>]::[ww]:HUBID-0-ab;
```

[I.17001]

```
ED-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv];
```

[I.17001]

```
ED-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv];
```

[I.17002]

```
ED-PRMTR-T0:[<xy>]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee];
```

[I.17002]

```
ED-PRMTR-T0:[<xy>]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee];
```

[I.17011]

```
ED-PRMTR-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:{TERM|RLS}\
{F|T|B|A}:[NOT-[u]rst];
```

[I.17011]

```
ED-PRMTR-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:{TERM|RLS}\
{F|T|B|A}:[NOT-ed-h-fg];
```

[I.38601]

```
ED-PRMTR-T3:[<xy>]:UNIT-[q]q:[ww]:DS3-c[&&-d]:[BERM-s]\
[,BERT-t][,LBO-<b>][,TYPE-mnxyz];
```

[I.19561]

```
ED-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m;
```

[I.19561]

```
ED-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m;
```

[I.19551]

```
ED-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:{TERM|RLS}m;
```

[I.19551]

```
ED-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:{TERM|RLS}m;
```

[I.35011]

```
ENT-EQPT:[<xy>]:SYNC-a:[ww]:FPLL;
```

[I.39301]

```
EXC-MACRO:[<xy>]::[ww]:<macro name>:[<p1>[&<p2>[&<p3>\
[&...[&<p10>]]]]];
```

[I.39201]

```
EXC-MAP:[xy]::[ww]:<map name>:[CLR][,INCL];
```

[I.26111]

```
INH-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
{TO|FROM}:{RT|DL}-ffff;
```

[I.51161]

```
INH-PMREPT-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

[I.51161]

```
INH-PMREPT-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

[I.35311]

```
INH-SW-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG};
```

[I.39421]

```
INH-SW-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL];
```

[I.39421]

```
INH-SW-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL];
```

[I.56061]

```
INIT-LOG:[<xy>]::[ww]:ERR:{HWER|SWER};
```

[I.56011]

```
INIT-REG:[<xy>]::[ww]:<parameter>:ALL;
```

[I.56051]

```
INIT-REG:[<xy>]:NPC-[s]abc:[ww];
```

[I.56051]

```
INIT-REG:[<xy>]:NPC-uv-m-np:[ww];
```

[I.56001]

```
INIT-REG:[<xy>]:[NPC-[s]abc[&&-[t]def]]:[ww]:<parameter>\
:[{RT|DL}-ffff];
```

[I.56001]

```
INIT-REG:[<xy>]:[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:<parameter>\
:[{RT|DL}-ffff];
```

[I.56052]

```
INIT-REG:[<xy>]:{PWR-pp|BMTRALM}:[ww];
```

[I.56071]

```
INIT-REG-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,[aaaaa] \
,[locn],[dddd],[tttt];
```

[I.56071]

```
INIT-REG-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,[aaaaa] \
,[locn],[dddd],[tttt];
```

[I.35021]

```
INIT-SYS:[<xy>]:FRAME:[ww];
```

[I.39001]

```
LGN-USER:[<xy>]::[ww]:<user id>[,<user password>];
```

[I.39001]

```
LGN-USER:[<xy>]::[ww]:<user id>;
```

[I.39101]

```
LGT-{TERM|USER}:[<xy>]::[ww]:{1[mm][,INCL]|<user id>};
```

[I.19071]

```
LINE[:[<xy>]::[ww]:];
```

[I.19061]

```
LIST[:[<xy>]:{<starting line>|END}[-{<ending line>|END}]:\
[ww]:];
```

[I.19091]

```
MOVE:[<xy>]:{<starting line>|END}[-{<ending line>|END}],\
{<destination line>|END}:[ww]:;
```

[I.51111]

```
OPR-ACO-ALL:[<xy>]::[ww];
```

[I.29001]

```
OPR-LPBK-T0:[<xy>]::[ww]:kk:<tc>;
```

[I.29021]

```
OPR-LPBK-T0:[xy]::[ww]:TG-mmm:[<tc>];
```

[I.26141]

```
OPR-LPBK-T1:[<xy>]:[s]abc:[ww]:loop:locn;
```

[I.26141]

```
OPR-LPBK-T1:[<xy>]:uv-m-np:[ww]:loop:locn;
```

[I.26121]

```
OPR-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff;
```

[I.20301]

```
OPR-LPBK-T1:[<xy>]:[s]abc:[ww]:LPBKT:[INCL];
```

[I.20301]

```
OPR-LPBK-T1:[<xy>]:uv-m-np:[ww]:LPBKT:[INCL];
```

[I.28101]

```
OPR-TSIG-T1:[<xy>]:[s]abc:[ww]:test;
```

[I.28101]

```
OPR-TSIG-T1:[<xy>]:uv-m-np:[ww]:test;
```

[I.26151]

```
RLS-LPBK-T1:[<xy>]:[s]abc:[ww]:loop:locn;
```

[I.26151]

```
RLS-LPBK-T1:[<xy>]:uv-m-np:[ww]:loop:locn;
```

[I.26131]

```
RLS-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff;
```

[I.28201]

```
RLS-TSIG-T1:[<xy>]:[s]abc:[ww]:test;
```

[I.28201]

```
RLS-TSIG-T1:[<xy>]:uv-m-np:[ww]:test;
```

[I.33231]

```
RMV-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:CCN-s,TSIS:\
[(a[,b[,c[,d[,e[,f]]]]])];
```

[I.33202]

```
RMV-EQPT:[<xy>]:CCB-sf:[ww];
```

[I.33251]

```
RMV-EQPT:[<xy>]:CCI-s:[ww];
```

[I.33241]

```
RMV-EQPT:[<xy>]:CCN-s,TSIS:[ww];
```

[I.33201]

```
RMV-EQPT:[<xy>]:CCNI-s:[ww];
```

[I.33211]

```
RMV-EQPT:[<xy>]:{DISK|TAPE}:[ww];
```

[I.33261]

```
RMV-EQPT:[<xy>]:ETSI-sqq:[ww];
```

[I.33271]

```
RMV-EQPT:[<xy>]:ETSIS,ECCN-s:[ww];
```

[I.33011]

```
RMV-EQPT:[<xy>]:LINK-j:[ww];
```

[I.33001]

```
RMV-EQPT:[<xy>]:MC:[ww];
```

[I.33351]

```
RMV-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s]\
:[INCL];
```

[I.33351]

```
RMV-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s]\
:[INCL];
```

[I.33101]

```
RMV-EQPT:[<xy>]:SYNC-a:[ww];
```

[I.33121]

```
RMV-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

[I.33111]

```
RMV-EQPT:[<xy>]:TLI-3:[ww]:CRO;
```

[I.33221]

```
RMV-EQPT:[<xy>]:TSI-sft:[ww];
```

[I.33331]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb;
```

[I.33401]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k;
```

[I.33411]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s;
```

[I.33321]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:{FTMI-d|DSPI};
```

[I.33431]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL];
```

[I.33421]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:[FRC[,INCL]];
```

[I.33311]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC;
```

[I.34231]

```
RST-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:CCN-s,TSIS\
:[[a[,b[,c[,d[,e[,f]]]]]];
```

[I.34202]

```
RST-EQPT:[<xy>]:CCB-sf:[ww];
```

[I.34251]

```
RST-EQPT:[<xy>]:CCI-s:[ww];
```

[I.34201]

```
RST-EQPT:[<xy>]:CCNI-s:[ww];
```

[I.34211]

```
RST-EQPT:[<xy>]:{DISK|TAPE}:[ww]:[{CLR|CLEAN}];
```

[I.34261]

```
RST-EQPT:[<xy>]:ETSI-sqq:[ww];
```

[I.34271]

```
RST-EQPT:[<xy>]:ETSIS,ECCN-s:[ww];
```

[I.34011]

```
RST-EQPT:[<xy>]:LINK-j:[ww];
```

[I.34001]

```
RST-EQPT:[<xy>]:MC:[ww]:[{MCOND|TAPE|NOJRNL|FRC}];
```

[I.34001]

```
RST-EQPT:[<xy>]:MC:[ww]:CLR[,ALL];
```

[I.34351]

```
RST-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s];
```

[I.34351]

```
RST-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s];
```

[I.34101]

```
RST-EQPT:[<xy>]:SYNC-a:[ww];
```

[I.34121]

```
RST-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

[I.34111]

```
RST-EQPT:[<xy>]:TLI-3:[ww]:CRO;
```

[I.34221]

```
RST-EQPT:[<xy>]:TSI-sft:[ww];
```

[I.34241]

```
RST-EQPT:[<xy>]:TSIS,CCN-s:[ww];
```

[I.34331]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb;
```

[I.34401]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k;
```

[I.34411]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s;
```

[I.34321]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:{FTMI-d|DSPI};
```

[I.34431]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL];
```

[I.34421]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:[INCL];
```

[I.34311]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC;
```

[I.51081]

```
RST-PASSWD:[<xy>]::[ww];
```

[I.53111]

```
RTRV-ALM-EQPT:<xy>::[ww];
```

[I.53151]

```
RTRV-ALM-EQPT:[<xy>]::[ww]:DBASE;
```

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

[I.53141]

```
RTRV-ALM-EQPT:[<xy>]:{RT|DL}-ffff:[ww];
```

[I.56331]

```
RTRV-ALM-T3:[<xy>]::[ww];
```

[I.52111]

```
RTRV-BDCST-T0:[<xy>]:[s]abc-ddd:[ww];
```

[I.52111]

```
RTRV-BDCST-T0:[<xy>]:uv-m-np-ddd:[ww];
```

[I.52101]

```
RTRV-BDCST-T0:[<xy>]::[ww]:ALL;
```

[I.52121]

```
RTRV-BDCST-T1:[<xy>]:[s]abc:[ww]:FROM;
```

[I.52121]

```
RTRV-BDCST-T1:[<xy>]:uv-m-np:[ww]:FROM;
```

[I.51061]

```
RTRV-BKUPSCHED-MEM:[<xy>]:SEC:[ww]:DATA;
```

[I.53031]

```
RTRV-CNFGRN-EQPT:[<xy>]:UNIT:[ww]:EQPD;
```

[I.53121]

```
RTRV-COND-EQPT:[<xy>]:NPC-[s]abc:[ww]:CS;
```

[I.53121]

```
RTRV-COND-EQPT:[<xy>]:NPC-uv-m-np:[ww]:CS;
```

[I.52011]

```
RTRV-CRS-T1:[<xy>]:[s]abc[&&[t]def]:[ww]:MAP;
```

[I.52011]

```
RTRV-CRS-T1:[<xy>]:uv-m-np[&&&-wx-k-qr]:[ww]:MAP;
```

[I.52031]

```
RTRV-CRS-T1:[<xy>]:NPC:[ww]:MAP;
```

[I.52311]

```
RTRV-CRS-T1:[<xy>]::[ww]:[ffff]:{RTMAP|DLMAP};
```

[I.52511]

```
RTRV-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww];
```

[I.52511]

```
RTRV-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww];
```

[I.52531]

```
RTRV-EQPT-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:SRHDW;
```

[I.52531]

```
RTRV-EQPT-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:SRHDW;
```

[I.56501]

```
RTRV-EVT-TS:[<xy>]:[[s]abc-ddd[&&-eee]]:[ww]:SROOF:[ALL];
```

[I.56501]

```
RTRV-EVT-TS:[<xy>]:[uv-m-np-ddd[&&-eee]]:[ww]:SROOF:[ALL];
```

[I.51121]

```
RTRV-FPKG-NE:[<xy>]::[ww];
```

[I.51031]

```
RTRV-HDR:[<xy>]::[ww];
```

[I.51041]

```
RTRV-HDR-NE:[<xy>]::[ww];
```

[I.56401]

```
RTRV-LOC-EQPT:[<xy>]:<entity>:[ww]:[<arg>];
```

[I.55011]

```
RTRV-LOG:[<xy>]::[ww]:ERR:{SWER|HWER}[,{INT-mn|[DATE-\
[ce]yr-mo-da,]TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee]\
[,ERCL-{HARD|TRANS|APPINT}][,ENTY-<entity>];
```

[I.54121]

```
RTRV-MACRO:[<xy>]::[ww]:<name>:[<user id>];
```

[I.54131]

```
RTRV-MACRO-COM:[<xy>]::[ww]:<macro name>:[<user id>];
```

[I.54101]

```
RTRV-MAP-COM:[<xy>]::[ww]:<name>:[<user id>];
```

[I.54111]

```
RTRV-MAP-EQPT:[<xy>]:NPC:[ww]:<name>:[<user id>];
```

[I.53051]

```
RTRV-OPT-T1:[<xy>]:NPC:[ww]:[{mn|ALL}];
```

[I.56091]

```
RTRV-PM-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,aaaaa \
,[1111111111],[locn],[dddd],[tttt];
```

[I.56091]

```
RTRV-PM-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,aaaaa \
,[1111111111],[locn],[dddd],[tttt];
```

[I.51071]

```
RTRV-PMREPT-SCHED:[<xy>]::[ww]:[CFA],[MONDAT];
```

[I.51151]

```
RTRV-PMSCHED-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

[I.51151]

```
RTRV-PMSCHED-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

[I.52581]

```
RTRV-PRMTR-EQPT:[<xy>]::[ww]:LOAD:{[s]abc|TOTAL};
```

[I.52581]

```
RTRV-PRMTR-EQPT:[<xy>]::[ww]:LOAD:{uv-m-np|TOTAL};
```

[I.56031]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC:[ww]:<parameter>:ALL;
```

[I.56021]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS;
```

[I.56021]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS;
```

[I.56041]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-[s]abc[&&-[t]def]]:[ww]:\
<parameter>:[{RT|DL}-ffff];
```

[I.56041]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:\
<parameter>:[{RT|DL}-ffff];
```

[I.52321]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-[s]abc]:[ww]:SCDG:[STATE]:[{RT-ffff|\
DL-ffff|ALL}];
```

[I.52321]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-uv-m-np]:[ww]:SCDG:[STATE]\
:[{RT-ffff|DL-ffff|ALL}];
```

[I.55113]

```
RTRV-PRMTR-LINK:[<xy>]:j[mm][&&lnn]:[ww];
```

[I.54211]

```
RTRV-PRMTR-MACRO:[<xy>]::[ww]:ATTR:[{<user id>|ALL}];
```

[I.54221]

```
RTRV-PRMTR-{MACRO|MAP}:[<xy>]::[ww]:SPACE:[{<user id>|ALL|\
SYSTEM}];
```

[I.54201]

```
RTRV-PRMTR-MAP:[<xy>]::[ww]:ATTR:[{ALL|<user id>|<name>}];
```

[I.51091]

```
RTRV-PRMTR-NE:[<xy>]::[ww];
```

[I.51511]

```
RTRV-PRMTR-NE:[<xy>]::[ww]:ECLOC;
```

[I.51501]

```
RTRV-PRMTR-NE:[<xy>]::[ww]:HUBID;
```

[I.51131]

```
RTRV-PRMTR-SQN:[xy]::[ww];
```

[I.52051]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:FROM;
```

[I.52051]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:FROM;
```

[I.52211]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-jjj[&&-kkk]:[ww]:MARK;
```

[I.52211]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-jjj[&&-kkk]:[ww]:MARK;
```

[I.52041]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:TO;
```

[I.52041]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:TO;
```

[I.52071]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc:[ww]:FROM;
```

[I.52071]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np:[ww]:FROM;
```

[I.52201]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc[&&-[t]def]:[ww]:MARK;
```

[I.52201]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np[&&&-wx-k-qr]:[ww]:MARK;
```

[I.52061]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc:[ww]:TO;
```

[I.52061]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np:[ww]:TO;
```

[I.53231]

```
RTRV-PRMTR-T3:[<xy>]::[ww]:LBO;
```

[I.53221]

```
RTRV-PRMTR-T3:[<xy>]:[UNIT-[q]q]:[ww]:BERMT;
```

[I.52521]

```
RTRV-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww];
```

[I.52521]

```
RTRV-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww];
```

[I.54001]

```
RTRV-PRVG-{TERM|USER}:[<xy>]::[ww]:{j[mm][&&jnn]|<user id>|\
ALL};
```

[I.54011]

```
RTRV-PRVG-USER:[<xy>]:LOG:[ww]:[ALL];
```

[I.55401]

```
RTRV-REG-EQPT:[<xy>]:CCN-a:[ww]:ESR;
```

[I.55411]

```
RTRV-REG-EQPT:[<xy>]:ECCN-s:[ww]:ESR;
```

[I.55111]

```
RTRV-REG-EQPT:[<xy>]:MP:[ww]:ESR;
```

[I.55601]

```
RTRV-REG-EQPT:[<xy>]:NPC-[s]abc:[ww]:[SIDE-s]:ESR;
```

[I.55601]

```
RTRV-REG-EQPT:[<xy>]:NPC-uv-m-np:[ww]:[SIDE-s]:ESR;
```

[I.55201]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:STR;
```

[I.55321]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:SSP-b:STR;
```

[I.55311]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:STR;
```

[I.55531]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:DSPI:ESR;
```

[I.55501]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:ESR;
```

[I.55521]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb:ESR;
```

[I.55801]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k:ESR;
```

[I.55811]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s:ESR;
```

[I.55511]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:ESR;
```

[I.55831]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c:ESR;
```

[I.55821]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c:ESR;
```

[I.55191]

```
RTRV-REG-EQPT:[<xy>]:XC-a:[ww]:STR;
```

[I.55181]

```
RTRV-REG-EQPT:[<xy>]:XCSB:[ww]:[UNIT-[q]q];
```

[I.52081]

```
RTRV-ROLL-T0:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww];
```

[I.52081]

```
RTRV-ROLL-T0:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww];
```

[I.52091]

```
RTRV-ROLL-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww];
```

[I.52091]

```
RTRV-ROLL-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww];
```

[I.53104]

```
RTRV-STATE-COM:[<xy>]::[ww]:ALL;
```

[I.53109]

```
RTRV-STATE-COM:[xy]::[ww]:EQPD;
```

[I.53105]

```
RTRV-STATE-COM:[<xy>]::[ww]:{PEST|FAIL|OOS};
```

[I.54340]

```
RTRV-STATE-EQPT:[<xy>]::[ww]:ACO;
```

[I.53022]

```
RTRV-STATE-EQPT:[<xy>]:ETSI:[ww]:EQPD;
```

[I.53201]

```
RTRV-STATE-EQPT:[<xy>]:MIU:[ww]:EQPD;
```

[I.53211]

```
RTRV-STATE-EQPT:[<xy>]:MXR:[ww]:EQPD;
```

[I.56311]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

[I.56311]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww];
```

[I.56314]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

[I.56314]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww];
```

[I.53041]

```
RTRV-STATE-EQPT:[<xy>]:NPC:[ww]:EQPD[,TOTAL]:[UNIT-[q]q];
```

[I.53161]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:TSIG;
```

[I.53161]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:TSIG;
```

[I.56301]

```
RTRV-STATE-EQPT:[<xy>]:SYNC:[ww];
```

[I.53001]

```
RTRV-STATE-EQPT:[<xy>]:SYNC:[ww]:EQPD;
```

[I.53021]

```
RTRV-STATE-EQPT:[<xy>]:TSI:[ww]:EQPD;
```

[I.53101]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:ALL;
```

[I.53011]

```
RTRV-STATE-EQPT:[<xy>]:UNIT:[ww]:EQPD;
```

[I.53108]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:EQPD;
```

[I.53071]

```
RTRV-STATE-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-b;
```

[I.53103]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:{PEST|FAIL|OOS};
```

[I.56511]

```
RTRV-STATE-EQPT:[<xy>]:UNIT-[q]q:[ww]:PROTN;
```

[I.56361]

```
RTRV-STATE-T3:[<xy>]:UNIT-[q]q:[ww]:DS3-c[&&-d];
```

[I.52501]

```
RTRV-STATE-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww];
```

[I.52501]

```
RTRV-STATE-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww];
```

[I.51181]

```
RTRV-SYSID:[<xy>]::[ww];
```

[I.53091]

```
RTRV-TACC-T0:[<xy>]:NPCTG-rrr[&&-sss]:[ww];
```

[I.53081]

```
RTRV-TACC-T0:[<xy>]:TG-mmm[&&-nnn]:[ww];
```

[I.53061]

```
RTRV-TACC-T1:[<xy>]::[ww];
```

[I.19081]

```
SAVE[:[<xy>]::[ww]:];
```

[I.51051]

```
SCHED-BKUP-MEM:[<xy>]:SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc];
```

[I.51011]

```
SCHED-PMREPT-ALL:[<xy>]::[ww]:[hr-mn-sc],\
{CFA|FAC-X-abcdef|PRIM-X-ghij|MONDAT};
```

[I.51141]

```
SCHED-PMREPT-T1:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]];
```

[I.51141]

```
SCHED-PMREPT-T1:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]];
```

[I.51101]

```
SET-ATTR-EQPT:[<xy>]::[ww]:ALM-a;
```

[I.38401]

```
SET-PRVG-{TERM|USER}:[<xy>]::[ww]:{l[mm][,INCL]|<user id>}:\
[SCR-n[,GR-a&-b&-c&-d&-e&-f]]:[{MCON|MCOFF}]:[INIT];
```

[I.36103]

```
SET-PRVG-{USER|TERM|ALL}:[<xy>]::[ww]:{<user id>|l[mm][,INCL]}:\
[LANG-{P|M|F}]:[NPCAD-{E|X|H}]:[LEV-a&-b&-c&-d&-e&-f]\
:[{RMON|RMOFF}]:[RLK-{A|I}]:[INIT];
```

[I.58001]

```
STA-LOCL-RST:[<xy>]:{PRI|SEC}:[ww]:[CLR];
```

[I.14021]

```
SW-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]
```

[I.14021]

```
SW-BDCST-T0:[xy]:uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]
```

[I.14061]

```
SW-BDCST-T1:[xy]:[s]abc,[t]ghi:[ww]:[INCL]
```

[I.14061]

```
SW-BDCST-T1:[xy]:uv-m-np,wx-k-qr:[ww]:[INCL]
```

[I.14041]

```
SW-DISC-T0:[xy]:[s]abc-ddd[&&-eee]:[ww]:[OOS]
```

[I.14041]

```
SW-DISC-T0:[xy]:uv-m-np-ddd[&&&-eee]:[ww]:[OOS]
```

[I.14081]

```
SW-DISC-T1:[xy]:[s]abc:[ww]:[OOS]
```

[I.14081]

```
SW-DISC-T1:[xy]:uv-m-np:[ww]:[OOS]
```

[I.35001]

```
SW-DX-EQPT:[<xy>]:XC-s:[ww]:[INCL];
```

[I.14031]

```
SW-ROLL-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS];
```

[I.14031]

```
SW-ROLL-T0:[xy]:uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS];
```

[I.14071]

```
SW-ROLL-T1:[xy]:[s]abc,[t]ghi:[ww]:[INCL]:[FRC]:[OOS]:[TWAY]
```

[I.14071]

```
SW-ROLL-T1:[xy]:uv-m-np,wx-k-qr:[ww]:[INCL]:[FRC]:[OOS]:[TWAY]
```

[I.35101]

```
SW-TOPROTN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI;
```

[I.35111]

```
SW-TOPROTN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c:[FRC];
```

[I.39401]

```
SW-TOPROTN-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]:[INCL];
```

[I.39401]

```
SW-TOPROTN-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]:[INCL];
```

[I.35105]

```
SW-TOWKG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI;
```

[I.35121]

```
SW-TOWKG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c;
```

[I.39431]

```
SW-TOWKG-T1:[<xy>]:{NPC-[s]abc|DGx}:[ww]:[{RT|DL}-ffff]\
:[INCL];
```

[I.39431]

```
SW-TOWKG-T1:[<xy>]:{NPC-uv-m-np|DGx}:[ww]:[{RT|DL}-ffff]\
:[INCL];
```

List of Autonomous Messages

[O.01241]

```
BOOT FROM {DISK|TAPE}
```

[O.01271]

```
BX2 {STF|ATP}
```

[O.01201]

```
**{CI|ECI} RESET
```

[O.01211]

```
{CI|ECI} STARTUP {STF|ATP}
```

[O.01272]

```
EBX STARTUP {STF|ATP}
```

[O.01282]

```
EMTC STARTUP {STF|ATP}
```

[O.01221]

```
MP STARTUP {STF|ATP}
```

[O.01281]

```
MTC {STF|ATP}
```

[O.65021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65021] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "[s]abc:IDLD,{CGA|LOS}[,k]"
;
```

[O.65021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65021] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "uv-m-np:IDLD,{CGA|LOS}[,k]"
;
```

[O.65011]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65011] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "[s]abc:{MJ|MN|INFO},{CGA|LOS}[,k]"
;
```

[O.65011]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65011] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "uv-m-np:{MJ|MN|INFO},{CGA|LOS}[,k]"
;
```

[O.65056]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* O.65056 */
   /* Failed function:Failed entity:state */
   "BMTR:TAPE:{MN|IDLD}"
;
```

[O.65053]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT ALM EQPT
   /* [O.65053] */
   "BOOT FAILED:BAD BOOT DEVICE"
;
```

[O.65054]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT ALM EQPT
   /* [O.65054] */
   /* CCN side:alarm state:status */
   "s:{MJ|IDLD}:OOS"
;
```

[O.65055]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65055] */
   /* ECCN side:alarm state:status */
   "s:{MJ|IDLD}:OOS"
;
```

[O.65041]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65041] */
   /* NPC Number:state of alarm,facility performance parameter */
   "[s]abc:IDLD,<parameter>"
;
```

[O.65041]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65041] */
   /* NPC Number:state of alarm,facility performance parameter */
   "uv-m-np:IDLD,<parameter>"
;
```

[O.65031]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65031] */
   /* NPC Number:<state of alarm>,<facility performance parameter> */
   "[s]abc:{MJ|MN|INFO},<parameter>"
;
```

[O.65031]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65031] */
   /* NPC Number:<state of alarm>,<facility performance parameter> */
   "uv-m-np:{MJ|MN|INFO},<parameter>"
;
```

[O.65051]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65051] */
   "ALM,RESET,{DATE|TOD|DATE,TOD}"
   /* :<Date of the year>,<Time of day> */
   ":yr-mo-da,hr-mn-sc"
;
```

[O.65131]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65131] */
   "SC,ALARM"
   /* Bank id,digroup name-NPC:state,location[,reason]\
[,Type of alarm] */
   "{RT|DL}-ffff,{DGA|DGB|DGC|DGD|DGP}-[s]abc:{MJ|MN|\
IDLD},{CLF|NE|FE}[,{CGA|DLF|INH|MRV|MSW|PSW}][,k]"
;
```

[O.65131]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM
   /* [O.65131] */
   "SC,ALARM"
   /* Bank id,digroup name-NPC:state,location[,reason]\
[,Type of alarm] */
    "{RT|DL}-ffff;{DGA|DGB|DGC|DGD|DGP}-uv-m-np:{MJ|MN|\
IDLD},{CLF|NE|FE}[,{CGA|DLF|INH|MRV|MSW|PSW}][,k]"
;
```

[O.65171]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65171] */
   "SC,ALARM"
   /* bank id:alarm type,alarm state[,reasons] */
   "RT-ffff:COMP,<state>[,INDX][,LBRV][,AB][,CD][,P][,ALP]"
;
```

[O.65151]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65151] */
   "SC,DPLX ALARM"
   /* Affected equipment:<state>,<location> */
   "{SYNC-a|CCB-sf|CCNI-s|CCI-s|TSI-sft|ETSI-sqq|FC-sb-UNIT-[q]q|\
FMT-s-UNIT-[q]q|NPC-[s]abc-SIDE-s}:
{CR|IDLD},NE"
;
```

[O.65151]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65151] */
   "SC,DPLX ALARM"
   /* Affected equipment:<state>,<location> */
   "{SYNC-a|CCB-sf|CCNI-s|CCI-s|TSI-sft|ETSI-sqq|FC-sb-UNIT-[q]q|\
FMT-s-UNIT-[q]q|NPC-uv-m-np-SIDE-s}:
{CR|IDLD},NE"
;
```

[O.65161]

```
   <xy> yy-mm-dd hh:mm:ss
A ff REPT ALM
   /* [O.65161] */
   "SC,ALARM"
   /* Affected equipment:<state>,<location> */
   "{MC|UC [q]q|FTMI [q]qb|DSPI [q]q}:<state>,NE"
;
```

[O.65141]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM
   /* [O.65141] */
   "SC,ALARM"
   /* Bank id:[alarm type,]state[,location] */
   "{RT|DL}-ffff:[<alarm type>,]<state>[,FE]"
;
```

[O.66011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM T3
   /* [O.66011] */
   /* Facility| : |Alarm State| :IDLD */
   "UNIT-[q]q-DS3-c:<state>:IDLD"
;
```

[O.66001]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM T3
   /* [O.66001] */
   /* Facility:Alarm State */
   "UNIT-[q]q-DS3-c:<state>"
;
```

[O.01391]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALMDET EQPT
   /* [O.01391] */
   "ANALYSIS,REPORT,EVENT-eeee,ESR,ERR"
   "<action>,<circuit identifier>"
   "<action>,<circuit identifier>"
   "<action>,<circuit identifier>"
;
```

[O.01392]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALMDET EQPT
   /* [O.01392] */
   /* <explanation of error condition code */
   "ERR-HARDWARE"
   /* Transaction Number:DP:TSARGS */
   "TN-X-dddd,<dp>,<tsargs>"
   /* Entity:Event */
   "<entity>,xxxx"
   /* Action:Source:Process */
   "<action>,<source>,<proc> <load>"
;
```

[O.82004]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT AUD EQPT
   /* [O.82004] */
   /* Entities:{MP|CI|DISK|TAPE|BX|EBX|SSC|MTC|EMTC} */
   "MC:<tt>"
;
```

[O.82002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82002] */
   /* Test number:Data in the incorrect state */
   "ttt:[d9,d8,d7,d6,]d5,d4,d3,d2,d1,d0"
;
```

[O.82003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82003] */
   /* Test number:Data in the incorrect state */
   "<ttt>:d8,d7,d6,d5,d4,d3,d2,d1"
;
```

[O.82001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82001] */
   /* <Diagnosed name:Element of entity diagnosed,Return \
code diagnostic> */
   "<ttt>:<eee>[-DEV-<devc>],d0"
;
```

[O.01337]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01337] */
   /* Error Recovery Messages to Log Discarded */
;
```

[O.01351]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01351] */
   /* <explanation of error condition code> */
   "CCB-sf:TN-X-dddd,EVENT-eeee,[ESR],ERR"
   "<error analysis data bytes>"
;
```

[O.01354]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01354] */
   /* <explanation of error condition code> */
   "CCI-s:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "wd01,wd02,wd03,wd04,wd05,wd06"
   "wd07,wd08,wd09,wd10,wd11,wd12"
;
```

[O.01352]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01352] */
   /* <explanation of error condition code> */
   "CCNI-s:TN-X-dddd,EVENT-eeee,ESR,ERR"
   "<reg0>,<reg1>,<reg2>,<reg3>,<reg4>"
   "<emr0>,<emr1>,<emr2>,<emr3>,<emr4>"
;
```

[O.01121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01121] */
   "CMD:ERR,ABT[,TN-X-abcd]"
   /* <first 70 characters of input message> */
   /* <remaining text of input message> */
;
```

[O.01362]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01362] */
   "ERR-{SOFTWARE|MC}"
   "TN-X-dddd"
   /* Error Type */
   "<error type>"
   /* Source */
   "<source>"
   /* DP,RC */
   "<dp>,<rc>"
   /* Entity,Recovery Action */
   "<entity>,<action>"
   /* Mailbox ID,Process */
   "<mid>,<proc>"
   /* Trouble Shooting Arguments */
   "<tsargs>"
;
```

[O.01355]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01355] */
   /* <explanation of error condition code> */
   "ETSI-sqq:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "wd01,wd02,wd03,wd04,wd05,wd06"
   "wd07,wd08,wd09,wd10,wd11,wd12"
;
```

[O.01321]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01321] */
   "LINK-a:TN-X-dddd,ERR"
   "STATUS:a0,a1,a2"
;
```

[O.58011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.58011] */
   "MC:MCOND"
;
```

[O.01312]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01312] */
   "MC:[{MP|CI|SSC}],TN-X-dddd,[ESR],ERR"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[MP],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[CI],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[{BX|EBX}],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[{MTC|EMTC}],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff,gggg,hhhh,iiii,jjjj"
;
```

[O.01261]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01261] */
   [/* <explanation of error condition code> */]
   /* MC:RESET-COMPLD,DACSII:Release,Issue,FPKG number */
   "MC:RESET-COMPLD,DACSII:gg.pp,r,kkttuuvv"
;
```

[O.01371]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01371] */
   /* <explanation of error condition code> */
   "NPC-[s]abc[&&-[t]def]:SIDE-s,TN-X-dddd,EVENT-eeee[,ESR],\
ERR"
   "<error analysis data bytes>"
;
```

[O.01371]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01371] */
   /* <explanation of error condition code> */
   "NPC-uv-m-np[&&&-uv-m-qr]:SIDE-s,TN-X-dddd,EVENT-eeee\
[,ESR],ERR"
   "<error analysis data bytes>"
;
```

[O.01372]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01372] */
   /* <explanation of error condition code> */
   "NPC-[s]abc[&&-[t]def]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data bytes>"
;
```

[O.01372]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01372] */
   /* <explanation of error condition code> */
   "NPC-uv-mn-p[&&&-wx-k-qr]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data bytes>"
;
```

[O.01301]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01301] */
   "PWR:TN-X-dddd,ERR"
   "aaaa bbbb cccc dddd"
;
```

[O.01393]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01393] */
   ":RESET,{DATE|TOD|DATE,TOD}"
   /* :<Date of the year>,<Time of day> */
   ":yr-mo-da,hr-mn-sc"
;
```

[O.01366]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01366] */
   /* <explanation of error condition code> */
   "SYNC-a,MODE-{FAST|HOLDOVER|NORMAL|MATE}[TLI-m,SSP-c],\
   TN-X-dddd,ERR"
   "<synchronizer status data bytes>"
;
```

[O.01335]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01335] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b[,NPC-abc],TN-X-dddd,ERR"
   /* ALARM CLEAR */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

[O.01335]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01335] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b[,NPC-uv-m-np],TN-X-dddd,ERR"
   /* ALARM CLEAR */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

[O.01333]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01333] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,ERR"
   /* ALARM SET */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

[O.01333]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01333] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,ERR"
   /* ALARM SET */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

[O.01341]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01341] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<synchronizer status data bytes>"
;
```

[O.01341]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01341] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<synchronizer status data bytes>"
;
```

[O.01342]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01342] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,TN-X-dddd,EVENT-eeee,[ESR],ERR"
   "<synchronizer status data bytes>"
;
```

[O.01331]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01331] */
   /* <explanation of error condition code> */
   "SYNC-a:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<byte1> <byte2> <byte3> <byte4> <byte5>"
;
```

[O.55705]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.55705] */
   "TABS:COMPLD"
;
```

[O.55704]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.55704] */
   "TABS:IN_PROGRESS"
;
```

[O.01353]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01353] */
   /* <explanation of error condition code> */
   "TSI-sft:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01365]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01365] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:DSPI,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01364]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01364] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:FC-sb,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01401]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01401] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-FLI-k:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01402]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01402] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-FMT-s:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01363]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01363] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:FTMI-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01404]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01404] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-MIU-c:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01403]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01403] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-MXR-c[-DEV-<devc>]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.01381]

```
A  ff REPT EVT EQPT
   /* [O.01381] */
   "{UNIT-[q]q,UC|MC[,{CI|MP}]},OVERLOAD"
   "TN-X-dddd"
   /* PROCESSOR DATA */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d3031> <d3233> <d34353637>"
   /* PROGRAM TEXT */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* MEMORY DATA */"
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* READY QUEUE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   /* PAUSE QUEUE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<D09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   /* LOCAL STACK DATA */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* STACK TRACE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   ;
```

[O.01361]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01361] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:{UC|UBX},TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

[O.65061]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT T1
   /* [O.65061] */
   /* NPC Number:CONDTYPE,CONDEFF,LOCN,COUNT,THLEV,AI */
   "[s]abc:T-<parameter>,TC,locn,ccccccccc,lllllllll,aaaaa"
```

[O.65061]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT T1
   /* [O.65061] */
   /* NPC Number:CONDTYPE,CONDEFF,LOCN,COUNT,THLEV,AI */
   "uvmnp:T-<parameter>,TC,locn,ccccccccc,lllllllll,aaaaa"
```

[O.01291]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT INVID SFW
   /* [O.01291] */
   /* SOFTWARE ID BLOCK CHECK FAILED */
   "COND-cc"
;
```

[O.65071]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT OPR ACO ALL
   /* [O.65071] */
   /* ACO State */
   "state"
;
```

[O.61011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "[s]abc:pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "[v]ghi:pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "[u]jkl:pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "  .   :pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "[t]def:pppp,ccccccccc,v,locn,aaaaa,mmdd,hhmm"
;
```

[O.61011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "uv-m-np:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "ed-h-fg:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "op-j-st:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "wx-k-qr:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
;
```

[O.55021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff  REPT RECOVY EQPT
   /* [O.55021] */
   /* Entity:Recovery type */
   "<entity>:<action>"
   "COND-cc"
;
```

[O.55022]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RECOVY EQPT
   /* [O.55022] */
   "RTRV:RECOVY:IN_PROGRESS"
;
```

[O.55021.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RECOVY EQPT
   mmmm
   /* [O.55021.01] */
   /* <explanation of error condition code> */
   /* Entity:Recovery type */
   "<entity>:<action>"
;
```

[O.01251]

```
RESET STOPPED
```

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
            .
            .
            .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
            .
            .
            .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

[O.81005]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81005] */
   /* All NPCS have zero values */
;
```

[O.01231]

```
SSC STARTUP {STF|ATP}
```

ABT,CMD

ABORT

Input Message Format

[I.55711]

```
ABT-CMD;
```

Completion Message

[O.55711]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CMD:::00:ABT COMPL
   /*[O.55711]*/
   "<command>"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

The abort command enables a user to stop a currently executing abortable task previously initiated by the same user from continuing execution. This command is helpful to use when a task is producing large amounts of output that the user does not wish to view, or to stop a task that is operating over a range of entities.

If no users are logged in, a command entered on one link CANNOT be aborted from another link. If the same user is logged in on two different links, commands entered from one link CAN be aborted from another link. Only USER DAX can abort commands entered on any link issued by any user.

When an abortable task is operating over a range of entities, DACS II will complete the task on the current entity, and then stop the task for the remaining entities in the specified range. Since the abort command will also delete all messages queued for output for the link or virtual circuit on which the ABT command was entered, the user should use appropriate query commands to determine which entities in the range have been operated upon before the task was stopped.

In the case where a task has already executed, or no task is executing when the abort command is entered, the abort command will not take effect. Any remaining output will not be generated, and DACS II will not generate a completion message or an ABT completion message.

The following commands may be aborted:

31341 GRTH::NPC
31352 GRTH::NPC
31362 GRTH::NPC
31363 GRTH::NPC
31371 GRTH::NPC
32341 DGR::NPC
33351 RMV::NPC
34351 RST::NPC
38271 CHG::NPC,TYPE (abortable only for DS3 NPCs.)
38281 CHG::NPC,TYPE,ALMOPT,AIS
38321 CHG::NPC,TS0
38323 CHG::NPC,TS0M
38324 CHG::NPC,NFS
38341 CHG::NPC,LPBK
51151 UTL::QRY,PMSCHED
51161 INH::PMREPT
51171 ALW::PMREPT
52011 UTL::QRY,CMAP
52031 UTL::QRY,DMAP
52041 UTL::QRY,TO
52051 UTL::QRY,FROM
52101 UTL::QRY,BCAST,ALL
52201 UTL::QRY,MARK
52211 UTL::QRY,MARK
52311 UTL::QRY,RTMAPIDLMAP
52321 UTL::QRY,SCDG,ALL,STATE
52501 UTL::QRY,SECH,TO
52511 UTL::QRY,SCON,CH
52581 UTL::QRY,LOAD
53041 UTL::QRY,EQD,NPCS
53101 UTL::QRY,ALL
53103 UTL::QRY,UNIT
53104 UTL::QRY,ALL,COMMON
53105 UTL::QRY,COMMON
53151 UTL::QRY,ALMS,DBASE
55011 UTL::QRY,SWER,ERR
55012 UTL::QRY,HWER,ERR
55181 UTL::QRY,XCSB
56021 UTL::QRY,ALMOPT,NPC
56311 UTL::QRY,STATE,NPC
56314 UTL::QRY,STATE,NPC
56321 UTL::QRY,TS0,NPC
56323 UTL::QRY,TS0M,NPC
56324 UTL::QRY,NFS,NPC
56341 UTL::QRY,DD
56343 UTL::QRY,DD
56351 UTL::QRY,NPC
56353 UTL::QRY,BC,NPC
56501 UTL::QRY,SROOF

Explanation Of Parameters

ABT - Abort

command - The text of the aborted command

The response to an abort command echoes the text of the aborted command. The text of the aborted command is always echoed exactly as it was received by the system. The echoed text is shown in the language of the link on which the command was received. If a system is operating

with both PDS and MML languages simultaneously on different

administrative links, this can result in a response that is mixed PDS and MML.

ABT,PROC

STOP MACRO

Input Message Format

[I.39311]

```
ABT-PROC:[<xy>]::[ww]:[l[mm]];
```

Completion Message

[O.39311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
M  ABT PROC:::[ww]:[l[mm]] COMPLD
   /* [O.39311] */
   "<macro name>"
;
```

Denial Message

[O.39311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ABT PROC:::[ww]:[l[mm]] DENY
   mmmm
   /* [O.39311.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to stop the execution of a macro.

A regular DACS II user can use the link number option to stop macro execution on the link he or she is currently using. A frame administrator may use this option to stop macro execution on any link.
If this command was entered by the frame administrator then output from this command will be sent only to the link on which the frame administrator entered the command.

Explanation Of Parameters

MACRO - Macro

l [mm] - Administrative link number

l - Physical link number (1 through 6)
mm - Virtual circuit number (01 through 16)

Variable m is the virtual circuit number in the administrative link.
mm may only be specified when l is 5 or 6.

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
SNVS	No macro is currently executing
SNVS	Command is Frame administrator (DAX) only.

ALW,LPBK,T1,DGA,DGB,DGC,DGD

TWO-WAY TEST ACCESS LINE LOOPBACK

Input Message Format

[I.26101]

```
ALW-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}\
:[ww]:LLB:[{TO|FROM}]:RT-ffff;
```

Completion Message

[O.26101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ALW LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:{TO|FROM}:\
RT-ffff COMPLD
;
```

Denial Message

[O.26101.01]

```
   <xy> yy-mm-dd hh:mm:ss
M ALW LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:[{TO|FROM}]:\
RT-ffff DENY
    mmmm
    /* [O.26101] */
    /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

If neither the TO nor the FROM option is specified, the system will take the TO option as the default value and will respond accordingly.

The TO option will enable the user to program the DACS II to take appropriate action; that is, INI, TRM, ALW or INH, with regard to sending a far-end loopback (FELP) message towards the RT or the DL.
The FROM option will enable the user to program the DACS II to take appropriate action; that is, INH or ALW, in the case where a FELP is received from an RT or DL.

If the FROM keyword is used, the INI or TERM options are not allowed.

Note that an autonomous message will be reported if a loopback is initiated (terminated) by the remote terminal.

Explanation Of Parameters

LLB - Line loopback

RT - Remote Terminal

ffff - Bank identification number (0000 - 9999)

DGA - Digroup A of the bank

DGB - Digroup B of the bank

DGC - Digroup C of the bank

DGD - Digroup D of the bank

DGP - Digroup P of the bank

TO - Allows the loopback message to be sent toward the RT

FROM - Allows the loopback message to be received from the RT

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
SNVS	NPC has active circuit
IDNV	Operation mode and digroup name don't match
IDNV	Bank id number not found
IDNV	Digroup name and bank id don't match
SAIN	Loop back inhibited for digroup
SNVS	The requested digroup is carrying service
SNVS	LLB not initiated
SNVS	Autonomous loopback is active on DGA

ALW,PMREPT,T1,NPC,ALL

ALLOW DS1 PERFORMANCE MONITORING REPORT

Input Message Format

Nonhierarchical

[I.51171]

```
ALW-PMREPT-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

Hierarchical

[I.51171]

```
ALW-PMREPT-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

Completion Message

Nonhierarchical

[O.51171]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW PMREPT T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] COMPLD
;
```

Hierarchical

[O.51171]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW PMREPT T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] COMPLD
;
```

Denial Message

Nonhierarchical

[O.51171.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW PMREPT T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] DENY
   mmmm
   /* [O.51171.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.51171.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW PMREPT T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] DENY
   mmmm
   /* [O.51171.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message reenables DACS II scheduled performance monitoring report output for DA and TA type NPCs that had been inhibited by the use of the "Inhibit Performance Monitoring Report" message (I.51161). The user may reenable performance monitoring report output for a single, range or all NPCs on the frame.

This command will handle NPC addressing in the input command as follows: If only a single NPC is addressed in the input command, then either a completion or denial response will be generated for the addressed NPC. DACS II will always deny invalid commands to specifically addressed NPCs.

If a range of NPCs is addressed and the feature applies to one or more NPCs within the range, DACS II will reenable outputting the scheduled reports for the NPCs in the range that support this feature, but skip the NPCs which do not support this feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports this feature, DACS II will generate a completion response for the entire range of NPCs; individual denial responses will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range support the requested feature,

DACS II will generate a range denial response.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical starting NPC number
[t]def - The 3- or 4-digit nonhierarchical ending NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical starting NPC number

wx-k-qr

- Hierarchical ending NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

PMREPT

- Performance Monitoring Report

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC type error
ICNV	PM scheduling report is already allowed for this entity
IDRG	Command did not execute for any entity specified in the command
IPNV	Interval is not valid/not available

ALW,SW,EQPT,UNIT,MMFG,PROTN

ALLOW SWITCH OF MMFG

Input Message Format

[I.35301]

```
ALW-SW-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG};
```

Completion Message

[O.35301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW SW EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG} COMPLD
   /* [O.35301] */
   /* MMFG-number */
   "a"
;
```

Denial Message

[O.35301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ALW SW EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG} DENY
   mmmm
   /* [O.35301.01] */
   /* <explanation of error condition code> */
   /* MMFG-number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests removal of the inhibition of automatic protection switching from a range of service multiplexer-multiple interface unit functional groups (MMFG) in a DS3 unit to the protection MMFG in that unit or the automatic switch back from the protection MMFG of a DS3 unit to the service MMFG c[-d] of that unit. Only automatic protection switches due to failure will be affected by this message.

The command will always specify the number of the service MMFG involved, even in the case of the command to allow switch back from a protection MMFG.

When the **WKG** keyword is specified, a range of MMFGs is not acceptable and the command will be denied by the parser.

This command may cause an immediate protection switching/switch back if the original MMFG is out-of-service or is pested. In this case, an autonomous message that indicates the occurrence of the switch will be printed out.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-multiple interface unit functional group

c,d - The number of the MMFG within the unit (1 through 6)

PROTN - The message requests permission of automatic protection switching to the protection MMFG

WKG - The message requests permission of automatic switching to the service MMFG. A Range of MMFG is not acceptable if the WKG is specified. The command will be denied by the parser.

a - The number of the service MMFG within the range c and d

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	Service MXR is not equipped
SAPS	The Service MMFG is already under protection
SAWS	The Service MMFG is not under protection

SAAL The switch is allowed (not inhibited)

ALW,SW,T1,NPC,RT,INCL

PROTECTION SWITCHING

Input Message Format

Nonhierarchical

[I.39411]

```
ALW-SW-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[INCL];
```

Hierarchical

[I.39411]

```
ALW-SW-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[INCL];
```

Completion Message

Nonhierarchical

[O.39411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ALW SW T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]:[INCL] \
COMPLD
;
```

Hierarchical

[O.39411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ALW SW T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]:[INCL] \
COMPLD
;
```

Denial Message

Nonhierarchical

[O.39411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ALW SW T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]:[INCL] DENY
   mmmm
   /* [O.39411.01] */
   /* <explanation of the error condition code> */
;
```

Hierarchical

[O.39411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ALW SW T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]:[INCL] \
DENY
   mmmm
   /* [O.39411.01] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command enables the user to allow for automatic protection switching to occur, when necessary. The **INCL** keyword must always be used for digroup A.

If the network processing circuit (NPC) option is used on input, the optional remote terminal (RT) or digital carrier line unit (DL) will appear. If the digroup (DGx) option is to be used, it must be accompanied by the RT or DL option.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number within the unit
np - NPC number within the module
The allowable numbers are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

xxx - Digroup designation

xxx	*Explanation*
DGA	Digroup A
DGB	Digroup B
DGC	Digroup C
DGD	Digroup D
ALL	All Digroups (DGA, DGB, DGC and DGD)

RT - Remote terminal

ffff - Bank identification number (0000 to 9999 inclusive)

INCL - Inclusive

The keyword INCL must always be used for digroup A.

mmmm - Four characters error condition code

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
SROF	NPC Failed or Out of Service
IDNV	NPC is a DGP
IDNV	NPC type is not DS type
IDNV	Bank id number not found
SNVS	NPC is not added
IDNV	Digroup name and bank id don't match
SAOS	Protection entity out of service or failed
ENEQ	Protection entity is unequipped
SAAL	Protection switching is already allowed
SNVS	Active CCN side is out of service
SNVS	Boot in progress, can't service request

APPEND,END

APPEND COMPONENT COMMAND

Input Message Format

[I.19041]

```
APPEND[:[<xy>]:{<line number>|END}:[ww]:];
```

Completion Message

[O.19041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  APPEND::[{<line number>|END}]:[ww] COMPLD
   /* [O.19041] */
;
```

Denial Message

[O.19041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  APPEND::[{<line number>|END}]:[ww] DENY
   mmmm
   /* [O.19041.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used, during a macro session, to add one or more commands to an existing macro. Commands are added following the location specified by **line number** or **END**. If neither **line number** or **END** is specified then the command(s) being added will be added on the line following the current position of the line pointer. This position may be

determined by use of the LINE command.

Explanation Of Parameters

line number
- Line number at which to begin appending (0, 1, 2, 3, ...)

If a line number is specified, a command being added will be appended to this line. That is, the new command will be placed on the line following the line pointed to by the line number. The line pointer will then move down to point to the position of the new command. If more than one command has been entered the line pointer will move to the position of the last line entered.

END - End

End is a special line number that marks the position of the last line in the macro. If END is specified, the new command will be placed on the line following the line pointed to by END. The line pointer will then move down to point to the position of the new command. END will then be the line number of the new command. If more than one command has been entered, END will be the line number of the last line entered.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	User macro/map space is full
IDNV	Invalid line number
SNVS	No edit session active

BADVERB,CMD,BAD,SYNTAX,STOPPED

INPUT DENIAL

Input Message Format

Not applicable.

Completion Message

[O.01101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M {BADVERB|FRMERR|SEQERR|CMD}:::[ww]:BAD-SYNTAX STOPPED
   /* [O.01101] */
   /* <first 70 characters of input message> */
   /* <remaining text of input message> */
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

Processing of the input message is **STOPPED** because the action verb is unrecognized (**BADVERB**) or the frame or sequence number is incorrect (**FRMERR** or **SEQERR**).

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

BADVERB
- Bad verb

The action verb was not recognized.

FRMERR
- Frame error

Incorrect frame number

SEQERR
- Sequence error

Incorrect sequence number

CMD - Command

Other command error

BADVERB,CMD,INERR,STOPPED

INPUT DENIAL

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

[O.01131.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M [<BADVERB|FRMERR|SEQERR|CMD>|<act verb>]:::[ww]:\
[<INERR>,]<reason> {STOPPED|DENY}
   /* [O.01131] */
   /* <First 70 characters of input message> */
[   /* <Text continued from input message */]
   /* <Remaining text of input message> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

If the message reports STOPPED it means that the input command has been stopped or has been denied processing.
If the message reports DENY it means that an attempt has been made to execute an unlicensed or inactive command.

Note that the error field, action verb, and category are optional; a reason will always be given.

Attempts to address entities (units and NPCs) dependent upon nonconfigured units will result in the following message:

BAD ARG CONFIG ERR.

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

BADVERB
- Bad verb

The action verb was not recognized

FRMERR
- Frame error

Incorrect frame number

SEQERR
- Sequence error

Incorrect sequence number

actverb
- Action verb

A valid action verb of the stopped or denied command

CMD - Command

Other command error

reason
- Reason for stop or denial

reason	*Explanation*
BAD ARG	Bad argument
BAD ARG CONFIG ERR	Bad argument and configuration error; attempted to address entities such as units and Network Processing Circuits (NPCs) dependent on non-configured units
BAD SYNTAX	Bad syntax
CMD NOT ALLOWED	Command is not allowed in a macro or alternative map
RESTRICTED	Command is restricted to frame administrator only
ERR CMD ABT	Command error and aborted
INACT	Command is for a feature package which currently is inactive
MC OOS,MCOND,INSERVICE	Main Controller is out-of-service, maintenance condition, or in-service
RANGE ERROR	Range error

BOOT,FROM,DISK,TAPE

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01241]

```
BOOT FROM {DISK|TAPE}
```

Explanation Of Message

The main processor has successfully loaded the boot program from either the disk or the tape.

BX2,STF,ATP

BUS EXTENDER STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01271]

```
BX2 {STF|ATP}
```

Explanation Of Message

This message indicates that the communications interface bus extender has initialized itself and has performed self-diagnostics. The results of these diagnostics are reported as some

tests failed or all tests passed.

Explanation Of Parameters

BX2 - Bus extender

STF - Some tests failed

ATP - All tests passed

For ATP no action is required.

CHG,ACCMD,T1,AIS,INCL

NON-CHANNELIZED TEST, MONITOR,SPLIT,LOOP

Input Message Format

Nonhierarchical

[I.20101]

```
CHG-ACCMD-T1:[<xy>]:[s]abc[&[t]def]:[ww]:<tmode>:[AIS]:[INCL];
```

Hierarchical

[I.20101]

```
CHG-ACCMD-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:<tmode>:[AIS]:[INCL];
```

Completion Message

Nonhierarchical

[O.20101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG ACCMD T1::[s]abc[&[t]def]:[ww]:<tmode>:[AIS]:[INCL] COMPLD
   /* [O.20101] */
   /* Test NPC(s):NPC(s) under test */
   "[s]abc[&[t]def]:[u]ghi[,[v]jkl]"
   /* RDLD-Red Lined, CUS-customer, Circuit type and \
termination status */
   "[RDLD],[CUS],[ONEWAY],{UMPD|[<emode>],<fmode>}"
;
```

Hierarchical

[O.20101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG ACCMD T1::uv-m-np[&wx-k-qr]:[ww]:<tmode>:[AIS]:[INCL] COMPLD
   /* [O.20101] */
   /* Test NPC(s):NPC(s) under test */
   "uv-m-np[&wx-k-qr]:eg-h-ij[,jk-l-mn]"
   /* RDLD-Red Lined, CUS-customer, Circuit type and \
termination status */
   "[RDLD],[CUS],[ONEWAY],{UMPD|[<emode>],<fmode>}"
;
```

Denial Message

Nonhierarchical

[O.20101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG ACCMD T1::[s]abc[&[t]def]:[ww]:<tmode>:[AIS]:[INCL] DENY
   mmmm
   /* [O.20101.01] */
   /* <explanation of error condition code> */
[  "[t]klm" ]
;
```

Hierarchical

[O.20101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG ACCMD T1::uv-m-np[&wx-k-qr]:[ww]:<tmode>:[AIS]:[INCL] DENY
   mmmm
   /* [O.20101.01] */
   /* <explanation of error condition code> */
[  "gh-k-lm" ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For a one-way circuit under test, the test mode can only be MONE or SPLTA. The FROM and TO NPCs must be entered as the E- and F-end NPCs, respectively.

The AIS keyword is required for test modes SPLTE, SPLTF, SPLTEF, LOOPE and LOOPF, to indicate the idle signal for any idle output port that resulted from the interruption.

The INCL keyword is required if one or more of the NPC(s) under test is marked Red or Customer-controlled, except when changing to a monitor mode.

Once a test connection is set up, this command can be entered with either one or both FADs, in any order. The original order of FAD assignment will be used until test access is released.

The E- and F-end NPCs for non-channelized test access correspond to the FROM and TO NPCs of a cross-connection, respectively. The test session is the circuit connection under test.

During a test session, if a hard-reset or link failure occurs, the test session is released automatically. However, if the failure is such that it prevents release at the time of logoff or if the FAD fails, the test session is NOT automatically released and can be released by manual disconnection.

Explanation Of Parameters

tmode - Test mode

tmode	*Explanation*
MONE	Monitor signal from equipment end (E-end) NPC to facility end (F-end) NPC of unmapped or one-/two-way mapped test session
MONF	Monitor signal from F-end NPC to E-end NPC of a two-way mapped test session
MONEF	Monitor a two-way mapped connection in both directions; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs
SPLTA	Split the A signal from the equipment E-end NPC to the facility F-end NPC of one-/two-way mapped test session
SPLTB	Split the B signal from the F-end NPC to the E-end NPC of a mapped two-way test session
SPLTAB	Split both A and B signals of a two-way test session; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs

SPLTE	Split the input and output ports of E-end NPC of an unmapped or two-way mapped test session
SPLTF	Split the input and output ports of F-end NPC of a two-way mapped test session
SPLTEF	Split a two-way mapped test session in both directions; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs
LOOPE	Loop the E-end input port to the output port, and connect the looped signal to the FAD; the test session may include an unmapped or two-way mapped connection
LOOPF	Loop the F-end input port to the output port, and connect the looped signal to the FAD; only for a two-way mapped test session; not allowed for one-way broadcast tributaries

[s]abc

- The 3- or 4-digit nonhierarchical number of test NPC or FAD
For MONEF, SPLTAB and SPLTEF modes this is one of two test NPCs; the message is denied if this NPC is currently not a FAD

[t]def

- Nonhierarchical number of second test NPC or FAD
For MONEF, SPLTAB and SPLTEF modes this number can be entered or omitted; either and/or both of [s]abc and [t]def can be entered, in any order, the original order of FAD assignment will be used; the message is denied if this NPC is currently not a FAD

[u]ghi
- Nonhierarchical number of E-end NPC, this is the reference NPC for the test session; it is a mapped or unmapped NPC, or the backbone of a broadcast circuit, depending on the test session specified

[v]jkl
- Nonhierarchical number of current F-end NPC of the test session. It is defined only if it is mapped to the E-end NPC; if it is omitted, the NPC mapped to the E-end NPC becomes the F-end NPC, or if the test session involves a broadcast circuit, the full tributary becomes the F-end NPC, if one does not exist, the parameter must be given to specify the tributary being tested; it must be omitted if the E-end NPC is unmapped.

[t]klm
- Nonhierarchical number of problematic NPC.

The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number for FAD

wx-k-qr
- Hierarchical NPC number of second FAD

eg-h-ij
- Hierarchical E-end NPC number of test session

jk-l-mn
- Hierarchical F-end NPC number of a mapped test session

gh-k-lm
- Hierarchical number of problematic NPC

uv,wx,eg,jk,gh
- Unit number

m,k,h,l - Module number

np,qr,ij,mn,lm
- NPC number

The valid values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

AIS - Alarm indication signal.

May be specified to be idle signal. Quasi-random signal source (QRSS) is the default idle signal. If QRSS is not provisioned or in service, AIS must be entered for all test modes resulting in idle output port(s): SPLTE, SPLTF, SPLTEF, LOOPE, and LOOPF. AIS input shall be denied for test access of an unmapped NPC, and all other test modes.

INCL - Inclusive

Required for test session with red or customer-controlled NPC(s), except for MONE, MONF and MONEF modes.

RDLD - Red lined circuit

Test session has red NPC(s)

CUS - Customer

Customer-controlled circuit
Test session has Customer-controlled NPC(s)

ONEWAY

- One way cross-connection

Test session has one-way cross-connection

UMPD - Unmapped

Test session has unmapped NPC

emode / *fmode*	*Explanation*
NORM	- The circuit under test is not terminated in this direction
TERM	- The circuit under test terminated in this direction

The emode output is omitted for one-way circuits
Both emode and fmode are omitted for unmapped circuits

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ERLC	Customer control or red circuit exists
SAOS	NPC out of service or failed
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF	NPC Failed or Out of Service
SNVS	NPC invalid type
IIDT	Invalid test mode for an unmapped test session
IIDT	Invalid test mode for a one-way test session
SNVS	Test session already exists
IIDT	AIS not entered and QRSS not provisioned or inservice
IIDT	NPC is not a Facility Access Digroup
IIDT	NPC is not an E-end
IIDT	Invalid change from previous mode
IIDT	NPC is not a F-end
SAAS	Termination is in process of being rolled
IDNV	AIS entered for MONE/MONF/MONEF/SPLTA/SPLTB/SPLTAB
IDNC	The two FADS entered are not associated with one another.

CHG,LGN,PASSWD

CHANGE USER PASSWORD

Input Message Format

[I.38301]

```
CHG-LGN:[<xy>]::[ww]:[<old password>:<new password>];
```

If the user is on a Snider protocol administrative link, the message is entered as follows:

[I.38301]

```
CHG-LGN:[<xy>]::[ww];
```

Then DACS II will prompt the user for the old and new password:

```
          OLD PASSWD: (user enters the old password)
          NEW PASSWD: (user enters the new password)
          PASSWD: (user re-enters the new password \
for verification)
```

Completion Message

[O.38301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG LGN:::[ww]:: COMPLD
;
```

Denial Message

[O.38301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG LGN:::[ww]:: DENY
   mmmm
   /* [O.38301.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a change of a previously created password by any user of DACS II.

For an X.25 link, <old pswd>:<new pswd> option must be used. DACS II will not prompt the user for old and new password.

For a SCCSAI (Snider) link, <old pswd>:<new pswd> option cannot be used.

For a Snider link, DACS II will prompt the user for the old and new password. Neither new nor old password characters will be echoed by DACS II.
Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

PASSWD
- Password

OLD - Old

old password
- Old password, where password is at least six alphanumeric characters.

NEW - New

new password
- New password where password is at least six alphanumeric characters.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Incorrect or missing password
SNVS	User is not logged in

CHG,RPATH,T0,INCL

CHANGE CIRCUIT PARAMETERS

Input Message Format

Nonhierarchical

[I.18001]

```
CHG-RPATH-T0:[<xy>]:[s]abc-ddd[&[t]ghi-jjj&[u]klm-nnn&..]:[ww]\
:[INCL];
```

Hierarchical

[I.18001]

```
CHG-RPATH-T0:[<xy>]:uv-m-np-ddd[&wx-k-qr-jjj&ed-h-fg-nnn&..]\
:[ww]:[INCL];
```

Completion Message

Nonhierarchical

[O.18001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T0::[s]abc-ddd[&[t]ghi-jjj&[u]klm-nnn&..]:[ww]\
:[INCL] COMPLD
[  /* [O.18001] */]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.18001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T0::uv-m-np-ddd[&wx-k-qr-jjj&ed-h-fg-nnn&..]\
:[ww]:[INCL] COMPLD
[  /* [O.18001] */]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.18001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T0::[s]abc-ddd[&[t]ghi-jjj&[u]klm-nnn&..]:[ww]\
:[INCL] DENY
   mmmm
   /* [O.18001.01] */
   /* <explanation of error condition code> */
[  /* [BCAST] */]
[   /* [t]wxy-zzz */]
;
```

[O.18001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T0::[s]abc-ddd[&[t]ghi-jjj&[u]klm-nnn&..]:[ww]\
:[INCL] DENY
   mmmm
   /* [O.18001.02] */
   /* <explanation of error condition code> */
[   /* [t]wxy-zzz */]
;
```

Hierarchical

[O.18001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH TO::uv-m-np-ddd[&wx-k-qr-jjj&ed-h-fg-nnn&..]\
:[ww]:[INCL] DENY
   mmmm
   /* [O.18001.01] */
   /* <explanation of error condition code> */
[  /* [BCAST] */]
[   /* op-j-st-zzz */]
;
```

[O.18001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH TO::uv-m-np-ddd[&wx-k-qr-jjj&ed-h-fg-nnn&..]\
:[ww]:[INCL] DENY
   mmmm
   /* [O.18001.02] */
   /* <explanation of error condition code> */
[   /* op-j-st-zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message switches return paths to the digroups and ranges beginning with the initial channels given in the TO end argument list.

This message requests a change in a broadcast multipoint circuit, switching the full tributary circuit leg (one that can both receive and transmit to the multipoint source) to another leg. Up to eight multipoint circuits can be changed with this command.
Arguments [s]abc-ddd, [t]ghi-jjj, and [u]klm-nnn etc., represent TO terminations from different broadcast circuits (allowing multiple switches to be performed with a single message). That is, these arguments specify the new full tributaries in up to eight different

broadcast circuits.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

[u]klm
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

ed-h-fg
- Hierarchical TO NPC number

uv,wx,ed - Unit number
m,k,h - Module number
np,qr,fg - NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number
nnn - TO channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

INCL - Inclusive

To change a circuit or range of circuits including one or more circuits previously marked as a Red Circuit or under Customer Control, use the INCL (inclusive) option. If this option is not used, the message will be denied if any circuits in the range are red circuits or customer controlled.

[t]wxy-zzz
- Nonhierarchical number of circuit leg on which problem occurred.

op-j-st-zzz
- Hierarchical number of circuit leg on which problem occurred.

BCAST - Broadcast

Denial specific to a broadcast conference.

CUS - Customer

NPC is a customer-controlled circuit

RDLD - Red lined

NPC is a Red lined circuit

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IIDT	No RDLD or CUS circuits and INCL keyword used
IIDT	No NPC's out of service and OOS keyword used
SAOS	NPC out of service or failed
ENEQ	NPC not equipped
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Termination is under test
SNVS	Termination is a test port
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
SNVS	TO side of two-way to be converted is not an FTU NPC
SNVS	TO is not a leg of this/any conference
SNVS	TO is the backbone leg of a conference
SNVS	Conference is NTR: has no switchable return leg
SNVS	Conference is LPD: has no switchable return leg
SNVS	TO is already the return leg
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENRE	FROM NPC is not provisioned as DGA
ENRE	TO NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	Corresponding NPC for TO virtual channel is not provisioned
IDNV	Invalid FROM channel number
IDNV	Invalid TO channel number
IDRG	Invalid FROM channel number range
IDRG	Invalid TO channel number range
IDNV	Invalid channel 000 cross-connection specified
IDNV	Invalid channel 031 cross-connection specified

CHG,RPATH,T1,INCL

CHANGE SWITCH, TOX

Input Message Format

Nonhierarchical

[I.18011]

```
CHG-RPATH-T1:[<xy>]:[s]ghi[&[t]jkl][&[v]mno][...]:[ww]:[INCL];
```

Hierarchical

[I.18011]

```
CHG-RPATH-T1:[<xy>]:uv-m-np[&wx-k-qr][&ed-h-fg][...]:[ww]\
:[INCL];
```

Completion Message

Nonhierarchical

[O.18011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T1::[s]ghi[&[t]jkl][&[v]mno][...]:[ww]:[INCL] \
COMPLD
[  /* [O.18011] */ ]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.18011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T1::uv-m-np[&wx-k-qr][&ed-h-fg][...]:[ww]\
:[INCL] COMPLD
[  /* [O.18011] */ ]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.18011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T1::[s]ghi[&[t]jkl][&[v]mno][...]:[ww]:[INCL] \
DENY
   mmmm
   /* [O.18011.01] */
   /* <explanation of error condition code> */
[  "[t]qrs"]
;
```

Hierarchical

[O.18011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG RPATH T1::uv-m-np[&wx-k-qr][&ed-h-fg][...]:[ww]\
:[INCL] DENY
   mmmm
   /* [O.18011.01] */
   /* <explanation of error condition code> */
[  "op-q-rs"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message changes a non-channelized digital signal broadcast circuit by switching a specified tributary network processing circuit (NPC) to be the full tributary NPC. Up to eight broadcast circuits can be changed by specifying the respective full tributary NPCs, all of which are non-channelized NPCs currently part of different broadcast circuits and may belong to different Units.

Explanation Of Parameters

[s]ghi
- The 3- or 4-digit nonhierarchical NPC number of new full tributary

[t]jkl
- The 3- or 4-digit nonhierarchical NPC number of new full tributary

[v]mno
- The 3- or 4-digit nonhierarchical NPC number of new full tributary

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number of new full tributary

wx-k-qr
- Hierarchical NPC number of new full tributary

ed-h-fg
- Hierarchical NPC number of new full tributary

uv,wx,ed
- Unit number

m,k,h
- Module number

np,qr,fg
- NPC number within the module

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive keyword, required for Red (RDC) or Customer-controlled circuit (CUS)

[t]qrs
- The 3- or 4-digit nonhierarchical number of the NPC that caused the denial

op-q-rs
- Hierarchical number of problematic NPC, same range as uv-m-np

st - Status of denial

mmmm - Error condition code

mmmm	st	*Explanation*
IDRG	INERR	Invalid range for specified NPC type
IIDT	INERR	No RDLD or CUS circuits and INCL keyword used
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Termination is under test
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
SNVS	BCAST	TO is not a leg of this/any conference
SNVS	BCAST	TO is the backbone leg of a conference
SNVS	BCAST	TO is a part of the same conference as a previous TO
SNVS	BCAST	Conference is NTR: has no switchable return leg
SNVS	BCAST	Conference is LPD: has no switchable return leg
SNVS	BCAST	TO is already the return leg
IIDT		NPC is a channelized NPC
IIDT		NPC is a non-channelized NPC
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SNVS	INERR	Red circuit, INCL not entered
SNVS	INERR	Customer controlled circuit, INCL not entered
SNVS	MCOND	NPC invalid type
ENEQ	MCOND	ETSI not equipped, not in service, or failed

CHG,TACC,T0,MON

TWO-WAY TEST ACCESS MONITOR TEST PORT

Input Message Format

[I.21011]

```
CHG-TACC-T0:[<xy>]::[ww]:kk:[<tc>]:MON;
```

Completion Message

Nonhierarchical

[O.21011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21011] */
   "[t]ghi-jjj"
   "UNMAP"
   "{T|R|C},{F|0},{T|0},{P|0}"
;
```

Hierarchical

[O.21011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21011] */
   "uv-m-np-jjj"
   "UNMAP"
   "{T|R|C},{F|0},{T|0},{P|0}"
;
```

Denial Message

Nonhierarchical

[O.21011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:[<tc>]:MON DENY
   mmmm
   /* [O.21011.01] */
   /* <explanation of error condition code> */
   /* {ASGN|<reason>} */
[  /* [s]abc-ddd,[t]ghi-jjj */]
[  /* [s]klm-nnn,[t]pqr-sss */]
;
```

Hierarchical

[O.21011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:[<tc>]:MON DENY
   mmmm
   /* [O.21011.01] */
   /* <explanation of error condition code> */
   /* {ASGN|<reason>} */
[  /* wx-k-qr-ddd,uv-m-np-jjj */]
[  /* ed-h-fg-nnn,op-j-st-sss */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a change of test port **kk** (01 through 48) from split mode to monitor mode.

Note: If the test port is already in the monitor mode, DACS II will deny the execution of the

message.

Explanation Of Parameters

kk - Test port number (01 through 48)

The test port is mapped to predesignated channels of a network processing circuit for test ports (NPCTP) during the provisioning of that test port. The NPC types that can be provisioned as NPCTP are all domestic non-SLC NPC types and all CEPT types that have been provisioned for channel associated signaling (CAS). For the mapping between the test ports and the channels of the test NPCs, see Message No. 31411.

[t]ghi
- Non-hierarchical TO NPC number

[s]abc
- NPC number that support the termination that is cross-connected to channel [t]ghi-jjj.

[t]pqr
- Non-hierarchical TO NPC number

[s]klm
- NPC number that support the termination that is cross-connected to channel [t]pqr-sss.

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical TO NPC number

wx-k-qr
- Hierarchical FROM NPC number that supports the termination that is cross-connected to channel uv-m-np-jjj.

op-j-st
- Hierarchical TO NPC number

ed-h-fg
- Hierarchical FROM NPC number that supports the termination that is cross-connected to channel op-j-st-jjj.

uv,wx,op,ed
- Unit number

m,k,j,h
- Module number

np,qr,st,fg
- NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01-02

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

jjj, sss
- TO direction channel number.

ddd, nnn
- FROM direction channel number of the termination

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

klm-nnn
- Non-hierarchical format termination being tested as FROM on test port kk. If this field is all zeroes, test port kk is assigned to an unmapped termination.

ed-h-fg-nnn
- Hierarchical format termination being tested as FROM on test port kk. If this field is all zeroes, test port kk is assigned to an unmapped termination.

pqr-sss
- Non-hierarchical format termination being tested as TO on test port kk.

op-j-st-sss
- Hierarchical format termination being tested as TO on test port kk.

T - Transparent

R - Robbed bit

F	FROM NPC is in CGA or PBA
0	FROM NPC is not in CGA or PBA
T	TO NPC is in CGA or PBA
0	TO NPC is not in CGA or PBA
P	Test port NPC is in CGA or PBA
0	Test port NPC is not in CGA or PBA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

Customer-controlled circuit

The cross-connection tested is a customer controlled circuit.

ONEWAY

- One-way

The cross-connection tested is a one-way circuit.

ASGN - The test port is already assigned to another termination, denoted by klmnnn,pqrsss (or edhfgnnn,opjstsss)

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDNV	INERR	Invalid TO channel number
ENRE	SCERR	TO NPC is not provisioned as DGA
ENRE	SCERR	Corresponding NPC for TO virtual channel is not provisioned

st	Explanation
BADCCB	CCB OOS or failed
BADCCN	CCN OOS or failed
BADDSPI	DSPI OOS or failed
BADFC	FC OOS or failed
BADFLI	FLI OOS or failed
BADFMT	FMT (Formatter) OOS or failed
BADFTMI	FTMI OOS or failed
BADMIU	MIU OOS or failed
BADMXR	MXR OOS or failed
BADTSI	TSI OOS or failed
BCAST	The TO side is part of a broadcast circuit
C TOO DEEP	DMB concatenations go too deep (for more than 6 level)
CBIT	The TO side is part of a c-bit cross-connection
CWNOT1	Conference width is not equal to 1 (for virtual conferences)
F FAIL	FROM side NPC is marked failed
F OOS	FROM side NPC (abc) is out of service
F UEQD	The DACS unit supporting the FROM termination is out-of-service or failed
FAIL	Test port Group NPC failed
IMPR TC	Improper trunk conditioning specification
INERR	Input error

st	Explanation
NA	DACS CCN or UNIT involved cannot perform the cross-connect
OOS	Test port Group NPC out of service
T CLR	The TO NPC is a clear-DS1 NPC
T FAIL	TO side NPC is marked failed
T OOS	TO side NPC is Out Of Service
T UEQD	TO side NPC is Unequipped
T UTST	TO termination is under test
TP	The TO termination is part of a test port
T_DCLU	Attempt to test a locally switched channel
UEQD	Test port kk is unequipped
UTST	Under Test

CHG,TACC,T0,SPLT

TWO-WAY TEST ACCESS

Input Message Format

[I.23001]

```
CHG-TACC-T0:[<xy>]::[ww]:kk:SPLT;
```

Completion Message

Nonhierarchical

[O.23001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:SPLT COMPLD
   /* [O.23001] */
   "[RDLD][,CUS][,TERM{R|F|T|B}]"
   "[s]abc-ddd,[t]ghi-jjj"
;
```

Hierarchical

[O.23001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:kk:SPLT COMPLD
   /* [O.23001] */
   "[RDLD][,CUS][,TERM{R|F|T|B}]"
   "wk-x-qr-ddd,uv-m-np-jjj"
;
```

Denial Message

Nonhierarchical

[O.23001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0::[ww]:kk:SPLT DENY
   nnnnn
   /* [O.23001.02] */
   /* <reason> */
[  /* [s]abc-ddd,[t]ghi-jjj */]
;
```

Hierarchical

[O.23001.01]

Not applicable.
[O.23001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0::[ww]:kk:SPLT DENY
   nnnnn
   /* [O.23001.02] */
   /* <reason> */
[  /* wx-k-qr-ddd,uv-m-np-jjj */]
;
```

Common

[O.23001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0::[ww]:kk:SPLT DENY
   nnnnn
   /* [O.23001.01] */
   /* <reason> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message splits a mapped circuit in the normal circuit state. Also, in the normal circuit state, it connects both directions of an unmapped termination to test port **kk** (01 through 48). If the test port is connected to an unmapped termination, this command will connect both directions of an unmapped termination to the test port. When this command is used with the subrate feature for a circuit termination, the system response will be a subrate test access message.

Explanation Of Parameters

TP - Test port

kk - Test port number (01 through 96)

The test port is mapped to predesignated channels of a network processing circuit for test ports (NPCTP) during the provisioning of that test port. The NPC types that can be provisioned as NPCTP are all domestic non-SLC NPC types and all CEPT types that have been provisioned for channel associated signaling (CAS). For the mapping between the test ports and the channels of the test NPCs, see Message No. 31411.

The DACS II test ports are either static or dynamic, as defined in Message No. I.31411.

SPLT - Split

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	**NPC**	**NPC**	**NPC**	**NPC**	**NPC**
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4
NPC	NPC	NPC	NPC
0001	0161	0321	0481
0021	0181	0341	0501
0041	0201	0361	0521
0061	0221	0381	0541
0081	0241	0401	0561
0101	0261	0421	0581
0121	0281	0441	0601
0141	0301	0461	0621

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical TO NPC number

wx-k-qr
- Hierarchical FROM NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

MB, SR, and MJ type numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number

The valid values are:
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)
Conference numbers

001-085 (MB NPC)

Note: If the field [s]abcddd (or wxkqrddd in Hierarchical addressing) is all zeroes, then this test port is assigned to a unmapped termination.

CUS - Customer

Customer-controlled circuit.

RDLD - Red lined

The tested circuit is a red circuit.

TERM - Terminate

s - Termination state of the circuit:

s	Explanation
R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

st - Status

st	Explanation
F FAIL	FROM side NPC is marked failed
F OOS	FROM side NPC (abc) is out of service
MCOND	An entity in the network is OOS or failed
NA	DACS CCN or UNIT involved cannot perform the cross-connect
NMON	Not Monitor, the testport is not currently in monitor mode
SIG TS NS	Signaling timeslot (CAS TS16) cannot be split
T FAIL	TO side NPC is marked failed

T OOS TO side NPC is Out Of Service

CHG,TACC,T0,TG,MON

NX64Kbit/s TWO-WAY TEST ACCESS, MONITOR

Input Message Format

[I.21031]

```
CHG-TACC-T0:[<xy>]::[ww]:TG-mmm:MON;
```

Completion Message

Nonhierarchical

[O.21031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:MON COMPLD
   /* [O.21031] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Hierarchical

[O.21031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:MON COMPLD
   /* [O.21031] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:uv-m-np,TO-NPC:wx-k-qr"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Denial Message

[O.21031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:MON DENY
   mmmm
   /* [O.21031.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to change the mode of a test-access group, that is currently in the split mode, to the monitor mode.

Note: If the test-access group is already in the monitor mode this command will be denied.

Explanation Of Parameters

TG - Test-access group

mmm - Test-access group number (001 through 400)

The TG is designated as in message 31421, and must have the same width as the number of channels specified in this message.

MON - Monitor

[s]abc
- 3- or 4-digit non-hierarchical FROM NPC number

[t]ghi
- 3- or 4-digit non-hierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM Channel numbers

001 through 024

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s). If TO channel is mapped to a channel 000, the circuit can only be tested as N = 1, the corresponding FROM channel ddd will be '000'.

tc - Trunk conditioning

For mapped circuits, <tc> will be omitted.
For unmapped circuits, the effective <tc> will be output.

g	*Explanation*
T	All channels are Transparent (TRSP)
R	One or more channels is robbed-bit or non-TRSP

CGA - Carrier group alarm

PBA - Primary block alarm

ftb - CGA or PBA state

f	*Explanation*
F	FROM NPC is in CGA or PBA
0	FROM NPC is not in CGA or PBA

t	*Explanation*
T	TO NPC is in CGA or PBA
0	TO NPC is not in CGA or PBA

b	*Explanation*
E	East-bundle NPCTG in CGA or PBA
W	West-bundle NPCTG in CGA or PBA
B	NPCTG(s) supporting both bundles in CGA or PBA
0	NPCTG(s) not in CGA or PBA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

ONEWAY

- One-way

The cross-connection tested is a one-way circuit.

BCAST - Broadcast

The cross-connection tested is part of a broadcast circuit.

s	*Explanation*
R	All channels are released
F	One or more FROM channel is terminated
T	One or more TO channel is terminated
B	One or more of FROM and TO channels are terminated

UNMAP - Unmapped

The circuit under test is unmapped.

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Active CCN side not IS or failed or pested or hardware OOS
SWFA	SYNC summary is set on CCI circuit pack
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed

mnemn	*Explanation*
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
ENEQ	test group unequipped
SNIS	NPC not in service or failed
SNVS	invalid test access mode

CHG,TACC,T0,TG,SPLT

NX64Kbit/s TWO-WAY TEST ACCESS, SPLIT

Input Message Format

[I.23021]

```
CHG-TACC-T0:[xy]::[ww]:TG-mmm:SPLT;
```

Completion Message

Nonhierarchical

[O.23021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:SPLT COMPLD
   /* [O.23021] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Hierarchical

[O.23021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:SPLT COMPLD
   /* [O.23021] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:uvmnp,TO-NPC:wxkqr"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Denial Message

[O.23021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T0:::[ww]:TG-mmm:SPLT DENY
   mmmm
   /* [O.23021.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to split each direction of transmission of an Nx64Kbit/s circuit that is currently under test access in monitor mode.

Note: If the test-access group is connected to an unmapped Nx64Kbit/s termination, this command connects both directions of the unmapped termination to the test-access group's

west bundle.

Explanation Of Parameters

TG - Test-access group

mmm - Test-access Group number (001 through 400)

The TG is designated as in message 31421

SPLT - Split

[s]abc
- 3- or 4-digit non-hierarchical FROM NPC number

[t]ghi
- 3- or 4-digit non-hierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM Channel numbers

001 through 024

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s). If TO channel is mapped to a channel 000, the circuit can only be tested as N = 1, the corresponding FROM channel ddd will be '000'.

tc - Trunk conditioning

For mapped circuits, <tc> will be omitted.
For unmapped circuits, the effective <tc> will be output.

g	*Explanation*
T	All channels are Transparent (TRSP)
R	One or more channels is robbed-bit or non-TRSP

CGA - Carrier group alarm

PBA - Primary block alarm

ftb - CGA or PBA state

f	*Explanation*
F	FROM NPC is in CGA or PBA
0	FROM NPC is not in CGA or PBA

t	*Explanation*
T	TO NPC is in CGA or PBA
0	TO NPC is not in CGA or PBA

b	*Explanation*
E	East-bundle NPCTG in CGA or PBA
W	West-bundle NPCTG in CGA or PBA
B	NPCTG(s) supporting both bundles in CGA or PBA
0	NPCTG(s) not in CGA or PBA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

s	*Explanation*
R	All channels are released
F	One or more FROM channel is terminated
T	One or more TO channel is terminated
B	One or more of FROM and TO channels are terminated

mmmm - Four-character error condition code.
mmmm - Error condition code

mmmm	*Explanation*
SNIS	NPC not in service or failed
SNVS	invalid test access mode

CHG,TACC,T1,INCL

NON-CHANNELIZED TEST FAD, EMODE, FMODE

Input Message Format

Nonhierarchical

[I.20111]

```
CHG-TACC-T1:[<xy>]:[s]abc[&[t]def]:[ww]:\
{[<emode>][,<fmode>]}:[INCL];
```

Hierarchical

[I.20111]

```
CHG-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:\
{[<emode>][,<fmode>]}:[INCL];
```

Completion Message

Nonhierarchical

[O.20111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T1::[s]abc[&[t]def]:[ww]:{[<emode>][,<fmode>]}\
:[INCL] COMPLD
   /* [O.20111] */
   /* Test NPC(s):NPCs under test */
   "[s]abc[&[t]def]:[u]ghi,[v]jkl"
   /* RDLD-Red Lined, CUS-customer, Circuit type and termination\
status */
   "[RDLD],[CUS],[ONEWAY],[<emode>],<fmode>"
;
```

Hierarchical

[O.20111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T1::uv-m-np[&wx-k-qr]:[ww]:{[<emode>][,<fmode>]}\
:[INCL] COMPLD
   /* [O.20111] */
   /* Test NPC(s):NPCs under test */
   "uv-m-np[&wx-k-qr]:eg-h-ij,jk-l-mn"
   /* RDLD-Red Lined, CUS-customer, Circuit type and termination\
status */
   "[RDLD],[CUS],[ONEWAY],[<emode>],<fmode>"
;
;
```

Denial Message

Nonhierarchical

[O.20111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T1::[s]abc[&[t]def]:[ww]:{[<emode>][,<fmode>]}\
:[INCL] DENY
   mmmm
   /* [O.20111.01] */
   /* <explanation of error condition code> */
[  "[t]klm"]
;
```

Hierarchical

[O.20111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC T1::uv-m-np[&wx-k-qr]:[ww]:{[<emode>][,<fmode>]}\
:[INCL] DENY
   mmmm
   /* [O.20111.01] */
   /* <explanation of error condition code> */
[  "gh-k-lm" ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message changes the output mode (also known as termination status) of a non-channelized circuit under test. The status can be normal data transmission (NORM), or terminate (TERM) and send idle signal(s) to output port(s). The change can be selectively specified for the circuit's E-end and/or F-end NPCs. At least one of the two <e/fmode> fields must be entered, or the message is denied.

If the cross-connected circuit is terminated before a test session is set up, this command can be used to change the state from TERM to NORM. When the test session is released, the most recent state remains until a change (CHG) termination command is entered.

During a test session, if a hard-reset or link failure occurs, the test session is released automatically. However, if the failure is such that it prevents release at the time of logout or if the FAD fails, the test session is NOT automatically released and can be released by manual disconnection.

The E- and F-end NPCs for non-channelized test access correspond to the FROM and TO NPCs of a cross connection, respectively. A test session is the circuit connection under test.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical number of test NPC or FAD
For MONEF, SPLTAB and SPLTEF modes this is one of two test NPCs; the message is denied if this NPC is currently not a FAD

[t]def
- Nonhierarchical number of second test NPC or FAD
For MONEF, SPLTAB and SPLTEF modes this number can be entered or omitted; either and/or both of [s]abc and [t]def can be entered, in any order, the original order of FAD assignment will be used; the message is denied if this NPC is currently not a FAD

[u]ghi
- Nonhierarchical number of E-end NPC of circuit under test

[v]jkl
- Nonhierarchical number of current F-end NPC

[t]klm
- Nonhierarchical number of problematic NPC

The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number for FAD

wx-k-qr
- Hierarchical NPC number of second FAD

eg-h-ij
- Hierarchical E-end NPC number of test session

jk-l-mn
- Hierarchical F-end NPC number of a mapped test session

gh-k-lm
- Hierarchical number of problematic NPC

uv,wx,eg,jk,gh
- Unit number

m,k,h,l - Module number

np,qr,ij,mn,lm
- NPC number

The valid values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

FMODE - Facility-end mode

fmode - Facility-end termination status

emode / *fmode*	*Explanation*
NORM	The circuit under test is not terminated in this direction
TERM	The circuit under test terminated in this direction

The emode cannot be changed and is omitted for one-way circuits
The fmode cannot be changed for modes SPLTE, SPLTEF and LOOPE
For an unmapped circuit neither the EMODE or FMODE can be changed.

If emode or fmode is omitted, the parameter retains its current value.
If either the E- or F-end NPC is out of service or failed, then is subsequently restored to service, the output modes remain as they were before the failure.

RDLD - Red lined

Test session has NPC(s) designated as red circuits

CUS - Customer

Test session has Customer-controlled NPC(s)

INCL - Inclusive

Required for circuits with customer-controlled or red NPC(s)

ONEWAY

- One-way

Test session has a one-way cross-connection

mmmm - Error condition code

mmmm	**st**	*Explanation*
ENEQ		Subject entity is not equipped
SAOS		Subject entity is out of service
ERLC		Customer control or red circuit exists
SAOS		NPC out of service or failed
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	MCOND	Termination is already assigned
SNVS		Termination is under customer control (CUS)
SNVS		Termination is protected (RDLD)
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed

mnmm	st	*Explanation*
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF		NPC Failed or Out of Service
SNVS	MCOND	NPC invalid type
SNVS		NPC is a Facility Access Digroup
IIDT		Invalid test mode for an unmapped test session
IIDT		Invalid test mode for a one-way test session
SNVS		Test session already exists
IIDT		NPC is not a Facility Access Digroup
IIDT		NPC is not an E-end
IIDT		Invalid change from previous mode
IIDT		NPC is not a F-end
SAAS		Termination is in process of being rolled
IDNC		The two FADS entered are not associated with one another.
IDNV		No mapped circuit under test; emode/fmode can't be changed.
IDNV		One-way circuit under test; emode can't be changed.
IDNV		emode/fmode can't be changed under current test mode.

CHG,TACC,TS,MON

CHANGE TEST ACCESS TIME SLOT

Input Message Format

[I.19626]

```
CHG-TACC-TS:[<xy>]::[ww]:kk:MON;
```

Completion Message

Nonhierarchical

[O.19626]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CHG TACC TS:::[ww]:kk:MON COMPLD
    /* TO facility termination */
    "[s]abc-ddd-ff"
    /* CGA Status FROM,TO,TEST PORT,TERM */
    "{F|0},{T|0},{P|0},{R|F|T|B}"
    "RATE-rr"
[   "{UNMAP|LPD}"]
;
```

[O.19626]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CHG TACC TS:::[ww]:kk:MON COMPLD
    /* TO facility termination */
    "[s]abc-ddd"
    /* CGA Status FROM,TO,TEST PORT,TERM */
    "0,{T|0},{P|0},R"
    "DS0B-nn"
;
```

[O.19626]

```
   /* Multipoint master leg facility termination */
   "[s]abc-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
;
```

Hierarchical

[O.19626]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:MON COMPLD
   /* TO facility termination */
   "[s]uv-m-np-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
;
```

[O.19626]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:MON COMPLD
   /* TO facility termination */
   "[s]uv-m-np-ddd"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "0,{T|0},{P|0},R"
   "DS0B-nn"
;
```

[O.19626]

```
   /* Multipoint master leg facility termination */
   "[s]uv-m-np-ddd"
   "uv-m-np-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
;
```

Denial Message

[O.19626.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:MON DENY
   mmmm
   /* [O.19626.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a change of the specified test port to the monitor mode for a Subrate circuit already under test. The output from this command depends upon the type of Subrate access point that is under test. The possible access point types are: standard (DS-0A), DS-0B, or MJU.

Explanation Of Parameters

kk - Test port number (1 -48)

MON - Monitor

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of circuit under test, or of multipoint master leg

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number of circuit under test, or of multipoint master leg

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of circuit under test, or of multipoint master leg

Valid values are:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of circuit under test, or of multipoint master leg

Valid values are:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

RATE - Circuit rate

rr - Circuit rate value (24, 48, 96, or 56)

DS0B - Access point type

nn - Number of DS0B subrate customer channels (05, 10, or 20)

MJU - Multipoint junction unit

ssss - MJU number of MJU under test (0001 through 9999)

BR - Branch

i - Branch number of MJU under test (1 through 4)

FROM - From (CGA status)
TO - To (CGA status)

CGA Status:

F - FROM facility is in CGA
T - TO facility is in CGA
P - Test Port is in CGA
0 - Not in CGA

TERM - Termination

Termination status

R - Neither side is terminated
F - FROM side is terminated
T - TO side is terminated
B - Both sides are terminated

UNMAP - Unmapped

LPD - Looped

mmmm	*Explanation*
ENEQ	*Equipage, not equipped*
	THE SPECIFIED TEST PORT IS NOT EQUIPPED THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED THE FROM SIDE NPC [s]abc IS NOT EQUIPPED THE TO SIDE NPC [s]abc IS NOT EQUIPPED TSI sft IS NOT EQUIPPED CCB sf IS NOT EQUIPPED ETSI sqq IS NOT EQUIPPED UNIT [q]q IS NOT EQUIPPED UNIT [q]q FTMI d IS NOT EQUIPPED UNIT [q]q FC sb IS NOT EQUIPPED NO DSPU IS EQUIPPED NO SRM OR MJU TYPE NPC IS EQUIPPED
IDNV	Input, data not valid
	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
SNIS	Status, not in service
	BOTH CCN SIDES ARE OUT-OF-SERVICE ACTIVE CCN SIDE s IS OUT-OF -SERVICE THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE CCNI s IS OUT-OF-SERVICE TSI sft IS OUT-OF-SERVICE CCB sf IS OUT-OF-SERVICE CCI s IS OUT-OF-SERVICE ETSI sqq IS OUT-OF-SERVICE UNIT [q]q IS OUT-OF-SERVICE UNIT [q]q FTMI d IS OUT-OF-SERVICE UNIT [q]q FC sb IS OUT-OF-SERVICE DSPI IN UNIT [q]q IS OUT-OF-SERVICE NPC [s]abc SIDE s IS OUT-OF-SERVICE
SROF	Status, requested operation failed
	ACTIVE CCN SIDE s IS FAILED ACTIVE CCN SIDE s IS PESTED THE TEST PORT GROUP NPC [s]abc IS FAILED THE FROM SIDE NPC [s]abc IS FAILED

THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS ALREADY IN SPLIT MODE

A DSOB CHANNEL CANNOT BE SPLIT UNLESS MONITORED FIRST

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

CHG,TACC,TS,SPLT

CHANGE SUBRATE TEST ACCESS SPLIT

Input Message Format

[I.19656]

```
CHG-TACC-TS:[<xy>]::[ww]:kk:SPLT;
```

Completion Message

Nonhierarchical

Usage: For standard Subrate (DS0A) test access points:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "[s]abc-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
;
```

Usage: For DS0B test access points:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "[s]abc-ddd"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "0,{T|0},{P|0},R"
   "DS0B-nn"
;
```

Usage: For uncorrected points in an error corrected circuit:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "[s]abc-ddd-01"
   /* UNC */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},R"
   "{RATE-rr|DS0B-nn}"
[  /* Parity channel, PCH test port */]
[  "ppp,ll"]
[  "UNMAP"]
```

Usage: For access points specified in terms of an MJU and (optional) branch number:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* Multipoint master leg facility termination */
   "[s]abc-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
```

Hierarchical

Usage: For standard Subrate (DS0A) test access points:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "uv-m-np-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
```

Usage: For DS0B test access points:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "uv-m-np-ddd"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "0,{T|0},{P|0},R"
   "DS0B-nn"
```

Usage: For uncorrected points in an error corrected circuit:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* TO facility termination */
   "uv-m-np-ddd-01"
   /* UNC */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},R"
   "{RATE-rr|DS0B-nn}"
[  /* Parity channel, PCH test port */]
[  "ppp,11"]
[  "UNMAP"]
```

Usage: For access points specified in terms of an MJU and (optional) branch number:

[O.19656]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT COMPLD
   /* [O.19656] */
   /* Multipoint master leg facility termination */
   "uv-m-np-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
```

Denial Message

[O.19656.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TACC TS:::[ww]:kk:SPLT DENY
   mmmm
   /* [O.19656.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests that the mode of test port **kk** be changed from its current mode to the split mode for a Subrate circuit that is already under test access. The output from this command depends upon the type of Subrate access point that is under test. The possible

types of access point are: standard (DS-0A), DS-0B, or MJU.

Explanation Of Parameters

TS - Subrate

kk - Test port number (1 through 48)

SPLT - Split mode

[s]abc
- Digroup number of circuit under test, or of multipoint master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number of circuit under test, or of multipoint master leg.

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of circuit under test, or of multipoint master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of circuit under test, or of multipoint master leg

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

RATE - Circuit rate

rr - Circuit rate value (24, 48, 96, or 56)

DS0B - Access point type

nn - Number of DS0B subrate customer channels (05, 10, or 20)

UNC - Uncorrected

PCH - Parity channel

ppp - Parity error correction channel number

ll - Test port number used for parity error correction channel (02 through 48)

MJU - Multipoint junction unit

ssss - MJU number of MJU under test (0001 through 9999)

BR - Branch

i - Branch number of MJU under test (1 through 4)

FROM - FROM CGA status

TO - TO CGG status

CGA status
- CGA status on the facilities

State	*Explanation*
F	FROM facility in CGA
T	TO facility in CGA
P	Test port digroup in CGA
0	The facility is not in CGA

TERM - Termination status of the access point

State	*Explanation*
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated
R	Neither side is terminated

LPD - Looped

mmmm - Error condition code

Reason
- Reason for denial

mmmm	*Explanation* *Reason*
ENEQ	Equipage, not equipped
	THE SPECIFIED TEST PORT IS NOT EQUIPPED THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED THE FROM SIDE NPC [s]abc IS NOT EQUIPPED THE TO SIDE NPC [s]abc IS NOT EQUIPPED TSI sft IS NOT EQUIPPED CCB sf IS NOT EQUIPPED ETSI sqq IS NOT EQUIPPED UNIT [q]q IS NOT EQUIPPED UNIT [q]q FTMI d IS NOT EQUIPPED UNIT [q]q FC sb IS NOT EQUIPPED
	NO DSPU IS EQUIPPED NO SRM OR MJU TYPE NPC IS EQUIPPED
IDNV	Input, data not valid
	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
SNIS	Status, not in service
	BOTH CCN SIDES ARE OUT-OF-SERVICE ACTIVE CCN SIDE s IS OUT-OF -SERVICE THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE CCNI s IS OUT-OF-SERVICE TSI sft IS OUT-OF-SERVICE CCB sf IS OUT-OF-SERVICE CCI s IS OUT-OF-SERVICE ETSI sqq IS OUT-OF-SERVICE UNIT [q]q IS OUT-OF-SERVICE UNIT [q]q FTMI d IS OUT-OF-SERVICE UNIT [q]q FC sb IS OUT-OF-SERVICE
	DSPI IN UNIT [q]q IS OUT-OF-SERVICE NPC [s]abc SIDE s IS OUT-OF-SERVICE
SROF	Status, requested operation failed
	ACTIVE CCN SIDE s IS FAILED ACTIVE CCN SIDE s IS PESTED THE TEST PORT GROUP NPC [s]abc IS FAILED

THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS ALREADY IN SPLIT MODE

A DSOB CHANNEL CANNOT BE SPLIT UNLESS MONITORED FIRST

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

CHG,TL,T0,TERM,F,T,B,L,G,A,NOT

TWO-WAY TEST ACCESS

Input Message Format

Nonhierarchical

[I.25101]

```
CHG-TL-T0:[<xy>]::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv];
```

Hierarchical

[I.25101]

```
CHG-TL-T0:[<xy>]::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-uv-m-np-vvv];
```

Completion Message

Nonhierarchical

[O.25101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
COMPLD
   /* [O.25101] */
   "TERM{R|F|T|B}"
[  "RDLD,CUS"]
   "[s]abc-ddd,[t]ghi-jjj"
;
```

Hierarchical

[O.25101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
COMPLD
   /* [O.25101] */
   "TERM{R|F|T|B}"
[  "RDLD,CUS"]
   "ed-h-fg-ddd,wx-k-qr-jjj"
;
```

Denial Message

Nonhierarchical

[O.25101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25101.02] */
   /* T-UASGN */
   /* [t]ghi-jjj */
;
```

[O.25101.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25101.03] */
   /* <reason> */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

[O.25101.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25101.04] */
   /* PTLA */
   /* [RDLD][,CUS] */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

Hierarchical

[O.25101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}\
:[NOT-[t]uv-m-np-vvv] DENY
   mmmm
   /* [O.25101.01] */
   /* <reason> */
;
```

[O.25101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}\
:[NOT-uv-m-np-vvv] DENY
   mmmm
   /* [O.25101.02] */
   /* T-UASGN */
   /* wx-k-qr-jjj */
;
```

[O.25101.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
DENY
   mmmm
   /* [O.25101.03] */
   /* <reason> */
   /* ed-h-fg-ddd,wx-k-qr-jjj */
;
```

[O.25101.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:kk:TERM{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
DENY
   mmmm
   /* [O.25101.04] */
   /* PTLA */
   /* [RDLD][,CUS] */
   /* ed-f-gh-ddd,uv-m-np-jjj */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to modify the terminate and leave activate status of one or both ends of the cross-connected channel associated with the specified test port. The test port is mapped to a predesignated channel of a network processing circuit for test ports during the provisioning of that test port.
All domestic NPC types except SLC® NPCs can be provisioned as NPC test ports (NPCTP).
When this command is used with the subrate feature for a circuit termination, the system response will be STST TLA TP or STST TLA MPTM TP.

Explanation Of Parameters

TERM - Terminate

m - The end of the tested circuit that must be put into the TLA state. Set m to one of the values given below:

m	*Explanation*
F	Apply TLA to the FROM end
T	Apply TLA to the TO end
B	Apply TLA to BOTH ends

The following apply only to a DMB/conference

L	Apply TLA on all legs towards facilities
G	Apply TLA on all legs towards bridge
A	Apply TLA on all legs in both directions

The end or ends of the channel to which termination has been applied will transmit the idle code specified in the insertion word entered in the CRTE-EQPT::NPC message, or its default, instead of passing data from the other end of the circuit. If the growth insertion word is MUX (X'1A), the terminate transmit word is the UMC code (X'18).

This message will be denied if test port kk is not in the monitor or split mode or if the tested circuit is already in the specified termination state.

[t]rst

- The 3- or 4-digit nonhierarchical NPC number of a termination that must not be affected by this command.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np

- Hierarchical TO NPC number of a termination that must not be affected by this command.

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

vvv - Channel or conference number
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085 (MB NPC)

001-500 (Virtual NPC)

NOT - Not

Not means that the following channel number must not be affected by this command. This field is only valid if the termination state is equal to L, G, or A.

kk - Test port number (01 through 96)

The test port is mapped to predesignated channels of a Network Processing Circuit for test ports (NPCTP) during the provisioning of that test port.

The NPC types that can be provisioned as an NPCTP are all domestic non-SLC NPC types.

For information on the mapping between the test ports and the channels of the test NPCs (NPCTP), see CRTE-EQPT::TP-kk::[<tc>].

[s]abc

- The 3- or 4-digit nonhierarchical FROM NPC number with the same valid values as [t]rst.

[t]ghi

- The 3- or 4-digit nonhierarchical TO NPC number with the same valid values as [t]rst.

wx-k-qr

- Hierarchical NPC number of the TO termination of the circuit assigned to the test port (with the same valid values as uv-m-np).

ed-h-fg

- Hierarchical NPC number side of the FROM termination of the circuit assigned to the test port. If the test port is assigned to an unmapped termination, this field will be all zeroes (with the same valid values as uv-m-np).

ed,wx - Unit number
h,k - Module number
fg,qr - NPC number

jjj - TO channel number with the same value as vvv.
ddd - FROM channel number with the same value as vvv.

B	BOTH sides are terminated
F	FROM side is terminated
R	RELEASED. Neither side is terminated
T	TO side is terminated

RDLD - Red lined

CUS - Customer

Customer-controlled circuit

T UASGN

- The test port is assigned to an unmapped termination.

PTLA - The requested TLA state is the present TLA state.

reason

- Denial reason

st	mmmm	Explanation
SCERR D2	ENRE	NOT NPC is not provisioned as DGA
SCERR D5	ENRE	Corresponding NPC for NOT virtual channel is not provisioned
SCERR D8	IDNV	Invalid NOT channel number
BADCCN	NCON	CCN OOS or failed
BADFC	NCON	FC OOS or failed
BADFLI	NCON	FLI OOS or failed
BADFMT	NCON	FMT (Formatter) OOS or failed
BADFTMI	NCON	FTMI OOS or failed
BADMIU	NCON	MIU OOS or failed
BADMXR	NCON	MXR OOS or failed
BADUNIT	NCON	UNIT OOS or failed
CHREST	NCON	CAS channel 031 not allowed
F FAIL	NCON	FROM side NPC is marked failed
F OOS	NCON	FROM side NPC (abc) is out of service
FAIL	NCON	Test port Group NPC failed
INERR	NCON	Input error in the specification of TLA direction
MCOND	NCON	An entity in the network is OOS or failed
NA	NCON	DACS CCN or UNIT involved cannot perform the cross-connect
OOS	NCON	Test port Group NPC out of service
T FAIL	NCON	TO side NPC is marked failed
T OOS	NCON	TO side NPC is Out Of Service

CHG,TL,T0,TG,TERM,F,T,B

NX64Kbit/s TWO-WAY TEST ACCESS, TERMINATE-AND-LEAVE-ACTIVE

Input Message Format

[I.25121]

```
CHG-TL-T0:[xy]::[ww]:TG-mmm:TERM{F|T|B};
```

Completion Message

Nonhierarchical

[O.25121]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:TG-mmm:TERM{F|T|B} COMPLD
   /* [O.25121] */
   "TERM{F|T|B}[,RDLD][,CUS][,ONEWAY]"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Hierarchical

[O.25121]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:TG-mmm:TERM{F|T|B} COMPLD
   /* [O.25121] */
   "TERM{F|T|B}[,RDLD][,CUS][,ONEWAY]"
   "FROM-NPC:uv-m-np,TO-NPC:wx-k-qr"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Denial Message

[O.25121.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL T0:::[ww]:TG-mmm:TERM{F|T|B} DENY
   mmmm
   /* [O.25121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to terminate one or both ends of an Nx64Kbit/s cross-connection associated with a test-access group.

Note: In the terminated state the data normally transmitted over the circuit is replaced by the trunk conditioning specified when the cross-connection was made. The Nx64Kbit/s circuit must be an unterminated, mapped one-way or two-way circuit that is currently in the

Monitor or Split test access mode.

Explanation Of Parameters

TG - Test-access Group

mmm - Test-access Group number (001 through 400)

The TG is designated as in message 31421

[s]abc
- 3- or 4-digit non-hierarchical FROM NPC number

[t]ghi
- 3- or 4-digit non-hierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM Channel numbers

001 through 024

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s). If TO channel is mapped to a channel 000, the circuit can only be tested as N = 1, the corresponding FROM channel ddd will be '000'.

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

TERM - Terminate

m	*Explanation*
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

s	*Explanation*
F	One or more FROM channel is terminated
T	One or more TO channel is terminated
B	One or more of FROM and TO channels are terminated

UNMAP - Unmapped

Circuit under test is unmapped.

mmmm - Four-character error condition code.

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Active CCN side not IS or failed or pested or hardware OOS
SWFA	SYNC summary is set on CCI circuit pack
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
IPNV	Invalid direction specified for NTST TLA/TLR
ENEQ	test group unequipped
SNVS	Invalid mode for TLA/TLR
SNVS	Circuit already terminated
SNIS	NPC not in service or failed

CHG,TL,TS,TERM,F,T,B

SUBRATE TEST ACCESS

Input Message Format

[I.19661]

```
CHG-TL-TS:[<xy>]::[ww]:kk:TERM{F|T|B};
```

Completion Message

Nonhierarchical

USAGE: For standard (DS0A) access points:

[O.19661]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL TS:::[ww]:kk:TERM{F|T|B} COMPLD
   /* [O.19661] */
   /* TO facility termination */
   "[s]abc-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{F|T|B}"
   "RATE-rr"
;
```

USAGE: For access points specified in terms of an MJU and (optional) branch number:

[O.19662]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL TS:::[ww]:kk:TERM{F|T|B} COMPLD
   /* [O.19662] */
   /* Multipoint master leg facility termination */
   "[s]abc-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
;
```

Hierarchical

USAGE: For standard (DS0A) access points:

[O.19661]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL TS:::[ww]:kk:TERM{F|T|B} COMPLD
   /* [O.19661] */
   /* TO facility termination */
   "uv-m-np-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{F|T|B}"
   "RATE-rr"
;
```

USAGE: For access points specified in terms of an MJU and (optional) branch number:

[O.19662]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL TS:::[ww]:kk:TERM{F|T|B} COMPLD
   /* [O.19662] */
   /* Multipoint master leg facility termination */
   "uv-m-np-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
;
```

Denial Message

[O.19661.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CHG TL TS:::[ww]:kk:TERM{F|T|B} DENY
   mmmm
   /* [O.19661.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests termination of a subrate circuit under test on test port **kk**. Before using this command, the circuit must be attached to a test port by use of either the CONN,TACC,TS,MON or the CONN,TACC,TS,SPLT command.

This command can only be used on cross-connected two-point or multipoint circuits. It cannot be used during test access to entire **DS0B** channels or to unmapped (established but not cross-connected) external facility terminations and unmapped multipoint circuit branches. It also cannot be used for two-point circuits that are looped on themselves.

Explanation Of Parameters

TERM - Terminate

F - Terminate/release the FROM side
T - Terminate/release the TO side
B - Terminate/release BOTH sides

PRIOR STATE	REQUESTED CHANGE	NEW STATE	PRIOR STATE	REQUESTED CHANGE	NEW STATE
R	TLA F	F	R	TLR F	DNY
R	TLA T	T	R	TLR T	DNY
R	TLA B	B	R	TLR B	DNY
F	TLA F	DNY	F	TLR F	R
F	TLA T	B	F	TLR T	DNY
F	TLA B	B	F	TLR B	R
B	TLA F	DNY	B	TLR F	T
B	TLA T	DNY	B	TLR T	F
B	TLA B	DNY	B	TLR B	R
T	TLA T	DNY	T	T	R
T	F	B	T	F	DNY
T	B	B	T	B	R

kk - Test port number (01 through 96)

kk indicates the test port number used for test access to the circuit.

MJU - Multipoint junction unit

ssss - MJU number of MJU under test (0001 through 9999)

BR - Branch

i - Branch number of MJU under test (1 through 4)

ff - Customer number of circuit under test, or of multipoint master leg

01 (DS0A at 2.4, 4.8, 9.6, or 56 kb/s)

01-20 (DS0B at 2.4 kb/s)

01-10 (DS0B at 4.8 kb/s)

01-05 (DS0B at 9.6 kb/s)

[s]abc
- Nonhierarchical NPC number of the external facility termination connected to the TO test port channel or of multipoint master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number of the external facility termination connected to the TO test port channel or of multipoint master leg

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are given below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of the external facility termination connected to the TO test port channel or of multipoint master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

RATE - Rate

rr - Transmission rate (24, 48, 96, or 56)

rr	*rate in kb/s*
24	2.4
48	4.8
96	9.6
56	56

The customer rate of the circuit is indicated by rr. This is the rate at which the circuit is mapped (that is, subrate cross-connected via an SCON or SCNT command.

F - FROM facility in CGA
0 - FROM facility is not in CGA

T - TO facility in CGA
0 - TO facility is not in CGA

P - Test port digroup in CGA
0 - Test port digroup is not in CGA

F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated
R	Neither side is terminated

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Equipage, not equipped explanation of error condition code THE SPECIFIED TEST PORT IS NOT EQUIPPED THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED THE FROM SIDE NPC [s]abc IS NOT EQUIPPED THE TO SIDE NPC [s]abc IS NOT EQUIPPED TSI sft IS NOT EQUIPPED CCB sf IS NOT EQUIPPED ETSI sqq IS NOT EQUIPPED UNIT [q]q IS NOT EQUIPPED UNIT [q]q FTMI d IS NOT EQUIPPED UNIT [q]q FC sb IS NOT EQUIPPED NO DSPU IS EQUIPPED NO SRM OR MJU TYPE NPC IS EQUIPPED

IDNV Input, data not valid

TLA CANNOT BE SPECIFIED FOR A LOOPED CHANNEL

TLA CANNOT BE SPECIFIED FOR DS0B
TLA CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
TLR CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS NOT ESTABLISHED TO THE SR FEATURE
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

CI,ECI,RESET

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01201]

```
**{CI|ECI} RESET
```

Explanation Of Message

DACS II outputs this message immediately after a hardware reset. The message notifies remote systems by the major alarm state (indicated by **) that the frame has reset.

Explanation Of Parameters

CI - Communications interface

ECI - Enhanced communications interface

RESET - Reset

Indicates a hardware reset of the frame

CI,ECI,STARTUP,STF,ATP

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01211]

```
{CI|ECI} STARTUP {STF|ATP}
```

Explanation Of Message

The communications interface or enhanced communications interface has initialized itself and has performed self-diagnostics. The results of these diagnostics are reported as some tests failed or all tests passed.

Explanation Of Parameters

CI - Communications interface

ECI - Enhanced communications interface

STARTUP
- Startup

Indicates initialization

STF - Some tests failed

ATP - All tests passed

CMD,MC,OOS,MCOND,INSERVICE

INPUT DENIAL

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CMD::MC:[ww]:{OOS|MCOND|INSERVICE|MPDBASE} STOPPED
   /* [O.01111] */
   /* <first 70 characters of input message> */
   /* <remaining text of input message> */
;
```

Explanation Of Message

This autonomous message indicates that processing of the input message is **STOPPED** because the main controller is either out of service, in maintenance condition, in service, or the main processor data base is not loaded.

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

OOS - Out-of-service

MCOND - Maintenance condition

INSERVICE
- In-service

MPDBASE
- MP data base

The main processor data base is not loaded

CONN,BDCST,T0,RDLD,CUS,INCL

BROADCAST CROSS-CONNECTIONS

Input Message Format

Nonhierarchical

[I.13001]

```
CONN-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj\
[&[t]klm-nnn&..]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM];
```

Hierarchical

[I.13001]

```
CONN-BDCST-T0:[xy]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj\
[&ed-h-fg-nnn&..]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM];
```

Completion Message

Nonhierarchical

[O.13001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj\
[&[u]klm-nnn&...]:[ww]:<tc>:[RDLD]\
[,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] COMPLD
[   /* [O.13001] */]
[   "CONV"]
;
```

Hierarchical

[O.13001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj\
[&ed-h-fg-nnn&...]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM] COMPLD
[   /* [O.13001] */]
[   "CONV"]
;
```

Denial Message

Nonhierarchical

[O.13001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj\
[&[t]klm-nnn&...]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13001.01] */
   /* <explanation of error condition code> */
   /* BCAST */
[  /* [t]wxy-zzz */]
;
```

[O.13001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj\
[&[t]klm-nnn&...]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13001.02] */
   /* <explanation of error condition code> */
[  /* [t]wxy-zzz */]
;
```

Hierarchical

[O.13001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj\
[&ed-h-fg-nnn&...]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13001.01] */
   /* <explanation of error condition code> */
   /* BCAST */
[  /* op-j-st-zzz */]
;
```

[O.13001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj\
[&ed-h-fg-nnn&...]:[ww]:<tc>:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13001.02] */
   /* <explanation of error condition code> */
[  /* op-j-st-zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message sets up a broadcast from a source (FROM) NPC to up to eight tributary (TO) receiving NPCs in the same broadcast. This message is also used to add multiple TOs to an existing broadcast connection based on the specified FROM. Each of the TOs will be connected to the specified FROM. There will be at most eight TOs allowed in the argument list to the TO keyword. Note that no channel range can be specified on the TO arguments. The channel range from 001 to 024 channels is determined by the range given for the FROM.

The **FROM** field designates the source termination. The optional range field **[-&&eee]** indicates the width of the conference backbone.

The allowable width ranges from 001 to 024 channels and must be the same as the width of the existing conference backbone (if any).

The fields following the SOURCE designation assign the tributaries to be connected to the backbone. Although a conference may have any number of tributaries (limited only by frame configuration), at most eight at a time may be added using this command.

More tributaries can be added by subsequent **CONN-BDCST** commands. Each specified tributary will have the same range width as the backbone.

If a command attempts to cross-connect a channel to the 24th channel of a DS1 provisioned with the T1DM format, the command will be denied.

Explanation Of Parameters

FROM - From

The first termination entered in the command is the source termination.

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

[u]klm
- The 3- or 4-digit nonhierarchical TO NPC number

The values are as follows:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC numbers

uv,wx,ed
- Unit number

m,k,h - Module number

np,qr,fg
- NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM channel number
eee - FROM channel number denoting the end of the range
jjj - TO channel number
nnn - TO channel number denoting the end of the range

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The optional range field eee indicates the width of the conference backbone. The range field must not be repeated on the tributary legs' specification. A termination cannot be broadcast connected to itself. The desired effect can be reached by specifying the LPD option. If this message is used to add tributary legs, the width must be the same as the width of the existing conference backbone. However, a conference can have an unlimited number of tributaries, limited only by the frame configuration. More tributaries can be added by subsequent commands.

tc - The desired cross-connected signaling and insertion word applied when a failure occurs. The signaling and the insertion word specifications are entered separately, with a comma as the delimiter. The following signaling options are allowed:

tc	*Explanation*
TC-ijkl,mnop	**2-way, 4-state signaling in binary.**
TC-efghijkl,mnopqrst	**2-way, 16-state in binary. Only valid for ESF and CEPT framing formats.**
TC-X-ab,X-cd	**2-way, 16-state in hexadecimal.**
TRSP	**Transparent, no signaling**
TRSP	**Transparent, no signaling (for CEPT, channel 000 in TS16).**

The following insertion word options are allowed:

IW	*Explanation*
IW-X-pq	**The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.**
TRB	**Standard trouble code, equal to IW-X-E4.**
MUX	**MUX out of sync code, equal to IW-X-1A.**

Note: TRSP is used only for domestic trunk conditioning.

NTR - No transmit

All tributaries are broadcast only. There is no return path to the source.

LPD - Looped

The source loops its broadcast back to itself. All the tributaries are broadcast only.

If neither NTR nor LPD is used, and the source (FROM abcddd[-eee]) is being established for the first time, ghijjj is a full tributary, capable of transmitting back to the source. If the source has been previously established, all tributaries are broadcast only.

CONV - Convert

CONV is given to convert a two-way, two-point circuit to a broadcast circuit.

The first termination (NPC and channel) listed in the input message is the FROM (or source) termination in the current two-point connection. The termination next following in the command is the full tributary leg to be added in the conversion to a broadcast connection. Additional legs may be added simulaneously by specifying additional terminations

NAM - No A to Mu (conversion)

Disables the A-law to μ-law and μ-law to A-law code translator on 2.048Mb/s NPCs

CUS - Customer

Indicates a Customer-controlled Circuit

RDLD - Red lined

This keyword will cause the associated circuits to be flagged as red circuits.

INCL - Inclusive

To connect a circuit or range of circuits including one or more circuits previously marked as customer controlled, use the INCL (inclusive) option. If this option is not used, the message will be denied if any circuits in the range are customer controlled. INCL is not needed to connect a circuit or circuits previously marked as red circuits.

[t]wxy
- NPC number involved in the denial; otherwise, the same as [s]abc.

zzz - Channel number involved in the denial; otherwise, the same as ddd.

op-j-st
- Hierarchical NPC number involved in the denial, otherwise the same as uv-m-np

BCAST - Denial specific to broadcast conferences

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IIDT	No RDLD or CUS circuits and INCL keyword used
IIDT	No NPC's out of service and OOS keyword used
IIDT	Invalid use of CONV keyword
IDRG	Invalid range for specified FROM NPC type
SAOS	NPC out of service or failed
ENEQ	NPC not equipped
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Line format types are incompatible
IIDT	Trunk conditioning is invalid
IIFM	FMC cannot be cross-connected in this format
SAAS	Termination is already assigned
SNVS	Termination is under test
SNVS	Termination is a test port
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
ENIE	Termination is not connected as indicated
SNVS	Trunk conditioning doesn't match that of conference
SNVS	CUS flag doesn't match that of conference
SNVS	RDLD flag doesn't match that of conference
SNVS	TO side of two-way to be converted is not an FTU NPC
SNVS	Conversion leg is terminated
SNVS	Width of existing two way does not match conference width
SNVS	FROM is a two-way and no CONV specified
SNVS	FROM is not a backbone leg
SNVS	Specified width does not match existing conference width
SNVS	NTR invalid since existing conference is not already NTR
SNVS	LPD invalid since existing conference is not already LPD
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SNVS	Range overlapping between FROM and TO or between two TOs
ENRE	FROM NPC is not provisioned as DGA
ENRE	TO NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned

mmmm	*Explanation*
ENRE	Corresponding NPC for TO virtual channel is not provisioned
IDNV	Invalid FROM channel number
IDNV	Invalid TO channel number
IDRG	Invalid FROM channel number range
IDRG	Invalid TO channel number range
SNVS	A loopback is active on the FROM termination
IDNV	Attempt to broadcast a locally switched channel
IDNV	SC invalid for cross-connection specified
IDNV	MUX or TRB invalid for cross-connection specified
IDNV	AIS invalid for cross-connection specified
IDNV	NAM invalid for cross-connection specified
IDNV	Invalid channel 000 cross-connection specified
IDNV	Invalid channel 031 cross-connection specified
IDNV	Using the 24th channel of a T1DM NPC
SAAS	Termination is in process of being rolled
ENEQ	ETSI not equipped, not in service, or failed

st	d	*Explanation*
ROLL	{FIT|B}	Circuit is involved in a roll

CONN,BDCST,T0,RDLD,CUS,INCL

BROADCAST CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.13002]

```
CONN-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM];
```

Hierarchical

[I.13002]

```
CONN-BDCST-T0:[xy]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM];
```

Completion Message

Nonhierarchical

[O.13002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[s]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] COMPLD
;
```

Hierarchical

[O.13002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] COMPLD
;
```

Denial Message

Nonhierarchical

[O.13002.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[s]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13002.01] */
   /* <explanation of error condition code> */
   /* BCAST */
[  /* [t]wxy-zzz */]
;
```

[O.13002.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::[s]abc-ddd[&&-eee],[s]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13001.02] */
   /* <explanation of error condition code> */
[  /* [t]wxy-zzz */]
;
```

Hierarchical

[O.13002.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmm
   /* [O.13002.01] */
   /* <explanation of error condition code> */
   /* BCAST */
[  /* op-j-st-zzz */]
;
```

[O.13002.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}]:[NORM] DENY
   mmmmm
   /* [O.13001.02] */
   /* <explanation of error condition code> */
[  /* op-j-st-zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message adds a single tributary to a broadcast conference. It cross-connects the tributary to the indicated source.

The FROM end field designates the conference backbone. The optional range fields indicate the conference width.
The allowable range is from 01 to 24 channels.
If the FROM end is not looped or is in the no transmit state and the TO end is the initial connection, then the FROM end will receive return data from the TO end.

The field in the TO end designates the tributary. The width of the tributary is indicated by a range designation and must match the backbone width. If necessary, more tributaries can be added by subsequent broadcast cross-connect commands. Received data from broadcast-only TO terminations will be dead-ended as it enters DACS II.
If a command attempts to cross-connect a channel to the 24th channel of a DS1 provisioned with the T1DM format, the command will be denied.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd,jjj
- Channel numbers for beginning of channel range

eee,kkk
- Channel numbers for end of channel range

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

tc - Trunk conditioning

The desired cross-connected signaling and insertion word applied when a failure occurs. The signaling and the insertion word specification are entered separately, with a comma as the delimiter.

signaling	*Explanation*
TC-ijkl,mnop	2-way, 4-state signaling in ESF type framing format, software will expand 4-state to 16-state by duplicating the format on the remaining frames on a superframe.
TC-efghijkl,mnopqrst	2-way, 16-state in binary. Only valid for ESF framing formats.
TC-X-ab,X-cd	2-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

The following insertion word options are allowed:

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4.
MUX	MUX out of sync code, equal to IW-X-1A.

NTR - No Transmit

All tributaries are broadcast only. There is no return path to the source.

LPD - Looped.

The source loops its broadcast back to itself. All the tributaries are broadcast only.

CONV - Convert

CONV is given to convert a two-way, two-point circuit to a broadcast circuit.

The first termination (NPC and channel) listed in the input message is the FROM (or source) termination in the current two-point connection. The termination next following in the command is the full tributary leg to be added in the conversion to a broadcast connection.

If the range fields eee and kkk are used, the entire width of the conference tributaries must be indicated.

NAM - No A- to μ-law conversion

Disables the A-law to μ-law and μ-law to A-law code translator on 2.048Mb/s NPCs

CUS - Customer

Indicates a customer controlled circuit

RDLD - Red lined

This keyword will cause the associated circuit to be flagged as a red circuit.

INCL - Inclusive

To connect a circuit or range of circuits including one or more circuits previously marked as Customer Controlled, use the INCL (inclusive) option. If this option is not used, the message will be denied if any circuits in the range are customer controlled. INCL is not needed to connect a circuit or circuits previously marked as Red Circuits.

[t]wxy

- The 3- or 4-digit nonhierarchical NPC number involved in the denial, otherwise the same as [s]abc

op-j-st

- Hierarchical NPC number involved in the denial; otherwise, the same as uv-m-np.

zzz - Channel number involved in the denial; otherwise, the same as ddd.

BCAST - Denial specific to broadcast conferences.

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IIDT	No RDLD or CUS circuits and INCL keyword used
IIDT	No NPC's out of service and OOS keyword used
IIDT	Invalid use of CONV keyword
IDRG	Invalid range for specified FROM NPC type
SAOS	NPC out of service or failed
ENEQ	NPC not equipped
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Line format types are incompatible
IIDT	Trunk conditioning is invalid
IIFM	FMC cannot be cross-connected in this format
SAAS	Termination is already assigned
SNVS	Termination is under test
SNVS	Termination is a test port
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
ENIE	Termination is not connected as indicated
SNVS	Trunk conditioning doesn't match that of conference
SNVS	CUS flag doesn't match that of conference
SNVS	RDLD flag doesn't match that of conference
SNVS	TO side of two-way to be converted is not an FTU NPC
SNVS	Conversion leg is terminated
SNVS	Width of existing two way does not match conference width
SNVS	FROM is a two-way and no CONV specified
SNVS	FROM is not a backbone leg
SNVS	Specified width does not match existing conference width
SNVS	NTR invalid since existing conference is not already NTR
SNVS	LPD invalid since existing conference is not already LPD
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SNVS	Range overlapping between FROM and TO or between two TOs
ENRE	FROM NPC is not provisioned as DGA
ENRE	TO NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned

mmmm	*Explanation*
ENRE	Corresponding NPC for TO virtual channel is not provisioned
IDNV	Invalid FROM channel number
IDNV	Invalid TO channel number
IDRG	Invalid FROM channel number range
IDRG	Invalid TO channel number range
SNVS	A loopback is active on the FROM termination
IDNV	Attempt to broadcast a locally switched channel
IDNV	SC invalid for cross-connection specified
IDNV	MUX or TRB invalid for cross-connection specified
IDNV	AIS invalid for cross-connection specified
IDNV	NAM invalid for cross-connection specified
IDNV	Invalid channel 000 cross-connection specified
IDNV	Invalid channel 031 cross-connection specified
IDNV	Using the 24th channel of a T1DM NPC
SAAS	Termination is in process of being rolled
ENEQ	ETSI not equipped, not in service, or failed

st	d	*Explanation*
ROLL	{FIT|B}	Circuit is involved in a roll

CONN,BDCST,T1,RDLD,CUS,INCL

BROADCAST CONNECT

Input Message Format

Nonhierarchical

[I.13011]

```
CONN-BDCST-T1:[xy]:[s]abc,[u]ghi[&[v]jkl][&[t]mno]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}];
```

Hierarchical

[I.13011]

```
CONN-BDCST-T1:[xy]:uv-m-np,wx-k-qr[&ed-f-hg][&st-m-no]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}];
```

Completion Message

Nonhierarchical

[O.13011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::[s]abc,[t]def[&[u]ghi][&[v]jkl]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}] COMPLD
;
```

Hierarchical

[O.13011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::uv-m-np,wx-k-qr[&ed-f-hg][&st-m-no]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.13011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::[s]abc,[t]def[&[u]ghi][&[v]jkl]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}] DENY
   mmmm
   /* [O.13011.01] */
   /* <explanation of error condition code> */
[  /* [t]qrs */ ]
;
```

Hierarchical

[O.13011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::uv-m-np,wx-k-qr[&ed-f-hg][&st-m-no]\
[...]:[ww]:[RDLD][,{CUS|INCL}]:[{NTR|LPD|CONV}] DENY
   mmmm
   /* [O.13011.01] */
   /* <explanation of error condition code> */
[  /* op-q-rs */ ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message cross connects a new broadcast circuit from a non-channelized source network processing circuit (NPC) to up to eight non-channelied tributaries. The NPCs can belong to different units. This message can be used to add up to eight non-channelized tributaries to an existing conference.

This message is also used to add the indicated tributaries and convert (CONV) a two-way, two-point circuit to a broadcast circuit. When a failure occurs, or during an alarm state, the alarm-indication signal (AIS-all ones) is transmitted to the failed tributaries or all tributaries if the source NPCs fail. If the failure occurs during the execution of this command, the message is canceled and no broadcast circuit is set up.

Explanation Of Parameters

Note: An NPC cannot be broadcast-connected to itself. The desired effect can be achieved by specifying the LPD option.

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]def
- The 3- or 4-digit nonhierarchical TO NPC number

[u]ghi
- Same definition as [t]def

[v]jkl
- Same definition as [t]def

[t]mno
- Same definition as [t]def

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of non-channelized source NPC

wx-k-qr
- Hierarchical tributary NPC number.

ed-f-hg
- Same definition as wx-k-qr

st-m-no
- Same definition as wx-k-qr

uv,wx,ed,st
- Unit number

m,k,f
- Module number

np,qr,hg,no
- NPC number within the module

The values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

RDLD - Red lined

CUS - Customer

Customer-controlled circuit

INCL - Inclusive

Option will remove CUS marking

NTR - No transmit

No transmit or return path, all tributaries are broadcast only

LPD - Looped

One signal is looped back to source

If neither the NTR nor the LPD keyword is specified and the broadcast conference is being established for the first time, the first tributary is a full tributary, capable of transmitting back to the source; if the source has been previously established then all tributaries are broadcast only.

CONV - Convert

Convert a two-way, two-point circuit to a broadcast circuit by adding the indicated tributaries

The first termination (NPC and channel) listed in the input message is the FROM (or source) termination in the current two-point connection. The termination next following in the command is the full tributary leg to be added in the conversion to a broadcast connection. Additional legs may be added simulaneously by specifying additional terminations

[t]qrs

- The 3- or 4-digit backbone leg (bbl) or tributary NPC involved in denial

op-q-rs

- Hierarchical number of the backbone leg or tributary NPC involved in denial.

st - Status

Status of denial

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG		Invalid range for specified NPC type
IIDT		No RDLD or CUS circuits and INCL keyword used
IIDT	BCAST	Invalid use of CONV keyword
IDRG		Invalid range for specified FROM NPC type
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	MCOND	Termination is already assigned
SNVS	MCOND	Termination is under test
SNVS		Termination is a test port
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
ENIE		Termination is not connected as indicated
SNVS	INERR	Trunk conditioning doesn't match that of conference
SNVS	INERR	CUS flag doesn't match that of conference
SNVS	INERR	RDLD flag doesn't match that of conference

mmmm	st	*Explanation*
SNVS		TO side of two-way to be converted is not an FTU NPC
SNVS		Conversion leg is terminated
SNVS		Width of existing two way does not match conference width
SNVS		FROM is a two-way and no CONV specified
SNVS	BCAST	FROM is not a backbone leg
SNVS		Specified width does not match existing conference width
SNVS		NTR invalid since existing conference is not already NTR
SNVS		LPD invalid since existing conference is not already LPD
IIDT		NPC type mismatch
IIDT		NPC is a channelized NPC
IIDT		NPC is a non-channelized NPC
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SNVS	MCOND	Range overlapping between FROM and TO or between two TOs
IDNV	INERR	Unmatched channel range
SNVS	MCOND	NPC invalid type
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

CONN,BDCST,T1,RDLD,CUS,INCL

BROADCAST CONNECT

Input Message Format

Nonhierarchical

[I.13021]

```
CONN-BDCST-T1:[<xy>]:[s]abc,[t]def:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}];
```

Hierarchical

[I.13021]

```
CONN-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}];
```

Completion Message

Nonhierarchical

[O.13021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::[s]abc,[t]def:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}] COMPLD
;
```

Hierarchical

[O.13021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.13021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::[s]abc,[t]def:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}] DENY
   mmmm
   /* [O.13021.01] */
   /* <explanation of error condition code> */
[  /* [t]ghi */ ]
;
```

Hierarchical

[O.13021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN BDCST T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NTR|LPD|CONV}] DENY
   mmmm
   /* [O.13021.01] */
   /* <explanation of error condition code> */
[  /* ed-f-hg */ ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message connects a new broadcast circuit from a non-channelized source network processing circuit (NPC) to a single non-channelized tributary. It also adds a single non-channelized tributary to an existing conference.

This message also adds the indicated tributary and converts (CONV) a two-way, two-point circuit to a broadcast conference.

When a failure occurs or during an alarm state, the alarm-indication signal (AIS or all ones signal) is transmitted to the failed tributaries or to all tributaries if the source NPCs fail. If the failure occurs during the execution of this command, it is canceled and no broadcast circuit is set up.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit non-hierarchical non-channelized source (backbone) NPC number

[t]def

- The 3- or 4-digit non-hierarchical non-channelized tributary NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

wx-k-qr
- Hierarchical number of non-channelized tributary NPC

uv-m-np
- Hierarchical number of non-channelized source NPC

uv,wx - Unit number
m,k - Module number
np,qr - NPC number

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

Note: An NPC cannot be broadcast-connected to itself. The desired effect can be achieved by specifying the LPD option.

RDLD - Red lined

CUS - Customer

Customer-controlled circuit

INCL - Inclusive

The INCL keyword will remove CUS marking

NTR - No transmit

No transmit or return path, the tributary is broadcast only

LPD - Looped

One signal is looped back to source

If neither the NTR nor LPD keyword is specified and the broadcast conference is being established for the first time, the tributary is a full tributary, capable of transmitting back to the source; if the source has been previously established then the tributary is broadcast only.

CONV - Convert

CONV is given to convert a two-way, two-point circuit to a broadcast circuit.

The first termination (NPC and channel) listed in the input message is the FROM (or source) termination in the current two-point connection. The termination next following in the command is the full tributary leg to be added in the conversion to a broadcast connection.

[t]ghi

- The 3- or 4-digit backbone leg (bbl) or tributary NPC number causing denial

ed-f-hg

- Hierarchical number of the backbone leg or tributary NPC causing denial

st - Status

Status of denial

mmmm - Error condition code

mmmm	st	*Explanation*
IDRG		Invalid range for specified NPC type
IIDT		No RDLD or CUS circuits and INCL keyword used
IIDT	BCAST	Invalid use of CONV keyword
IDRG		Invalid range for specified FROM NPC type
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	MCOND	Termination is already assigned
SNVS	MCOND	Termination is under test
SNVS		Termination is a test port
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
ENIE		Termination is not connected as indicated
SNVS	INERR	Trunk conditioning doesn't match that of conference
SNVS	INERR	CUS flag doesn't match that of conference
SNVS	INERR	RDLD flag doesn't match that of conference
SNVS		TO side of two-way to be converted is not an FTU NPC
SNVS		Conversion leg is terminated
SNVS		Width of existing two way does not match conference width
SNVS		FROM is a two-way and no CONV specified
SNVS	BCAST	FROM is not a backbone leg
SNVS		Specified width does not match existing conference width
SNVS		NTR invalid since existing conference is not already NTR
SNVS		LPD invalid since existing conference is not already LPD
IIDT		NPC type mismatch
IIDT		NPC is a channelized NPC
IIDT		NPC is a non-channelized NPC
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SNVS	MCOND	Range overlapping between FROM and TO or between two TOs
IDNV	INERR	Unmatched channel range
SNVS	MCOND	NPC invalid type

mmmm	st	*Explanation*
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

CONN,CRS,T0,RDLD,CUS,INCL,AIS

TWO-WAY CROSS-CONNECTIONS

Input Message Format

Nonhierarchical

[I.11001]

```
CONN-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}];
```

Hierarchical

[I.11001]

```
CONN-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}];
```

Completion Message

Nonhierarchical

[O.11001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[<tc>]:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|\
TERM,TERM}] COMPLD
;
```

Hierarchical

[O.11001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[<tc>]:[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|\
TERM,TERM}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.11001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:[<tc>]:\
[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.11001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:[<tc>]:\
[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.11001.01]

```
;
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[<tc>]:\
[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.11001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[<tc>]:\
[RDLD][,{CUS|INCL}]:[AIS]:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the two-point two-way connection of two specified cross-connect circuits or a range of cross-connected circuits.

Explanation Of Parameters

FROM - From

TO - To

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd, jjj

- Channel numbers for beginning of channel range

If the channel being connected is an FDL (Facility Data Link), then ddd (jjj) is 000 and signaling type should be of type TC-ijkl,mnop. Only the FDL of DE type NPC with ESF Format can be cross-connected.

eee, kkk

- Channel numbers for end of channel range

To connect a range of channels, use the optional fields eee and kkk.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. The signaling and insertion word specification are entered separately, with a comma as the delimiter.

signaling	*Explanation*
TC-ijkl,mnop	2-way, 4-state signaling in binary.
TC-ijklmnop,qrstuvwx	2-way, 16-state signaling in binary.
TC-X-ab,X-cd	2-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4
MUX	MUX out of sync code, equal to IW-X-1A

AIS - Alarm indication signal

If the optional AIS keyword is used, the all ones signal will be inserted on the downstream digroup when detected on the incoming digroup or when the incoming digroup exhibits a CGA (Carrier Group Alarm). This option is only valid for 24-channel domestic cross-connections.

CUS - Customer

Customer-controlled circuit

RDLD - Red lined

INCL - Inclusive

A termination designated as a customer controlled circuit or a red circuit cannot be disconnected or modified without using the inclusive keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the INCL keyword is given in the remove message.

NORM - Normal

NORM,NORM means that the cross-connection will come up in the normal

state. The NORM keyword corresponds to the PDS TCON command.

TERM - Terminate

TERM,TERM means that the cross-connection will come up in the terminated

state. The TERM keyword corresponds to the PDS TCNT command.

mmm - The FROM channel number involved in denial (ddd through eee).

nnn - The TO channel number involved in denial (jjj through kkk).

d - Direction

d	*Explanation*
F	FROM
T	TO
B	Both

st - Status

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
IIFM	INERR	Invalid FROM NPC type for AIS insertion
IIFM	INERR	Invalid TO NPC type for AIS insertion
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Line format types are incompatible
IIDT	MCOND	Trunk conditioning is invalid
IIFM	MCOND	FMC cannot be cross-connected in this format
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	SC invalid for cross-connection specified

mmmm	st	*Explanation*
IDNV	INERR	MUX or TRB invalid for cross-connection specified
IDNV	INERR	AIS invalid for cross-connection specified
IDNV	INERR	NAM invalid for cross-connection specified
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
IDNV	INERR	Using the 24th channel of a T1DM NPC
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
ASGN	{F|T|B}	Termination assigned
CUS	{F|T|B}	Customer-controlled Circuit
FAIL	{F|T|B}	Failed
OOS	{F|T|B}	Out-of-service
RDLD	{F|T|B}	Red Lined
ROLL	{F|T|B}	Circuit is involved in a roll
TG	{F|T|B}	NPC is grown as a test group
TP	{F|T|B}	NPC is used for test access
UEQD	{F|T|B}	Unequipped
UTST	{F|T|B}	Under Test

CONN,CRS,T0,RDLD,CUS,INCL,NTR

TWO-WAY CROSS-CONNECT FROM, TO MULTIPOINT MODE

Input Message Format

Nonhierarchical

[I.11021]

```
CONN-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}];
```

Hierarchical

[I.11021]

```
CONN-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}];
```

Completion Message

Nonhierarchical

[O.11021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] COMPLD
[  /* [O.11021] */]
[  "NOBBL-{F|T}"]
;
```

Hierarchical

[O.11021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] COMPLD
[  /* [O.11021] */]
[  "NOBBL-{F|T}"]
;
```

Denial Message

Nonhierarchical

[O.11021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[<tc>][,NAM]:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.01] */
   /* <explanation of error condition code> */
;
```

[O.11021.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[<tc>][,NAM]:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Hierarchical

[O.11021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[<tc>][,NAM]:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.01] */
   /* <explanation of error condition code> */
;
```

[O.11021.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[<tc>][,NAM]:[RDLD][{,CUS|,INCL}]:fmd,tmd:[NTR-m]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11001.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a multipoint two-way cross-connection between the specified FROM and TO end terminations and is used to connect a DS0 leg to a multipoint circuit, or to cross-connect a leg, consisting of a single or a contiguous range of DS0 channels, to a multipoint circuit in the virtual network processing circuit. Cross-connections may be between various network processing circuit types.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-002 161-162 321-322 481-482 641-642 801-802
021-022 181-182 341-342 501-502 661-662 821-822
041-042 201-202 361-362 521-522 681-682 841-842
061-062 221-222 381-382 541-542 701-702 861-862
081-082 241-242 401-402 561-562 721-722 881-882
101-102 261-262 421-422 581-582 741-742 901-902
121-122 281-282 441-442 601-602 761-762 921-922
141-142 301-302 461-462 621-622 781-782 941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd,jjj

- Channel or conference number

eee,kkk

- Channel or conference number denoting end of range specification

Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085 (MB NPC)

001-500 (Virtual NPC)

Cross-connections may be between various Network Processing Circuit (NPC) types:

Facility Terminating Unit (FTU)/IFTU/DS3U NPC and DMB
DMB and DMB

FTU/IFTU/DS3U NPC and Virtual NPC

Range values -eee and -kkk apply only to the FTU/IFTU/DS3U end of an

FTU/IFTU/DS3U-Virtual NPC circuit; i.e., cannot apply to the Virtual NPC end.

No range values can apply to either end of an FTU/IFTU/DS3U NPC-DMB or DMB-DMB circuit. Note also that the range of allowable NPC numbers is dependent on the equipage of the frame.

For DMB circuits, there are four possible values for fmd and tmd:

SYM - For legs of a symmetrical multipoint circuit (must be a DMB channel)
BRD - For nonbackbone (tributary) legs of a broadcast multipoint circuit (must be a DMB channel)
BBL - For the backbone leg of a broadcast multipoint circuit (must be a DMB channel)
LEG - For the end that does not terminate on the multipoint circuit

(must be an FTU/DS3U channel)

For virtual NPC circuits, there are three possible values for fmd and tmd:

BRD - For nonbackbone legs of a broadcast multipoint circuit (must be a virtual NPC channel)

BBL - For the backbone leg of a broadcast multipoint circuit (must be a virtual NPC channel)

LEG - For the end that does not terminate on the multipoint circuit

(must be FTU/DS3U channels)

The valid combinations of fmd and tmd are:

For within a DMB or virtual conference:

LEG,BBL or BBL,LEG
LEG,BRD or BRD,LEG
SYM,LEG or LEG,SYM (only for DMB)

For concatenation of conferences:

BRD,BBL or BBL,BRD
BBL,BBL
SYM,SYM

Note: Default values for noise guard (NG) and echo suppression (ES) are applied to symmetrical bridges (multipoint mode SYM) and polling circuits (multipoint mode BBL,BRD). These default values are:

Symmetrical bridges	NG = -18db	ES = -18db
Polling circuits	NG = 0db	ES = 0db

Note: To avoid possible transmission delays in the conferencers, DACS II will not allow DMB broadcast conferences to be concatenated more than six deep. However, each concatenated conference will support the maximum allowable number of legs. This allows conferences to branch out at any point in the daisy chain, as long as each branch does not concatenate more than six conferences from the backbone leg.

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification. For example, TRSP,IW X'pq (input form).

The following signaling options are allowed:

signaling	*Explanation*
TRSP	**Transparent, no signaling**

The following insertion word options are allowed:

IW	*Explanation*
IW-X-pq	**pq is a user specified insertion word. The binary pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.**
Omitted	**Only valid for CEPT, will default to IW-X-FF.**

All leg connections to multipoint circuits using a DMB NPC or a Virtual NPC must use TRSP signaling. The insertion word is user specified and may be varied from leg to leg.

For all multipoint to multipoint conference cross-connections (DMB concatenated conferences) only TRSP signaling is allowed and is the default hence it need not be specified. The insertion word is not valid for concatenated conferences.

NTR - No Transmit

m - The direction toward which transmission is shut off

m	*Explanation*
F	FROM
T	TO

The NTR option is used to set up one-way connections; that is, to shut off transmission towards the specified FROM or TO termination. If NTR m is specified on the BBL (backbone leg) of a multipoint circuit, then the BRD (broadcast) legs of this circuit have their outward transmission turned off.

The NTR field is optional if the virtual NPC is part of the circuit. The direction of the data flow is indicated by the MPM (fmd,tmd) field.

CUS - Customer

All legs on a multipoint customer controlled circuit must be designated as CUS. A disconnected termination previously marked CUS remains as a customer controlled termination.

INCL - Inclusive

The INCL keyword must be used to reconnect a termination to other terminations. However, if they are reconnected without the CUS keyword, they lose their customer controlled status.

RDLD - Red lined

If the optional RDLD field is present, the circuit will be flagged as a Red Circuit. All legs on a multipoint Red Circuit must be designated RDC.

NORM - Normal

NORM,NORM means that the cross-connection will come up in the normal state.

TERM - Terminated

TERM,TERM means that the cross-connection will come up in the terminated state.

NOBBL - No backbone leg

If the type of circuit was a broadcast circuit, the optional NOBBL indicates that no backbone leg is yet specified in either the FROM or TO direction. This argument will appear until a backbone leg is specified for this circuit.

mmm - FROM channel number involved in the denial (ddd through eee)

nnn - TO channel number involved in the denial (jjj through kkk)

st - Status

d - Direction

d	*Explanation*
F	FROM
T	TO
B	BOTH

mmmm - Error condition code

mmmm	st	*Explanation*
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
IIFM	INERR	Invalid FROM NPC type for AIS insertion
IIFM	INERR	Invalid TO NPC type for AIS insertion
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	DSPI not equipped, not in service, or failed
SNVS	MCOND	Line format types are incompatible
IIDT	MCOND	Trunk conditioning is invalid
IIFM	MCOND	FMC cannot be cross-connected in this format
ENIE	INERR	Two confs. were prev. connected or the concat. cause BRD-BBL loop
SNVS	INERR	Trunk conditioning doesn't match that of conference
SNVS	INERR	CUS flag doesn't match that of conference
SNVS	INERR	RDLD flag doesn't match that of conference
SNVS	CONFERR	Try to add a BBL to VC,but the VC already has backbone
IIFM	CONFERR	Try to operate a ONE-WAY conference with a TWO-WAY input command
IIDT	CONFERR	Database conference width does not match the range in input command
SNVS	CONFERR	Trying to add or delete a leg when a conference is under test
SNVS	CONFERR	Input BRD (BBL) has same NPC and channel as BBL (BRD)
IIDT	INERR	Illegal BBL BBL combination
IIDT	INERR	Illegal BRD BRD combination
IIDT	INERR	Illegal SYM BRD combination
IIDT	INERR	Illegal BRD SYM combination
IIDT	INERR	Illegal BBL SYM combination
IIDT	INERR	Illegal SYM BBL combination
SNVS	INERR	LEG mode was assigned to a DSPU-type NPC on the input
SNVS	INERR	A DMB mode was assigned to a FTU-type NPC on the input
SNVS	INERR	Trying to add a BBL to a DMB conference that already has one
SNVS	INERR	Trying to add a broadcast leg to a conference set up as SYM
SNVS	INERR	Trying to add a SYM leg to conference set up as broadcast

mmmm	st	*Explanation*
SNVS	INERR	Trying to add a BBL leg to a conference set up as SYM
SNVS	INERR	Bad use of INCL, cannot override the current state of the conference
SNVS	INERR	Bad use of INCL, cannot use keyword on conf.-to-conf. connection
IIFM	INERR	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
IDNV	INERR	A subrate circuit pack is specified in the command line
IDNV	INERR	CPR circuit pack specified in the command
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	INERR	A locally switched channel is specified as BBL, LEG, or BRD
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	SC invalid for cross-connection specified
IDNV	INERR	MUX or TRB invalid for cross-connection specified
IDNV	INERR	AIS invalid for cross-connection specified
IDNV	INERR	NAM invalid for cross-connection specified
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
ASGN	{F|T|B}	Termination assigned
CUS	{F|T|B}	Customer-controlled Circuit
FAIL	{F|T|B}	Failed
NOCHAN	{F|T|B}	Conference has no more channels to connect
NOCUS	{F|T|B}	Conference not CUS
OOS	{F|T|B}	Out-of-service
RDLD	{F|T|B}	Red Lined
ROLL	{F|T|B}	Circuit is involved in a roll
TP	{F|T|B}	NPC is used for test access
UEQD	{F|T|B}	Unequipped
UTST	{F|T|B}	Under Test

CONN,CRS,T1,RDLD,CUS,INCL,NORM

TWO-WAY NON-CHANNELIZED DIGITAL SIGNAL CROSS CONNECTION

Input Message Format

Nonhierarchical

[I.11011]

```
CONN-CRS-T1:[<xy>]:abc,ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}];
```

Hierarchical

[I.11011]

```
CONN-CRS-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}];
```

Completion Message

Nonhierarchical

[O.11011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]
:[{NORM,NORM}|{TERM,TERM}] COMPLD
```

Hierarchical

[O.11011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM}|{TERM,TERM}] COMPLD
```

Denial Message

Nonhierarchical

[O.11011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11011.01] */
   /* <explanation of error condition code> */
;
```

[O.11011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11011.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Hierarchical

[O.11011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11011.01] */
   /* <explanation of error condition code> */
;
```

[O.11011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM,NORM|TERM,TERM}] DENY
   mmmm
   /* [O.11011.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to form a two-way cross-connection between two non-channelized network processing circuits (NPCs). It is also used to form a terminated two-way cross-connection. The idle code is the alarm-indication signal (AIS, all ones) and does not need to be specified. The disconnect code (DCC) for 64 kbit/s disconnection cannot be used for non-channelized NPCs.

When a failure occurs or during an alarm state, the AIS is transmitted toward the TO NPC.

NPCs with customer-controlled marking retain the CUS status when disconnected. When the NPCs are reconnected without CUS or inclusive (INCL) keyword, the command will be denied. If the NPCs are reconnected with INCL keyword, they lose the CUS status.

Red circuit marking is removed when the circuit is disconnected.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module
The values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

RDLD - Red lined
CUS - Customer

Indicates a customer-controlled Circuit

INCL - Inclusive

Inclusive option must be used to remove CUS marking

NORM,NORM|TERM,TERM - {From | To} Output Termination State in MML
NORM,NORM - means that the cross-connection will come up in the normal state. NORM,NORM corresponds to the PDS TCON command.

TERM,TERM - means that the cross-connection will come up in the terminated state. TERM,TERM corresponds to the PDS TCNT command (12031).

st - Status of denial

d - Direction {F=from | T=to | B=both}

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
IDNV	INERR	Invalid channel 000 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	**d**	*Explanation*
ASGN	{FITIB}	Termination assigned
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
INVLD	{FITIB}	Invalid NPC type
NPCTA	{FITIB}	NPC used for Test Access
OOS	{FITIB}	Out-of-service
ROLL	{FITIB}	Circuit is involved in a roll
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

CONN,CRS,TS,MJU,RATE,MA,NORM

SUBRATE CROSS-CONNECTION

Input Message Format

Nonhierarchical

[l.19221]

```
CONN-CRS-TS:<xy>:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM];
```

Hierarchical

[l.19221]

```
CONN-CRS-TS:<xy>:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM];
```

Completion Message

Nonhierarchical

[O.19221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM] COMPLD
   /* [O.19221] */
[  "RATE-rr"]
   /* NEW MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Hierarchical

[O.19221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM] COMPLD
   /* [O.19221] */
[  "RATE-rr"]
   /* NEW MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Denial Message

Nonhierarchical

[O.19221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM] DENY
   mmmm
   /* [O.19221.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Hierarchical

[O.19221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[MA-tttt-u]:[<branch>][,<branch>][,<branch>][,<branch>]\
:[NORM,NORM] DENY
   mmmm
   /* [O.19221.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command performs a subrate multipoint cross-connection of the specified MJU. The master leg of the multipoint circuit is specified by digroup and channel and customer number, and serves as the reference for addressing all multipoint junction units and branches in the circuit.

All channels ddd and jjj must be established before they can be cross-connected by this command.

Multipoint circuits are built incrementally, one command at a time. Many commands can address the same multipoint circuit. Indeed, many commands can address the same MJU of a circuit. A command addressing an MJU, say MJU 0005, might connect customers to branches 1 and 2. Another command might also address MJU 0005 and connect a customer to branch 3. This command results in no service interruption to branches 1 and 2

that are already connected.

Explanation Of Parameters

RATE - Rate

rr - Transmission rate (24, 48, 96, or 56)

rr	*rate in kb/s*
24	2.4
48	4.8
96	9.6
56	56

rr determines the transmission rate of the customers' cross-connection, and thus, the rate at which the MJU operates. All MJUs in the same circuit must operate at the same rate. The "RATE rr" field must be specified in the first command addressing MJU 0001. "RATE rr" need not be re-specified after it has once been set for MJU 0001. Hence, it is shown as optional. If "RATE rr" is omitted from subsequent commands, any additional MJUs connected will operate at the rate specified for MJU 0001. If "RATE rr" appears in subsequent commands, it will be checked against the rate specified for MJU 0001. If the rates are not the same, the command will be denied.

In addition to assuring that all MJUs in a circuit operate at the same rate, there is an additional check performed on the rate. In

circuits that connect customers in DS0B channels, the rate of the MJUs cannot exceed the maximum customer rate of the subrate

multiplexers associated with those DS0B channels. The allowed customer numbers used in either the master leg or branch connections depend on

the rate of the circuit and the type of DS0B channel associated with each termination, as shown below:

For DS0A channels, rr is checked against the type of error correction previously specified in the CRTE-CRS-TS command for that channel. Similarly, if the channel has subrate error correction, a circuit rate of 56 is not allowed.

Circuit Rate	DS0B Type		
	20-channel (max. customer rate 2.4 kb/s)	10-channel (max. customer rate 4.8 kb/s)	5-channel (max. customer rate 9.6 kb/s)
RATE 24	Cust. #s 1-20 Allowed	Cust. #s 1-10 Allowed	Cust. #s 1-5 Allowed
RATE 48	Denied	Cust. #s 1-10 Allowed	Cust. #s 1-5 Allowed
RATE 96	Denied	Denied	Cust. #s 1-5 Allowed
RATE 56	Denied	Denied	Denied

MPTM - Multipoint master

[s]abc-ddd[-ff]
- Termination number

There is exactly one multipoint master for a multipoint circuit. The multipoint master termination number is connected to the control leg of MJU 1. MJU 1 must be the first MJU connected in any circuit. This field uniquely identifies the circuit.

The data sent by this multipoint master is broadcast to all branches on the circuit. The data sent to the multipoint master is a summation of data sent by the branches.

Because the multipoint master is used to uniquely identify the circuit as a whole, it is required for all CONN-CRS-TS commands, regardless of which MJU the command addresses (MJU ssss in the message format).

The first time a particular termination number is named in a command as a multipoint master, "MJU ssss" must be specified as "MJU 0001". The system will connect the termination to the control leg of MJU 0001. Subsequently, the multipoint master is included in commands addressing an MJU only to identify the circuit to which the MJU belongs.

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of the multipoint circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number of the multipoint circuit master leg

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

MJU - Multipoint junction unit

ssss - MJU number addressed by this command (0001 through 9999)

If the MJU being addressed by the CONN-CRS-TS command is 0001 (MJU ssss is MJU 0001) then the MJU connection field must not appear in the command.

As previously discussed, it must always be connected to the multipoint master termination. The first time an MJU other than 0001 appears in a command, the command must also contain the MJU connection field.

No MJU can be created with an unconnected control leg.

MA - Master

tttt - MJU number (1 through 9999)

u - Branch number (1 through 4)

The master is also known as the control leg. Every MJU has a control leg. The control leg of MJU 0001 must be connected to the multipoint master. The control leg of an MJU other than 0001 must be connected to a branch of another MJU to form an MJU-to-MJU connection. The field MA(tttt,u) specifies the MJU-to-MJU connection. The control leg of MJU ssss is connected to branch u of MJU tttt.

The first command addressing an MJU in the circuit must address MJU 1. Otherwise, a new MJU of any number can be connected to any existing MJU in the circuit, assuming the new MJU's number is not already used in the circuit and the old MJU has an unconnected branch available to connect to.

The MJU connection field "MA-tttt-u" specifies where to connect the control leg of MJU ssss. If MJU ssss is addressed in a subsequent CONN-CRS-TS command, after a connection for its control leg has been specified, the MJU connection field need not be re-specified. Hence, "MA-tttt-u" appears as an optional field in the message format. If it is respecified, it will be checked against the actual MJU-to-MJU connection.

It should also be noted that tttt cannot equal ssss. Also, branch u of MJU tttt must not have been previously connected. If it were, it could not be connected to the control leg of MJU ssss.

branch

- Branch and termination number

branch	*termination number*
BRi	t]ghi-jjj[-ll]

The termination is connected to branch i of MJU ssss.

The branch and termination number can appear from zero to four times in a subrate cross-connect command, connecting up to four different customers to the four branches of MJU ssss. The branch fields for the four branches of MJU ssss can appear in any order and any or all branch fields can be omitted. Nothing is connected to branch fields that are omitted from (do not appear in) the command.

Branch fields might be omitted for several reasons. If branches 1 and 2 of MJU ssss were already connected, and the user wished to connect a customer to branch 3 of MJU ssss, then only BR3 and its associated termination number would appear in the command.

Branches 1 and 2 would not appear because they are already connected and branch 4 would not appear because nothing is to be connected to it. Branch 4 might be saved to provide an MJU-to-MJU connection at a later time.

[t]ghi
- The 3- or 4-digit nonhierarchical NPC number of termination connected to BRi with the same valid values as the master leg.

jjj - Channel number of termination connected to BRi with the same valid values as the master leg.

ll - Customer number of termination connected to BRi with the same valid values as the master leg.

If the customer is a DS0A customer, ll is optional and if present, must be 01.

ff - Customer number of the multipoint circuit master leg (1 through 20)

The customer number is optional when the customer to be connected is

in a DS0A signal. This is because there is only one customer in a

DS0A signal. If specified, it must appear as 01.

BR - Branch

i - Branch number (1 through 4)

BRi refers to branch i of MJU ssss, the MJU addressed by this command.

Red Circuit and Customer Control Marking

SRDC cross-connections are marked automatically as red circuits. This results in the need to specify the INCL keyword in the RMV-EQPT,NPC command whenever a facility terminating NPC carrying SRDC circuits is removed. Also, the CONN-CRS-TS verb does not affect the customer control marking of a channel. The CUS marking is disabled while the channel is established to the Subrate feature, but is returned once the channel is disestablished.

Secondary Channel Capability

This command supports secondary channel capability.

Circuits that use DDS secondary channel capability can be assigned to

any DS0B channel, provided that the channel's facility terminating NPC was provisioned without zero suppression. If the facility terminating NPC has zero suppression, the user must ensure that secondary channel services are only assigned to the

following customers of the given DS0B type:

DS0B nn	Customer Numbers Compatible with Secondary Channel
DS0B 20	2,3,6,8,11,12,13,18
DS0B 10	2,3,6,8
DS0B 5	2,3

ddd - Channel number of the multipoint circuit master leg

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

01 (DS0A at 2.4, 4.8, 9.6, or 56 kb/s)

01-20 (DS0B at 2.4 kb/s)

01-10 (DS0B at 4.8 kb/s)

01-05 (DS0B at 9.6 kb/s)

wx-k-qr
- Hierarchical NPC number of termination connected to BRi with the same valid values as the master leg

data - Data

The data fields refer to the connection data associated with the four branch legs of MJU ssss, Each branch data field can take one of three forms, depending on whether the branch is unassigned, cross-connected to an external facility termination, or cross-connected to a cascaded MJU control leg.

data	*Explanation*
000-000-00	For unassigned branches
ghi-jjj-ll	For branches connected to external facility terminations
MJU-nnnn	For branches connected to another MJU with number nnnn (0002 through 9999)

s - Termination state of the MJU control or branch leg

Variable s contained in the MA and branch data indicates the terminate and leave status of each MJU connection. Branches or MJUs connected by the CONN-CRS-TS command are automatically assigned the terminate and leave released status. The "TO" direction is defined as the direction facing the MJU.

s	*Explanation*
R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Input, data not valid explanation of error condition code

CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd
CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE

CUSTOMER NUMBER RANGE NOT ALLOWED FOR DS0A CHANNEL [s]abcddd

CHANNEL RANGE NOT ALLOWED FOR DS-OB CHANNEL [s]abcddd
FROM AND TO RANGES ARE NOT THE SAME SIZE
FROM AND TO RANGES PARTIALLY OVERLAP
INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
MJU 1 MUST BE SPECIFIED AS THE MULTIPOINT MASTER LEG MJU
CIRCUIT RATE MUST BE SPECIFIED
CHANNEL [s]abcddd/ff IS CONNECTED BUT NOT AS A MULITPOINT MASTER LEG
MA FIELD MUST BE SPECIFIED FOR A NEW MJU
MA FIELD MUST MATCH CIRCUIT
UPSTREAM BRANCH SPECIFIED IN MA FIELD IS ASSIGNED
UPSTREAM BRANCH SPECIFIED IN MA FIELD DOES NOT EXIST
CHANNEL [s]abcddd/ff IS SPECIFIED MORE THAN ONCE
BR i IS SPECIFIED MORE THAN ONCE
MA FIELD NOT ALLOWED WHEN MJU 1 IS SPECIFIED

MJU NAMES IN MJU AND MA FIELDS CANNOT BE THE SAME

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd
CHANNEL [s]abcddd IS OUT OF RANGE

SAAS Status, already assigned

CHANNEL [s]abcddd/ff IS ASSIGNED
BR i IS ALREADY ASSIGNED TO ANOTHER CHANNEL OR MJU

SAPV Status, already provisioned

MJU ssss ALREADY EXISTS IN THE CIRCUIT

SNVS Status, not in valid state

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd/ff IS UNDER TEST
NPC [s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
NPC [s]abc IS IN LINE LOOPBACK STATE
CIRCUIT IS UNDER TEST

IDNV Input, data notvalid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

ENEQ Equipage, not equipped

NO DSPU IS EQUIPPED

NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
CCNI s IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
CCI s IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED

DSPI IN UNIT [q]q IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
NPC [s]abc SIDE s IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q MXR c NOT EQUIPPED

SARB Status, all resources busy

CONNECTION EXCEEDS REMAINING MJU CAPACITY

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS OUT-OF-SERVICE
ACTIVE CCN SIDE IS PESTED
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sb IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

CONN,CRS,TS,MJU,RATE,MA,TERM

SUBRATE TERMINATED CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19321]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM;
```

Hierarchical

[I.19321]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM;
```

Completion Message

Nonhierarchical

[O.19321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM COMPLD
   /* [O.19321] */
   /* NEW MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Hierarchical

[O.19321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM COMPLD
   /* [O.19321] */
   /* NEW MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Note: The optional RATE information in line 5 and the customer number information in lines 10 - 19 only appear if the RATE-rr, ff and/or the ll fields are not specified in the corresponding input command.

Denial Message

Nonhierarchical

[O.19321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd-ff:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM DENY
   mmmm
   /* [O.19321.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Hierarchical

[O.19321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd-ff:[ww]:MJU-ssss:[RATE-rr]:\
[MA-tttt-u]:<branch>[,<branch>][,<branch>][,<branch>]:\
TERM,TERM DENY
   mmmm
   /* [O.19321.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command performs a subrate terminated multipoint cross-connection of **MJU ssss**.

The master leg of the multipoint circuit (MPTM) is specified by digroup **abc**, channel **ddd**, and customer number **ff**, and serves as the reference for addressing all MJUs and branches in the circuit.

The command inserts the Unassigned multiplexer channel (UMC) code towards both the upstream (MJU) and downstream (branch facility) directions of the cross-connected branch. If a digroup and channel of a customer to be connected to a branch is error corrected, termination takes place after error correction is performed. If no branch field appears in the command, it is denied since there is nothing to terminate.

MJU control legs are not terminated with this command.
This includes the control leg of MJU 0001 that is connected to the multipoint master.
MJU control legs can be terminated using the CHG-TL-TS command.
By not terminating control legs, the user can set up a circuit using a mixture of CONN-CRS-TS,...,TERM commands (to connect to terminated branches) and CONN-CRS-TS,...,NORM commands (to connect to unterminated or active branches). Also, by not terminating the multipoint master and MJU control legs, transmission to and from the active (not terminated) customers is always preserved.

All channels [s]abc-ddd and [t]ghi-jjj must be established before they can be cross-connected with SCNT.

Explanation Of Parameters

RATE - Rate

rr - Circuit rate specification (24, 48, 96, or 56)

rr	*Rate*
24	2.4 kilobit/second (kb/s)
48	4.8 kb/s
96	9.6 kb/s
56	56 kb/s

MPTM - Multipoint Master

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number of the multipoint circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
.
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical FROM NPC number of the multipoint circuit master leg

uv - Unit number
m - Module number
np - NPC number within the module

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit        Module     NPC
01-16       1-6        01-28
```

ddd - FROM channel number of the multipoint circuit master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - FROM customer number of the multipoint circuit master leg

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

NEW - New

MJU - Multipoint junction unit

ssss - MJU number of cross-connected MJU (0001-9999)

This command cross-connects MJU ssss to MJU tttt.

s - Termination state of the MJU control or branch leg

Indicates whether either or both ends of the cross-connection are in the terminate and leave state. The "TO" direction is defined as the direction facing the MJU.

s	*Explanation*
R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

BR1 - Branch 1
BR2 - Branch 2
BR3 - Branch 3
BR4 - Branch 4

MA - Master

tttt - MJU number (0001 through 9999)

u - Branch number (1 through 4)

MA, tttt, and u specify an MJU to MJU connection. MJU tttt branch u is connected to the control leg of MJU ssss.

branch

- External facility terminations for branches connected to MJU ssss.

The branch listed in the branch field is connected to the external facility termination, and is left in the terminate and leave state in both directions of transmission. The NEW MJU fields list the resulting cross-connection and terminate and leave status for all connections associated with MJU ssss. Note that the control leg and other branches not named in the SCNT command may be in any of the possible terminate and leave states as a result of previous cross-connect, change, or test access commands.

branch

BRi-[t]ghi-jjj[-ll]

BR	- Branch
i	- Branch number of MJU ssss (1 through 4)
[t]ghi-jjj-ll	- External facility termination of added branch

[t]ghi - The 3- or 4-digit nonhierarchical NPC number of termination connected to BRi.

For valid values see [s]abc above.

jjj - Channel number of termination connected to BRi.

For valid values see ddd above.

ll - Customer number of termination connected to BRi

For valid values see ff above.

TERM - Terminated

The TERM,TERM field indicates that the cross-connection results in termination of both directions of transmission.

data - Branch connection data

data	*Explanation*
[0]000-000-00	Unassigned branch
MJU-nnnn	Branch connected to MJU nnnn (0002 through 9999).

mmmm - Error classification code

mmmm	*Explanation*
	explanation of error condition code
IDNV	Input, data not valid
	CHANNEL [s]abcddd IS A PARITY CHANNEL
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS-0B CHANNEL [s]abcddd
	CHANNEL [s]abcddd WITH SUBRATE ERROR CORRECTION AND RATE 56 NOT ALLOWED
	CHANNEL [s]abcddd SUBRATE MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
	CHANNEL [s]abcddd/ff IS CONNECTED BUT NOT AS A MULTIPOINT MASTER LEG
	CHANNEL [s]abcddd/ff IS SPECIFIED MORE THAN ONCE
	INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
	SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
	MJU 1 MUST BE SPECIFIED AS THE MULTIPOINT MASTER LEG MJU
	CIRCUIT RATE MUST BE SPECIFIED
	MA FIELD MUST BE SPECIFIED FOR A NEW MJU
	MA FIELD MUST MATCH CIRCUIT

MA FIELD NOT ALLOWED WHEN MJU 1 IS SPECIFIED

MJU NAMED IN MJU AND MA FIELDS CANNOT BE THE SAME
UPSTREAM BRANCH SPECIFIED IN MA FIELD IS ASSIGNED
UPSTREAM BRANCH SPECIFIED IN MA FIELD DOES NOT EXIST

IDRG Input, data out of range

explanation of error condition code

CUSTOMER NUMBER ff OUT OF RANGE FOR DS-0A CHANNEL [s]abcddd

CUSTOMER NUMBER ff OUT OF RANGE FOR DS-0B CHANNEL [s]abcddd
CHANNEL [s]abcddd OUT OF RANGE

SAAS Status, already assigned

explanation of error condition code
CHANNEL [s]abcddd/ff IS ASSIGNED
BR i IS ALREADY ASSIGNED TO ANOTHER CHANNEL OR MJU
BR i IS SPECIFIED MORE THAN ONCE

SNVS Status, not in valid state

explanation of error condition code
CHANNEL [s]abcddd IS NOT ESTABLISHED TO SUBRATE FEATURE
CIRCUIT IS UNDER TEST
CHANNEL [s]abcddd/ff IS UNDER TEST
NPC [X]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
NPC [s]abc IS IN LINE LOOPBACK STATE

Maintenance Conditions

IDNV Input, data not valid

explanation of error condition code
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

ENEQ Equipage, not equipped

explanation of error condition code

NO DSPU IS EQUIPPED

NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q MXR c NOT EQUIPPED

SARB Status, all resource busy

explanation of error condition code

CONNECTION EXCEEDS REMAINING MJU CAPACITY

SNIS Status, not in-service

explanation of error condition code
BOTH ECCN SIDES ARE OUT-OF-SERVICE
INACTIVE ECCN SIDE IN-SERVICE AND NPC ON INACTIVE SIDE IS OOS
ACTIVE ECCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS NOT EQUIPPED

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND
ACTIVE CCN SIDE IS PESTED

SROF Status, requested operation failed

explanation of error condition code
ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED

ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

CONN,CRS,TS,RATE,NORM

SUBRATE CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19201]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM];
```

Hierarchical

[I.19201]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM];
```

Completion Message

Nonhierarchical

[O.19201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM] COMPLD
[  /* [O.19201] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM] COMPLD
[  /* [O.19201] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 - 7 only appears if the ff and/or ll fields are not specified in the input command.

Denial Message

Nonhierarchical

[O.19201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM] DENY
   mmmm
   /* [O.19201.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:[NORM,NORM] DENY
   mmmm
   /* [O.19201.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 6 - 9 only appears if the ff and/or the ll fields are not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command cross-connects the FROM and TO customers defined by the **ff** and **ll** fields. The customer number fields are optional for DS0A terminations; if not specified, the default value is 01. The **NORM,NORM** field is also optional, and indicates that the cross-connection results in two-way transmission. A terminated cross-connection can also be specified by substituting **TERM,TERM** in this field.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

Values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - FROM customer number
ll - TO customer number

	01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
	01-20	(DS0B at 2.4 kb/s)
	01-10	(DS0B at 4.8 kb/s)
	01-05	(DS0B at 9.6 kb/s)

RATE - Rate

Rate at which the FROM and TO customers are cross-connected

rr - Circuit rate (24, 48, 96, or 56)

rr	rate in kb/s
24	2.4
48	4.8
96	9.6
56	56

The channels abcddd and ghijjj must be established using a subrate establish command before they can be cross-connected.

The RATE cannot exceed the maximum customer rate of the subrate multiplexers

associated with those DS0B channels. The allowed customer numbers (ff and ll) depend on the rate of the circuit

and the type of DS0B channel associated with each termination, as shown below:

Circuit Rate rr	DS0B Type		
	20-channel (max. customer rate 2.4 kb/s)	10-channel (max. customer rate 4.8 kb/s)	5-channel (max. customer rate 9.6 kb/s)
RATE 24	Cust. #s 1-20 Allowed	Cust. #s 1-10 Allowed	Cust. #s 1-5 Allowed
RATE 48	Denied	Cust. #s 1-10 Allowed	Cust. #s 1-5 Allowed
RATE 96	Denied	Denied	Cust. #s 1-5 Allowed
RATE 56	Denied	Denied	Denied

The customer numbers ff and ll, are optional when the customer to be connected

is in a DS0A signal.

This is because there is only one customer in a DS0A signal. If specified, it must appear as 01.

Also, for DS0A channels, the RATE is checked against the type of error correction previously specified in the command used to establish that channel. If the channel has subrate error correction, a circuit rate of 56 is not allowed.

The user must ensure that a circuit using the secondary channel capability is assigned only to a facility termination that is compatible with this capability.

If the termination is a DS0A or if its associated facility NPC was grown without zero suppression, any assignment of the NEW termination is compatible with the secondary channel capability.

If the termination is in a DS0B **and** its associated facility NPC was grown with zero suppression, the user can only assign secondary channel services to a termination with the following customer

numbers within the given DS0B type:

DS0B Type	Allowed Customer Numbers
20-channel	2, 3, 6, 8, 11, 12, 13, and 18
10-channel	2, 3, 6, and 8
5-channel	2 and 3

The fields, FROM [s]abcddd/[ff] and TO [t]ghijjj/[ll] specify the customers to cross-connect. FROM and TO have no significance to DACS II and either customer of the circuit may be designated FROM or TO. To loop a customer back to itself, specify the FROM and TO fields identically.

Subrate cross-connections are marked automatically as red circuits. This results in the need to specify the INCL keyword in the command to remove an NPC whenever a facility terminating NPC carrying SRDC circuits is removed.

Also, the SCON verb does not affect the customer control marking of a channel. The CUS marking is disabled while the channel is established to the Subrate feature, but is returned once the channel is disestablished. The **RATE rr** field indicates the customer rate of the circuit specified in the input command. **ff** and **ll** define the customer numbers associated with the FROM and TO channel pair.

These fields are optional in the input command for DS0A terminations. If the input command did not specify one or both of these numbers, the output value is 01.

mmmm Explanation

IDNV Input, data not valid

explanation of error condition code

reason
- Reason for denial

reason

CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd
CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
CHANNEL [s]abcddd IS OUT OF RANGE

SAAS Status, already assigned

CHANNEL [s]abcddd/ff IS ASSIGNED

SNVS Status, not in valid state

CHANNEL [s]abcddd IS NOT ESTABLISHED TO THE SR FEATURE
CHANNEL [s]abcddd/ff IS UNDER TEST
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
NPC [s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
NPC [s]abc IS IN LINE LOOPBACK STATE

ENEQ Equipage, not equipped

NO DSPU IS EQUIPPED
NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED

IDNV Input, data not valid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SARB Status, all resources busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
INACTIVE CCN SIDE IN-SERVICE AND NPC ON INACTIVE SIDE IS OOS
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
UNIT [q]q MXR c NOT EQUIPPED

SROF Status, requested operation failed

UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED
ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED

CCI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
ETSI sqq IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
ACTIVE CCN SIDE IS PESTED

st	**d**	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

CONN,CRS,TS,RATE,NORM

SUBRATE CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19211]

For a DS0A Channel

```
CONN-CRS-TS:<xy>:[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:[NORM,NORM];
```

For a DS0B Channel

```
CONN-CRS-TS:<xy>:[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:\
[ww]:RATE-rr:[NORM,NORM];
```

Hierarchical

[I.19211]

For a DSOA Channel

```
CONN-CRS-TS:<xy>:uv-m-np-ddd&&-eee[-01],\
wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:[NORM,NORM];
```

For a DS0B Channel

```
CONN-CRS-TS:<xy>:uv-m-np-ddd-ff&&-mm,\
wx-k-qr-jjj-ll&&-nn:[ww]:RATE-rr:[NORM,NORM];
```

Completion Message

Nonhierarchical

USAGE: For range connections of DS0A channels

[O.19211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr
:[NORM,NORM] COMPLD
[  /* [O.19211] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

USAGE: For range connections of subrate customer numbers

[O.19211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:[ww]:\
RATE-rr:[NORM,NORM] COMPLD
[  /* [O.19211] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

USAGE: For range connections of DS0A channels

[O.19211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd&&-eee[-01],w\
x-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:[NORM,NORM] COMPLD
[  /* [O.19211] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 - 7 only appears if the FROM and/or TO customer number 01 fields are not specified for range connections of DS0A channels in the input command.

USAGE: For range connections of subrate customer numbers

[O.19211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd-ff&&-mm,\
wx-k-qr-jjj-ll&&-nn:[ww]:RATE-rr:[NORM,NORM] COMPLD
[  /* [O.19211] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 - 7 only appears if the FROM and/or TO customer number 01 fields are not specified for range connections of DS0A channels in the input command.

Denial Message

Nonhierarchical

USAGE: For range connections of DS0A channels

[O.19211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]\
:[ww]:RATE-rr
:[NORM,NORM] DENY
   mmmm
   /* [O.19211.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* ppp/pp,qqq/qq */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

USAGE: For range connections of subrate customer numbers

[O.19211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:[ww]\
:RATE-rr:[NORM,NORM] DENY
   mmmm
   /* [O.19211.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* ppp/pp,qqq/qq */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd&&-eee[-01]\
,wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:[NORM,NORM] DENY
   mmmm
   /* [O.19211.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* ppp/pp,qqq/qq */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 - 12 only appears if the FROM and/or TO customer number 01 fields are not specified for range connections of DS0A channels in the input command.

[O.19211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd-ff&&-mm,wx-k-qr-jjj-ll&&-nn:\
[ww]:RATE-rr:[NORM,NORM] DENY
   mmmm
   /* [O.19211.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* ppp/pp,qqq/qq */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 - 12 only appears if the FROM and/or TO customer number 01 fields are not specified for range connections of DS0A channels in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command cross-connects the FROM and TO customers in both directions. This command also extends the format of I.19201 to support ranges of two-point, two-way cross-connections.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
eee - FROM channel number for end of range specified
jjj - TO channel number
kkk - TO channel number for end of range specified

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - FROM customer number
mm - FROM customer number for end of range specified
ll - TO customer number
nn - TO customer number for end of range specified

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

RATE - Circuit rate
rr - Circuit rate value (24, 48, 96, or 56)

The FROM and TO fields specify the customers to cross-connect. The FROM and TO keywords have no significance to DACS II and either customer of the circuit may be designated FROM or TO. **To loop a range of customers back to themselves,** specify the FROM and TO fields identically.

There are two ways to specify ranges, as evidenced by the two formats that may follow the FROM and TO keywords:

- Range specified in channel field: [s]abcddd-eee[/01]

  Ranges must be specified in the channel field when a range of DS0A customers is desired. However, a range is allowed in the channel field only if the channels

  are DS0A channels. The optional field must, if present, be 01.

  As an example, [0]001002-010/01 specifies a range of nine DS0A customers on NPC [0]001. [0]001002-010 does the same thing without the optional customer number field.

- Range specified in customer number field: [s]abcddd/ff-mm

  Ranges must be specified in the customer number field when a range of DS0B customers is desired.

  If NPC [0]020, channel 004 was established as a 10-customer DS0B channel, then [0]020004/01-09 specifies a range of nine customers on NPC [0]020 channel 004.

Specifying a range in both the channel and customer number field for the same customer specification, such as [0]001001-009/01-09, will be denied.

RATE - Circuit rate
rr - Circuit rate value (24, 48, 96, 56)

ppp/pp
- FROM termination involved in the denial where:

ppp - FROM channel number
pp - FROM customer number

qqq/qq
- TO termination involved in the denial where:

qqq - TO channel number
qq - TO customer number

Input Errors

mmmm	*Explanation*
IDNV	Input, data not valid
	explanation of error condition code
	CHANNEL [s]abcddd IS A PARITY CHANNEL
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd
	CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
	CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
	CUSTOMER NUMBER RANGE NOT ALLOWED FOR DS0A CHANNEL [s]abcddd
	CHANNEL RANGE NOT ALLOWED FOR DS-OB CHANNEL [s]abcddd
	FROM AND TO RANGES ARE NOT THE SAME SIZE
	FROM AND TO RANGES PARTIALLY OVERLAP

INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd
CHANNEL [s]abcddd IS OUT OF RANGE
[s]abcddd-eee IS AN INVALID RANGE OF CHANNELS

SAAS Status, already assigned

CHANNEL [s]abcddd/ff IS ALREADY ASSIGNED

SNVS Status, not in valid state

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd/ff IS UNDER TEST
NPC [s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
NPC [s]abc IS IN LINE LOOPBACK STATE

Maintenance Conditions

mmmm *Explanation*
reason

ENEQ Equipage, not equipped

explanation of error condition code

NO DSPU IS EQUIPPED
NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q MXR c NOT EQUIPPED

UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED{OUT-OF-SERVICEIFAILED}
UNIT [q]q FC sb IS NOT EQUIPPED

IDNV Input, data not valid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SARB Status, All resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC ON INACTIVE SIDE IS OOS
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
ACTIVE CCN SIDE IS PESTED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED

CONN,CRS,TS,RATE,TERM

SUBRATE TERMINATED CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19301]

```
CONN-CRS-TS:<xy>:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM;
```

Hierarchical

[I.19301]

```
CONN-CRS-TS:<xy>:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM;
```

Completion Message

Nonhierarchical

[O.19301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM COMPLD
[  /* [O.19301] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM COMPLD
[  /* [O.19301] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 through 7 appears only if the ff and/or the ll fields are not specified in the input command.

Denial Message

Nonhierarchical

[O.19301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19301.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19301.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command performs a terminated cross-connection of the FROM and TO subrate customers in both directions. The customer number fields are optional for DS-0A terminations. If not specified, the default value is 01.

Explanation Of Parameters

RATE - Rate

rr Circuit rate specification (24, 48, 96, or 56)

rr	Rate
24	2.4 kilobit/second (kb/s)
48	4.8 kb/s
96	9.6 kb/s
56	56 kb/s

TERM - Terminated

The TERM,TERM field indicates that the cross-connection results in termination of both directions of transmission.

FROM - From

TO - To

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number

001-024 (Domestic)

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - FROM customer number
11 - TO customer number

01 (DS0A at 2.4, 4.8, 9.6, or 56 kb/s)

01-20 (DS0B at 2.4 kb/s)

01-10 (DS0B at 4.8 kb/s)

01-05 (DS0B at 9.6 kb/s)

If [s]abcddd or [t]ghijjj is an error corrected channel, termination is performed after error correction is done. Also, this command does not allow the FROM and TO customers to be the same (that is, a looped connection), nor does it allow the use of a semi-colon in place of a comma after the TPT keyword. Both directions of the circuit are terminated with insertion of the Unassigned Multiplexer Channel (UMC) control code.

Input Errors

mmmm *Explanation*

IDNV *Input, data not valid*
explanation of error condition code

CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd
CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE

CUSTOMER NUMBER RANGE NOT ALLOWED FOR DS0A CHANNEL [s]abcddd

CHANNEL RANGE NOT ALLOWED FOR DSOB CHANNEL [s]abcddd
FROM AND TO RANGES ARE NOT THE SAME SIZE
FROM AND TO RANGES PARTIALLY OVERLAP
INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
CHANNEL [s]abcddd/ff IS SPECIFIED MORE THAN ONCE
CHANNEL [s]abcddd/ff IS CONNECTED BUT NOT AS A MULTIPOINT MASTER LEG
SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
MJU 1 MUST BE SPECIFIED AS THE MULTIPOINT MASTER LEG MJU
CIRCUIT RATE MUST BE SPECIFIED
MA FIELD MUST BE SPECIFIED FOR A NEW MJU
MA FIELD MUST MATCH CIRCUIT
UPSTREAM BRANCH SPECIFIED IN MA FIELD IS ASSIGNED
UPSTREAM BRANCH SPECIFIED IN MA FIELD DOES NOT EXIST
BR i IS SPECIFIED MORE THAN ONCE

MA FIELD NOT ALLOWED WHEN MJU 1 IS SPECIFIED

MJU NAMES IN MJU AND MA FIELDS CANNOT BE THE SAME
SCNT CANNOT BE SPECIFIED FOR A LOOPED CIRCUIT

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
CHANNEL [s]abcddd IS OUT OF RANGE
[s]abcddd-ff IS AN INVALID RANGE OF CHANNELS

SAAS Status, already assigned
CHANNEL [s]abcddd/ff IS ASSIGNED
BR i IS ALREADY ASSIGNED TO ANOTHER CHANNEL OR MJU

SAPV Status, already provisioned
MJU ssss ALREADY EXISTS IN THE CIRCUIT

SNVS Status, not in valid state
CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd/ff IS UNDER TEST
NPC [s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
THE NPC ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
NPC [s]abc IS IN LINE LOOPBACK STATE
CIRCUIT IS UNDER TEST

Maintenance Conditions

reason

IDNV Input, data not valid
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

ENEQ Equipage, not equipped

NO DSPU IS EQUIPPED
NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC s IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q MXR c NOT EQUIPPED

SARB Status, all resources busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

SNIS Status, not in-service
BOTH CCN SIDES ARE OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC ON INACTIVE SIDE IS OOS
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
ACTIVE CCN SIDE IS PESTED
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed
ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

st	d	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

CONN,CRS,TS,RATE,TERM

SUBRATE TERMINATED CROSS-CONNECTION

Input Message Format

Nonhierarchical

USAGE: The following applies to a range of DS-0A channels:

[I.19311]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:TERM,TERM;
```

USAGE: The following applies to a range of DS-0B channels:

[I.19311]

```
CONN-CRS-TS:[<xy>]:[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:\
[ww]:RATE-rr:TERM,TERM;
```

Hierarchical

USAGE: The following applies to a range of DS-0A channels:

[I.19311]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd&&-eee[-01],\
wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:TERM,TERM;
```

USAGE: The following applies to a range of DS-0B channels:

[I.19311]

```
CONN-CRS-TS:[<xy>]:uv-m-np-ddd-ff&&-mm,\
wx-k-qr-jjj-ll&&-nn:[ww]:RATE-rr:TERM,TERM;
```

Completion Message

Nonhierarchical

USAGE: The following applies to a range of DS-0A channels:

[O.19311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:TERM,TERM COMPLD
[  /* [O.19311] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 through 7 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

USAGE: The following applies to a range of DS-0B channels:

[O.19311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:[ww]:\
RATE-rr:TERM,TERM COMPLD
[  /* [O.19311] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 through 7 only appears if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

Hierarchical

USAGE: The following applies to a range of DS-0A channels:

[O.19311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd&&-eee[-01],\
wx-k-qr-jjj&&-kkk[-01]:[ww]:RATE-rr:TERM,TERM COMPLD
[  /* [O.19311] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 through 7 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

USAGE: The following applies to a range of DS-0B channels:

[O.19311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd-ff&&-mm,wx-k-qr-jjj-ll&&-nn:\
[ww]:RATE-rr:TERM,TERM COMPLD
[  /* [O.19311] */]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 3 through 7 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

Denial Message

Nonhierarchical

USAGE: The following applies to a range of DS-0A channels:

[O.19311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd&&-eee[-01],[t]ghi-jjj&&-kkk[-01]:\
[ww]:RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19311.01] */
   /* <explanation of error condition code> */
   /* FROM and TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* <data 3>,<data 4> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 through 12 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.
USAGE: The following applies to a range of DS-0B channels:

[O.19311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::[s]abc-ddd-ff&&-mm,[t]ghi-jjj-ll&&-nn:[ww]:\
RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19311.01] */
   /* <explanation of error condition code> */
   /* FROM and TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* <data 3>,<data 4> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 through 12 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

Hierarchical

USAGE: The following applies to a range of DS-0A channels:

[O.19311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd&&-eee[-01],wx-k-qr-jjj&&-kkk[-01]:\
[ww]:RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19311.01] */
   /* <explanation of error condition code> */
   /* FROM and TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   /* <data 3>,<data 4> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 through 12 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.
USAGE: The following applies to a range of DS-0B channels:

[O.19311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS TS::uv-m-np-ddd-ff&&-mm,wx-k-qr-ll&&-nn:[ww]:\
RATE-rr:TERM,TERM DENY
   mmmm
   /* [O.19311.01] */
   /* <explanation of error condition code> */
   /* FROM and TO terminations involved in the denial where \
*/
   /* ppp = channel number, -pp = customer number */
   /* <data 3>,<data 4> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 9 through 12 appears only if the FROM and/or TO customer number 01 fields are not specified for range connections of DS-0A channels in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command performs a terminated cross-connection of the **FROM** and **TO** customers in both directions. This command also extends the format of SCON,RATE,TPT,FROM,TO to support ranges of two-point, terminated cross-connections.

Explanation Of Parameters

rr - Circuit rate (24, 48, 96 or 56)

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
eee - FROM channel number for end of range specified
jjj - TO channel number
kkk - TO channel number for end of range specified

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Customer Number:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

If a digroup and channel in the range is error corrected, termination takes place after error correction is performed. This command does not allow the FROM and TO customers to be the same (that is, a looped connection).

ppp/pp
- FROM channel number/FROM customer number

ppp	FROM channel number
pp	FROM customer number

qqq/qq
- TO channel number/TO customer number

qqq	TO channel number
qq	TO customer number

mmmm - Error condition code

mmmm	*Explanation*

IDNV	Input, data not valid
	CHANNEL [s]abcddd IS A PARITY CHANNEL
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
	CUSTOMER NUMBER RANGE NOT ALLOWED FOR DS0A CHANNEL [s]abcddd
	CHANNEL RANGE NOT ALLOWED FOR DSOB CHANNEL [s]abcddd INVALID CHANNEL NUMBER FOR CHANNEL [X]XXXYYY SCNT CANNOT BE SPECIFIED FOR A LOOPED CIRCUIT FROM AND TO RANGES ARE NOT THE SAME SIZE FROM AND TO RANGES PARTIALLY OVERLAP
IDRG	Input, data out of range
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd CHANNEL [s]abcddd IS OUT OF RANGE [X]XXXYYY-FFF IS AN INVALID RANGE OF CHANNELS
SAAS	Status, already assigned
	CHANNEL [s]abcddd/ff IS ASSIGNED
SNVS	Status, not in valid state
	CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE CHANNEL [s]abcddd/ff IS UNDER TEST NPC [X]XXX IS NOT PROVISIONED AS DIGROUP-A OF AN RT THE NPC ASSOCIATED WITH VIRTUAL CHANNEL [X]XXXYYY IS NOT PROVISIONED NPC [X]XXX IS IN LINE LOOPBACK STATE
IDNV	Input, data not valid
	UNIT [q]q IS NOT FACILITY TERMINATING TYPE

ENEQ Equipage, not equipped

NO DSPU IS EQUIPPED
NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED

DSPI IN UNIT [q]q IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q MXR c NOT EQUIPPED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC ON INACTIVE SIDE IS OOS
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

ACTIVE CCN SIDE IS PESTED

CONN,CRS1,T0,RDLD,CUS,INCL

ONE WAY CROSS-CONNECTIONS

Input Message Format

Nonhierarchical

[I.11101]

```
CONN-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:[{NORM|TERM}];
```

Hierarchical

[I.11101]

```
CONN-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][{,CUS|,INCL}]:[{NORM|TERM}];
```

Completion Message

Nonhierarchical

[O.11101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] COMPLD
;
```

Hierarchical

[O.11101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.11101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] DENY
   mmmm
   /* [O.11101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.11101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] DENY
   mmmm
   /* [O.11101.02] */
   /* <explanation of error condition code> */
[  /* d-<st> */]
[  /* mmm,nnn */]
;
```

Hierarchical

[O.11101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] DENY
   mmmm
   /* [O.11101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.11101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:[{NORM|TERM}] DENY
   mmmm
   /* [O.11101.02] */
   /* <explanation of error condition code> */
[  /* d-<st> */]
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the connection of a one-way cross-connect circuit or a range of one-way circuits.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd,jjj

- Channel number

eee,kkk

- Channel number, denoting the end of range.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The Facility Data Link (FDL) channel 000 is not allowed in a range.
Only the FDL of DE type NPC with ESF Format can be cross-connected.

tc - Trunk conditioning

tc represents the desired cross-connected signaling and insertion word applied when a failure occurs. The signaling and the insertion word specification are entered separately, with a comma as the delimiter. The following signaling options are allowed:

If the channel being connected is a Facility Data Link (FDL), then ddd (jjj) is 000 and signaling type should be of type TC(ijkl,mnop).

tc	*Explanation*
TC----,mnop	1-way, 4-state signaling in binary. For ESF type framing format, software will expand 4-state to 16-state by duplicating the format on the remaining frames on a superframe.
TC--------,mnopqrst	1-way, 16-state in binary. Only valid for ESF framing formats.
TCX---,X-cd	1-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

The following insertion word options are allowed:

IW	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted to the downstream direction of a failure on the line.
TRB	Standard trouble code, equal to IW-X-E4.
MUX	MUX out of sync code, equal to IW-X-1A.

CUS - Customer

Used to indicate a customer-controlled circuit

RDLD - Red lined

INCL - Inclusive

A termination designated as customer controlled or a red circuit cannot be disconnected or modified without using the INCL keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the inclusive keyword is given in the remove message.

NORM - Normal

NORM indicates that the cross-connection will come up in the normal state. This corresponds to the PDS OCON command.

TERM - Terminate

TERM indicates that the cross connection will come up in the terminated state. This corresponds to the PDS OCNT command.

mmm - FROM channel number involved in the denial (ddd through eee)

nnn - TO channel number involved in the denial (jjj through kkk)

st - Status of denial

d - Direction

d	*Explanation*
F	From
T	To
B	Both

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
IIFM	INERR	Invalid FROM NPC type for AIS insertion
IIFM	INERR	Invalid TO NPC type for AIS insertion
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Line format types are incompatible
IIDT	MCOND	Trunk conditioning is invalid
IIFM	MCOND	FMC cannot be cross-connected in this format
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS

mmmm	st	*Explanation*
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	INERR	Attempt to one way cross-connect a locally switched channel
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	SC invalid for cross-connection specified
IDNV	INERR	MUX or TRB invalid for cross-connection specified
IDNV	INERR	AIS invalid for cross-connection specified
IDNV	INERR	NAM invalid for cross-connection specified
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
ASGN	{F|T|B}	Termination assigned
CUS	{F|T|B}	Customer-controlled Circuit
FAIL	{F|T|B}	Failed
OOS	{F|T|B}	Out-of-service
RDLD	{F|T|B}	Red Lined
ROLL	{F|T|B}	Circuit is involved in a roll
TG	{F|T|B}	NPC is grown as a test group
TP	{F|T|B}	NPC is used for test access
UNEQD	{F|T|B}	Unequipped
UTST	{F|T|B}	Under Test

CONN,CRS1,T0,RDLD,CUS,INCL

ONE WAY CROSS-CONNECTIONS

Input Message Format

Nonhierarchical

[I.11121]

```
CONN-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}];
```

Hierarchical

[I.11121]

```
CONN-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}];
```

Completion Message

Nonhierarchical

[O.11121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] COMPLD
;
```

Hierarchical

[O.11121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.11121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] DENY
   mmmm
   /* [O.11121.01] */
   /* <explanation of error condition code> */
;
```

[O.11121.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] DENY
   mmmm
   /* [O.11121.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Hierarchical

[O.11121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] DENY
   mmmm
   /* [O.11121.01] */
   /* <explanation of error condition code> */
;
```

[O.11121.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:<tc>:[RDLD][,{CUS|INCL}]:fmd,tmd:[{NORM|TERM}] DENY
   mmmm
   /* [O.11121.02] */
   /* <explanation of error condition code> */
   /* d-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a one-way cross-connection from the specified FROM termination(s) and to the TO termination. It is used to construct a one-way multipoint circuit. The backbone and broadcast terminations are on the virtual NPCs.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	**NPC**	**NPC**	**NPC**	**NPC**	**NPC**
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd,jjj

- Channel number

eee,kkk

- Channel number denoting end of range specification

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

001-500 (Virtual NPC)

Note: Range values -eee, -kkk apply only to the FTU/DS3U end of an FTU/DS3U Virtual NPC circuit, that is, they cannot apply to the Virtual NPC end of the circuit.

fmd tmd	Explanation
LEG	Non-VI circuit end of the cross connections. Must be an FTU/DS3U channel.
BRD	Nonbackbone leg of a virtual conference. Must be a virtual NPC channel.
BBL	Backbone leg of a virtual conference. Must be a Virtual NPC channel.

For OCON multipoint circuits, there are two valid combinations for fmd and tmd:

fmd,tmd	Explanation
LEG,BBL	For the backbone leg of a broadcast multipoint circuit
BRD,LEG	For the broadcast legs of the multipoint circuit.

Note: Default values for noise guard (NG) and echo suppression (ES) are applied to symmetrical bridges (multipoint mode SYM) and polling circuits (multipoint mode BBL,BRD). These default values are:

Symmetrical bridges	NG = -18db ES = -18db
Polling circuits	NG = 0db ES = 0db

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. The signaling and insertion word specification are entered separately, with a comma as the delimiter.

The following signaling option is allowed:

tc	*Explanation*
TRSP	Transparent, no signaling.

The following insertion word options are allowed:

IW	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4, not valid for CEPT.
MUX	MUX out of sync code, equal to IW-X-1A, not valid for CEPT.
Omitted	Only valid for CEPT, will default to IW-X-FF.

NOBBL - No backbone leg

IW - Insertion word

The insertion word is provided with the DCC option, an 8-bit pattern that is inserted in the specified time slot when the circuit is disconnected.

During the alarm state, AIS (all ones) is sent out in the specified time slot.

All leg connections to multipoint circuits using a Virtual NPC must use TRSP signaling (no signaling). The insertion word portion is user specified as noted above and may be varied from leg to leg.

CUS - Customer

Customer-controlled circuit

The optional CUS field indicates a customer controlled circuit. All legs on a multipoint customer-controlled circuit must be designated CUS.

INCL - Inclusive

A disconnected termination previously marked CUS remains as a customer controlled termination. The INCL keyword must be used to reconnect this termination to other terminations. However, if they are reconnected without the CUS keyword, they lose their customer controlled status.

RDLD - Red lined

All legs on a multipoint red circuit must be designated RDLD.

NORM - Normal

TERM - Terminate

NORM|TERM- Output Termination State

NORM is the equivalent for OCON command in PDS (default)

TERM is the equivalent for OCNT command in PDS
(Message number 12121)

ddd,jjj -Channel numbers

mmm - FROM channel number involved in the denial (ddd ≤ mmm ≤ eee)

st - Status

d - Direction (F = From, T = To, B = Both)

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
IIFM	INERR	Invalid FROM NPC type for AIS insertion
IIFM	INERR	Invalid TO NPC type for AIS insertion
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	DSPI not equipped, not in service, or failed
SNVS	MCOND	Line format types are incompatible
IIDT	INERR	Trunk conditioning is invalid
IIFM	MCOND	FMC cannot be cross-connected in this format
SNVS	INERR	Trunk conditioning doesn't match that of conference
SNVS	INERR	CUS flag doesn't match that of conference
SNVS	INERR	RDLD flag doesn't match that of conference
SNVS	CONFERR	Try to add a BBL to VC,but the VC already has backbone
IIFM	CONFERR	Try to operate a TWO-WAY conference with an ONE-WAY input command

mmmm	st	*Explanation*
IIDT	CONFERR	Database conference width does not match the range in input command
SNVS	CONFERR	Trying to add or delete a leg when a conference is under test
SNVS	CONFERR	Input BRD (BBL) has same NPC and channel as BBL (BRD)
SNVS	INERR	Bad use of INCL, cannot override the current state of the conference
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	SC invalid for cross-connection specified
IDNV	INERR	MUX or TRB invalid for cross-connection specified
IDNV	INERR	AIS invalid for cross-connection specified
IDNV	INERR	NAM invalid for cross-connection specified
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
ASGN	{FITIB}	Termination assigned
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
ROLL	{FITIB}	Circuit is involved in a roll
TP	{FITIB}	NPC is used for test access
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

CONN,CRS1,T1,RDLD,CUS,INCL

ONE-WAY NON-CHANNELIZED DIGITAL SIGNAL CROSS CONNECT

Input Message Format

Nonhierarchical

[I.11131]

```
CONN-CRS1-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}];
```

Hierarchical

[I.11131]

```
CONN-CRS1-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}];
```

Completion Message

Nonhierarchical

[O.11131]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] COMPLD
```

Hierarchical

[O.11131]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] COMPLD
```

Denial Message

Nonhierarchical

[O.11131.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] DENY
   mmmm
   /* [O.11131.01] */
   /* <explanation of error condition code> */
;
```

[O.11131.02]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::[s]abc,[t]ghi:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] DENY
   mmmm
   /* [O.11131.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
;
```

Hierarchical

[O.11131.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] DENY
   mmmm
   /* [O.11131.01] */
   /* <explanation of error condition code > */
;
```

[O.11131.02]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  CONN CRS1 T1::uv-m-np,wx-k-qr:[ww]:[RDLD][,{CUS|INCL}]\
:[{NORM|TERM}] DENY
   mmmm
   /* [O.11131.02] */
   /* <explanation of error condition code > */
   /* <d>-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a one-way cross-connection between two non-channelized network processing circuits.

The idle code is the alarm-indication signal (AIS-all ones), and does not need to be specified. The disconnect code for 64 kbit/s disconnection cannot be used for non-channelized network processing circuits.

When a failure occurs or during an alarm state, the AIS is transmitted toward the TO network processing circuits.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized FROM NPC

[t]ghi
- The 3- or 4-digit non-hierarchical non-channelized TO NPC

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

RDLD - Red lined
CUS - Customer-controller circuit
INCL - Inclusive option will remove CUS marking

NORM,TERM
- FROM or TO NPC OUTPUT MODE:

NORM - Normal

Normal cross-connected data, NORM is the default if neither NORM nor TERM is specified.

TERM - Terminated

Terminated cross connection, the IDLE signal(in this case AIS) is transmitted from both output ports.

st - Status

d - Direction
mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
IIDT	INERR	Trunk conditioning is invalid
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SAAS	ROLL	Termination is in process of being rolled

mmmm	st	*Explanation*

st	d	*Explanation*
ASGN	{F|T|B}	Termination assigned
CUS	{F|T|B}	Customer-controlled Circuit
FAIL	{F|T|B}	Failed
INVLD	{F|T|B}	Invalid NPC type
NPCTA	{F|T|B}	NPC used for Test Access
OOS	{F|T|B}	Out-of-service
RDLD	{F|T|B}	Red Lined
ROLL	{F|T|B}	Circuit is involved in a roll
UEQD	{F|T|B}	Unequipped
UTST	{F|T|B}	Under Test

CONN,HUB,T0

TWO-WAY TEST ACCESS, HUB

Input Message Format

Nonhierarchical

[I.24001]

```
CONN-HUB-T0:[<xy>]:[t]ghi-jjj:[ww]:kk:<tc>;
```

Hierarchical

[I.24001]

```
CONN-HUB-T0:[<xy>]:uv-m-np-jjj:[ww]:kk:<tc>;
```

Completion Message

Nonhierarchical

[O.24001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::[t]ghi-jjj:[ww]:kk:<tc>[,NAM] COMPLD
   /* [O.24001] */
   "{T|R|C|H},{F|0},{T|0},{P|0}"
   "[t]ghi-jjj,[t]ghi-mmm"
;
```

Hierarchical

[O.24001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::uv-m-np-jjj:[ww]:kk:<tc>[,NAM] COMPLD
   /* [O.24001] */
   "{T|R|C|H},{F|0},{T|0},{P|0}"
   "uv-m-np-jjj,uv-m-np-mmm"
;
```

Denial Message

Nonhierarchical

[O.24001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::[t]ghi-jjj:[ww]:kk:[<tc>][,NAM] DENY
   mmmm
   /* [O.24001.01] */
   /* {NMON|<st>} */
   /* {T|R|C|H},{F|0},{T|0},{P|0} */
   /* [t]ghi-jjj,[t]ghi-mmm */
;
```

Hierarchical

[O.24001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::uv-m-np-jjj:[ww]:kk:[<tc>][,NAM] DENY
   mmmm
   /* [O.24001.01] */
   /* {NMON|<st>} */
   /* {T|R|C|H},{F|0},{T|0},{P|0} */
   /* uv-m-np-jjj,uv-m-np-mmm */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a hubbing mode test access via a specified test port (TP) to the TO termination. In the hubbing mode, DACS II is used as a test access concentrator to connect a local TP to a remote TP. The cross-connection will be made between TP **kk** and two 64-kb/s channels, the TO end of which is specified in the command. Successive termination numbers **jjj** and **ddd** correspond to lower and upper channels of the test

port, respectively. These two channels are from a test port in another DACS II or other test access device to be cross-connected. DACS II does not know if the requested access is, in fact, to a hubbed test port on another frame; however, the request will be denied if either channel is mapped, under test, or if channel **jjj** would be out of range on the NPC.

Explanation Of Parameters

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical TO NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

jjj - TO channel number

The TO channel number must correspond to a lower channel of a test port.

tc - Trunk conditioning

tc represents the desired cross-connected signaling and insertion word applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification. The signaling and the insertion word specification are entered separately, with a comma as the delimiter.

signaling	*Explanation*
TC-ijkl,mnop	2-way, 4-state signaling in binary.
TC-ijklmnop,qrstuvwx	2-way, 16-state signaling in binary.
TC-X-ab,X-cd	2-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4
MUX	MUX out of sync code, equal to IW-X-1A

mmm - Channel number

Variable mmm is equal to jjj + 1. Must be an even number.

kk - Test port number (01 through 96)

F - FROM NPC is in CGA
0 - FROM NPC is not in CGA

T - TO NPC is in CGA
0 - TO NPC is not in CGA

P - Test port NPC is in CGA
0 - Test port NPC is not in CGA

Note: FROM test port NPC will never appear in the CGA condition.

Signaling mode of port

T - Transparent
R - Robbed bit Signaling
C - Channel associated signaling (CAS)
H - Hubbing

ASGN - Assigned

The test port is already assigned.

NMON - Not monitor

The test port is not in monitor mode.

st - Status

st	Explanation
BADCCB	CCB OOS or failed
BADCCN	CCN OOS or failed
BADFC	FC OOS or failed
BADFCB	FCB OOS or failed
BADFLI	FLI OOS or failed
BADFMT	FMT (Formatter) OOS or failed
BADFTMI	FTMI OOS or failed
BADMIU	MIU OOS or failed
BADMXR	MXR OOS or failed
BADTSI	TSI OOS or failed
BADUNIT	UNIT OOS or failed
EVEN	TO termination is not an odd channel
FAIL	Test port Group NPC failed
IMPR TC	Improper trunk conditioning specification
MCOND	An entity in the network is OOS or failed
NA	DACS CCN or UNIT involved cannot perform the cross-connect
NAM_NA	NAM keyword is not applicable to the cross-connection type
NOT IDLE	Test port is not idle
OOS	Test port Group NPC out of service
SG COND 02	Test port is static
T CLR	The TO NPC is a clear-DS1 or clear-2Mb NPC
T FAIL	TO side NPC is marked failed
T NOT CAS	TO termination not CAS.
T NOT LOWER	TO termination is not the lower test access channel
T OOS	TO side NPC is Out Of Service
T UEQD	TO side NPC is Unequipped
T UTST	TO termination is under test
TERM ASGN	TO termination is assigned
TP	TO termination is a test port
T_SCDG	TO termination is an RT (DL) termination
UEQD	The test port Group NPC is unequipped

CONN,HUB,T0,TG

NX64Kbit/s TWO-WAY TEST ACCESS, HUB

Input Message Format

Nonhierarchical

[I.24021]

```
CONN-HUB-T0:[xy]:[s]abc-ddd,[t]ghi-jjj:[ww]:TG-mmm:[<tc>];
```

Hierarchical

[I.24021]

```
CONN-HUB-T0:[xy]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:TG-mmm:[<tc>];
```

Completion Message

Nonhierarchical

[O.24021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::[s]abc-ddd,[t]ghi-jjj:[ww]:TG-mmm:[<tc>] COMPLD
   /* [O.24021] */
   /* Trunk condition code, CGA or PBA States (First TO,Second \
TO,TG) */
   "<tc>,{F|0},{S|0},{E|W|B|0}"
   "TG-Width:NN"
;
```

Hierarchical

[O.24021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:TG-mmm:[<tc>] COMPLD
   /* [O.24021] */
   /* Trunk condition code, CGA or PBA States (First TO,Second \
TO,TG) */
   "<tc>,{F|0},{S|0},{E|W|B|0}"
   "TG-Width:NN"
;
```

Denial Message

Nonhierarchical

[O.24021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::[s]abc-ddd,[t]ghi-jjj:[ww]:TG-mmm:[<tc>] DENY
   mmmm
   /* [O.24021.01] */
   /* <explanation of error condition code> */
[  "[u]jkl-ppp"]
;
```

Hierarchical

[O.24021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:TG-mmm:[<tc>] DENY
   mmmm
   /* [O.24021.01] */
   /* <explanation of error condition code> */
[  "jk-l-mn-ppp"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

To set up an Nx64Kbit/s hub test access connection via a test-access group to an Nx64Kbit/s TO termination. The TO termination consists of two Nx64Kbit/s bundles that will be connected to the test-access group's east and west bundles. These channel bundles must be of the same width as the test-access group. If all of the channels, starting at the number specified for the TO termination, are not available the first unavailable channel

encountered will cause the command to be denied. The channel that caused the denial will be reported in the denial message.

Explanation Of Parameters

TG - Test (access) group

mmm - Test access group number (001 through 400)

TG is designated as in the GRTH,TG,NPCTG command.

HUB - Hub

[s]abc
- 3- or 4-digit non-hierarchical first TO NPC number

[t]ghi
- 3- or 4-digit non-hierarchical second TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

```
Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H

Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
208A-208H     224A-224H     240A-240H     256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640


Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical first TO NPC number

wx-k-qr
- Hierarchical second TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Starting channel number of first TO NPC
jjj - Starting channel number of second TO NPC
ppp - First channel causing denial

001 through 024

tc - Trunk conditioning

If the static tc was not furnished in the growth TG command, it must be dynamically specified in this command or the test access will be denied. A dynamic tc will override any static tc. The effective tc will be used for all channels used in this test connection, and will be shown in the output.

CGA - Carrier group alarm

PBA - Primary block alarm

F	First TO NPC is in CGA or PBA
0	First TO NPC is not in CGA or PBA
S	Second TO NPC is in CGA or PBA
0	Second TO NPC is not in CGA or PBA
E	East-bundle NPCTG in CGA or PBA
W	West-bundle NPCTG in CGA or PBA
B	NPCTG(s) supporting both bundles in CGA or PBA
0	NPCTG(s) not in CGA or PBA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

COND - Condition

mmmm - Four-character error condition code.

NN - TG width (1 through 24)
mmmm - Error condition code

mmmm	*Explanation*
SNVS	NPC type error
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
ENEQ	test group unequipped
SAAS	Channel part of a TP or TG:
SAAS	Channel already under test:SAAS
SNVS	Gateway test access not supported
IDNC	TG width incompatible with circuit
IDNC	inconsistent HUB width for specified TG
IDNV	Invalid TC specification
SNIS	NPC not in service or failed
IDNV	Inconsistent Signaling on CEPT NPCTGs
SNVS	invalid test access mode
IDRG	input channel out of range (SLC not supported)
SAAS	circuit contains mapped channels for HUB request
IDNV	TG East/West type inconsistent with each other or circuit
IDNC	incompatible HUB feature types

CONN,HUB,T1,INCL

NON-CHANNELIZED TEST HUB

Input Message Format

Nonhierarchical

[I.20031]

```
CONN-HUB-T1:[<xy>]:[s]abc,[t]jkl:[ww]:[INCL];
```

Hierarchical

[I.20031]

```
CONN-HUB-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL];
```

Completion Message

Nonhierarchical

[O.20031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T1::[s]abc,[t]jkl:[ww]:[INCL] COMPLD
[  /* [20031] */]
[  /* CUS-Customer */]
[  "CUS"]
;
```

Hierarchical

[O.20031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T1::uv-m-np,wx-k-qr:[ww]:[INCL] COMPLD
[  /* [20031] */]
[  /* CUS-Customer */]
[  "CUS"]
;
```

Denial Message

Nonhierarchical

[O.20031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T1::[s]abc,[t]jkl:[ww]:[INCL] DENY
   mmmm
   /* [O.20031.01] */
   /* <explanation of error condition code> */
[  "[t]klm" ]
;
```

Hierarchical

[O.20031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN HUB T1::uv-m-np,wx-k-qr:[ww]:[INCL] DENY
   mmmm
   /* [O.20031.01] */
   /* <explanation of error condition code> */
[  "gh-k-lm" ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message sets up a non-channelized hub connection between a facility access digroup (FAD), or test network processing circuit (NPC) and a remote FAD. The FAD is connected to an NPC which is connected to a remote test NPC. The NPCs cannot be part of an existing mapped circuit or test connection.

During a hub test session if a hard-reset or link failure occurs the hub test session is released automatically. However, if the failure is such that it prevents release at the time of logout, or if the FAD fails, the hub test session is NOT automatically released and can be released by manual disconnection.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical number of test NPC or Facility Access Digroup (FAD).

[t]jkl

- The 3- or 4-digit nonhierarchical number of TO NPC connected to the remote FAD

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number of test NPC or FAD

wx-k-qr
- Hierarchical NPC number of TO NPC connected to the remote FAD

gh-k-lm
- Hierarchical number of problematic NPC

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

[t]klm
- The hierarchical number of the NPC that caused the denial

INCL - Inclusive

Inclusive keyword may be entered for customer-controlled TO NPC

CUS - Customer

Customer-controlled Circuit

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ERLC	Customer control or red circuit exists
SAOS	NPC out of service or failed
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	Termination is already assigned
SNVS	Termination is under test
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF	NPC Failed or Out of Service
SNVS	NPC invalid type
SNVS	NPC is a Facility Access Digroup
IIDT	Invalid test mode for a one-way test session
SNVS	Test session already exists
SAAS	Termination is in process of being rolled
IICM	Clear gateway test access disallowed.

CONN,TACC,T0,MON

TWO-WAY TEST ACCESS, MONITOR

Input Message Format

Nonhierarchical

[I.21001]

```
CONN-TACC-T0:[<xy>]:[t]ghi-jjj:[ww]:kk:[<tc>]:MON;
```

Hierarchical

[I.21001]

```
CONN-TACC-T0:[<xy>]:uv-m-np-jjj:[ww]:kk:[<tc>]:MON;
```

Completion Message

Nonhierarchical

[O.21001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21001] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TP), \
Termination State */
   "{T|C},{F|0},{T|0},{P|0},{R|F|T|B}"
   /* FROM NPC-Channel, TO NPC-Channel */
   "[s]abc-ddd,[t]ghi-jjj"
;
```

[O.21002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21002] */
   "UNMAP"
   /* Signaling Mode, CGA or PBA States (FROM,TO,TP) */
   "{T|C},{F|0},{T|0},{P|0}"
;
```

Hierarchical

[O.21001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::uv-m-np-jjj:[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21001] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TP), \
Termination State */
   "{T|C},{F|0},{T|0},{P|0},{R|F|T|B}"
   /* FROM NPC-Channel, TO NPC-Channel */
   "wx-k-qr-ddd,uv-m-np-jjj"
;
```

[O.21002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::uv-m-np-jjj:[ww]:kk:[<tc>]:MON COMPLD
   /* [O.21002] */
   "UNMAP"
   /* Signaling Mode, CGA or PBA States (FROM,TO,TP) */
   "{T|C},{F|0},{T|0},{P|0}"
;
```

Denial Message

Nonhierarchical

[O.21001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.01] */
   /* <reason> */
;
```

[O.21001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk:[<tc>]:MON DENY
   mmmm
   /* [O.21001.02] */
   /* <reason> */
;
```

[O.21001.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.03] */
   /* ASGN */
   /* [s]klm-nnn,[t]pqr-sss */
;
```

[O.21001.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]ghi-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.04] */
   /* <reason> */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

Hierarchical

[O.21001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]uv-m-np-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.01] */
   /* <reason> */
;
```

[O.21001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]uv-m-np-jjj:[ww]:kk:[<tc>]:MON DENY
   mmmm
   /* [O.21001.02] */
   /* <reason> */
;
```

[O.21001.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]uv-m-np-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.03] */
   /* ASGN */
   /* [s]ed-h-fg-nnn,[t]op-j-st-sss */
;
```

[O.21001.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0::[t]uv-m-np-jjj:[ww]:kk::MON DENY
   mmmm
   /* [O.21001.04] */
   /* <reason> */
   /* [s]wx-k-qr-ddd,[t]uv-m-np-jjj */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message can be used to do one of two things:

1. To set up a previously unassigned test port to monitor a particular termination.
2. To change a previously assigned test port to monitor mode.

If the test port is already in the monitor mode, DACS II will deny the execution of the message.

The trunk conditioning **(tc)** specified in this command applies only when accessing an unmapped termination. For an access to a mapped circuit, **tc** is adopted from the circuit being accessed and, therefore, will be ignored if specified.

The DACS II test ports are either static or dynamic. A test port is defined as static when trunk conditioning is specified in a test port provisioning command otherwise it is a dynamic test port. If this test port is static, trunk conditioning must be specified.

If the test port is in the split mode, do not specify the TO NPC number.

Explanation Of Parameters

kk - Test port number (01 through 96)

A test port is mapped to predesignated channels of a network processing circuit for test ports (NPCTP) during the provisioning of that test port. Only nonSLC® NPC types can be provisioned as an NPCTP. For the mapping between the test ports and the channels of the test NPCs, see the GRTH::TP Message

In a gateway frame NPC types that have been provisioned for channel associated signaling (CAS) can also be provisioned as an NPCTP.

The DACS II test ports are either static or dynamic, as defined in the GRTH::TP message.

If the test port is in the split mode, TO [t]ghijjj may not be specified.

[t]ghi

- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	**NPC**	**NPC**	**NPC**	**NPC**	**NPC**
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)
```

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)
```

Unit 1	Unit 2	Unit 3	Unit 4
NPC	NPC	NPC	NPC
0001	0161	0321	0481
0021	0181	0341	0501
0041	0201	0361	0521
0061	0221	0381	0541
0081	0241	0401	0561
0101	0261	0421	0581
0121	0281	0441	0601
0141	0301	0461	0621

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-np

- Hierarchical TO NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB, SR, and MJ type numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01
```

jjj - TO Channel number
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)
Conference numbers

001-085 (MB NPC)

If channel jjj is an FDL (Facility Data Link), then jjj = 000.

tc - Trunk conditioning

If the tc option was not furnished in the test port provisioning command, it must be furnished in this input command to provide a test connection for unmapped circuits; otherwise, the test access will be denied.

Represents the desired signaling and insertion word to be applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification. For example, TRSP,IW-X-pq (input form).

tc cannot be specified if jjj = 000.

Note: For mapped terminations, tc takes on the mapped cross-connect tc value and overrides any tc option provided in the input command.

For unmapped terminations, trunk conditioning will be applied as follows:

If tc is omitted from this command and was omitted in the test port provisioning command, the command will be denied.

If tc is omitted from this command but was provided in the test port provisioning command, the tc value provided in the provisioning command is applied.

If tc is provided in this command, it overrides the value, (if provided), in the test port provisioning command.

signaling	*Explanation*
TC-ijkl,mnop	2-way, 4-state signaling in binary.
TC-ijklmnop,qrstuvwx	2-way, 16-state signaling in binary.
TC-X-ab,X-cd	2-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4
MUX	MUX out of sync code, equal to IW-X-1A

channels

For 4-state signaling, the A/B signaling bits of both test port channels are specified by ijkl for the receive time slot interchange (RTSI), and by mnop for the transmit time slot interchange (TTSI).

For 16-state signaling, the A/B/C/D signaling bits of both test port channels are specified by efghijkl (or hexadecimal digits ab) for the RTSI, and by mnopqrst (or hexidecimal digits cd) for the TTSI.

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[s]klm
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]pqr
- The 3- or 4-digit nonhierarchical TO NPC number

wx-k-qr
- Hierarchical FROM NPC number.

Supports the termination that is cross-connected to channel ghi-jjj.

[s]klm-nnn
- Nonhierarchical format termination being tested as FROM on test port kk otherwise the same as [s]abcddd. If this field is all zeroes, test port kk is assigned to an unmapped termination.

ed-h-fg-nnn
- Hierarchical format of [s]klm-nnn

pqr-sss
- Nonhierarchical format termination being tested as TO on test port kk; otherwise, the same as abc-ddd.

op-j-st-sss
- Hierarchical format of [t]pqr-sss

ddd - FROM channel number of the termination that is cross-connected to
nnn - FROM channel number of the termination that is cross-connected to channel [t]ghi-jjj.

sss - TO channel number

SG - Signaling

g - Signaling mode of test port kk

g	*Explanation*
R	Robbed Bit Signaling
T	Transparent
T	TO NPC is in CGA
0	TO NPC is not in CGA
P	Test port NPC is in CGA
0	Test port NPC is not in CGA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer controlled circuit.

ONEWAY

- One-way

The cross-connection tested is a one-way circuit.

R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

ASGN - Assigned

The test port is already assigned to another termination, denoted by [s]klmnnn,[t]pqrsss (or edhfgnnn,opjstsss) by [s]klm-nnn,[t]pqr-sss (or ed-h-fg-nnn,op-j-st-sss)

reason

- Reason for denial

mmmm - Error condition code

mmmm	**st**	*Explanation*
ENRE	SCERR	TO NPC is not provisioned as DGA
ENRE	SCERR	Corresponding NPC for TO virtual channel is not provisioned
IDNV	SCERR	Invalid TO channel number

st	Explanation
BADCCB	CCB OOS or failed
BADCCN	CCN OOS or failed
BADDSPI	DSPI OOS or failed
BADFC	FC OOS or failed
BADFLI	FLI OOS or failed
BADFMT	FMT (Formatter) OOS or failed
BADFTMI	FTMI OOS or failed
BADMIU	MIU OOS or failed
BADMXR	MXR OOS or failed
BADTSI	TSI OOS or failed
BCAST	The TO side is part of a broadcast circuit
C TOO DEEP	DMB concatenations go too deep (for more than 6 level)
CBIT	The TO side is part of a c-bit cross-connection
CWNOT1	Conference width is not equal to 1 (for virtual conferences)
F ASGN	The FROM side NPC, wx-k-qr, is assigned
F FAIL	FROM side NPC is marked failed
F OOS	FROM side NPC (abc) is out of service
F UEQD	The DACS unit supporting the FROM termination is out-of-service or failed
FAIL	Test port Group NPC failed
IMPR TC	Improper trunk conditioning specification
INERR	Input error
NA	DACS CCN or UNIT involved cannot perform the cross-connect
OOS	Test port Group NPC out of service
SG COND 02	Test port is dynamic
T ASGN	The TO side NPC is assigned
T CLR	The TO NPC is a clear-DS1 NPC
T FAIL	TO side NPC is marked failed
T OOS	TO side NPC is Out Of Service
T UEQD	TO side NPC is Unequipped
T UTST	TO termination is under test
TP	The TO termination is part of a test port
T_DCLU	Attempt to test a locally switched channel
UEQD	Test port kk is unequipped
UTST	Under Test

CONN,TACC,T0,TG,MON

NX64Kbit/s TWO-WAY TEST ACCESS, MONITOR

Input Message Format

Nonhierarchical

[I.21021]

```
CONN-TACC-T0:[xy]:[t]ghi-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON;
```

Hierarchical

[I.21021]

```
CONN-TACC-T0:[xy]:wx-k-qr-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON;
```

Completion Message

Nonhierarchical

[O.21021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0:[xy]:[t]ghi-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON COMPLD
   /* [O.21021] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:[s]abc"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Hierarchical

[O.21021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0:[xy]:wx-k-qr-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON COMPLD
   /* [O.21021] */
[  "[RDLD][,CUS][,ONEWAY]"]
   /* Signaling Mode, CGA or PBA States (FROM,TO,TG), \
Termination State */
   "{T|R},{F|0},{T|0},{E|W|B|0},{R|F|T|B|BCAST|UNMAP <tc>}"
   "FROM-NPC:uv-m-np"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Denial Message

Nonhierarchical

[O.21021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0:[xy]:[t]ghi-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON DENY
   mmmm
   /* [O.21021.01] */
   /* <explanation of error condition code> */
[  "[t]ghi-ppp"]
;
```

Hierarchical

[O.21021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T0:[xy]:wx-k-qr-jjj[&&-kkk][&-lll&...]:[ww]:TG-mmm:\
[<tc>]:MON DENY
   mmmm
   /* [O.21021.01] */
   /* <explanation of error condition code> */
[  "wx-k-qr-ppp"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to do a monitor test access of a specified group of N 64Kbit/s terminations.
The test access is made through the test-access group specified in the command line.
The N TO channels to be tested may be entered as a range, a list, or a combination of both, in ascending order.
For two-point circuits, the numbers do not have to be consecutive, and the circuits may have been cross-connected separately.
For a one-way circuit under test, the other direction of the same termination cannot be tested at the same time.
For Nx64Kbit/s broadcast circuits, the channels have to be consecutive and must have been set up together for the same broadcast circuit.

The primary output line will not echo input with range(s) of channels, but will show a list of all channels.

Explanation Of Parameters

MON - Monitor

TO - To

[s]abc
- 3- or 4-digit non-hierarchical FROM NPC number

[t]ghi
- 3- or 4-digit non-hierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical FROM NPC number

wx-k-qr

- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

For an unmapped TO termination, or a backbone leg (BBL) without return, the FROM NPC number will be shown as zeroes.

ddd - FROM Channel number

jjj,kkk,lll
- TO Channel numbers

ppp - First TO Channel number causing denial

'kkk' is shown as an example of a range jjj-kkk of TO channels, and 'lll' an example of an item on a list of TO channels.

001 through 024

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s). If channel jjj is mapped to a channel 000, the circuit can only be tested as N = 1, the corresponding FROM channel ddd will be '000'.

tc - Trunk conditioning

For mapped circuits, regardless of what is specified here, the circuit's tc will be used but not shown in the output response.

For unmapped circuits, if the static tc was not furnished when the TG was provisioned, it must be dynamically specified in this command or the test access will be denied. A dynamic tc will override any static tc. The effective tc will be used for all channels under test, and will be shown in the output.

TG - Test-access Group

mmm - Test-access Group number (001 through 400)

The TG is designated as in CRTE-EQPT::TG and must have the same width as the number of channels specified in this message.

g	*Explanation*
T	All channels are Transparent (TRSP)
R	One or more channels is robbed-bit or non-TRSP

CGA - Carrier group alarm

PBA - Primary block alarm

ftb - CGA or PBA state

f	*Explanation*
F	FROM NPC is in CGA or PBA
0	FROM NPC is not in CGA or PBA

t	*Explanation*
T	TO NPC is in CGA or PBA
0	TO NPC is not in CGA or PBA

b	*Explanation*
B	NPCTG(s) supporting both bundles in CGA or PBA
E	East-bundle NPCTG in CGA or PBA
W	West-bundle NPCTG in CGA or PBA
0	NPCTG(s) not in CGA or PBA

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

ONEWAY

- One-way

The cross-connection tested is a one-way circuit.

BCAST - Broadcast

The cross-connection tested is part of a broadcast circuit.

s	*Explanation*
R	All channels are released
F	One or more FROM channel is terminated
T	One or more TO channel is terminated
B	One or more of FROM and TO channels are terminated

UNMAP - Unmapped

The circuit under test is unmapped.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	NPC type error
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
ENEQ	
ENEQ	
IDNV	
IDNV	
ENEQ	test group unequipped
SAAS	Channel part of a TP or TG
SAAS	Channel already under test
SAAS	BCON BBL has one or more legs under test
SNVS	Gateway test access not supported
IDNC	inconsistent BCON width for test access
IDNC	invalid channel designation for BCON
IDNC	TG width incompatible with circuit
IDNC	FDL selected with width not 1
SNVS	Designated TG or circuit to be tested in process of being rolled
IDNV	Invalid TC specification
SNIS	NPC not in service or failed
SNVS	channel is OCON in opposite direction
IDNC	Inconsistent or invalid circuit type for Nx64Kbit TA
IDNV	Inconsistent Signaling on CEPT NPCTGs
SNVS	invalid test access mode
IDRG	input channel out of range (SLC not supported)
IDNC	not all FROM channels on same NPC
IDNV	TG East/West type inconsistent with each other or circuit
SROF	Circuit TCONed itself cannot UTST

CONN,TACC,T1,AIS,INCL

NON-CHANNELIZED TEST ACCESS (MONITOR, SPLIT, OR LOOP)

Input Message Format

Nonhierarchical

[I.20001]

```
CONN-TACC-T1:[<xy>]:[s]abc[&[t]def],[u]ghi[,[v]jkl]:[ww]:<tmode>\
:[AIS]:[INCL];
```

Hierarchical

[I.20001]

```
CONN-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr],eg-h-ij[,jk-l-mn]:[ww]:<tmode>\
:[AIS]:[INCL];
```

Completion Message

Nonhierarchical

[O.20001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T1::[s]abc[&[t]def],[u]ghi[,[v]jkl]:[ww]:<tmode>\
:[AIS]:[INCL] COMPLD
   /* [O.20001] */
   /* Test NPC(s):NPC(s) under test */
   "[s]abc[&[t]def]:[u]ghi[,[v]jkl]"
   /* RDLD-Red Lined, CUS-customer, Circuit type and \
termination status */
   "[RDLD],[CUS],[ONEWAY],{UMPD|[<emode>],<fmode>}"
;
```

Hierarchical

[O.20001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T1::uv-m-np[&wx-k-qr],eg-h-ij[,jk-l-mn]:[ww]:\
<tmode>:[AIS]:[INCL] COMPLD
   /* [O.20001] */
   /* Test NPC(s):NPC(s) under test */
   "uv-m-np[&wx-k-qr]:eg-h-ij[,jk-l-mn]"
   /* RDLD-Red Lined, CUS-customer, Circuit type and \
termination status */
   "[RDLD],[CUS],[ONEWAY],{UMPD|[<emode>],<fmode>}"
;
```

Denial Message

Nonhierarchical

[O.20001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T1::[s]abc[&[t]def],[u]ghi[,[v]jkl]:[ww]:<tmode>\
:[AIS]:[INCL] DENY
   mmmm
   /* [O.20001.01] */
   /* <explanation of error condition code> */
[  "[t]klm"]
;
```

Hierarchical

[O.20001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC T1::uv-m-np[&wx-k-qr],eg-h-ij[,jk-l-mn]:[ww]:\
<tmode>:[AIS]:[INCL] DENY
   mmmm
   /* [O.20001.01] */
   /* <explanation of error condition code> */
[  "gh-k-lm"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message sets up non-channelized test access in the monitor modes MONE, MONF, MONEF; the split modes SPLTA, SPLTB, SPLTAB, SPLTE, SPLTF, SPLTEF; and the loop modes LOOPE or LOOPF. The circuit under test can be one unmapped Network Processing Circuit (NPC), or a pair of mapped NPCs. The mapped circuit may be a one-way, two-way or broadcast circuit. A one-way circuit can only be tested in modes MONE and SPLTA. Only one test connection can exist at a time for any circuit.

For test modes MONEF, SPLTAB and SPLTEF two Facility Access Digroups (FADs), or test NPCs, are connected. The first FAD number is required; the second FAD can be user specified, or assigned by default to be NPC numbered n+1, where n is the NPC number of the first FAD. If n is the highest NPC number on the DACS II frame, the first NPC on the frame will be used as default for the second FAD. Whether a FAD is user specified or assigned by DACS II, the command will be denied if the FAD is assigned or has invalid type. One FAD is connected for all other modes.

During a test session, if a hard-reset or link failure occurs, the test session is released automatically. However, if the failure is such that it prevents release at the time of logoff, or if the FAD fails, the test session is NOT automatically released and can be released by manual disconnection.

The E- and F-end NPCs for non-channelized test access correspond to the FROM and TO NPCs of a cross-connection, respectively. For a broadcast circuit the full tributary is considered to be a two-way connection, and all other tributaries are one-way connections. Only one test session can exist for a circuit at a time. The FAD or test NPC corresponds to test ports for DS0 test access.

For modes SPLTE and LOOPE, the idle output port of the F-end NPC, and any other output ports the E-end is transmitting to, must be set to output: quasi-random signal source (QRSS) if a QRSS source has been provisioned, otherwise, AIS must be specified.

For modes SPLTF and LOOPF, the idle output port of the E-end NPC, and any other output ports the F-end is transmitting to, must be set to AIS.

The output signal on all idle output ports related to a test session are restored to their previous values when the test modes are changed or test access is released. The OUTPUT modes can be overwritten when the NPC is test accessed.

Explanation Of Parameters

tmode - Test mode

tmode	*Explanation*
MONE	Monitor signal from equipment E-end NPC to facility F-end NPC of unmapped or one-/two-way mapped test session
MONF	Monitor signal from F-end NPC to E-end NPC of a two-way mapped test session
MONEF	Monitor a two-way mapped connection in both directions; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs
SPLTA	Split the A signal from the equipment E-end NPC to the facility F-end NPC of one-/two-way mapped test session
SPLTB	Split the B signal from the F-end NPC to the E-end NPC of a mapped two-way test session
SPLTAB	Split both A and B signals of a two-way test session; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs
SPLTE	Split the input and output ports of E-end NPC of an unmapped or two-way mapped test session
SPLTF	Split the input and output ports of F-end NPC of a two-way mapped test session
SPLTEF	Split a two-way mapped test session in both directions; two FADs are connected for the test session, and test mode can only be changed to another mode using two FADs
LOOPE	Loop the E-end input port to the output port, and connect the looped signal to the FAD; the test session may include an unmapped or two-way mapped connection
LOOPF	Loop the F-end input port to the output port, and connect the looped signal to the FAD; only for a two-way mapped test session; not allowed for one-way broadcast tributaries

[s]abc

- The 3- or 4-digit nonhierarchical number of test NPC or FAD

For MONEF, SPLTAB and SPLTEF modes this is the first of two test NPCs; the message is denied if this NPC is assigned

[t]def

- The 3- or 4-digit nonhierarchical number of second test NPC or FAD

For MONEF, SPLTAB and SPLTEF modes this number can be user specified, if none is entered the next higher NPC number to [s]abc is used; the message is denied if it is assigned

[u]ghi

- Nonhierarchical number of E-end NPC.

This is the reference NPC for the test session; it is a mapped or

unmapped NPC, or the backbone of a clear-DS1 broadcast circuit, depending on the test session specified

[v]jkl

- Nonhierarchical number of current F-end NPC of the test session.

This NPC is defined only if it is mapped to the E-end NPC. If this NPC is omitted from the input command, the NPC mapped to the E-end NPC becomes the F-end NPC or if the test session involves a broadcast circuit, the full tributary becomes the F-end NPC. If a full tributary does not exist, the NPC must be given to specify the tributary being tested. Omit this NPC if the E-end NPC is unmapped.

[t]klm

- The 3- or 4-digit nonhierarchical number of problematic NPC

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical number of test NPC or FAD

wx-k-qr
- Hierarchical number of second FAD

eg-h-ij
- Hierarchical number of E-end NPC

jk-l-mn
- Hierarchical number of F-end NPC of the test session.

gh-k-lm
- Hierarchical number of problematic NPC

uv,wx,eg,jk,gh
- Unit number

m,k,h,l - Module number

np,qr,ij,mn,lm
- NPC number

The valid values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

AIS - Alarm indication signal.

May be specified to be idle signal. AIS must be entered for all test modes resulting in idle output port(s): SPLTE, SPLTF, SPLTEF, LOOPE, and LOOPF. AIS input will be denied for test access of an unmapped NPC, and all other test modes.

INCL - Inclusive

Required for test session with red or customer-controlled NPC(s), except for MONE, MONF and MONEF modes. INCL will be ignored if the circuit is NOT RDC or CUS.

RDLD - Red lined circuit

Test session has red NPC(s)

CUS - Customer

Customer-controlled circuit. Test session has Customer-controlled NPC(s)

ONEWAY
- One way cross-connection

Test session has one-way cross-connection

UMPD - Unmapped

Test session has unmapped NPC

emode
fmode *Explanation*

NORM - The circuit under test is not terminated in this direction
TERM - The circuit under test is terminated in this direction

The emode output is omitted for one-way circuits
Both emode and fmode are omitted for unmapped circuits

mmmm - Error condition code

mmmm	**st**	*Explanation*
ENEQ	MCOND	Subject entity is not equipped
SAOS		Subject entity is out of service
ERLC		Customer control or red circuit exists
SAOS		NPC out of service or failed
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS		Termination is already assigned
SNVS		Termination is under customer control (CUS)
SNVS		Termination is protected (RDLD)
ENIE		Termination is not connected as indicated
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF		NPC Failed or Out of Service
SNVS		NPC invalid type
SNVS		NPC is a Facility Access Digroup
IIDT		Invalid test mode for an unmapped test session
IIDT		Invalid test mode for a one-way test session
SNVS		Test session already exists
IIDT		AIS not entered and QRSS not provisioned or inservice
IIDT		NPC is not an E-end
IIDT		NPC is not a F-end
SNVS		Looped Circuit Access not allowed
SAAS		Termination is in process of being rolled

mmmm	st	*Explanation*
IDNV		AIS entered for MONE/MONF/MONEF/SPLTA/SPLTB/SPLTAB
IICM		Clear gateway test access disallowed.

CONN,TACC,TS,MON

SUBRATE TEST ACCESS

Input Message Format

Nonhierarchical

[I.19601]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:MON;
```

Hierarchical

[I.19601]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:MON;
```

Completion Message

Nonhierarchical

[O.19601]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:MON COMPLD
   /* [O.19601] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
[  /* TO customer number */]
[  "01"]
;
```

[O.19602]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd:[ww]:kk:MON COMPLD
   /* [O.19602] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "0,{T|0},{P|0},R"
   "DS0B-nn"
;
```

Hierarchical

[O.19601]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:MON COMPLD
   /* [O.19601] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional TO customer number information in lines 8 and 9 of the above MML messages only appears if the ff field is not specified in the input command.

[O.19602]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd:[ww]:kk:MON COMPLD
   /* [O.19602] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "0,{T|0},{P|0},R"
   "DS0B-nn"
;
```

Denial Message

Nonhierarchical

[O.19601.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:MON DENY
   mmmm
   /* [O.19601.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.19601.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:MON DENY
   mmmm
   /* [O.19601.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a change of test port **kk** to the monitor mode for a Subrate circuit. [Note: The format of this command is compatible with DACS/SRDC.] In this mode, data transmission in the tested circuit is not interrupted.
The named external facility termination can be part of a two-point circuit or the master leg or branch termination of a multipoint circuit. (See CONN,TACC,TS,MON,MJU,BR for a monitor command that specifies the test point in terms of MJU and branch numbers.)

If the test access point specified is established to the Subrate feature but not cross-connected, the output message will contain the keyword **UNMAPPED**. When the test access point is unmapped, no signal is connected to the odd test port channel. A **DS0B** channel is always considered mapped, even when there are no customers cross-connected to it. In this case, the even test port faces the external facility and the odd test port faces the internal subrate multiplexer hardware.

This command can also be entered by using the **TTST** verb. In the case where an external facility termination is specified, no customer number can be present or the command will be denied. This limits this case to testing either entire **DS0B** channels or nonmultiplexed **DS0A** channels. If the Subrate circuit is already under test, the **TTST** verb can be used to

place any type of Subrate termination in the monitor mode. In all cases, the resulting output format is the same as that for the **STST** command except for the substitution of the **TTST** verb for the **STST** verb.

This command also overrides any static trunk conditioning that may have been specified for the test port. The test port is given TRSP,MUX trunk conditioning for the duration of the Subrate test access and returned to its previous trunk conditioning state upon release.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical FROM NPC number of the circuit side to be connected to the TO test port channel

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical FROM NPC number of the circuit side to be connected to the TO test port channel

- Unit number
- Unit number

np - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of the circuit side connected to the TO test port channel

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of the circuit side connected to the TO test port channel

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

kk - Test port number (01 through 96)

kk is used to indicate the test port number to be used for test access to the circuit.

MON - Monitor

If the test port is in the released mode, the **[s]abcddd[/ff]** external facility termination must be specified. This termination is connected to the even test port channel. If the test port already has a Subrate circuit under test, the external facility termination must not be specified or the command will be denied.

The [s]abcddd/ff field specifies the NPC, channel, and customer numbers

to be connected to the test port. If a multiplexed DS0B channel is tested, the customer number **ff** is omitted.

To test a single customer in the DS0B channel, the customer number field must be specified. When the tested channel is a

nonmultiplexed (DS0A) channel, the customer number is listed as **01**,or if the user prefers, the customer number can be omitted and the system will default the value to 01.

The named external facility termination can be part of a two-point circuit or the master leg or branch termination of a multipoint circuit. (If the test access point specified is established to the Subrate feature but not cross-connected, the output message will contain the keyword

UNMAPPED.) When the test access point is unmapped, no signal is connected to the odd test port channel.

A DS0B channel is always considered mapped, even when there are no customers cross-connected to it. In this case, the even test port faces the external facility and the odd test port faces the internal subrate multiplexer hardware.

This command can also be entered by using the **TTST** verb. In the case where an external facility termination is specified, no customer number can be present or the command will be denied.

This limits this case to testing either entire DS0B channels or

nonmultiplexed DS0A channels. If the Subrate circuit is already under test, the TTST verb can be used to place any type of Subrate termination in the monitor mode. In all cases, the resulting output format is the same as that for the STST command except for the substitution of the TTST verb for the STST verb.

This command also overrides any static trunk conditioning that may have been specified for the test port. The test port is given TRSP,MUX trunk conditioning for the duration of the Subrate test access and returned to its previous trunk conditioning state upon release. These messages define the output for monitor commands whose access point is **specified only in terms of an external facility termination that is,** an NPC, channel, and customer number or that do not specify any circuit address information.

RATE - Circuit rate
rr - Circuit rate value (24, 48, 96, or 56)

rr indicates the customer rate of the circuit. If the circuit is mapped; i.e., subrate cross-connected, the listed RATE is equal to the subrate cross-connect rate. For unmapped circuits, in which case the **UNMAPPED** keyword appears in the output, the listed rate depends on

the type of test access point. If test access is to a DS0A established channel, the establish channel rate is listed. If the access is to an

unconnected subrate channel of a DS0B, the listed rate is the maximum

subrate supported by the DS0B. If the circuit is mapped; that is, subrate cross-connected, the listed RATE is equal to the subrate cross-connect rate.

CGA - Carrier group alarm

F	FROM facility in CGA
0	FROM facility is not in CGA

T	TO facility in CGA
0	TO facility is not in CGA
P	Test port digroup in CGA
0	Test port digroup is not in CGA

DS0B - Subrate customer channel

nn - Number of subrate customer channels (05, 10, or 20)

TERM - Terminate and leave status of the test point

B	BOTH sides are terminated
F	FROM side is terminated
R	Neither side is terminated
T	TO side is terminated

LPD - Looped
Appears in the case of a two-point circuit that is looped on itself.

The NPC, channel, and customer number are used to indicate the external facility termination of the circuit connected to the TO side of the test port.

[s]abcddd/ff
- External facility termination connected to the TO test port channel

The NPC, channel, and customer number are present in the completion message only if specified in the input command.

mmmm - Four-character error condition code

mmmm	*Explanation*
ENEQ	Equipage, not equipped

explanation of error condition code

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
THE TO SIDE NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDRG Input, data out of range

CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

IDNV Input, data not valid

THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING TYPE
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

THE SPECIFIED TEST PORT CANNOT BE USED FOR SR CIRCUITS
ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
THE SPECIFIED TEST PORT IS ALREADY IN MONITOR MODE

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

IDNV Input, data not valid

TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT

CONN,TACC,TS,MON,MJU

SUBRATE TEST ACCESS

Input Message Format

Nonhierarchical

[I.19621]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:MON:MJU-ssss\
:[BRi];
```

Hierarchical

[I.19621]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:MON:MJU-ssss\
:[BRi];
```

Completion Message

Nonhierarchical

[O.19621]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:MON:MJU-ssss:[BRi] \
COMPLD
   /* [O.19621] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
[  /* MPTM customer number */]
[  "01"]
;
```

Hierarchical

[O.19621]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:MON:MJU-ssss:[BRi] \
COMPLD
   /* [O.19621] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
[  /* MPTM customer number */]
[  "01"]
;
```

Note: The optional MPTM customer number information in lines 8 and 9 of the above MML messages only appears if the ff field is not specified in the input command.

Denial Message

Nonhierarchical

[O.19621.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:MON:MJU-ssss:[BRi] \
DENY
   mmmm
   /* [O.19621.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.19621.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:MON:MJU-ssss:[BRi] \
DENY
   mmmm
   /* [O.19621.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests monitor test access on test port **kk** to a Subrate multipoint circuit. In this mode, data transmission in the tested circuit is not interrupted.
This command can only be used when the test port is in the released mode. If the desired multipoint test access point is already in the split mode, the CONN,TACC,TS,MON command can be used to place it in the monitor mode.
This command overrides any static trunk conditioning that may have been specified for the test port. The test port is given TRSP,MUX trunk conditioning for the duration of the Subrate test access and returned to its previous trunk conditioning state upon release.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number of the multipoint circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number of the multipoint circuit muster leg

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of the multipoint circuit master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - TO customer number of the multipoint circuit master leg (1 through 20)

The customer number **ff** is required when the master leg of the multipoint circuit is a customer within a

multiplexed DS0B channel. When the master leg is a

nonmultiplexed (DS0A) channel, the customer number is entered as **01**, or if the user prefers, the customer number can be omitted and the system will default the value to 01. The customer number will appear in the output message only if specified in the input command.

MON - Monitor

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

TO - To

MJU - Multipoint junction unit

ssss - MJU number of accessed MJU (0001 through 9999)

ssss is the MJU requested for connection to the TO test port. If MJU 0001 is specified, the TO test port faces the control leg of MJU 0001 and the FROM test port faces the master leg external facility termination. If an MJU number other than 0001 is specified and the **BR** is not listed, the TO side faces towards the control leg of the specified MJU and the FROM side faces upstream towards the branch of a cascaded MJU.

BR - Branch

i - Branch number of MJU ssss (1 through 4)

Specify **BRi** to connect branch i (i = 1 through 4) of MJU ssss to the TO test port. The FROM side will face downstream.

RATE - Rate

rr - Transmission rate (24, 48, 96, or 56)

rr	*rate in kb/s*
24	2.4
48	4.8
96	9.6
56	56

kk - Test port number (01 through 96)

Indicates the test port number used for test access to the circuit.

UNMAP - Unmapped

UNMAP is output if the specified test access point is not cross-connected. (This situation can occur only when test access to a branch is specified.) When the test access point is unmapped, no signal is connected to the odd test port channel.

F	*FROM facility in CGA*
0	FROM facility is not in CGA

T	*TO facility in CGA*
0	TO facility is not in CGA

P	*Test port digroup in CGA*
0	Test port digroup is not in CGA

The side of the test access port that faces the control leg of an MJU (that is, downstream) always has the corresponding CGA status listed as "0", indicating no alarm. The CGA status of a side facing upstream corresponds to the status of the circuit's master leg facility.

F - FROM facility in CGA
0 - FROM facility is not in CGA

T - TO facility in CGA
0 - TO facility is not in CGA

P - Test port digroup in CGA
0 - Test port digroup is not in CGA

The side of the test access port that faces the control leg of an MJU (that is, downstream) always has the corresponding CGA status listed as "0"; indicating no alarm. The CGA status of a side facing upstream corresponds to the status of the circuit's master leg facility.

TERM - Termination status

R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

BRi is present only if specified in the input command.

mmmm - Error condition code

mmmm Explanation

ENEQ Equipage, not equipped
explanation of error condition code

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
THE TO SIDE NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDRG Input, data out of range

CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

IDNV Input data not valid

THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
MJU ssss DOES NOT EXIST IN THE CIRCUIT
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLR MODE

CUSTOMER IS NOT SPECIFIED FOR THE DS0B CHANNEL
CHANNEL [s]abcddd IS NOT A MULTIPOINT MASTER LEG
THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING TYPE
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE

INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

THE SPECIFIED TEST PORT CANNOT BE USED FOR SR CIRCUITS
TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT
ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
THE SPECIFIED TEST PORT IS ALREADY IN MONITOR MODE

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

CONN,TACC,TS,SPLT

SUBRATE SPLIT TEST ACCESS

Input Message Format

Nonhierarchical

[I.19631]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:SPLT;
```

Hierarchical

[I.19631]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:SPLT;
```

Completion Message

Nonhierarchical

[O.19631]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:SPLT COMPLD
   /* [O.19631] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD"]
[  /* TO customer number */]
[  "01"]
;
```

[O.19632]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CONN TACC TS::[s]abc-ddd:[ww]:kk:SPLT COMPLD
    /* [O.19632] */
    /* CGA Status FROM,TO,TEST PORT,TERM */
    "0,{T|0},{P|0},R"
    "DS0B-nn"
;
```

Hierarchical

[O.19631]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:SPLT COMPLD
    /* [O.19631] */
    /* CGA Status FROM,TO,TEST PORT,TERM */
    "{F|0},{T|0},{P|0},{R|F|T|B}"
    "RATE-rr"
[   "{UNMAP|LPD"]
[   /* TO customer number */]
[   "01"]
;
```

Note: In the above two messages the optional TO customer number information in lines 8 and 9 appears only if the ff field is not specified in the input command.

[O.19632]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CONN TACC TS::uv-m-np-ddd:[ww]:kk:SPLT COMPLD
    /* [O.19632] */
    /* CGA Status FROM,TO,TEST PORT,TERM */
    "0,{T|0},{P|0},R"
    "DS0B-nn"
;
```

Denial Message

Nonhierarchical

[O.19631.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:SPLT DENY
    mmmm
    /* [O.19631.01] */
    /* <explanation of error condition code> */
;
```

Hierarchical

[O.19631.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:SPLT DENY
   mmmm
   /* [O.19631.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command connects a subrate circuit to test port **kk** and places it in the split mode. In this mode, data transmission in the tested circuit is interrupted.

The used must specify the termination number (digroup, channel, and customer numbers) to be connected to the test port. To test a single customer in a DS0B channel, the customer number is required.

Split test access to an entire multiplexed DS0B channel (rather than a single DS0B customer) can only be done by first monitoring the channel and then splitting it by use of this command without a digroup and channel number. When the tested channel is a nonmultiplexed (DS0A) channel, the customer number is entered as **01**, or if the user prefers, the customer number can be omitted and the system will default the value to **01**.

The specified termination can be part of a two-point circuit or the master leg or branch terminiation of a multipoint circuit.
The CHG,TACC,TO,SPLT command can also be used to perform this function however the command will be denied if the customer number is specified.

The CHG command is limited to testing only nonmultiplexed DS0A channels. If the subrate circuit is already under test, the CHG command can be used to place any type of subrate termination in the split mode.

This command overrides any static trunk conditioning that may have been specified for the test port. The test port is given TRSP,MUX trunk conditioning for the duration of the subrate test access, and returned to its previous trunk conditioning state upon release.

Split test access to a **DS0B** channel can potentially cause loss of service to as many as 20

subrate customers.

Explanation Of Parameters

TO - To

SPLT - Split

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of the circuit side connected to the TO test port channel

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number of the circuit side connected to the TO test port channel

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number of the circuit side connected to the TO test port channel

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of the circuit side connected to the TO test port channel

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

kk - Test port number (01 through 96)

The **TP kk** field indicates the test port number used for test access to the channel.

If the test port is in the released mode, [s]abcddd[/ff] or uvmnpddd[/ff] must be specified. This termination is connected to the even test port channel. If the test port already has a Subrate circuit under test, the external facility termination must not be specified or the command will be denied.

UNMAP - Unmapped

UNMAP appears in the output message if the test access point specified is established to the subrate feature but not cross-connected. When the test access point is unmapped, no signal is connected to the odd test port channel.

A DS0B channel is always considered mapped, even when there are no customers cross-connected to it. In this case, the even test port faces the external facility and the odd test port faces the internal subrate multiplexer hardware.

DS0B - Customer channels

nn - Number of subrate customer channels (05, 10, or 20)

LOOPED
- Looped

The two-point circuit is looped upon itself.

RATE - Customer rate

rr - Circuit rate (24, 48, 96, or 56)

If the circuit is mapped; that is, subrate cross-connected the listed RATE is equal to the subrate cross-connect rate. For unmapped circuits, in which case the unmapped keyword appears in the output, the listed rate depends on the type of test access point. If test access is to a DS0A established channel, the establish channel rate is listed. If the access is to an unconnected subrate channel of a DS0B, the listed rate is the maximum subrate supported by the DS0B.

TERM - Termination

F - FROM facility in CGA
0 - FROM facility is not in CGA

T - TO facility in CGA
0 - TO facility is not in CGA

P - Test port digroup in CGA
0 - Test port digroup is not in CGA

R - RELEASED. Neither side is terminated
F - FROM side is terminated
T - TO side is terminated
B - BOTH sides are terminated

LPD - Looped

reason 1	reason 2
INERR	THE SPECIFIED TEST PORT IS NOT EQUIPPED
UEQD	THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
F UEQD	THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
T UEQD	THE TO SIDE NPC [s]abc IS NOT EQUIPPED
MCOND	TSI sft IS NOT EQUIPPED
MCOND	CCB sf IS NOT EQUIPPED
MCOND	ETSI sqq IS NOT EQUIPPED
MCOND	UNIT [q]q IS NOT EQUIPPED
MCOND	UNIT [q]q FTMI d IS NOT EQUIPPED
MCOND	UNIT [q]q FC sb IS NOT EQUIPPED
MCOND	NPC [s]abc IS NOT EQUIPPED
MCOND	NO DSPU IS EQUIPPED
MCOND	NO SRM OR MJU TYPE NPC IS EQUIPPED
RNGIE	CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc
CN RATE	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
CN RATE	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
PCH	THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
INERR	TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT
INERR	THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING TYPE
MCOND	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
MCOND	BOTH CCN SIDES ARE OUT-OF-SERVICE
MCOND	ACTIVE CCN SIDE s IS OUT-OF -SERVICE
OOS	THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
MCOND	INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
F OOS	THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
T OOS	THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
MCOND	CCNI s IS OUT-OF-SERVICE
MCOND	TSI sft IS OUT-OF-SERVICE
MCOND	CCB sf IS OUT-OF-SERVICE
MCOND	CCI s IS OUT-OF-SERVICE
MCOND	ETSI sqq IS OUT-OF-SERVICE
MCOND	UNIT [q]q IS OUT-OF-SERVICE
MCOND	UNIT [q]q FTMI d IS OUT-OF-SERVICE
MCOND	UNIT [q]q FC sb IS OUT-OF-SERVICE
MCOND	DSPI IN UNIT [q]q IS OUT-OF-SERVICE
MCOND	NPC [s]abc SIDE s IS OUT-OF-SERVICE

INERR	THE SPECIFIED TEST PORT CANNOT BE USED FOR SR CIRCUITS
MCOND	ACTIVE CCN SIDE s IS FAILED
MCOND	ACTIVE CCN SIDE s IS PESTED
FAIL	THE TEST PORT GROUP NPC [s]abc IS FAILED
F FAIL	THE FROM SIDE NPC [s]abc IS FAILED
T FAIL	THE TO SIDE NPC [s]abc IS FAILED
MCOND	CCNI s IS FAILED
MCOND	TSI sft IS FAILED
MCOND	CCB sf IS FAILED
MCOND	CCI s IS FAILED
MCOND	ETSI sqq IS FAILED
MCOND	UNIT [q]q IS FAILED
MCOND	UNIT [q]q FTMI d IS FAILED
MCOND	UNIT [q]q FC sb IS FAILED
MCOND	DSPI IN UNIT [q]q IS FAILED
MCOND	NPC [s]abc SIDE s IS FAILED
ASGN	THE SPECIFIED TEST PORT IS UNDER TEST
UTST	THE SPECIFIED ACCESS POINT IS UNDER TEST
CH NOT EST	THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
NMON	THE SPECIFIED TEST PORT IS ALREADY IN SPLIT MODE
NMON	A DS-OB CHANNEL CANNOT BE SPLIT UNLESS MONITORED FIRST
NUTST	THE SPECIFIED TEST PORT IS UNASSIGNED
NA	CONNECTION EXCEEDS REMAINING EC CAPACITY

mmmm - Error condition code

mmmm Explanation

ENEQ Equipage, not equipped
explanation of error condition code

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
THE TO SIDE NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDRG Input, data outof range

CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

IDNV Input, data notvalid

THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT
THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING TYPE
UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status,not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

THE SPECIFIED TEST PORT CANNOT BE USED FOR SR CIRCUITS
ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status,not in valid state

THE SPECIFIED TEST PORT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
THE SPECIFIED TEST PORT IS ALREADY IN SPLIT MODE

A DS-OB CHANNEL CANNOT BE SPLIT UNLESS MONITORED FIRST

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

CONN,TACC,TS,SPLT,MJU

SUBRATE TEST ACCESS SPLIT

Input Message Format

Nonhierarchical

[I.19651]

```
CONN-TACC-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi];
```

Hierarchical

[I.19651]

```
CONN-TACC-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi];
```

Completion Message

Nonhierarchical

[O.19651]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss/
:[BRi] COMPLD
   /* [O.19651] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
[  /* MPTM customer number */]
[  "01"]
;
```

Hierarchical

[O.19651]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss/
:[BRi] COMPLD
   /* [O.19651] */
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
[  /* MPTM customer number */]
[  "01"]
;
```

Note: The optional MPTM customer number information in lines 8 and 9 of the above MML messages appears only if the ff field is not specified in the input command.

Denial Message

Nonhierarchical

[O.19651.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::[s]abc-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi] DENY
   mmmm
   /* [O.19651.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.19651.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CONN TACC TS::uv-m-np-ddd[-ff]:[ww]:kk:SPLT:MJU-ssss\
:[BRi] DENY
   mmmm
   /* [O.19651.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests split test access on a test port to a Subrate multipoint circuit. It can only be used when the test port is in the released mode. In this mode, data transmission in the tested circuit is interrupted.

This command overrides any static trunk conditioning that may have been specified for the test port. The test port is given TRSP,MUX trunk conditioning for the duration of the subrate test access and returned to its previous trunk conditioning state upon release. (See CHG,TACC,TS,SPLT to change a multipoint circuit that is already under test to the split mode.)

The master leg of the multipoint circuit is specified by network processing circuit, channel, and customer number and serves as the circuit reference for the multipoint junction unit named in the command.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number of TO external facility termination of circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number of TO external facility termination of circuit master leg

uv - Unit number
m - Module number
np - NPC number within the module

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number of the multipoint circuit master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of the multipoint circuit master leg

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

The optional customer number **ff** is required when the master leg of the multipoint circuit is a customer within a multiplexed

DS0B channel. When the master leg is a nonmultiplexed (DS0A) channel, the customer number is listed as **01**, or if the user prefers, the customer number can be omitted and the system will default the value to 01.

The external facility termination of the circuit is given by the NPC, channel, and customer number for the master leg of the multipoint circuit. Note that this is *not* the facility defined as the TO side of the circuit.

MJU - Multipoint junction unit

ssss - MJU number of accessed MJU (0001 through 9999)

The TO test port is connected to an MJU defined by **ssss**. If MJU 0001 is specified, the TO test port faces the control leg of MJU 0001 and the FROM test port faces the master leg external facility termination. If an MJU number other than 0001 is specified and a branch has not been entered, the TO side faces towards the control leg of the specified MJU and the FROM side faces upstream towards the branch of a cascaded MJU.

If branch i was specified then branch i of MJU ssss is connected to the TO test port and the FROM side faces downstream.

BR - Branch

i - Branch number of MJU ssss (1 through 4)

If the **BRi** field is present, the TO side faces upstream towards the indicated branch of the specified MJU and the FROM side faces downstream, either towards another MJU or towards an external facility termination.

kk - Test port number (01 through 96)

kk indicates the test port number used for test access to the circuit.

UNMAP - Unmapped

This keyword will be output if the test access point specified is not cross-connected. (This situation can occur only when test access to a branch is specified.) When the test access point is unmapped, no signal is connected to the odd test port channel.

TERM - Terminate and leave

R - Released. Neither side is terminated
F - FROM side is terminated
T - TO side is terminated
B - BOTH sides are terminated

RATE - Rate

rr - Transmission rate (24, 48, 96, or 56)

rr	*rate in kb/s*
24	2.4
48	4.8
96	9.6
56	56

The customer rate of the circuit is indicated by rr. If the access is to an unconnected or unmapped branch the listed rate is the same as the rest of the multipoint circuit.

MPTM - Multipoint master

The multipoint master leg of the circuit is specified by the termination number which consists of the NPC, channel, and customer numbers combined. Note that this is *not* the facility connected to the TO side of the test port.

CGA - Carrier group alarm

ftp - Alarm status, FROM, TO, and test port, respectively

The side of the test access port that faces the control leg of an MJU (that is, downstream) always has the corresponding CGA status listed as "0"; indicating no alarm. The CGA status of a side facing upstream corresponds to the status of the circuit's master leg facility.

F - FROM facility in CGA
0 - FROM facility is not in CGA

T - TO facility in CGA
0 - TO facility is not in CGA

P - Test port digroup in CGA
0 - Test port digroup is not in CGA

mmmm - Error condition code

mmmm Explanation

ENEQ Equipage, not equipped
explanation of error condition code

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
THE TO SIDE NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDRG Input, data outof range

CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

IDNV Input, data notvalid

MJU ssss DOES NOT EXIST IN THE CIRCUIT
THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
THE SPECIFICED TEST ACCESS POINT IS ALREADY IN TLA MODE
THE SPECIFICED TEST ACCESS POINT IS ALREADY IN TLR MODE

CUSTOMER IS NOT SPECIFIED FOR THE DS0B CHANNEL
CHANNEL [s]abcddd IS NOT A MULTIPOINT MASTER LEG
THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING TYPE
UNIT [q]q IS NOT FACILITY TERMINATING TYPE
TESTPORTS IN THIS GROUP INVALID FOR SR CIRCUIT

SNIS Status,not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE

ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status,requested operation failed

ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS UNDER TEST
THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
THE SPECIFIED TEST PORT IS ALREADY IN SPLIT MODE

A DS-OB CHANNEL CANNOT BE SPLIT UNLESS MONITORED FIRST

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

COPY,EQPT,NPC

COPY NPC

Input Message Format

Nonhierarchical

[l.31521]

```
COPY-EQPT:[<xy>]:NPC-[s]abc,[t]def[&&-[u]ghi]:[ww];
```

Hierarchical

[l.31521]

```
COPY-EQPT:[<xy>]:NPC-uv-m-np,wx-k-qr[&&&-gh-i-kl]:[ww];
```

Completion Message

Nonhierarchical

If the destination NPC is DE or TE type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-[s]abc,[t]def[&&-[u]ghi]:[ww] COMPLD
   /* [O.31521] */
   /* SLIP:BER:ERS:SERS:COFA (Threshold) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu"
   /* SLIP:BER:ERS:SERS:COFA (Options) */
   "e,f:g,h:i:j:k,l"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* AIS Option */
   "AIS-{INFO|MJ|MN}"
   /* NPC Number */
   "[s]jkl"
   "TYPE-mnxyz"
;
```

If the destination NPC is DA or TA type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-[s]abc,[t]def[&&-[u]ghi]:[ww] COMPLD
   /* [O.31521] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Min. Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* AIS Option */
   "AIS-{INFO|MJ|MN}"
   /* Payload Loopback Option */
   "PL-{ENA|DSA}"
   /* NPC number */
   "[s]jkl"
   "TYPE-mnxyz"
;
```

If the destination NPC is DS type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-[s]abc,[t]def[&&-[u]ghi]:[ww] COMPLD
   /* [O.31521] */
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Thresholds) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu:xxxxx:zzzzz"
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Options) */
   "e,f:g,h:i:j:k,l:v:w"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "[s]jkl"
   "TYPE-DSxyz"
;
```

Hierarchical

If the destination NPC is DE or TE type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-uv-m-np,wx-k-qr[&&&gh-i-kl]:[ww] COMPLD
   /* [O.31521] */
   /* SLIP:BER:ERS:SERS:COFA (Threshold) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu"
   /* SLIP:BER:ERS:SERS:COFA (Options) */
   "e,f:g,h:i:j:k,l"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* AIS Option */
   "AIS-{INFO|MJ|MN}"
   /* NPC Number */
   "uv-j-kl"
   "TYPE-mnxyz"
;
```

If the destination NPC is DA or TA type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-uv-m-np,wx-k-qr[&&&gh-i-kl]:[ww] COMPLD
   /* [O.31521] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Min. Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* AIS Option */
   "AIS-{INFO|MJ|MN}"
   /* Payload Loopback Option */
   "PL-{ENA|DSA}"
   /* NPC number */
   "uv-j-kl"
   "TYPE-mnxyz"
;
```

If the destination NPC is DS type, the output format is:

[O.31521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-uv-m-np,wx-k-qr[&&&gh-i-kl]:[ww] COMPLD
   /* [O.31521] */
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Thresholds) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu:xxxxx:zzzzz"
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Options) */
   "e,f:g,h:i:j:k,l:v:w"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "uv-j-kl"
   "TYPE-DSxyz"
;
```

Denial Message

Nonhierarchical

[O.31521.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-[s]abc,[t]def[&&-[u]ghi]:[ww] DENY
   mmmmm
   /* [O.31521.01] */
   /* <explanation of error code> */
   /* NPC Number(s) Denied */
   "[t]mno[&&-[u]vwx]"
;
```

Hierarchical

[O.31521.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  COPY EQPT::NPC-uv-m-np,wx-k-qr[&&&-gh-i-kl]:[ww] DENY
   mmmmm
   /* [O.31521.01] */
   /* <explanation of error code> */
   /* NPC Number(s) Denied */
   "bc-d-fe[&&&-ef-h-ed]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to copy provisioning information from a previously provisioned network processing circuit (NPC) to an NPC to be provisioned (the destination NPC). It is used for domestic NPC types DE, TE, DA, TA, and DS. Copying is limited to the combinations given below:

- DE to DE or TE
- TE to TE or DE
- DA to DA or TA
- TA to TA or DA
- DS to DS

When the parameters of the source (previously provisioned) NPC type do not apply to the destination NPC type, such parameters and their values will be not be copied to the destination NPC type; the destination NPC will ignore them. When there are no parameters of the source NPC type that apply to the destination NPC type, the destination NPC type will assume its default values for those parameters.

One output message is printed for each NPC successfully copied and provisioned.

When a range address crosses a Unit boundary, the command will be denied.

When an NPC range specified within a Unit crosses a Facility Terminating Module (FTM) boundary and the FTM type differs from that specified in this command then that FTM will be skipped and a summary denial message will be output. This message will give the range of NPCs for which the denial is effective and the reason for the denial. The NPC range covers successive NPCs in the range that are denied for the same reason.

Execution of the command then resumes at the NPC following the last one in the summary denial message and continues to the end of the specified range.

No insertion word will appear in the output message if the NPC is a clear DS1 type (types DE9y9, DA9y9, TE9y9 and TA9y9).

Explanation Of Parameters

NPC - Network processing circuit

TO - to

TYPE - type

mnxyz - NPC type identifier

mn	*Explanation*
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC

TA DS3U ANSI NPC

TE DS3U Noninterface unit NPC

IW - Insertion word

pq - Hexadecimal value of the insertion word.

An eight-bit code, called the growth insertion word, is transmitted by

this NPC on unassigned DS0 channels. This code is specified by the optional keyword IW and its argument pq. This code was previously called the Disconnect Code (DCC), but that name is properly reserved for the cross-connect insertion word, which is transmitted when the disconnect message with the DDC specified is used.

Although any 2-digit hexadecimal code may be used, the default values are:

pq	*Explanation*
7F	Unassigned Channel Code (UAC), the default value for DE/TE type, DA/TA type, and DS type NPCs provisioned with D4 or ESF framing.
18	Unassigned Multiplex Code (UMC), the default value for DA/TA type NPCs provisioned with T1DM framing. This value should only be provisioned with T1DM framing (DE4yz/TE4yz, DA4yz/TA4yz), so the growth command enforces this restriction.
FF	This is recommended for unconnected channels in the SLC® interface and CPI applications.

For Clear-DS1 NPCs, the insertion word option is **NOT** available and the message will be denied if this option is entered. The alarm indication signal (AIS) is transmitted in the disconnect or idle state.

AIS - Alarm indication signal

INFO - Information

Information message (not an alarm).

MJ - Major (alarm)

MN - Minor (alarm)

BER - Bit Error Rate

ERS - Errored seconds

SERS - Severe errored seconds

COFA - Change of frame alignment

mmm - SLIP major alarm threshold (0 through 255)
nnn - SLIP minor alarm threshold (0 through 255)
e - SLIP major option selection (0 through 3)
f - SLIP minor option selection (0 through 3)

p - BER major alarm threshold (4 through 6)
q - BER minor alarm threshold (4 through 6)
g - BER major option selection (0 through 3)
h - BER minor option selection (0 through 3)

rrrrr - ERS threshold (1 through 65535)
i - ERS option selection (0 through 3)

sss - SERS threshold (1 through 255)
j - SERS option selection (0 through 3)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)
k - COFA major option selection (0 through 3)
l - COFA minor option selection (0 through 3)

xxxxx - SANE threshold (0 through 65535)

zzzzz - SAFE threshold (0 through 65535)

Note: For clear-DS1 FTU NPC only SLIP and BER parameters are listed. For clear-DS1 DS3U NPC only SLIP parameters are listed.

The SANE and SAFE parameters are not applicable to DS1yz and DS7yz type NPCs.

Except for BER, major thresholds may not be equal to or less than the minor thresholds. The BER major threshold can be equal to the BER minor threshold.

PL - Payload loopback

ENA - Enabled

Payload loopback commands received from far-end equipment on the ESF data link are recognized and performed by the ANSI NPC. This is the default option.

DSA - Disabled

Payload loopback commands received from far-end equipment on the ESF data link are ignored by the ANSI NPC. This prevents customer equipment from controlling network configurations.

CVP - Path Coding Violations
ESP - Path Errored Seconds
SESP - Path Severely Errored Seconds
SEFS - Severely Errored Framing Seconds
CSSP - Path Controlled Slip Seconds
UASP - Path Unavailable Seconds
CVL - Line Coding Violations
ESL - Line Errored Seconds
SESL - Line Severely Errored Seconds

aaaaaaaaa
- Daily near-end path coding violation threshold, (000000000 through 134217727)

a - Daily near-end path coding violation threshold selection, (0 through 3)

bbbbb - Daily near-end path errored second threshold, (00000 through 86400)

b - Daily near-end path errored second threshold selection, (0 through 3)

ccccc - Daily near-end path severely errored second threshold, (00000 through 86400)

c - Daily near-end path severely errored second threshold selection, (0 through 3)

ddddd - Daily near-end severely errored framing second threshold, (00000 through 86400)

d - Daily near-end severely errored framing second threshold selection, (0 through 3)

eeeee - Daily near-end controlled slip second threshold, (00000 through 86400)

e - Daily near-end controlled slip second threshold selection, (0 through 3)

fffff - Daily near-end unavailable second threshold, (00000 through 86400)

f - Daily near-end unavailable second threshold selection, (0 through 3)

ggggggggg
- Daily near-end line coding violation threshold, (000000000 through 134217727, or --------- if not applicable)

g - Daily near-end line coding violation threshold selection, (0 through 3)

hhhhh - Daily near-end line errored second threshold, (00000 through 86400, or ----- if not applicable)

h - Daily near-end line errored second threshold selection, (0 through 3)

iiiii - Daily near-end line severely errored second threshold, (00000 through 86400, or ----- if not applicable)

i - Daily near-end line severely errored second threshold selection, (0 through 3)

jjjjjjjjj
- Daily far-end path coding violation threshold, (000000000 through 134217727, or --------- if not applicable)

j - Daily far-end path coding violation threshold selection, (0 through 3)

kkkkk - Daily far-end path errored second threshold, (00000 through 86400, or ----- if not applicable)

k - Daily far-end path errored second threshold selection, (0 through 3)

lllll - Daily far-end path severely errored second threshold, (00000 through 86400, or ----- if not applicable)

l - Daily far-end path severely errored second threshold selection, (0 through 3)

mmmmm - Daily far-end severely errored framing second threshold, (00000 through 86400, or ----- if not applicable)

m - Daily far-end severely errored framing second threshold selection, (0 through 3)

nnnnn - Daily far-end controlled slip second threshold, (00000 through 86400, or ----- if not applicable)

n - Daily far-end controlled slip second threshold selection, (0 through 3)

ooooo - Daily far-end unavailable second threshold, (00000 through 86400)

o - Daily far-end unavailable second threshold selection, (0 through 3)

ppppp - Daily far-end line errored second threshold, (00000 through 86400, or ----- if not applicable)

p - Daily far-end line errored second threshold selection, (0 through 3)

a a a a a a a - 15-Minute near-end path coding violation threshold, (0000000 through 2097151)

a - 15-Minute near-end path coding violation threshold selection, (0 through 3)

b b b - 15-Minute near-end path errored second threshold, (000 through 900)

b - 15-Minute near-end path errored second threshold selection, (0 through 3)

c c c - 15-Minute near-end path severely errored second threshold, (000 through 900)

c - 15-Minute near-end path severely errored second threshold selection, (0 through 3)

d d d - 15-Minute near-end severely errored framing second threshold, (000 through 900)

d - 15-Minute near-end severely errored framing second threshold selection, (0 through 3)

eee - 15-Minute near-end controlled slip second threshold,
(000 through 900)

e - 15-Minute near-end controlled slip second threshold selection,
(0 through 3)

fff - 15-Minute near-end unavailable second threshold,
(000 through 900)

f - 15-Minute near-end unavailable second threshold selection,
(0 through 3)

ggggggg
- 15-Minute near-end line coding violation threshold,
(0000000 through 2097151, or ------- if not applicable)

g - 15-Minute near-end line coding violation threshold selection,
(0 through 3)

hhh - 15-Minute near-end line errored second threshold,
(000 through 900, or --- if not applicable)

h - 15-Minute near-end line errored second threshold selection,
(0 through 3)

iii - 15-Minute near-end line severely errored second threshold,
(000 through 900, or --- if not applicable)

i - 15-Minute near-end line severely errored second threshold selection,
(0 through 3)

jjjjjjj
- 15-Minute far-end path coding violation threshold,
(0000000 through 2097151, or ------- if not applicable)

j - 15-Minute far-end path coding violation threshold selection,
(0 through 3)

kkk - 15-Minute far-end path errored second threshold,
(000 through 900, or --- if not applicable)

k - 15-Minute far-end path errored second threshold selection,
(0 through 3)

lll - 15-Minute far-end path severely errored second threshold,
(000 through 900, or --- if not applicable)

l - 15-Minute far-end path severely errored second threshold selection,
(0 through 3)

_m_m_m - 15-Minute far-end severely errored framing second threshold, (000 through 900, or --- if not applicable)

_m - 15-Minute far-end severely errored framing second threshold selection, (0 through 3)

_n_n_n - 15-Minute far-end controlled slip second threshold, (000 through 900, or --- if not applicable)

_n - 15-Minute far-end controlled slip second threshold selection, (0 through 3)

_o_o_o - 15-Minute far-end unavailable second threshold, (000 through 900)

_o - 15-Minute far-end unavailable second threshold selection, (0 through 3)

_p_p_p - 15-Minute far-end line errored second threshold, (000 through 900, or --- if not applicable)

_p - 15-Minute far-end line errored second threshold selection, (0 through 3)

Note: A threshold of zero for any parameter inhibits threshold crossing monitoring for that parameter.

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the source of the provisioning information.

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the start of a range.

[u]ghi
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of a range.

[s]jkl
- The 3- or 4-digit nonhierarchical NPC number of the NPC that was successfully equipped.

[t]mno
- The 3- or 4-digit nonhierarchical NPC number of the first NPC in a range to be denied.

[u]vwx
- The 3- or 4-digit nonhierarchical NPC number of the last NPC in a range to be denied.

bc-d-fe
- Hierarchical NPC number of the first NPC in a range to be denied.

ef-h-ed
- Hierarchical NPC number of the last NPC in a range to be denied.

gh-i-kl
- Hierarchical NPC number of the last NPC in a range to be equipped.

uv-j-kl
- Hierarchical NPC number of the NPC that was successfully equipped.

uv-m-np
- Hierarchical NPC number denoting the source of the provisioning information to be copied.

wx-k-qr
- Hierarchical NPC number of the NPC to be equipped or the first NPC in a range to be equipped.

bc,ef,gh,uv,wx
- Unit number

d,h,i,j,k,m
- Module number

fe,ed,kl,np,qr
- NPC number within the module

If NPC numbers are expressed in three digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in hierarchical form, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SNVS	Unit type error
SNVS	NPC type error
SNVS	NPC type is inconsistent with FTMI type
ENEQ	MIU is not equipped
IDRG	NPC range crosses unit boundary
ENEQ	The MXR is not grown
SNVS	Mismatch between MXR and NPC types
ENEQ	Copy source NPC is not equipped

CPY,MEM,PROG,DBASE,INSTL,INCL

UTILITY BACKUP MEMORY TRANSFER

Input Message Format

[I.55701]

```
CPY-MEM:[<xy>]::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL];
```

Completion Message

[O.55701]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CPY MEM:::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL]  COMPLD
   /* [O.55701] */
[   /* COUNT */
      "ddd"]
;
```

[O.55702]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CPY MEM:::[ww] IN_PROGRESS
;
```

Denial Message

[O.55701.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CPY MEM:::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL]  DENY
   mmmm
   /* [O.55701.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.55701]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT CPY MEM
   /* [O.55701] */
   /* From memory,To memory:Memory usage */
   "<from>,<to>[:PROG|DBASE|INSTL] COMPLD"
   [/* COUNT */
     "ddd"]
;
```

[O.55701.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT CPY MEM
   mmmm
   /* [O.55701.01] */
   /* <explanation of error condition code> */
   /* From memory,To memory:Memory usage */
   "<from>,<to>:[PROG|DBASE|INSTL] DENY"
;
```

Explanation Of Message

This message performs two functions:

1. It may be used to request a transfer of data base information from working, primary, or secondary memory to either primary or secondary memory.
2. It may be used to request a transfer of software between primary and secondary memory.

The user requires restricted maintenance privilege for transfers from secondary to primary memory. This privilege is restricted to the frame administrator. The Main Controller (MC) must be in maintenance condition (MCOND) for the transfer of databases or executables from tape to disk.

Every ten minutes the state of the frame is checked to look for changes in provisioning and/or cross connections. If a change has occurred within that period, an autonomous request is made to transfer data base information from working to primary memory.

This message may also be used to enable or disable the tape validation sequence whenever the database or program is transferred from the tape.

Explanation Of Parameters

from - Source for copy memory

to - Destination for copy memory

WKG	Working (Random access memory)
PRI	Primary (Primary memory, the disk)
SEC	Secondary (Secondary memory, the tape)

Note: The only permissible combinations are listed below:

from	*to*
WKG	PRI
PRI	SEC
SEC	PRI

PROG - Program
Copy generic software only.
May not be used when copying from working to primary memory.
Frame must be in maintenance condition state (MCOND) when copying software from primary to secondary memory.

DBASE - Data base
Transfer data base only. (Default if PROG or INSTL is not specified.)

INSTL - Install
Transfer initialized data base only.
Can be used only when transferring initialized data base from a special tape (different from the regular tape that contains release software and frame database) to disk.

INCL - Inclusive

The INCL is used to request that the data base on the disk be transferred to the tape excluding the generic journal files.
The INCL keyword cannot be combined with the PROG keyword.
May not be used when copying WKG to PRI.

ddd - Number of database transfers performed on the tape

A counter is incremented for each CPY-MEM disk to tape database transfer performed on a tape. This count is used to estimate the useful life of a tape. NCB or ERR will appear in place of the count if the count cannot be displayed.

ddd	*Explanation*
NCB	No count block; old tape, doesn't have a count block
ERR	Error; the count block could not be read

mmmm - Error condition code

mmmm	*Explanation*
SNVS	DB MP or units ram error
SWFA	DB disk error OP-CL-RD-WR-SK
SROF	DB can't send or receive mail
SROF	Can't lock or unlock ram database
SROF	DB can't get the slave mail box
SNVS	Invalid option,mailbox or flag
SNIS	Unit is OOS and journal file exists
SNVS	Entity can't be addressed in this configuration
SWFA	Checksums verification failed
SNVS	The tape contains previous release journal files, not retrofitable
SNVS	Software Identification Block is not readable
SNVS	Software Identification Block failed comparison
SNVS	FPI on tape does not match one on disk
SNVS	Problem occurred while accessing TAPE
SNVS	Problem occurred while accessing DISK
SNVS	Source does not contain requested information
ENRE	Tape is a special install tape
ENRE	Tape is a normal tape
SNVS	Can't mount or unmount tape
SNVS	Can't mount or unmount disk
SNVS	TAPE is not present
SNVS	TAPE unit is not restored
SWFA	DB tape error OP-CL-RD-WR-SK
SNVS	Disk not restored

CRTE,CNFGRN,EQPT,UNIT

PROVISION A UNIT

Input Message Format

For DACS II Non-CEF frames:
[I.31211]

```
CRTE-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:\
[a[,b[,c[,d[,e [,f]]]]]]:[utxyz];
```

For DACS II CEF frames:
[I.31211]

```
CRTE-CNFGRN-EQPT:[<xy>]:UNIT-[q]q:[ww]::[utxyz];
```

Completion Message

For DACS II Non-CEF frames:

[O.31211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CNFGRN EQPT::UNIT-q:[ww]:[a[,b[,c[,d[,e[,f]]]]]]\
:[utxyz] COMPLD
   /* [O.31211] */
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   /* NEW: TSI Added by the CRTE-CNFGRN-EQPT Command */
   "NEW: sft,sft:sft,sft:sft,sft:sft,sft: ... ..."
   "NEW: sft,sft:sft,sft:sft,sft:sft,sft: ... ..."
   /* CCB 0q,1q: Total TSI tt: NEW TSI nn */
   "0q,1q:tt:nn"
  [/* FMT Side 0,Side 1:FLI Service,Protection:MXR Protection */]
  ["0,1:S,P:P"]
;
```

For DACS II CEF frames:

[O.31212]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CNFGRN EQPT::UNIT-qq:[ww]::utxyz COMPLD
   /* [O.31212] */
   "0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:\
   0rr,1rr"
   "0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:\
   0rr,1rr"
   /* ETSI Added by the CRTE-EQPT Command */
   "0qq,1qq"
   /* Total ETSIS */
   "kk"
  [/* FMT Side 0,Side 1:FLI Service,Protection:\
  MXR Protection */]
  ["0,1:S,P:P"]
;
```

Note: The two optional lines will be output only if the unit type is DT100.

Denial Message

For DACS II Non-CEF frames:

[O.31211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CNFGRN EQPT::UNIT-q:[ww]:[a[,b[,c[,d[,e[,f]]]]]]\
:[utxyz] DENY
```

For DACS II CEF frames:

[O.31211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CNFGRN EQPT::UNIT-qq:[ww]::[utxyz] DENY
   mmmm
   /* [O.31211.01] */
   /* <explanation of error condition code> */
[  /* {EQD-uexyz|NSUP} */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the equipage of a DACS II unit.

When this request is completed, all cross-connect buffer and timeslot interchange circuit packs required by the subject unit to cross-connect to other grown units are grown.
The unit type is optionally specified in the **TYPE** field.
The unit type can be a facility terminating unit, a DS3 terminating unit, or a digital signal processing unit.
If the unit is a **DP** type, its associated digital signal processing interface is also grown. If the unit is a DTtype, both of its associated service and protection facility line interface packs, both sides of its formatter packs (side 0 and 1), and its protection multiplexer are also grown.
The optional connectivity field is used if a partial complement of the unit's TSI circuit packs is to be grown. If this field is not used, all TSI circuit packs are grown and the unit has full connectivity with other grown units.

Note: DMB, TSI, and FMT circuit packs must be inserted into the inactive side of DACS II. Inserting circuit packs into the active side may result in transmission "hits."

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

utxyz - Unit type as submitted in the input message

uexyz - Type of unit already equipped as

uexyz	*Explanation*
FT100	FT = Facility Terminating Unit
DP100	DP = Digital Signal Processing Unit
DT100	DT = DS3 Facility Terminating Unit

The unit type is optionally specified in the TYPE utxyz field. The unit type can be an FTxyz (Facility Terminating Unit),

DTxyz (DS3 Terminating Unit),
or a DPxyz (Digital Signal Processing Unit) type.

Currently, only FT100,
DT100,
and DP100 types are supported by DACS II.

The unit type entered must be consistent with the unit type entered for the configuration file.

If the unit is a DPxyz type, its associated DSPI (Digital Signal Processing Interface) is also provisioned.

If the unit is a DTxyz type, both of its associated Service and Protection Facility Line Interface (FLI) packs, both sides of its Formatter (FMT) packs (side 0 and 1), and its Protection Multiplexer (MXR) pack are also provisioned.

For both Non-CEF and CEF frames, if the unit type is not entered, the unit type will default to FT100.

For Non-CEF frames, the optional [:[a[,b[,c[,d[,e[,f]]]]]]] field is used if only a partial complement of the unit's TSI circuit packs is to be provisioned. If this field is not used, all TSI circuit packs are provisioned and the unit has full connectivity with other provisioned units.

a,b,c,d,e,f
- Time slot interchange numbers

A partial complement of the unit's TSIs have been provisioned. (If this field is absent, all of the unit's TSIs were provisioned.)

CCB - Cross-connect buffer

0q - CCB number side 0

1q - CCB number side 1

0q and 1q identify the cross-connect buffer(s) provisioned. q is the unit number (see UNIT above).

tt - Total number of provisioned TSIs in frame (02 through 72)

NEW - New

TSIS - Time slot interchangers

nn - Number of TSIs provisioned by command (02 through 22)

sft - TSI equipped status

s - Service side number (0 or 1)

f - Equipped FROM unit number (1 through 6) if equipped
\- - Not equipped

t - Equipped TO unit number (1 through 6) if equipped
\- - Not equipped

ETSI - Expanded time slot interchanger

0qq - ETSI number side 0

1qq - ETSI number side 1

0qq and 1qq identify the ETSI packs provisioned by this command. qq is the unit number (see UNIT above).

Three dashes "---" are shown if an ETSI pack is not provisioned.

kk - Total number of provisioned ETSIs in frame (02 through 32)

rr - Unit number with the same definition as qq.

FMT - Formatter, sides 0 and 1 (automatically provisioned with DT100 units)

FLI - Facility line interface

S - Service FLI (automatically provisioned with DT100 units)

FLI - Facility line interface

P - Protection FLI (automatically provisioned with DT100 units)

MXR - Multiplexer

P - Protection multiplexer (automatically provisioned with DT100 units)

EQD - Equipped

NSUP - Not supported
mmmm - Error condition code

mmmm	*Explanation*
ENRE	Illegal connectivity specified
SNAS	Connectivity contains unequipped units
SNVS	Entity can't be addressed in this configuration
IDRG	Unit type (xyz) not supported
IDNV	Connectivity can not be specified for CEF unit

CRTE,CRS,TS,DS0A,DS0B,SEC,PCH

SUBRATE ESTABLISH CHANNEL

Input Message Format

Nonhierarchical

[I.19101]

```
CRTE-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}];
```

Hierarchical

[I.19101]

```
CRTE-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}];
```

Completion Message

Nonhierarchical

[O.19101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::[s]abc-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}] COMPLD
[  /* [O.19101] */]
[  /* Parity channel */]
[  "ppp"]
;
```

Hierarchical

[O.19101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::uv-m-np-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}] COMPLD
[  /* [O.19101] */]
[  /* Parity channel */]
[  "ppp"]
;
```

Note: In the above two messages the optional parity channel information in lines 3 through 5 appears only if channel ppp is not specified in the input command.

Denial Message

Nonhierarchical

[O.19101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::[s]abc-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}] DENY
   mmmm
   /* [O.19101.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Hierarchical

[O.19101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::uv-m-np-ddd[&&-eee]:[ww]:{DS0A-rr|DS0B-nn}\
:[{SEC|PCH[-ppp]}] DENY
   mmmm
   /* [O.19101.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command connects a channel (or a range of channels) in a digroup to the subrate feature. When connected to the subrate feature, the channel is provided with test access capability using the **STST** commands and, if specified, a subrate multiplexer and/or an error correction function. A channel must be established before any cross-connections can be made via the **SCON** command. This command is recommended over the DACS/SRDC-compatible version (**SECH::TO,RATE,DP,PCH**) due to its improved clarity.

DACS II will deny this command if it attempts to establish a DS0B channel on channel 24 of a DS1 provisioned with the T1DM framing format.

This command is used to establish five types of channels as follows:

1. A DS0B channel capable of multiplexing 5, 10, or 20 subrate customers.
2. A DS0A channel (at any rate) without error correction.
3. A subrate DS0A channel with subrate dataport error correction.
4. A 56-kb/s channel with parity channel error correction. (This type of error correction is also commonly referred to as "56-kb/s dataport" error correction.)
5. A DS0B channel capable of multiplexing 5, 10, or 20 subrate customers and parity channel error correction.

When a channel is established, it cannot be already established, cross-connected, or under test access. All channels within a specified range are established with the same parameters.

Note: For user convenience, an alphabetical "O" or a numerical "0" can be typed for the zero in DS0.

DS0B Channels Without Error Correction

A DS0B channel is established by specifying a digroup and channel and the DS0B nn field.

The SEC or PCH fields must not be present for this type of channel.

As indicated above, a mix of customer rates can be cross-connected, provided the maximum rate for each type of subrate multiplexer is not exceeded.

DS0A Channels Without Error Correction

A DS0A channel without error correction is established by specifying a digroup and channel and DS0A rr.

Again, the SEC or PCH keywords must not be present.

Note: The Subrate feature performs no rate-sensitive processing on this type of channel, and cross-connection is allowed to any other Subrate channel. The user must ensure that the signal rate is compatible with the intended cross-connection.

For example, if a DS0A channel with an actual rate of 4.8 kb/s is established, a cross-connection to a 10-channel or 20-channel multiplexer is allowed, but only the connection to the 10-channel multiplexer will provide error-free transmission.

DS0A Channels With Subrate Error Correction

A subrate DS0A channel with subrate error correction is established by specifying the DS0A keyword with an rr value of 24, 48, or 96, and the SEC keyword. Subrate error correction performs a majority vote among the repeated bytes inherent in the byte-stuffed subrate DS0A signal to determine the corrected data. An rr value of 56 is not allowed, and the PCH keyword must not be present in specifying this type of channel.

56 kb/s Channels With Error Correction

A 56-kb/s channel with parity channel error correction is established by specifying the DS0A keyword with an rr value of 56, and the PCH keyword. This command has the effect of establishing two channels, one for carrying the customer data and one for carrying parity error correction information. If no parity channel number (ppp) is specified, the parity channel is assigned automatically to the next higher numbered channel from the data channel (ddd + 1). Due to the need to assign parity channels, range provisioning of 56 kb/s channels with error correction is not allowed. Also, use of the PCH keyword when the rr value is less than 56 is not allowed.

DS0B Channels With Error Correction

A DS0B channel that also has parity channel error correction performed on it is established by specifying the DS0B nn and PCH keywords. As above, the nn value determines the type of multiplexer, and the PCH keyword assigns a parity channel number ppp or defaults to ddd + 1. Also, range provisioning of this type of channel is not allowed.

Subrate established channels are marked automatically as red circuits. This results in the need to specify the INCL keyword in the RMV NPC command whenever a facility terminating NPC carrying Subrate channels is removed.

Also, the Subrate establish channel command has no effect on the customer controlled marking status of DACS II channels that previously have been marked with the CUS keyword. The CUS marking is disabled while the channel is established to the Subrate feature, but is enabled again once the channel is disestablished.

Note: When all 24 channels of an NPC using D4 superframe are established as DS0B channels, a yellow CGA can be declared for the NPC, even though there is no failure, if either of the following conditions exists:

1. The DS1 signal is looped at the DSX-1 and the mux out of sync (MOS) code is transmitted on all channels.

2. The far end is transmitting the MOS code on all 24 channels.

When all 24 channels are receiving MOS, the D4 superframe yellow alarm signal is simulated thus causing the CGA to be declared.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number

eee - Channel number for end of range specified

Channel numbers

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

DS0A - Digital signal 0A

rr - DS0A channel rate (24, 48, 96, or 56)

The established channel is a DS0A type, that is, a single customer signal at rate rr.

DS0B - Digital signal 0B

nn - Number of DS0B subrate customer channels (05, 10, or 20)

The established channel is connected to a subrate multiplexer capable of multiplexing nn customers.

SEC - Subrate error correction

Subrate error correction is performed on the established channel.

SEC cannot be used for either a DS0A or DS0B channel without error correction.

PCH - Parity channel

Parity error correction is performed on this channel. PCH cannot be

used for either a DS0A or DS0B channel without error correction.

The SEC and PCH fields are present only if specified in the input command.

ppp - Parity channel number

Specifies the associated parity channel number. If not specified in the input command, this number defaults to the channel number +1 (ddd + 1).

qqq - Channel number involved in the denial (ddd through eee)

mmmm - Error classification code

If a denial pertains to a particular channel in a range, the channel number is given in the optional qqq field. The user should note that *none* of the preceding channels in a range are completed if a problem is found, and subsequent channels may or may not have additional problems.

mmmm	Explanation
	explanation of error condition code

SPECIFIED DIGROUP DOES NOT SUPPORT SUBRATE CHANNELS
CHANNEL dd IS OUT OF RANGE FOR NPC TYPE SPECIFIED
SPECIFIED CHANNEL IS A TEST PORT
SPECIFIED CHANNEL IS ALREADY ASSIGNED
SPECIFIED CHANNEL IS UNDER TEST
SPECIFIED PARITY CHANNEL IS A TEST PORT
SPECIFIED PARITY CHANNEL IS ALREADY ASSIGNED
SPECIFIED PARITY CHANNEL IS UNDER TEST
SPECIFIED PARITY CHANNEL IS ALREADY SPECIFIED AS DATA CHANNEL
PARITY CHANNEL NUMBER IS OUT OF RANGE
SUBRATE ERROR CORRECTION NOT ALLOWED WITH RATE 56
PARITY CHANNEL ERROR CORRECTION NOT ALLOWED FOR 24, 48, OR 96 RATES
PCH KEYWORD NOT ALLOWED WITH RANGE CROSS-CONNECTS

CONNECTION EXCEEDS REMAINING SRM CAPACITY
ERROR CORRECTION CAPACITY UNAVAILABLE ON DESIRED TYPE SUBRATE PACK

ACTIVE CROSS-CONNECT NETWORK SIDE IS FAILED
SPECIFIED NPC IS UNEQUIPPED
SPECIFIED NPC IS OUT-OF-SERVICE
SPECIFIED NPC IS FAILED
REQUIRED UNIT NOT EQUIPPED, NOT IN SERVICE, OR FAILED

REQUIRED CCB NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED TSI NOT EQUIPPED, NOT IN SERVICE, OR FAILED

REQUIRED ETSI NOT EQUIPPED, NOT IN SERVICE, OR FAILED

REQUIRED FTMI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED FC NOT EQUIPPED, NOT IN SERVICE, OR FAILED

REQUIRED DSPI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED SRM NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED SUBRATE PACK NOT EQUIPPED, NOT IN SERVICE, OR FAILED

ENEQ Equipage, not equipped

UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service

UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed

UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

SAAS Status, already assigned

Termination is in process of being rolled

st	**d**	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

CRTE,CRS,TS,RATE,DP,PCH

SUBRATE ESTABLISH CHANNEL

Input Message Format

Nonhierarchical

[I.19111]

```
CRTE-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}];
```

Hierarchical

[I.19111]

```
CRTE-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}];
```

Completion Message

Nonhierarchical

[O.19111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::[s]abc-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}] COMPLD
[  /* [O.19111] */]
[  "ppp"]
;
```

Hierarchical

[O.19111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::uv-m-np-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}] COMPLD
[  /* [O.19111] */]
[  "ppp"]
;
```

Denial Message

Nonhierarchical

[O.19111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::[s]abc-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}] DENY
   mmmm
   /* [O.19111.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Hierarchical

[O.19111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE CRS TS::uv-m-np-ddd[&&-eee]:[ww]:RATE-rr\
:[{DP|DP,PCH[-ppp]}] DENY
   mmmm
   /* [O.19111.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message connects a channel or a range of channels in a given digroup to the subrate feature. When connected to the subrate feature, the channel is provided with test access capability using the STST commands and, if specified, a subrate multiplexer and/or an error

correction function.

Explanation Of Parameters

A channel must be established before any cross-connections can be made.

This command is used to establish five different types of channels as follows:

1.

   A DS0B channel capable of multiplexing 5, 10, or 20 subrate customers.

2. A 56-kb/s channel without error correction.

3.

   A subrate DS0A channel with subrate dataport error correction.

4. A 56-kb/s channel with parity channel error correction. (This type of error correction is also commonly referred to as "56-kb/s dataport" error correction.)

5.

   A DS0B channel capable of multiplexing 5, 10, or 20 subrate customers and parity channel error correction.

When a channel (or range of channels) is established, it (they) cannot be already established, cross-connected, or under test access. All channels within a specified range are established with the same parameters.

DS0B Channels (Without Error Correction)

A DS0B channel is established by specifying a digroup and channel and the RATE rr field. The DP and PCH fields must not be present for this type of channel. The RATE rr field defines the number of customer channels and the maximum customer rate of the subrate multiplexer as follows:

rr - Subrate multiplexer rate

rr	*Explanation*
24	20 - 2.4-kb/s customers
48	10 - 2.4- or 4.8-kb/s customers
96	5 - 2.4, 4.8, or 9.6-kb/s customers

As indicated in the table above, a mix of customer rates can be cross- connected provided the maximum rate for each type of subrate multiplexer is not exceeded. 56-kb/s Channels Without Error Correction

A 56-kb/s DS0A channel without error correction is established by specifying a digroup and channel and RATE 56. The DP keyword is also allowed if desired, but otherwise is ignored by the system. The PCH keyword must not be present.

This type of channel actually can be operated at any DDS rate since the Subrate performs no rate-sensitive processing on it. The user must ensure, however, that any subsequent cross-connections to other Subrate channels are compatible with the rate actually present in the channel. For example, when the channel actually carries a 4.8-kb/s

byte-stuffed DS0A, the user may connect it to a 10-channel multiplexer or to a 20-channel multiplexer. In both cases, the command is allowed, but only the connection to the 10-channel multiplexer will provide error-free transmission.

DS0A Channels With Subrate Error Correction

A subrate DS0A channel with subrate error correction is established by specifying an rr value of 24, 48, or 96, and the DP keyword. Subrate error correction performs a majority vote among the

repeated bytes inherent in the byte-stuffed subrate DS0A signal to determine the corrected data. An rr value of 56 is not allowed, and the PCH keyword must not be present in specifying this type of channel.

56-kb/s Channels With Error Correction

A 56-kb/s channel with parity channel error correction is established by specifying an rr value of 56 and both the DP and PCH keywords. This command has the effect of establishing two channels, one for carrying the customer data and one for carrying parity error correction information. If no parity channel number (ppp) is specified, the parity channel is assigned automatically to the next higher numbered channel from the data channel (ddd + 1). Due to the need to assign parity channels, range provisioning of 56-kb/s channels with error correction is not allowed.

DS0B Channels With Error Correction

A DS0B channel that also has parity channel error correction performed on it is established by specifying a RATE of 24, 48, or 96, corresponding to 20, 10, or 5 channel multiplexers, respectively, and the DP and PCH keywords. As above, if no parity channel number (ppp) is specified, the parity channel is assigned to ddd + 1. Also, no range provisioning of this type of channel is allowed.

Subrate established channels are marked automatically as red circuits. This results in the need to specify the **INCL** keyword in the RMV NPC command whenever a facility terminating NPC carrying Subrate channels is removed.

Also, the Subrate establish channel command has no effect on the customer control marking status of DACS II channels that previously have been marked with the **CUS** keyword. The **CUS marking is disabled while the channel is established to the Subrate feature,** but is returned once the channel is disestablished.

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number
eee - Channel number for end of range specified

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The channel is now ready for Subrate cross-connection. Optional field **eee** appears if the input message requested the establishment of a range of channels.

The **RATE rr** field specifies the channel rate. If the optional **DP** and **PCH** fields are not present and rr = 24, 48, or 96, the established channel is connected to a subrate multiplexer capable of multiplexing 20, 10, or 5 customers, respectively. If rr = 56 and the optional fields are not present,

the established channel is a DS0A type, i.e., a single customer signal without error correction.

When the optional **DP** field is present and rr = 24, 48, or 96, the established channel is a DS0A type with subrate error correction. If both **DP** and **PCH** fields are present and rr = 24, 48, or 96, the established channel is connected **to a subrate multiplexer capable of multiplexing 20, 10, or 5 customers,** respectively, and has parity channel error correction. An rr value of 56 in combination with both **DP** and **PCH**

fields indicate a 56 kb/s DS0A channel with parity channel error correction.

The **ppp** field specifies the parity channel number associated with the parity channel error correction function. If not specified in the input command, this number is defaulted to ddd + 1.

qqq - Channel number involved in the denial (ddd ≤ qqq ≤ eee)

rr - Channel rate (24, 48, 96, or 56)

ppp - Number of parity error correction channel

If the reason for denial pertains to a particular channel in a range, the channel number is given in the optional **qqq** field. The user should note that *none* of the preceding channels in the range are completed if a problem is found, and subsequent channels may or may not have additional problems.

The optional **DP** and **PCH ppp** fields indicate subrate and parity channel error correction, respectively. These fields are present only if specified in the input command.

reason
- reason for denial

Input Errors

reason

SPECIFIED DIGROUP DOES NOT SUPPORT SUBRATE CHANNELS
CHANNEL dd IS OUT OF RANGE FOR NPC TYPE SPECIFIED
SPECIFIED CHANNEL IS A TEST PORT
SPECIFIED CHANNEL IS ALREADY ASSIGNED
SPECIFIED CHANNEL IS UNDER TEST
SPECIFIED PARITY CHANNEL IS A TEST PORT
SPECIFIED PARITY CHANNEL IS ALREADY ASSIGNED
SPECIFIED PARITY CHANNEL IS UNDER TEST
SPECIFIED PARITY CHANNEL IS ALREADY SPECIFIED AS DATA CHANNEL
PARITY CHANNEL NUMBER IS OUT OF RANGE
DP KEYWORD WITHOUT PCH KEYWORD NOT ALLOWED WITH RATE 56
PCH KEYWORD WITHOUT DP KEYWORD NOT ALLOWED
PCH KEYWORD NOT ALLOWED FOR RANGE CROSS-CONNECTS

CONNECTION EXCEEDS REMAINING SRM CAPACITY
ERROR CORRECTION CAPACITY UNAVAILABLE ON DESIRED TYPE SUBRATE PACK

Maintenance Conditions

reason

ACTIVE CROSS-CONNECT NETWORK SIDE IS FAILED
SPECIFIED NPC IS UNEQUIPPED
SPECIFIED NPC IS OUT-OF-SERVICE
SPECIFIED NPC IS FAILED
REQUIRED UNIT NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED CCB NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED TSI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED ETSI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED FTMI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED FC NOT EQUIPPED, NOT IN SERVICE, OR FAILED

REQUIRED DSPI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED SRM NOT EQUIPPED, NOT IN SERVICE, OR FAILED
REQUIRED SUBRATE PACK NOT EQUIPPED, NOT IN SERVICE, OR FAILED

Error condition code for DS3U

reason

ENEQ Equipage, not equipped
UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed
UNIT [q]q FMT s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q MIU c IS FAILED
UNIT [q]q MXR c IS FAILED

CRTE,EQPT,NPC

**PROVISION DIGITAL SIGNAL PROCESSING UNIT
NPC**

Input Message Format

Nonhierarchical

[I.31351]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:mnxyz;
```

Hierarchical

[I.31351]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:mnxyz;
```

Caution 1: The NPC should be restored immediately (both duplicated sides, 0 and 1) using Message No. I.34351 (RST::NPC) after being grown to avoid having both sides out of service. If this is not possible, the NPC should be degrown immediately using Message No. 32341 (DGRTH::NPC).

Caution 2: The NPC and (Expanded) Time Slot Interchanger (TSI/ETSI) circuit packs must be inserted into the inactive side of DACS II. Inserting circuit packs into the active side may result in transmission "hits."

Completion Message

Nonhierarchical

[O.31351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:mnxyz COMPLD
;
```

Hierarchical

[O.31351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:mnxyz COMPLD
;
```

Denial Message

Nonhierarchical

[O.31351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:mnxyz DENY
   mmmm
   /* [O.31351.01] */
   /* <explanation of error condition code> */
[  /* EQD */]
   /* NPC number */
   "abc"
;
```

Hierarchical

[O.31351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:mnxyz DENY
   mmmm
   /* [O.31351.01] */
   /* <explanation of error condition code> */
[  /* EQD */]
   /* NPC number */
   "uv-m-np"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the provisioning of a non-FTU (facility terminating unit) type network processing circuit (NPC). There are two NPCs in a non-FTU circuit pack. Although only one network processing circuit is specified in the command, two NPCs will be provisioned; NPCs [s]abc and [s]abc+1. Provisioning of both NPCs will be reported in the output message.

For the Subrate Feature, there is only one network processing circuit per circuit pack. The growth command results in the provisioning of all NPCs in the circuit pack on both duplicated sides. For subrate circuit packs, there is only one NPC per circuit pack.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical NPC number.

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid NPC numbers are:

mnxyz - NPC type

mnxyz	*Explanation*
CB10z	C-bit processor
MB100	Digital Multipoint Bridge
MJ100	Multipoint Junction Unit
SR100	Subrate Multiplexer

[t]def
- Nonhierarchical NPC numbers applicable only to MBxyz type NPCs.

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

uv-m-qr

- Hierarchical NPC numbers applicable only to MBxyz type NPCs. The valid NPC numbers are:

```
MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01-02
```

EQD - Equipped
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	hub id not set when MJU pack grown
SNVS	Maximum number of CPRs have already been grown for this unit

CRTE,EQPT,NPC,IW,X

PROVISION NPC TYPE DS

Input Message Format

Nonhierarchical

[I.31371]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:DSxyz:\
[rr/m[&rr/m [...]]]:[IW-X-pq];
```

Hierarchical

[I.31371]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:\
DSxyz:[rr/m[&rr/m [...]]]:[IW-X-pq];
```

Completion Message

Nonhierarchical

[O.31371]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:DSxyz:\
[rr/m[&rr/m [...]]]:[IW-X-pq] COMPLD
   /* [O.31371] */
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Thresholds) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu:xxxxx:zzzzz"
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Options) */
   "e,f:g,h:i:j:k,l:v:w"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "[s]jkl"
;
```

Hierarchical

[O.31371]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:DSxyz:\
[rr/m [&rr/m[...]]]:[IW-X-pq] COMPLD
   /* [O.31371] */
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Thresholds) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu:xxxxx:zzzzz"
   /* SLIP:BER:ERS:SERS:COFA:SANE:SAFE (Options) */
   "e,f:g,h:i:j:k,l:v:w"
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "uv-j-kl"
;
```

Denial Message

Nonhierarchical

[O.31371.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:DSxyz\
:[rr/m[&rr/m [...]]]:[IW-X-pq] DENY
   mmmm
   /* [O.31371.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.31371.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:\
DSxyz:[rr/m[&rr/m [...]]]:[IW-X-pq] DENY
   mmmm
   /* [O.31371.02] */
   /* <explanation of error condition code> */
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
[  /* EQD */]
   /* NPC Number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.31371.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:\
DSxyz :[rr/m[&rr/m[...]]]:[IW-X-pq] DENY
   mmmm
   /* [O.31371.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
   /* NPC Number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

[O.31371.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:DSxyz\
:[rr/m[&rr/m[...]]]:[IW-X-pq] DENY
   mmmm
   /* [O.31371.02] */
   /* <explanation of error condition code> */
[  /* IW-X-pq is the hex value of the Insertion Word */]
[  "IW-X-pq"]
[  /* EQD */]
   /* NPC Number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This SLC® 96 Carrier command requests the equipage of network processing circuit (NPC) type **DSxyz**. It may also be used to request the equipage of a range of NPCs. Arguments **x**, **y**, and **z** following **DS** specify the multiframe format for the digroup, line and signaling format, and counting sequence format.

Variables **rr** and **m** are used to select prestored values for facility performance parameter alarm thresholds from a secondary data base. **rr** specifies the alarm threshold to be set, and **m** selects from the secondary data base one of the prestored values of the given threshold. Values of **rr** range from 01 through 10. There are four values stored for each of the ten facility performance parameters. All unspecified options will be set to the default value 0.

A special code, called the disconnect code (DCC), is transmitted by this NPC on unassigned channels. This code is specified by the optional field **IW-X-pq**. The default is the unassigned channel code with the value **X-7F**. The DCC may be assigned any 2-digit hexadecimal value.

The execution of this command may be stopped by entering **ABT-CMD**.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number the first NPC number of a range.

[t]def
- The 3- or 4-digit nonhierarchical NPC number the last NPC number of a range.

If NPC numbers are expressed in three digits, the valid values are:

DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	**Unit**	**Unit**	**Unit**
1	**2**	**3**	**4**
NPC	**NPC**	**NPC**	**NPC**
0001-0160	**0161-0320**	**0321-0480**	**0481-0640**
Unit	**Unit**	**Unit**	**Unit**
5	**6**	**7**	**8**
NPC	**NPC**	**NPC**	**NPC**
0641-0800	**0801-0960**	**0961-1120**	**1121-1280**
Unit	**Unit**	**Unit**	**Unit**
9	**10**	**11**	**12**
NPC	**NPC**	**NPC**	**NPC**
1281-1440	**1441-1600**	**1601-1760**	**1761-1920**
Unit	**Unit**	**Unit**	**Unit**
13	**14**	**15**	**16**
NPC	**NPC**	**NPC**	**NPC**
1921-2080	**2081-2240**	**2241-2400**	**2401-2560**

uv-m-np
- Hierarchical NPC number, the first NPC number of a range.

uv-k-qr
- Hierarchical NPC number, the last NPC number of a range.

uv - Unit number
m,k - Module number
np,qr - NPC number within the module

The allowable value are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

TYPE - Type

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected.

m - Facility performance parameter threshold index (0 through 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by m=1 through m=3 must exist, that is, must have been programmed, prior to being selected. These other thresholds can be set by using the CHG::SETOP (I.38201) command. Thresholds of all unspecified parameters will be set to the default value associated with m=0. The options field must not be given without the NPC type field.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

Note 3: The SANE and SAFE parameters are not applicable to DS1yz

and DS7yz type NPCs.

Note 4: Except for BER, major thresholds may not be equal to or less than the minor thresholds. The BER major threshold can be equal to the BER minor threshold.

Note: If the queried NPC can not be accessed for some reason, for example because the Facility Terminating Module is not equipped or the FTMI or Unit Controller is out of service, then the NPC's parameter count fields are printed as a string of dashes to indicate that the counts are not available. The parameter thresholds and options are still correctly output in this case.

In addition, some parameters are not applicable to all NPCs. Certain parameters may or may not be collected based on NPC type. In the cases where specific parameters do not apply to the queried NPC, the respective parameter count fields, threshold values and threshold options are all displayed as a string of dashes.

IW - Insertion word

pq - Insertion word value (hexadecimal)

Variable pg is a user defined insertion word. The default value of pq is 7F. The insertion word FF is recommended for unconnected channels in the SLC® interface and CPI applications.

[s]jkl

- The 3- or 4-digit nonhierarchical NPC number ([s]abc ≤ [s]jkl ≤ [t]def)

[t]mno

- The 3- or 4-digit nonhierarchical DS TYPE NPC number denoting the end of a range ([s]jkl ≤ [t]mno ≤ [t]def)

uv-m-no

- Hierarchical DS TYPE NPC number (uv-j-kl ≤ uv-m-no ≤ uv-k-qr)

uv-j-kl

- Hierarchical DS TYPE NPC number (uv-m-np ≤ uv-j-kl ≤ uv-m-no)

mmm - SLIP major alarm threshold (0 through 255)
nnn - SLIP minor alarm threshold (0 through 255)
e - SLIP major option selection (0 through 3)
f - SLIP minor option selection (0 through 3)

p - BER major alarm threshold (4 through 6)
q - BER minor alarm threshold (4 through 6)
g - BER major option selection (0 through 3)
h - BER minor option selection (0 through 3)

rrrrr - ERS threshold (1 through 65535)
i - ERS option selection (0 through 3)

sss - SERS threshold (1 through 255)
j - SERS option selection (0 through 3)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)
k - COFA major option selection (0 through 3)
l - COFA minor option selection (0 through 3)

xxxxx - SANE threshold (0 through 65535)

zzzzz - SAFE threshold (0 through 65535)

ss/n - First improper values of "rr/m" for which message is denied.
mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	Unit type error
SNVS	NPC type option xyz is unassigned
SNVS	NPC type is inconsistent with FTMI type
SNVS	Incompatible types of NPCs in a DDC
SNVS	Different DSxyz types are used for DGA/DGP on same DDC for Mode I
SNVS	NPC is not added
IDNV	x & z parameters on DSxyz are inconsistent
IDNV	NPC type option Y is invalid for SLC-96 NPC

mmmm	*Explanation*
IDRG	NPC range crosses unit boundary
IDNV	The facility parameter not programmable for specified x or z parameter
SNVS	Minor Slip threshold disabled before Major Slip threshold

CRTE,EQPT,NPC,IW,X,INCL,AIS

GROWTH ANSI NPC

Input Message Format

Nonhierarchical

[I.31341]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:mnxyz:[rr/m][&rr/m]\
[...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}];
```

Hierarchical

[I.31341]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz:[rr/m][&rr/m]\
[...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}];
```

Completion Message

Nonhierarchical

[O.31341]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] COMPLD
   /* [O.31341] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* IW-X-pq is the hex value of the Insertion Word */
   "IW-X-pq"
   /* NPC number */
   "[s]jkl"
;
```

Hierarchical

[O.31341]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] COMPLD
   /* [O.31341] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* IW-X-pq is the hex value of the Insertion Word */
   "IW-X-pq"
   /* NPC number */
   "uv-j-kl"
;
```

Denial Message

Nonhierarchical

[O.31341.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] DENY
   mmmm
   /* [O.31341.01] */
   /* <explanation of error condition code> */
  [/* ss/n */]
  [/* IW-X-pq is the hex value of the Insertion Word */]
  ["IW-X-pq"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.31341.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] DENY
   mmmm
   /* [O.31341.02] */
   /* <explanation of error condition code> */
  [/* IW-X-pq is the hex value of the Insertion Word */]
  ["IW-X-pq"]
   /* EQD */
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.31341.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] DENY
   mmmm
   /* [O.31341.01] */
   /* <explanation of error condition code> */
  [/* ss/n */]
  [/* IW-X-pq is the hex value of the Insertion Word */]
  ["IW-X-pq"]
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

[O.31341.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz:[rr/m][&rr/m][...]:\
[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}] DENY
   mmmm
   /* [O.31341.02] */
   /* <explanation of error condition code> */
  [/* IW-X-pq is the hex value of the Insertion Word */]
  ["IW-X-pq"]
   /* EQD */
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command provisions type DAxyz Network Processing Circuits (NPCs) in DACS II Facility Terminating Units and type TAxyz (NPCs) in DACS II DS3 Units. A single NPC or a range of NPCs may be provisioned with one input command.

This command also provisions the alert thresholds for DS1 facility performance parameters on the NPC. Default threshold values will be programmed if the optional parameter threshold selection arguments are not specified. The parameter threshold selection arguments are indices into the DACS II threshold database, which must be preconfigured by the user.
The maximum length of this input command must not exceed 208 characters. Any input command longer than 208 characters is treated as a syntax error by DACS II. Options that do not fit into this GRTH command can be specified in additional commands.
An idle code is transmitted on the NPC's unassigned DS0 channels. The idle code is specified by **pq** in the optional field **IW X'pq** (in this application pq is called the growth insertion word). The growth insertion word may be assigned a 2-digit hexadecimal value. If **pq** is not specified, it will default to the hexadecimal value 7F if the NPC is provisioned with D4 or ESF framing, and to the hexadecimal value 18 if the NPC is provisioned with T1DM framing.
As a protection to users, the INCL keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero. NPCs provisioned in the D4 format (DA1yz/TA1yz) transmit a DS1 yellow alarm by setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h represent the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

For clear DS1 NPCs, the insertion word option is NOT available and the message will be denied if this option is entered. The alarm indication signal is transmitted in the disconnected or idle state.
Since a growth command which addresses a range of NPCs can take considerable time to complete, the ABT command is allowed with this message. If the ABT command is entered, DACS II will stop execution on the current NPC growth and will report what has been completed.

One output message is printed for each NPC requested and successfully provisioned.

Provisioning commands where the specified NPC range crosses a Unit boundary will be denied.

When a provising command addressing a range of NPCs is denied for successive NPCs in the range for the same reason, a summary denial message will be output, giving the range of NPC numbers denied and the reason for the denial.

When a provisioning command addressing a range of NPCs within a unit crosses a facility terminating module (FTM) boundary, if the FTM is unequipped or provisioned as a CEPT module, then the FTM will be skipped as a whole, with a summary denial message, as noted below.

- If the type field is specified, and it is inconsistent with the first FTM specified or the first FTM specified is unequipped, the entire command is denied. Otherwise, the specified type field is applied to the entire NPC range.

- If the type field is omitted, the NPC type will default to the type of the first FTM, either domestic or CEPT.

Whether or not the type field is specified, if an FTM, beyond the first one addressed, is of a different type, that entire FTM will be denied.

The execution of the normal completions, or of denials for a reason other than diagnostic failures, then resumes at the next NPC and continues until the end of the range.

A summary denial message will not be issued for denial of range NPC RESTORE commands if the reason is an NPC diagnostic failure. In this case, there is one output message for each NPC in the range.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of a range specification

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of a range specification

The valid numbers are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv-k-qr
- Specific Hierarchical NPC number

uv - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid numbers are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mnxyz - NPC-type identifier

mn	*Explanation*
DA	FTU DS1 ANSI NPC type
TA	DS3U DS1 ANSI NPC type

If the NPC type field is omitted in the input command, the NPC will default to a non-ANSI DE100 NPC type in an FTU and a non-ANSI TE100

NPC type in a DS3U.

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field

is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an

unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an

unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the

TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected

m - Facility performance parameter threshold index (0 through 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by m=1 through m=3 must exist; that is, must have been programmed prior to being selected. The non-default thresholds can be set by using the CHG::SETOP (I.38201) command. Thresholds of all unspecified parameters will be set to the default value associated with m=0. The options field must not be given without the NPC type field.

Clear-DS1 ANSI NPCs (DAxy9/TAxy9) provide the same set of path and line performance monitoring parameters that are provided by channelized DS1 ANSI NPC types. ANSI NPCs in DS3 Units (TAxyz) do not provide near-end DS1 line performance monitoring parameters.

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the following Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the following Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. All of the following Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. The only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

rr	Parameter	Threshold Value Range	Default Threshold Value
41	Daily Near-end Path Coding Violations	000000000 to 134217727	132960†
42	Daily Near-end Path Errored Seconds	00000 to 86400	648
43	Daily Near-end Path Severely Errored Seconds	00000 to 86400	100
44	Daily Near-end Severely Errored Framing Seconds	00000 to 86400	17
45	Daily Near-end Controlled Slip Seconds	00000 to 86400	4
46	Daily Near-end Unavailable Seconds	00000 to 86400	10
47	Daily Near-end Line Coding Violations	000000000 to 134217727	133400
48	Daily Near-end Line Errored Seconds	00000 to 86400	648
49	Daily Near-end Line Severely Errored Seconds	00000 to 86400	100
50	Daily Far-end Path Coding Violations	000000000 to 134217727	132960†
51	Daily Far-end Path Errored Seconds	00000 to 86400	648
52	Daily Far-end Path Severely Errored Seconds	00000 to 86400	100
53	Daily Far-end Severely Errored Framing Seconds	00000 to 86400	17
54	Daily Far-end Controlled Slip Seconds	00000 to 86400	4
55	Daily Far-end Unavailable Seconds	00000 to 86400	10
56	Daily Far-end Line Errored Seconds	00000 to 86400	648
57	15-Minute Near-end Path Coding Violations	0000000 to 2097151	13296‡
58	15-Minute Near-end Path Errored Seconds	000 to 900	65
59	15-Minute Near-end Path Severely Errored Seconds	000 to 900	10
60	15-Minute Near-end Severely Errored Framing Seconds	000 to 900	2
61	15-Minute Near-end Controlled Slip Seconds	000 to 900	1
62	15-Minute Near-end Unavailable Seconds	000 to 900	10

63	15-Minute Near-end Line Coding Violations	0000000 to 2097151	13340
64	15-Minute Near-end Line Errored Seconds	000 to 900	65
65	15-Minute Near-end Line Severely Errored Seconds	000 to 900	10
66	15-Minute Far-end Path Coding Violations	0000000 to 2097151	13296‡
67	15-Minute Far-end Path Errored Seconds	000 to 900	65
68	15-Minute Far-end Path Severely Errored Seconds	000 to 900	10
69	15-Minute Far-end Severely Errored Framing Seconds	000 to 900	2
70	15-Minute Far-end Controlled Slip Seconds	000 to 900	1
71	15-Minute Far-end Unavailable Seconds	000 to 900	10
72	15-Minute Far-end Line Errored Seconds	000 to 900	65

† The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default Daily value is 691.

‡ The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default 15-Minute value is 72.

Note: If the queried NPC can not be accessed for some reason, for example because the Facility Terminating Module is not equipped or the FTMI or Unit Controller is out of service, then the NPC's parameter count fields are printed as a string of dashes to indicate that the counts are not available. The parameter thresholds and options will still be correctly output.

In addition, certain parameters do not apply to ANSI NPCs depending on whether

the NPC is equipped in a Facility Terminating Unit (DA type NPCs) or a DS3 Unit (TA type NPCs) and whether the NPC is using ESF framing or not. In the cases where specific parameters do not apply to the queried NPC, the respective parameter count fields, threshold values and threshold options are all displayed as a string of dashes.

IW - Insertion word

pq - Hexadecimal value of the growth insertion word (GIW). Specifies the insertion word in the transmit direction on unassigned channels.

An eight-bit code, called the growth insertion word, is transmitted by

this NPC on unassigned DS0 channels. This code is specified by the optional keyword IW and its argument pq. This code was previously called the Disconnect Code (DCC), but that name is properly reserved for the cross-connect insertion word, which is transmitted when the disconnect message with the DCC option is used.

Although any 2-digit hexadecimal code may be used, the default GIWs are:

pq	*Explanation*
7F	Unassigned Channel Code (UAC), the default value for DA/TA type NPCs provisioned with D4 or ESF framing.
18	Unassigned Multiplex Code (UMC), the default value for DA/TA type NPCs provisioned with T1DM framing. This value should only be provisioned with T1DM framing (DA4yz or TA4yz), so the growth command enforces this restriction.

For Clear-DS1 NPCs, the insertion word option is **NOT** available and the message will be denied if this option is entered. The alarm indication signal (AIS) is transmitted in the disconnect or idle state.

INCL - Inclusive

As a protection to users, this keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero.

NPCs grown in the D4 format (DA1yz/TA1yz) transmit a DS1 yellow alarm

by setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word "pq" is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h define the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

AIS - Alarm indication signal

INFO - Information

Information message (not an alarm). This is the default option.

MJ - Major

MN - Minor

PL - Payload loopback

ENA - Enabled

Payload loopback commands received from far-end equipment on the ESF data link are recognized and performed by the ANSI NPC. This is the default option.

DSA - Disabled

Payload loopback commands received from far-end equipment on the ESF data link are ignored by the ANSI NPC. This prevents customer equipment from controlling network configurations.

CVP - Path Coding Violations
ESP - Path Errored Seconds
SESP - Path Severely Errored Seconds
SEFS - Severely Errored Framing Seconds
CSSP - Path Controlled Slip Seconds
UASP - Path Unavailable Seconds
CVL - Line Coding Violations
ESL - Line Errored Seconds
SESL - Line Severely Errored Seconds

ss/n - First improper value of "rr/m" for which the message is denied.

aaaaaaaaa
- Daily near-end path coding violation threshold, (000000000 through 134217727)

a - Daily near-end path coding violation threshold selection, (0 through 3)

bbbbb - Daily near-end path errored second threshold, (00000 through 86400)

b - Daily near-end path errored second threshold selection, (0 through 3)

ccccc - Daily near-end path severely errored second threshold, (00000 through 86400)

c - Daily near-end path severely errored second threshold selection, (0 through 3)

ddddd - Daily near-end severely errored framing second threshold, (00000 through 86400)

d - Daily near-end severely errored framing second threshold selection, (0 through 3)

eeeee - Daily near-end path controlled slip second threshold, (00000 through 86400)

e - Daily near-end path controlled slip second threshold selection, (0 through 3)

fffff - Daily near-end path unavailable second threshold, (00000 through 86400)

f - Daily near-end path unavailable second threshold selection, (0 through 3)

ggggggggg
- Daily near-end line coding violation threshold, (000000000 through 134217727, or --------- if not applicable)

g - Daily near-end line coding violation threshold selection, (0 through 3)

hhhhh - Daily near-end line errored second threshold, (00000 through 86400, or ----- if not applicable)

h - Daily near-end line errored second threshold selection, (0 through 3)

iiiii - Daily near-end line severely errored second threshold, (00000 through 86400, or ----- if not applicable)

i - Daily near-end line severely errored second threshold selection, (0 through 3)

jjjjjjjjj
- Daily far-end path coding violation threshold, (000000000 through 134217727, or --------- if not applicable)

j - Daily far-end path coding violation threshold selection, (0 through 3)

kkkkk - Daily far-end path errored second threshold,
(00000 through 86400, or ----- if not applicable)

k - Daily far-end path errored second threshold selection, (0 through 3)

lllll - Daily far-end path severely errored second threshold,
(00000 through 86400, or ----- if not applicable)

l - Daily far-end path severely errored second threshold selection,
(0 through 3)

mmmmm - Daily far-end severely errored framing second threshold,
(00000 through 86400, or ----- if not applicable)

m - Daily far-end severely errored framing second threshold selection,
(0 through 3)

nnnnn - Daily far-end path controlled slip second threshold,
(00000 through 86400, or ----- if not applicable)

n - Daily far-end path controlled slip second threshold selection,
(0 through 3)

ooooo - Daily far-end path unavailable second threshold, (00000 through 86400)

o - Daily far-end path unavailable second threshold selection,
(0 through 3)

ppppp - Daily far-end line errored second threshold,
(00000 through 86400, or ----- if not applicable)

p - Daily far-end line errored second threshold selection, (0 through 3)

aaaaaaa
- 15-Minute near-end path coding violation threshold,
(0000000 through 2097151)

a - 15-Minute near-end path coding violation threshold selection,
(0 through 3)

bbb - 15-Minute near-end path errored second threshold,
(000 through 900)

b - 15-Minute near-end path errored second threshold selection,
(0 through 3)

_c_c_c - 15-Minute near-end path severely errored second threshold, (000 through 900)

_c - 15-Minute near-end path severely errored second threshold selection, (0 through 3)

_d_d_d - 15-Minute near-end severely errored framing second threshold, (000 through 900)

_d - 15-Minute near-end severely errored framing second threshold selection, (0 through 3)

_e_e_e - 15-Minute near-end path controlled slip second threshold, (000 through 900)

_e - 15-Minute near-end path controlled slip second threshold selection, (0 through 3)

_f_f_f - 15-Minute near-end path unavailable second threshold, (000 through 900)

_f - 15-Minute near-end path unavailable second threshold selection, (0 through 3)

_g_g_g_g_g_g_g
- 15-Minute near-end line coding violation threshold, (0000000 through 2097151, or ------- if not applicable)

_g - 15-Minute near-end line coding violation threshold selection, (0 through 3)

_h_h_h - 15-Minute near-end line errored second threshold, (000 through 900, or --- if not applicable)

_h - 15-Minute near-end line errored second threshold selection, (0 through 3)

_i_i_i - 15-Minute near-end line severely errored second threshold, (000 through 900, or --- if not applicable)

_i - 15-Minute near-end line severely errored second threshold selection, (0 through 3)

_j_j_j_j_j_j_j
- 15-Minute far-end path coding violation threshold, (0000000 through 2097151, or ------- if not applicable)

_j - 15-Minute far-end path coding violation threshold selection, (0 through 3)

_k_k_k - 15-Minute far-end path errored second threshold,
(000 through 900, or --- if not applicable)

_k - 15-Minute far-end path errored second threshold selection,
(0 through 3)

_l_l_l - 15-Minute far-end path severely errored second threshold,
(000 through 900, or --- if not applicable)

_l - 15-Minute far-end path severely errored second threshold selection,
(0 through 3)

_m_m_m - 15-Minute far-end severely errored framing second threshold,
(000 through 900, or --- if not applicable)

_m - 15-Minute far-end severely errored framing second threshold selection,
(0 through 3)

_n_n_n - 15-Minute far-end path controlled slip second threshold,
(000 through 900, or --- if not applicable)

_n - 15-Minute far-end path controlled slip second threshold selection,
(0 through 3)

_o_o_o - 15-Minute far-end path unavailable second threshold,
(000 through 900)

_o - 15-Minute far-end path unavailable second threshold selection,
(0 through 3)

_p_p_p - 15-Minute far-end line errored second threshold,
(000 through 900, or --- if not applicable)

_p - 15-Minute far-end line errored second threshold selection,
(0 through 3)

Note: A threshold of zero for any parameter inhibits threshold crossing monitoring for that parameter.

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	IW is UMUX (18) but NPC not type DE4yz

mmmm	*Explanation*
SNVS	DMI combined with T1DM
SNVS	NPC type option xyz is unassigned
IDNV	IW option is not allowed for new type of Clear-DS1 NPC
SNVS	NPC type is inconsistent with FTMI type
SNVS	Incompatible types of NPCs in a DDC
IDNV	AIS keyword incompatible with NPC type
IDNV	ZBTSI option is only valid with the ESF mode
IDRG	NPC range crosses unit boundary
IDNV	Parameter only valid with PB or PC type NPCs
IIDT	This NPC type does not allow unframed Clear-DS1
IPNV	This NPC type does not allow Payload
SNVS	Mismatch between MXR and NPC types
IPNV	Invalid use of INCL keyword
SNVS	INCL keyword needed when restricted Insertion Word specified

CRTE,EQPT,NPC,IW,X,INCL,AIS

GROWTH NPC

Input Message Format

Nonhierarchical

[I.31352]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][&...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}];
```

Hierarchical

[I.31352]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[mnxyz]:\
[rr/m][&rr/m][&...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}];
```

Completion Message

Nonhierarchical

[O.31352]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] COMPLD
   /* [O.31352] */
   /* SLIP:BER:ERS:SERS:COFA (Threshold) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu"
   /* SLIP:BER:ERS:SERS:COFA (Options) */
   "e,f:g,h:i:j:k,l"
   /* IW-X-pq is the hex value of the Insertion Word */
   /* NPC number */
   "[s]jkl"
   "TYPE-mnxyz"
;
```

Hierarchical

[O.31352]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] COMPLD
   /* [O.31352] */
   /* SLIP:BER:ERS:SERS:COFA (Threshold) */
   "mmm,nnn:p,q:rrrrr:sss:ttt,uuu"
   /* SLIP:BER:ERS:SERS:COFA (Options) */
   "e,f:g,h:i:j:k,l"
   /* IW-X-pq is the hex value of the Insertion Word */
   /* NPC number */
   "uv-j-kl"
   "TYPE-mnxyz"
;
```

Denial Message

Nonhierarchical

[O.31352.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] DENY
   mmmm
   /* [O.31352.01] */
   /* <explanation of error condition code> */
  [/* ss/n */]
  [/* IW-X-pq is the hex value of the Insertion Word */]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.31352.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] DENY
   mmmm
   /* [O.31352.02] */
   /* <explanation of error condition code> */
  [/* IW-X-pq is the hex value of the Insertion Word */]
   /* EQD */
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.31352.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] DENY
   mmmm
   /* [O.31352.01] */
   /* <explanation of error condition code> */
  [/* ss/n */]
  [/* IW-X-pq is the hex value of the Insertion Word */]
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

[O.31352.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[mnxyz]:[rr/m]\
[&rr/m][...]:[IW-X-pq[,INCL]][,AIS-{INFO|MJ|MN}] DENY
   mmmm
   /* [O.31352.02] */
   /* <explanation of error condition code> */
  [/* IW-X-pq is the hex value of the Insertion Word */]
   /* EQD */
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the equipage of the facility terminating unit network processing circuit, type DExyz/TExyz. It may also be used to request the equipage of a range of NPCs.

The optional alarm threshold arguments are indices used to select prestored values for facility performance parameter alarm thresholds from a secondary data base.

A special code, called the idle code, is transmitted by this NPC on unassigned channels. The idle code is specified by pq in the optional field **IW X'pq** (generally called the growth insertion word) or it defaults to the hexadecimal value 7F (unassigned channel code) for DE type NPCs. The growth insertion word may be assigned any 2-digit hexadecimal value.

As a protection to users, the INCL keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero. NPCs grown in the D4 format (DA1yz/TA1yz) transmit a DS1 yellow alarm by setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h represent the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

For clear DS1 NPCs, the insertion word option is NOT available and the message will be denied if this option is entered. The alarm indication signal is transmitted in the disconnect or idle state.
Since range provisioning commands could take considerable time to complete, the ABT command is allowed with this message. If the ABT command is entered, DACS II will quit on execution of the current NPC growth and will report what has been finished.

One output message is printed for each NPC requested and successfully provisioned.

Provisioning commands where the specified NPC range crosses a Unit boundary will be denied.

When a provising command addressing a range of NPCs is denied for successive NPCs in the range for the same reason, a summary denial message will be output, giving the range of NPC numbers denied and the reason for the denial.

When a provisioning command addressing a range of NPCs within a unit crosses a facility terminating module (FTM) boundary, if the FTM is unequipped or provisioned as a CEPT module, then the FTM will be skipped as a whole, with a summary denial message, as noted below.

- If the type field is specified, and it is inconsistent with the first FTM specified or the first FTM specified is unequipped, the entire command is denied. Otherwise, the specified type field is applied to the entire NPC range.
- If the type field is omitted, the NPC type will default to the type of the first FTM, either domestic or CEPT.

Whether or not the type field is specified, if an FTM, beyond the first one addressed, is of a different type, that entire FTM will be denied.

The execution of the normal completions, or of denials for a reason other than diagnostic failures, then resumes at the next NPC and continues until the end of the range.

A summary denial message will not be issued for denial of range NPC RESTORE commands if the reason is an NPC diagnostic failure. In this case, there is one output message for each NPC in the range.

Explanation Of Parameters

`[s]abc`

- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of a range specification

`[t]def`

- The 3- or 4-digit nonhierarchical NPC number, denoting the end of a range specification

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv-k-qr
- Specific Hierarchical NPC number

uv - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid numbers are:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

mnxyz - NPC-type identifier

mn	*Type*
DE	FTU DS1 NPC; default type is DE100
TE	DS3U DS1 NPC; default type is TE100

xyz - Format specification

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if

the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected

m - Facility performance parameter threshold index (0 through 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by m=1 through m=3 must exist; that is, must have been programmed prior to being selected. These other thresholds can be set by using the CHG::SETOP (I.38201) command. Thresholds of all unspecified parameters will be set to the default value associated with m=0. The options field must not be given without the NPC type field.

Clear-DS1 FTU NPCs have a limited number of parameters for performance

monitoring, 01 through 04 only. Clear-DS1 DS3U NPCs have only parameters 01 and 02.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	10^{-3}* to 10^{-6}†	10^{-3}*
04	Bit Error Rate minor	10^{-3}* to 10^{-6}†	10^{-6}
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17

* 4 for clear-DS1 NPCs or DS type NPCs

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

Note: Major thresholds must be greater than minor thresholds.

Note: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

1E-4 for TG80B circuit pack operates as clear-DS1 FTU NPC, the BER is calculated from BPV rate; otherwise, parameter rr can only have values

01 and 02 for clear-DS1 NPCs

Note: If the queried NPC can not be accessed for some reason, for example because the Facility Terminating Module is not equipped or the FTMI or Unit Controller is out of service, then the NPC's parameter count fields are printed as a string of dashes to indicate that the counts are not available. The parameter thresholds and options are still correctly output in this case.

In addition, some parameters are not applicable to all NPCs. Certain parameters may or may not be collected based on NPC type, whether the NPC is equipped in a

Facility Terminating Unit (DE type NPC) or a DS3 Unit (TE type NPC) and whether the NPC carries a Clear or Channelized facility.
In the cases where specific parameters do not apply to the queried NPC, the respective parameter count fields, threshold values and threshold options are all displayed as a string of dashes.

IW - Insertion word

pq - Hexadecimal value of the growth insertion word (GIW). Specifies the insertion word in the transmit direction on unassigned channels.

An eight-bit code, called the growth insertion word, is transmitted by

this NPC on unassigned DS0 channels. This code is specified by the optional keyword IW and its argument pq. This code was previously called the Disconnect Code (DCC), but that name is properly reserved for the cross-connect insertion word, which is transmitted when the disconnect message with the DDC specified is used.

Although any 2-digit hexadecimal code may be used, the default GIWs are:

pq	*Explanation*
7F	Unassigned Channel Code (UAC), the default value for DE/TE type NPCs provisioned with D4 or ESF framing.
18	Unassigned Multiplex Code (UMC), the default value for DE/TE type NPCs provisioned with T1DM framing. This value should only be provisioned with T1DM framing (DA4yz or TA4yz), so the growth command enforces this restriction.

For Clear-DS1 NPCs, the insertion word option is **NOT** available and the message will be denied if this option is entered. The alarm indication signal (AIS) is transmitted in the disconnect or idle state.

INCL - Inclusive

As a protection to users, this keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero.

NPCs grown in the D4 format (DE1yz/TE1yz) transmit a DS1 yellow alarm by

setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word "pq" is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h define the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

AIS - Alarm indication signal

INFO - Information

Information message (not an alarm). This is the default option.

MJ - Major

MN - Minor

ss/n - First improper value of "rr/m" for which the message is denied.

mmm - Slip major alarm threshold (0 through 255)
nnn - Slip minor alarm threshold (0 through 255)

e - Slip major alarm threshold selection (0 through 3)
f - Slip minor alarm threshold selection (0 through 3)

s - BER major alarm threshold, ($1.0(10^{-s})$, 3† through 6*)
q - BER minor alarm threshold, (1.0^{-q}, 3† through 6*)

* 7 on T1DM and Fe framing

† 4 for clear-DS1 FTU NPC

g - BER major alarm threshold selection (0 through 3)
h - BER minor alarm threshold selection (0 through 3)

rrrrr - ERS threshold (1 through 65535, or ----- if not applicable)
i - ERS threshold selection (0 through 3)

sss - SERS threshold (1 through 255, or --- if not applicable)
j - SERS threshold selection (0 through 3)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)

k - COFA major alarm threshold selection (0 through 3)
l - COFA minor alarm threshold selection (0 through 3)

Note: Major thresholds must be greater than minor thresholds.

For clear-DS1 FTU NPC only SLIP and BER parameters are listed.

For clear-DS1 DS3U NPC only SLIP parameters are listed.

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	Unit type error
SNVS	NPC type error
SNVS	IW is UMUX (18) but NPC not type DE4yz
SNVS	DMI combined with T1DM
SNVS	MajlMin BER threshold is 7, but not in T1DM or Fe mode
SNVS	NPC type option xyz is unassigned
SNVS	NPC type is inconsistent with FTMI type
SNVS	Incompatible types of NPCs in a DDC
IDNV	Invalid FPI value
SNVS	Major/Minor BER threshold value is invalid for SLC NPCs
IDNV	IW option is not allowed for new type of Clear-DS1 NPC
IDNV	BER must not be less than 4 for Clear DS1
ENEQ	MIU is not equipped
IDNV	Parameter only valid with PB or PC type NPCs
IDNV	ZBTSI option is only valid with the ESF mode
IDRG	NPC range crosses unit boundary
IDNV	The facility parameter not programmable for specified x or z parameter
ENEQ	The MXR is not grown
IDNV	AIS keyword incompatible with NPC type
IIDT	This NPC type does not allow unframed Clear-DS1
IPNV	This NPC type does not allow Payload
SNVS	Mismatch between MXR and NPC types
SNVS	Minor Slip threshold disabled before Major Slip threshold
IPNV	Invalid use of INCL keyword
SNVS	INCL keyword needed when restricted Insertion Word specified
IDNV	Option not programmable for this NPC type

CRTE,EQPT,NPC,NPCTG

GROWTH TEST-ACCESS GROUP NPC

Input Message Format

Nonhierarchical

[I.31401]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:NPCTG-rrr;
```

Hierarchical

[I.31401]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:NPCTG-rrr;
```

Completion Message

Nonhierarchical

[O.31401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:NPCTG-rrr COMPLD
;
```

Hierarchical

[O.31401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:NPCTG-rrr COMPLD
;
```

Denial Message

Nonhierarchical

[O.31401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:NPCTG-rrr DENY
   mmmmm
   /* [O.31401.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.31401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:NPCTG-rrr DENY
   mmmmm
   /* [O.31401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to designate a network processing circuit (NPC) as a test-access group NPC (NPCTG).
To provision an individual test-access group (TG) use the CRTE-EQPT::TG command

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

NPCTG - NPC (for) test group

rrr - Test-access Group NPC number (1 through 400)

NPC used as a test-access group NPC.

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
ENEQ	NPC is unequipped
SNVS	NPC type error
SNVS	NPC has been designated as NPCTP
SAOS	NPC out of service or failed
SNVS	Designated TG or circuit to be tested in process of being rolled
SNVS	NPC has been designated as NPCTG
SAAS	All channels assigned, cannot be grown as NPCTG

CRTE,EQPT,NPC,NPCTP

GROWTH TEST PORT NPC

Input Message Format

Nonhierarchical

[I.31381]

```
CRTE-EQPT:[<xy>]:NPC-[s]abc:[ww]:NPCTP-n;
```

Hierarchical

[I.31381]

```
CRTE-EQPT:[<xy>]:NPC-uv-m-np:[ww]:NPCTP-n;
```

Completion Message

Nonhierarchical

[O.31381]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:NPCTP-n COMPLD
   /* [O.31381] */
   /* Test Port Numbers Supported by NPCTP */
   "kk&&mm"
;
```

Hierarchical

[O.31381]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:NPCTP-n COMPLD
   /* [O.31381] */
   /* Test Port Numbers Supported by NPCTP */
   "kk&&mm"
;
```

Denial Message

Nonhierarchical

[O.31381.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-[s]abc:[ww]:NPCTP-n DENY
   mmmm
   /* [O.31381.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.31381.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::NPC-uv-m-np:[ww]:NPCTP-n DENY
   mmmm
   /* [O.31381.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the designation of a Network Processing Circuit as a test port NPC.

The growth of an individual test port is described in CRTE,EQPT,TP.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

NPCTP - NPC (for) test ports

n - Test Port NPC number (must be in the range from 1 to 8).

kk,mm - Test port numbers

n	*kk*	*mm*
1	01	12
2	13	24
3	25	36
4	37	48
5	49	60
6	61	72
7	73	84
8	85	96

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENRE	Subject entity is equipped
ENEQ	NPC is unequipped
SNVS	NPC type error
SAAS	Channels assigned, cannot be grown as test port
SNVS	NPC has been designated as NPCTP
SNVS	Test ports must be on CAS
SAAS	Termination is in process of being rolled
SNVS	NPC has been designated as NPCTG

CRTE,EQPT,SYNC

GROW SYNCHRONIZER TIME BASE

Input Message Format

[I.31101]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TBpqr;
```

Completion Message

[O.31101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TBpqr COMPLD
;
```

Denial Message

[O.31101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TBpqr DENY
   mmmm
   /* [O.31101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests equipage of the time base circuit packs of the synchronizer. Both

sides of the time base (sides 0 and 1) will be equipped by entering this command.

Explanation Of Parameters

SYNC - Synchronizer

TB - Time base

p - Time base identifier

qr - Unassigned

q and r can take any value from 0 through 9

p	*Time base*
0	Stratum 3
1	CEPT Local
2	CEPT Toll
3	Stratum 2

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Syncs are equipped

CRTE,EQPT,SYNC,TLI

GROWTH CLOCK REFERENCE OSCILLATOR

Input Message Format

[I.31111]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TBpqr:TLI-3;
```

Completion Message

[O.31111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TBpqr:TLI-3 COMPLD
   /* CRO */
;
```

Denial Message

[O.31111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TBpqr:TLI-3 DENY
   mmmm
   /* [O.31111.01] */
   /* <explanation of error condition code> */
   /* CRO */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests equipage of the synchronizer time base as a clock reference oscillator (CRO), which is the extra (third) time base on the synchronizer. The CRO is required to provision the synchronizer to the master mode and is located in timing link

interface 3 of side 1 of the synchronizer.

Explanation Of Parameters

SYNC - Synchronizer

TLI - Timing Link Interface

TB - Time base

p - Time base identifier

qr - Unassigned

q and r can take any value from 0 through 9

p	*Time base*
0	Stratum 3
1	CEPT Local
2	CEPT Toll
3	Stratum 2

CRO - Clock reference oscillator

mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
ENEQ	SYNC TB is not equipped
SNVS	Wrong TLI type
SNVS	(Timing Distributor) TLI is not equipped
SAOS	Sync 0 is not in-service
SAOS	Sync 1 is not in-service
SAOS	Both syncs are out-of-service
SNVS	Syncs are equipped
SNVS	Bad sync mode

CRTE,EQPT,SYNC,TLI,SSP,SRC

PROVISION SYNCHRONIZER TIMING LINK INTERFACE

Input Message Format

[I.31121]

```
CRTE-EQPT:[<xy>]:SYNC:[ww]:TLI-m:\
{texyz,SSP-a,SRC-p|TDxyz};
```

Completion Message

[O.31121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TLI-m:{texyz,SSP-a,SRC-p|TDxyz} COMPLD
;
```

Denial Message

[O.31121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::SYNC:[ww]:TLI-m:{texyz,SSP-a,SRC-p|TDxyz} DENY
   mmmm
   /* [O.31121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests provisioning of the synchronizer's timing link interface. The TLI can be configured as a timing extractor or as a timing distributor.

If the timing extractor is selected, you must also select synchronizer sync port (SSP) 0 or 1 and its source for priority.

Timing extractor types must be compatible for both **SSP 0** and **SSP 1**.

Explanation Of Parameters

SYNC - Synchronizer

TLI - Timing link interface

m - TLI number (1 through 4)

texyz - Timing Extractor type

te	*Explanation*
TC	Composite Clock Timing Extractor
TE	DS1 Timing Extractor
TP	Primary Block Timing Extractor
TR	Basic System Reference Frequency (BSRF)
TU	Unipolar Clock Timing Extractor

Note: For the TC, TU and TR timing extractors the x, y and z parameters can be any value from 0 to 9.

Valid x, y, and z values for the other timing extractors are:

TE-type TLI xyz fields

x - Frame format

x	*Explanation*
0	Invalid
1	D4 Format
2 or 3	ESF Format
4	DDS (T1DM) Format
5-9	Invalid

y - Line format

y	*Explanation*
0 or 1	Bipolar Line Coding
2	B8ZS Line Coding
3	Invalid
4 or 5	Bipolar Line Coding
6	B8ZS Line Coding
7-9	Invalid

z - Channel format

z	*Explanation*
0-9	Unassigned

TP-type TLI xyz fields

x - Frame format

x	*Explanation*
1 or 5	Common Channel Signaling
2 or 6	Channel Associated Signaling - Mode 0
3 or 7	Channel Associated Signaling - Mode 1
4 or 8	European Remote Switching Module
0 or 9	Invalid

y - Line format

y	*Explanation*
0 or 2	Alternate Mark Inversion (Bipolar)
1 or 3	High Density Bipolar (HDB3)
4-9	Invalid

z - Channel format

z	*Explanation*
0-9	Unassigned

SSP - Synchronizer synchronization port

a - SSP number (0 or 1)

Required when texyz is specified.

Note: Timing Extractors must have the same "te" type for both SSP 0 and SSP 1.

SRC - Source

p - Priority (1 through 8)

Required when texyz is specified. 1 = HIGHEST priority, 8 = LOWEST priority

TDxyz - Timing Distributor type

The valid values for x, y, and z are:

TD-type TLI xyz fields

x - Timing distributor identification

x	*Explanation*
1	Composite Clock Timing Distribution
2	Sinusoidal 2.048 MHz Timing Distribution

y, z - Unassigned

mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
ENEQ	SYNC TB is not equipped
SAOS	Sync 0 is not in-service
SAOS	Sync 1 is not in-service
SAOS	Both syncs are out-of-service
SNVS	Timing Extractor type TLI (need SSP info)
SNVS	Not Timing Extractor type TLI (not SSP)
SNVS	Wrong TLI type (need CRO grow command)
SNVS	3 Timing Distributor type TLIs are equipped
SNVS	Illegal priority value
SNVS	Illegal SSP type (not same as other SSPs)
SNVS	X option is illegal
SNVS	Y option is illegal
SNVS	Z option is illegal
SNVS	Hardware mismatch or not present
IDNV	NPC parameter only valid with TU type TLI
SNVS	NPC not designated as sync timing source
SAWS	NPC already allocated as sync timing source
IDNV	Parameter only valid with PB or PC type NPCs

CRTE,EQPT,TG

GROWTH TEST-ACCESS GROUP

Input Message Format

[I.31421]

```
CRTE-EQPT:[<xy>]:TG-mmm:[ww]:rrr-eee[&&-fff],sss-www[&&-xxx]\
:[<tc>];
```

Completion Message

[O.31421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::TG-mmm:[ww]:rrr-eee[&&-fff],sss-www[&&-xxx]\
:[<tc>] COMPLD
;
```

Denial Message

[O.31421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::TG-mmm:[ww]:rrr-eee[&&-fff],sss-www[&&-xxx]:[<tc>] \
DENY
   mmmm
   /* [O.31421.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to provision a test-access group (TG) as a network processing circuit for test groups (NPCTG) covering a specific channel range.

The TG consists of two bundles of n consecutive DS0 channels each. The TG's width is determined by the number of channels within the range specified in the command. The east bundle of the TG is located on the first NPCTG and spans the given channel range; the west bundle is located on the second NPCTG and spans the second channel range. Both bundles may be assigned to the same NPCTG, provided the necessary bandwidth is available.

Explanation Of Parameters

TG - Test (access) group

mmm - TG number (1 through 400)

NPCTG - NPC (for) test group

rrr - NPCTG number supporting the east bundle

sss - NPCTG number supporting the west bundle, may be same as rrr

eee,fff
- Channel range for east bundle

www,xxx
- Channel range for west bundle

001 through 024

tc - Trunk conditioning

TRSP must be specified as <tc> for a TG on NSA NPCTGs, or denial will result.

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ERLC	Customer control or red circuit exists
IDNV	Using the 24th channel of a T1DM NPC
IDNV	Using the 24th channel of a DMI NPC
SAAS	channel part of a TP or TG
SAAS	channel already under test
SNVS	Designated TG or circuit to be tested in process of being rolled
IDNV	Invalid TC specification
IDNV	Inconsistent Signaling on CEPT NPCTGs
IDRG	TG width too large for single NPCTG
IDRG	Ending channel is out of range
SAAS	TG number previously assigned

mmmm	*Explanation*
IDNV	TG East/West type inconsistent with each other or circuit
SAAS	Channels assigned, cannot be grown as test group
ENEQ	NPCTG not grown

CRTE,EQPT,TP

GROW TEST PORT

Input Message Format

[I.31411]

```
CRTE-EQPT:[<xy>]:TP-kk:[ww]:[<tc>];
```

Completion Message

[O.31411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::TP-kk:[ww]:[<tc>] COMPLD
;
```

Denial Message

[O.31411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::TP-kk:[ww]:[<tc>] DENY
   mmmm
   /* [O.31411.01] */
   /* <explanation of error condition code> */
[  /* {NPCTP-UEQD|TP-NSO|TERM|IMPR-TC} */ ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the provisioning of a test port.

If trunk conditioning is omitted from the input command the test port is provisioned as a *dynamic* test port. A dynamic test port's trunk conditioning is set to match the trunk conditioning of the circuit under test at the time the circuit is accessed.

If trunk conditioning is given in the input command the test port is provisioned as a *static* test port. A static test port's trunk conditioning is set at the time the port is provisioned. Its trunk conditioning does not change when a circuit is accessed for testing.

The *static* or *dynamic* designations have meaning only for access to unmapped terminations.

For access to a mapped termination, trunk conditioning is always adopted from the circuit under test.

Explanation Of Parameters

TP - Test port

kk - Test port number (01 through 96)

A 1.544Mbit/s non-SLC NPC will support 12 test ports numbered as follows:

TA Port	Channel	
	FROM	TO
01,13,25,37,49,61,73,85	1	2
02,14,26,38,50,62,74,86	3	4
03,15,27,39,51,63,75,87	5	6
04,16,28,40,52,64,76,88	7	8
05,17,29,41,53,65,77,89	9	10
06,18,30,42,54,66,78,90	11	12
07,19,31,43,55,67,79,91	13	14
08,20,32,44,56,68,80,92	15	16
09,21,33,45,57,69,81,93	17	18
10,22,34,46,58,70,82,94	19	20
11,23,35,47,59,71,83,95	21	22
12,24,36,48,60,72,84,96	23	24

tc - Trunk conditioning

Represents the desired signaling and insertion word to be applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification. For example, TRSP,IW-X-pq (input form).

signaling	*Explanation*
TC-ijkl,mnop	2-way, 4-state signaling in binary.
TC-ijklmnop,qrstuvwx	2-way, 16-state signaling in binary.
TC-X-ab,X-cd	2-way, 16-state in hexadecimal.
TRSP	Transparent, no signaling.

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4
MUX	MUX out of sync code, equal to IW-X-1A

For 4-state signaling, the A/B signaling bits of both test port channels are specified by ijkl for the receive time slot interchange (RTSI), and by mnop for the transmit time slot interchange (TTSI).

For 16-state signaling, the A/B/C/D signaling bits of both test port channels are specified by efghijkl (or hexadecimal digits ab) for the RTSI, and by mnopqrst (or hexidecimal digits cd) for the TTSI.

NPCTP - NPC for test ports

UEQD - Unequipped

TP NSO - Test port not in sequence order

TERM - Terminated

IMPR - Improper

TC - Trunk conditioning

mmmm - Error condition code

mmmm	*Explanation*
ERLC	Customer control or red circuit exists
SNVS	Can not use 12-th TP when NPCTP is in the T1DM or DMI mode
SAAS	Termination is in process of being rolled
IDNV	Invalid MXR type specified
SAAS	channel already under test

CRTE,EQPT,UNIT,FTMI,EQL

PROVISION FACILITY TERMINATING MODULE INTERFACE

Input Message Format

[I.31321]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:EQL-1,r;
```

Completion Message

[O.31321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:FTMI-d:EQL-1,r COMPLD
   /* [O.31321] */
   "FC-0d,1d"
;
```

Denial Message

[O.31321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:FTMI-d:EQL-1,r DENY
   mmmm
   /* [O.31321.01] */
   /* <explanation of error condition code> */
   /* FC-0d,1d */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests provisioning of the facility terminating module (FTM) and its interface and format converter in DACS II **UNIT-q** with a specified equalization. Equalization may be specifed for either a half or a whole FTM.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

0 - FC side 0
1 - FC side 1

d - FC number (1 through 4)

FTMI - Facility terminating module interface

d - FTMI in the DACS II unit (1 through 4)

EQL - Equalization

l - Left half shelf equalization value (first 10 Dual Digroup Circuits)
r - Right half shelf equalization value (second 10 Dual Digroup Circuits)

If either half is not to be used, a dash ("-") should be entered for the appropriate halfs' value. For the right half shelf the dash is not allowed if the FTMI has already been grown.

Equalization option values for 255AS/24 gauge cable

l / *r*	*Explanation*
1	000 to 100 feet
2	100 to 200 feet
3	200 to 300 feet
4	300 to 400 feet
5	400 to 500 feet
-	Not equipped

Equalization option values for 600 series/22 gauge cable

/r	*Explanation*
1	000 to 133 feet
2	133 to 267 feet
3	267 to 400 feet
4	400 to 533 feet
5	533 to 655 feet
-	Not equipped

Equalization option values for 1249/26 gauge cable

/r	*Explanation*
1	000 to 090 feet
2	090 to 180 feet
3	180 to 270 feet
4	270 to 360 feet
5	360 to 450 feet
-	Not equipped

mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	Unit type error

CRTE,EQPT,UNIT,MIU

GROWTH MULTIPLEXER INTERFACE UNIT

Input Message Format

[I.31501]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[mnxyz];
```

Completion Message

[O.31501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[mnxyz] COMPLD
   /* [O.31501] */
   "TYPE-mnxyz"
   /* MIU Number */
   "a"
>
                    .       .
                    .       .
;
```

Denial Message

[O.31501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[mnxyz] DENY
   mmmm
   /* [O.31501.01] */
   /* <explanation of error condition code> */
   /* MIU Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message equips one or more Multiplexer Interface Unit (MIU) circuit packs in a DS3 Unit. As many as seven MIUs can be equipped with one command.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c,
d - MIU numbers within the unit (P, 1 through 6)

TYPE - Type

mnxyz - MIU type. The only MIU type available is MI100.

a - MIU number within the range of MIU c and MIU d.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
IDNV	Invalid MIU/MXR type specified
SROF	Wrong MXR type grown for this MIU

CRTE,EQPT,UNIT,MXR,BERM,BERT

GROWTH MULTIPLEXER

Input Message Format

[I.31511]

```
CRTE-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c[&&-d]:[mnxyz]:[BERM-s]\
[,BERT-t][,LBO-<b>];
```

Completion Message

[O.31511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:MXR-c[&&-d]:[mnxyz]:[BERM-s]\
[,BERT-t][,LBO-<b>] COMPLD
   /* [O.31511] */
   /* MXR TYPE:BER Calculation Method:BER Threshold:Line Build Out */
   "TYPE-mnxyz:BERM-s:BERT-t:LBO-<b>"
   /* MXR Number */
   "a"
>
          .          .
          .          .
;
```

Denial Message

[O.31511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE EQPT::UNIT-[q]q:[ww]:MXR-c[&&-d]:[mnxyz]:[BERM-s]\
[,BERT-t][,LBO-<b>] DENY
   mmmm
   /* [O.31511.01] */
   /* <explanation of error condition code> */
   /* MXR Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message equips one or more Multiplexer (MXR) circuit packs and their associated DS3 facility's in the service slots of a DACS II DS3 Unit. The protection MXR circuit pack is not grown because no specific DS3 facility is associated with it.

Up to six MXRs and their DS3 facilities can be grown with one command.

There will be one output message (either completion or denial) for each MXR that is grown.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MXR - Multiplexer

c - MXR number within the unit (1 through 6)

d - MXR number within the unit (1 through 6)

Variable d is used to specify a range of MXRs

a - MXR number within the range of MXR c and MXR d

TYPE - Type

mnxyz - The requested DS3 format that will be processed by the MXR

mn - DS3 type

mn	*Explanation*
MX	The original Release 4.0 DS3 facility type supported by the Multiplexer (MXR) circuit pack
EX	The enhanced Release 6.0 DS3 facility type supported by the Enhanced Multiplexer (EMXR) circuit pack
	Default is the MX type for backward compatibility.

x - DS3 framing format

x	*Format*
1	M13 format (default)
2	C-bit parity format

y - Not assigned (the only valid value is 0)
z - Not assigned (the only valid value is 0)

The optional settings available for each MXR are:

BERM - Bit error rate calculation method

s - The requested BER calculation method

s	*BER calculation method*
B	Bipolar violations (default)
P	DS3 Parity Errors

BERT - Bit error rate threshold for declaring High BER condition

t - Requested BER threshold

t	*BER threshold*
3	Corresponds to threshold of 10^{-3} (default)
6	Corresponds to threshold of 10^{-6}

LBO - Line buildout

b - LBO specification

b	*Explanation*
ON	Line build out is turned on
OFF	Line build out is turned off (default)

LBO is required as shown in the following table.

734A Cabling to DSX-3	KS-19224,L2 Cabling to DSX-3	LBO
0 to 225 feet	0 to 75 feet	ON
225 to 450 feet	75 to 150 feet	OFF

Note: LBO <b> may be used to change the LBO setting of an in-service, traffic- carrying Multiplexer-Multiplexer Interface Unit (MMFG).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed

CRTE,LGN,NEW,PASSWD,REENTER

ADD USER

Input Message Format

If the message is entered on a Snider link:

[I.36101]

CRTE-LGN:[<xy>]::[ww]:<user id>[,NEW];
DACS II generates the message below and a dialog is started:

PASSWD: (The frame administrator enters user password.)

REENTER PASSWD: (The frame administrator again enters the user password.)

Note that the user password is not echoed by DACS II.

If the message is entered on an X.25 link:
[I.36101]

CRTE-LGN:[<xy>]::[ww]:<user id>,[NEW],<user password>;

No dialog is initiated by DACS II.

Completion Message

[O.36101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE LGN:::[ww]:<user id>[,NEW] COMPLD
;
```

Denial Message

[O.36101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  CRTE LGN:::[ww]:<user id>[,NEW] DENY
   mmmm
   /* [O.36101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used by the frame administrator to create a new user login identification and password or to reassign a login identification and password to a previous user of DACS II.

The **NEW** keyword indicates that a new user is being created. The frame administrator uses this command without the **NEW** keyword to reassign a password to a user who is currently on DACS II.

A user is identified to DACS II by his or her **user id** associated with the login.
The administrator divulges a password to a new user for the initial log on to DACS II. Afterwards, the user can change this initial password through the **CHG-LGN** command to a password known only to him or her.
Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

USER - User

user id
- User identifier

User login identification (two to eight alphabetic characters).

NEW - New

Create a user identifier for a new user.

Note: The "NEW" keyword cannot be used to create a user identifier on a link that is using the X.25 protocol.

PASSWD
- Password

user password
- User password

The password assigned to the user, where password is at least six alphanumeric characters.

nnnnn - Error condition code

nnnnn	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	Cannot create any more users
SNVS	User has been created
SNVS	User does not exist
SNVS	Incorrect or missing password

DELETE,END

DELETE LINES FROM MACRO

Input Message Format

[I.19051]

```
DELETE[:[<xy>]:{<starting line>|END}[-{<ending line>|END}]:\
[ww]:];
```

Completion Message

[O.19051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DELETE::[{<starting line>|END}[-{<ending line>\
|END}]]:[ww] COMPLD
   /* [O.19051] */
;
```

Denial Message

[O.19051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DELETE::[{<starting line>|END}[-{<ending line>|END}]]:\
[ww] DENY
   mmmm
   /* [O.19051.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to delete one or more commands from an existing macro while in a macro session. If neither a range of line numbers nor END is specified then the line pointed to by the line pointer (the current line) is deleted.

Explanation Of Parameters

`starting line`
- Beginning line number of a line range (1, 2, ..., n)

Starting line indicates the line number of the first line of a range of lines to be deleted from a macro.

`ending line`
- Ending line number of a line range (2, 3, ..., n+1)

Ending line indicates the line number of the last line of a range of lines to be deleted from a macro.

`END` - End

Line number of the line at the end of the macro.

`mmmm` - Error condition code

`mmmm`	*Explanation*
IDNV	Invalid line number
SNVS	No edit session active

DGN,EQPT,CCB,CFT,X

DIAGNOSE CROSS-CONNECT BUFFER

Input Message Format

[I.41211]

```
DGN-EQPT:[<xy>]:CCB-sf:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41211]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCB-sf:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41211] */
   "ATP"
;
```

[O.41212]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCB-sf:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41212] */
   "CATP-cc"
;
```

[O.41213]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCB-sf:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41213] */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

Denial Message

[O.41211.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCB-sf:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41211.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41211]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41211] */
   /* Diagnosed entity:<diagnostic data> */
   "CCB-sf:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41211.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41211.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "CCB-sf"
;
```

Explanation Of Message

This message requests diagnostics to be run on the cross-connect buffer.

Explanation Of Parameters

CCB - Cross-connect buffer

s - Cross-Connect Buffer side number (0 or 1)

f - Cross-Connect Buffer number (1 through 6)

CFT - Craft

The optional craft diagnostic test code field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this diagnostic will be run.

All tests can be run while out of service. Test 0004 will not run if any TSI on this Cross-connect Buffer (that is, TSI1 through TSI6) is in service.

vwxy - Diagnostic test number

Test	*vwxy*
Sync energy detector test	0001
Port alarm test	0002
Port alarm test	0004
Clock energy detector test.	0008

ATP - All tests passed

CATP - Conditional all tests passed

cc	*Explanation*
03	CCB in service
39	Not all buses have mapped time slot, or some TSI is in service
3A	No unmapped time slots on one of the buses
44	DMB type NPCs on unit f on side s is in service.

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing diagnostic number in hexadecimal form
qq - Test number in hexadecimal form.

ppqq	*Explanation*
0480	Clock energy detector test. Circuit pack identification wrong.
0410	Clock energy detector test. Error bit not set.
0440	Clock energy detector test. Overall error summary not set.

Note: Involves CCNI register; could be a CCNI problem.

04a0	Clock energy detector test. Error bit not cleared.
0420	Clock energy detector test. Error returns after clear.
04b0	Clock energy detector test. Summary returns after clear.
	Note: Involves CCNI register; could be a CCNI problem.
04f0	Clock energy detector test. Software error.
0180	Port alarm register test. Circuit pack identification wrong.
0110	Port alarm register test. Error bit not set.
0140	Port alarm register test. Overall error summary not set.
	Note: Involves CCNI register; could be a CCNI problem.
01a0	Port alarm register test. Error bit not cleared.
0120	Port alarm register test. Error returns after clear.
01b0	Port alarm register test. Summary returns after clear.
	Note: Involves CCNI register; could be a CCNI problem.
01f0	Port alarm register test. Software error.
0280	SYNC energy detector test. Circuit pack identification wrong.
0210	SYNC energy detector test. Error bit not set.
0240	SYNC energy detector test. Overall error summary not set.
	Note: Involves CCNI register; could be a CCNI problem.
02a0	SYNC energy detector test. Error bit not cleared.
0220	SYNC energy detector test. Error returns after clear.
02b0	SYNC energy detector test. Summary returns after clear.
02f0	SYNC energy detector test. Software error.
031N	Port alarm in-service test. Port alarm set in ESR N. N=0-2.
038N	Port Alarm in-service test. Circuit pack identification wrong in ESR N.
034N	Port alarm in-service test. Overall error bit not set when test bus B. B=0-3.
	Note: Involves CCNI register; could be a CCNI problem.
03aN	Port alarm in-service test. Error bit not cleared in ESR N.
032N	Port alarm in-service test. Error returns after clear in ESR N.
03b0	Port alarm in-service test. Summary returns after clear.
	Note: Involves CCNI register; could be a CCNI problem.
03f0	Port alarm in-service test. Software error.
0b00	Could not initialize pack.

`d5-d0` - Hexadecimal raw data bytes relating to the failed diagnostic detected.

d5 - CCNI Error Source Register 5

Each data field contains sixteen bits. The significance of each data field and its individual bits is as follows:

Bit	*Explanation*
15-8	Don't care
7	Error on autonomous switch enable circuit
6	Error on BSR parity
5	Parity error on high byte of data
4	Parity error on low byte of data
3	Address bus parity error
2	Synchronizer error
1	Error on CCB 6
0	Error on CCB 5

d4 - CCNI Error Source Register 4.

Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on CCB 4
14	Error on CCB 3
13	Error on CCB 2
12	Error on CCB 1
11	Error on FTM 4, Unit 6
10	Error on FTM 3, Unit 6
09	Error on FTM 2, Unit 6
08	Error on FTM 1, Unit 6
07	Error on FTM 4, Unit 5
06	Error on FTM 3, Unit 5
05	Error on FTM 2, Unit 5
04	Error on FTM 1, Unit 5
03	Error on FTM 4, Unit 4
02	Error on FTM 3, Unit 4
01	Error on FTM 2, Unit 4
00	Error on FTM 1, Unit 4

d3 - CCNI Error Source Register 3.

Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on FTM 4, Unit 3
14	Error on FTM 3, Unit 3
13	Error on FTM 2, Unit 3
12	Error on FTM 1, Unit 3
11	Error on FTM 4, Unit 2
10	Error on FTM 3, Unit 2
09	Error on FTM 2, Unit 2
08	Error on FTM 1, Unit 2
07	Error on FTM 4, Unit 1
06	Error on FTM 3, Unit 1
05	Error on FTM 2, Unit 1
04	Error on FTM 1, Unit 1
03	Error on TSI 66
02	Error on TSI 56
01	Error on TSI 46
00	Error on TSI 36

d2 - CCNI Error Source Register 2.

Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on TSI 26
14	Error on TSI 16
13	Error on TSI 65
12	Error on TSI 55
11	Error on TSI 45
10	Error on TSI 35
09	Error on TSI 25
08	Error on TSI 15
07	Error on TSI 64
06	Error on TSI 54
05	Error on TSI 44
04	Error on TSI 34
03	Error on TSI 24
02	Error on TSI 14
01	Error on TSI 63
00	Error on TSI 53

d1 - CCNI Error Source Register 1.

Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on TSI 43
14	Error on TSI 33
13	Error on TSI 23
12	Error on TSI 13
11	Error on TSI 62
10	Error on TSI 52
09	Error on TSI 42
08	Error on TSI 32
07	Error on TSI 22
06	Error on TSI 12
05	Error on TSI 61
04	Error on TSI 51
03	Error on TSI 41
02	Error on TSI 31
01	Error on TSI 21
00	Error on TSI 11

d0 - Contents of Bus Status Register on CCNI

Bit	*Explanation*
15-04	Not used.
03	Indicates what side of the network is active. This bit is read by the unit controllers.
02	Indicates what side of the network is active. This bit is written by the MP.
01	ASE (Autonomous Switch Enable) bit 1 = ASE circuit controls the value of Bit 02 0 = MP controls the value of Bit 02 This bit is read by the units.
00	Odd parity over bits 02-00 of this register.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
39	SNVS	Not enough TSIs for CCB test
3A	SAIN	No unmapped slots on a bus

DGN,EQPT,CCI,CFT,X

DIAGNOSTICS, CCI AND BT PACKS

Input Message Format

[I.41251]

```
DGN-EQPT:[<xy>]:CCI-s:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41251]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::CCI-s:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41251] */
   "{ATP|CATP-cc|STF-ppqq}"
[  "wd21 wd20 wd19 wd18 wd17 wd16 wd15 wd14 wd13 wd12 wd11"]
[  "wd10 wd09 wd08 wd07 wd06 wd05 wd04 wd03 wd02 wd01 wd00"]
[  /* Failed entity */]
[  "{CCI-s|BT-sf}"]
;
```

Denial Message

[O.41251.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::CCI-s:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41251.01] */
   /* <explanation of error condition code> */
[  /* {CCI-s|BT-sf} */]
;
```

Autonomous Message

[O.41251]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41251] */
   /* Diagnosed entity:<diagnostic data> */
   "CCI-s:{ATP|CATP-cc|STF-ppqq}"
[  "wd21 wd20 wd19 wd18 wd17 wd16 wd15 wd14 wd13 wd12 wd11"]
[  "wd10 wd09 wd08 wd07 wd06 wd05 wd04 wd03 wd02 wd01 wd00"]
[  /* Failed entity */]
[  "{CCI-s|BT-sf}"]
;
```

[O.41251.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41251.01] */
   /* <explanation of error condition code> */
[  /* {CCI-s|BT-sf} */]
   /* Diagnosed entity */
   "CCI-s"
;
```

Explanation Of Message

This command requests diagnostics to be run on the clock and control interface (CCI) and the bus terminator (BT) packs.

Explanation Of Parameters

`CCI`	- Clock and control interface
`s`	- Cross-connect side number (0 or 1)

CFT - Craft code

vwxy - Diagnostic test number (hexadecimal)

Test	*vwxy*
Address and Data Parity Exercise	0001
CCI Sync and Clock Exercise	0002
ETSI alarm exercise	0004
Sync summary alarm exercise	0008
Unit Summary Alarm Exercise	0010
CCI Power Alarm Exercise	0020*
Bus Status Register Parity Test	0040
Logic Cell Array (LCA) readback Test	0080
Bus Termination (BT) Pack Alarm Exercise	0100
Out-of-service Bus Status Register Diagnostics	0200*
CCI reset register check	0400*
ETSI reset register check	0800*

* Can be run only when the Expanded Cross-Connect Network (ECCN) side is out-of-service

The optional craft diagnostic code field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this diagnostic will be run.

BT - Bus termination

sf - BT identifier

s - Cross-connect side number (0 or 1)

f - Failed BT indicator

f	*Explanation*
1	BT 1
2	BT 2
B	Both BTs

ATP - All tests passed

CATP - Conditional all tests passed

cc - Completion condition code (hexadecimal) (see cc for explanation)

STF - Some tests failed

ppqq - Trouble number for the craft (hexadecimal)

pp - Failing diagnostic number
qq - Test number

ppqq	*Explanation*
0001	Address and Data Parity Exercise failed
0002	CCI Sync and Clock Exercise failed
0004	ETSI alarm exercise failed
0008	Sync summary alarm exercise failed
0010	Unit Summary Alarm Exercise failed
0020*	CCI Power Alarm Exercise failed
0040	Bus Status Register Parity Test failed
0080	Logic Cell Arrays (LCA) readback Test failed
0100	Bus Terminator (BT) Pack Alarm Exercise failed
0200*	Out-of-service Bus Status Register Diagnostics failed
0400*	CCI reset register check failed
0800*	ETSI reset register check failed
8000	CCI failed hardware initialization

* ECCN out-of-service test

wd21, ..., wd00
- Raw data words

These words are related to the diagnostic failure. Each word contains two bytes, and each byte is shown as a 2-digit hexadecimal number.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,CCNI,CFT,X

DIAGNOSE CCNI

Input Message Format

[I.41201]

```
DGN-EQPT:[<xy>]:CCNI-s:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41201]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCNI-s:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41201] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41201.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::CCNI-s:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41201]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41201] */
   /* Diagnosed entity:<diagnostic data> */
   "CCNI-s:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41201.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41201.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "CCNI-s"
;
```

Explanation Of Message

This message requests diagnostics to be run on the cross-connect network interface (CCNI).

Explanation Of Parameters

CCNI - Cross-connect network interface

s - Cross-connect side number (0 or 1)

CFT - Craft

The optional craft diagnostic code field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this diagnostic will be run. All diagnostic tests can be run in or out of service.

vwxy - Diagnostic test number

Test	*vwxy*
Unmask test	0001
Lowbyte/highbyte parity test	0002
ESR/EMR test	0004
Bus status register test	0008
Autonomous switch test	0010
Address bus parity test	0020

ATP - All tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing diagnostic number in hexadecimal form
qq - Test number in hexadecimal form

ppqq	*Explanation*
0110	Autonomous switch enable test: error bit not set
0120	Error bit returns after clear
01f0	Software error
0210	Bus status register test: error bit not set
0220	Error bit returns after clear
02f0	Software error
0311	Low/high byte parity test: low byte parity error not set
0312	High byte parity error not set
0313	Low and high byte errors not set
0320	Errors return after clear
03f0	Software error
0520	Unmask test: unmask failed
05f0	Software error
0620	Mask test: error bits set on entry
06c0	Mask bits failed to set
06f0	Software error
071R	Error bit not set
074R	Overall error summary bit does not set (this may involve a problem with the BX board, so if replacing this pack doesn't solve the problem, replace the BX)
07bR	Overall summary bit returns after clear (this may involve a problem with the BX board, so if replacing this pack doesn't solve the problem, replace the BX)
07cR	ESR/EMR tests: mask bit does not set: R is EMR or ESR number--[1,5] B is bit number--[0,f]
07dR	Mask bit does not clear
07f0	Software error
0810	Address bus parity test: error bit not set
0820	Error bit returns after clear
08a0	Error bit not cleared
08f0	Software error
0b00	Could not initialize pack

CATP - Conditional all tests passed

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

d5 - CCNI Error Source Register 5

Each data field contains sixteen bits. The significance of each data field and its individual bits is as follows:

Bit	*Explanation*
15-8	Don't care
7	Error on autonomous switch enable circuit
6	Error on BSR parity
5	Parity error on high byte of data
4	Parity error on low byte of data
3	Address bus parity error
2	Synchronizer error
1	Error on CCB 6
0	Error on CCB 5

d4 - CCNI Error Source Register 4. Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on CCB 4
14	Error on CCB 3
13	Error on CCB 2
12	Error on CCB 1
11	Error on FTM 4, Unit 6
10	Error on FTM 3, Unit 6
09	Error on FTM 2, Unit 6
08	Error on FTM 1, Unit 6
07	Error on FTM 4, Unit 5
06	Error on FTM 3, Unit 5
05	Error on FTM 2, Unit 5
04	Error on FTM 1, Unit 5
03	Error on FTM 4, Unit 4
02	Error on FTM 3, Unit 4
01	Error on FTM 2, Unit 4
00	Error on FTM 1, Unit 4

d3 - CCNI Error Source Register 3. Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on FTM 4, Unit 3
14	Error on FTM 3, Unit 3
13	Error on FTM 2, Unit 3
12	Error on FTM 1, Unit 3
11	Error on FTM 4, Unit 2
10	Error on FTM 3, Unit 2
09	Error on FTM 2, Unit 2
08	Error on FTM 1, Unit 2
07	Error on FTM 4, Unit 1
06	Error on FTM 3, Unit 1
05	Error on FTM 2, Unit 1
04	Error on FTM 1, Unit 1
03	Error on TSI 66
02	Error on TSI 56
01	Error on TSI 46
00	Error on TSI 36

d2 - CCNI Error Source Register 2. Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on TSI 26
14	Error on TSI 16
13	Error on TSI 65
12	Error on TSI 55
11	Error on TSI 45
10	Error on TSI 35
09	Error on TSI 25
08	Error on TSI 15
07	Error on TSI 64
06	Error on TSI 54
05	Error on TSI 44
04	Error on TSI 34
03	Error on TSI 24
02	Error on TSI 14
01	Error on TSI 63
00	Error on TSI 53

d1 - CCNI Error Source Register 1. Each bit indicates an error on a pack connected to this CCNI.

Bit	*Explanation*
15	Error on TSI 43
14	Error on TSI 33
13	Error on TSI 23
12	Error on TSI 13
11	Error on TSI 62
10	Error on TSI 52
09	Error on TSI 42
08	Error on TSI 32
07	Error on TSI 22
06	Error on TSI 12
05	Error on TSI 61
04	Error on TSI 51
03	Error on TSI 41
02	Error on TSI 31
01	Error on TSI 21
00	Error on TSI 11

d0 - Contents of Bus Status Register on CCNI

Bit	*Explanation*
15-04	Not used.
03	Indicates what side of the network is active. This bit is read by the unit controllers.
02	Indicates what side of the network is active. This bit is written by the MP.
01	ASE (Autonomous Switch Enable) bit 1 = ASE circuit controls the value of Bit 02 0 = MP controls the value of Bit 02 This bit is read by the units.
00	Odd parity over bits 02-00 of this register.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,CI,CFT,X

DIAGNOSE COMMUNICATIONS INTERFACE

Input Message Format

[I.41031]

```
DGN-EQPT:[<xy>]:CI:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::CI:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41031] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::CI:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41031.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41031]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41031] */
   /* Diagnosed entity:<diagnostic data> */
   "CI:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41031.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41031.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "CI"
;
```

Explanation Of Message

This message requests diagnostics to be run on the communications interface (CI). The optional craft (CFT) field specifies which test(s) vwxy is to be run on the CI. The remainder of the CI diagnostics will then not be run.

An in progress message (O.41004) is output every 20 seconds while CI is being diagnosed until the command response or the autonomous report is output.

Explanation Of Parameters

`CI` - Communications Interface

CFT - Craft

vwxy - Diagnostic test number (hexadecimal)

Test	*vwxy*
CI RAM Test	0001*
CI ROM Test	0002
CI DMA Controller Test	0004*
CI LAN Controller Test	0008*
CI Acknowledge Test	0010
CI Timer Test.	0020
CI Debug Port Test	0040*
CI Additional Memory Enable Test	0080*

*Out-of-service test.

ATP - All Tests Passed

CATP - Conditional All Tests Passed

ćć - Hexadecimal completion condition code

To interpret values of ćć see the cc table below.

STF - Some Tests Failed

ppqq - Trouble number for the craft (hexadecimal)

pp - Failing diagnostic number
qq - Test number

ppqq	*Explanation*
0101	RAM Data Fail
0102	RAM Address Fail
0103	RAM Access Fault
0104	RAM Refresh Fail
0105	RAM Parity Fail
0200	ROM Fail
0400	Timer Fail
0500	Input Port Fail
0600	DMA Controller Fail
0700	LAN Controller Fail
0900	Acknowledge Fail
0831	The input port is unstable
0832	The timer failed to generate an interrupt in time
0840	Timeout occurred during loopback
0841	Character overrun occured during loopback
0842	Framing error occurred during loopback
0843	Looped character had a parity error
0844	Received break during loopback test
0845	Transmit and Receive buffers don't match
0846	Too many characters looped back
0847	An unknown condition occurred
0301	Additional memory IS enabled when it should not be
0302	Additional memory IS NOT enabled when it should be

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	*Value*
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code

DGN,EQPT,DISK,CFT,X,VERIFY

DIAGNOSE DISK

Input Message Format

[I.41051]

```
DGN-EQPT:[<xy>]:DISK:[ww]:[CFT-X-vwxy]:[VERIFY];
```

Completion Message

[O.41051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::DISK:[ww]:[CFT-X-vwxy]:[VERIFY] COMPLD
   /* [O.41051] */
   "{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::DISK:[ww]:[CFT-X-vwxy]:[VERIFY] DENY
   mmmm
   /* [O.41051.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41051]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41051] */
   /* Diagnosed entity:<diagnostic data> */
   "DISK:{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41051.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41051.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "DISK"
;
```

Explanation Of Message

This message requests diagnostics to be run on the disk. The optional craft (CFT) field specifies which test(s) is to be run on the DISK. The remainder of the disk diagnostics will then not be run.
The DGN EQPT IN_PROGRESS message is output every 20 seconds while the MC is being diagnosed until the command response or the autonomous report is output.

Explanation Of Parameters

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
DISK ECC Test	0001
DISK Format Test	0002
DISK Head Select Test	0004
DISK Multisector Test	0008
DISK Read/write Test	0010
DISK Seek Test	0020

ATP - All tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing Diagnostic Number (hexadecimal)

qq - Test number (hexadecimal)

ppqq	*Explanation*
0100	DISK Format Fail
0200	DISK Read/write Fail
0300	DISK Seek Fail
0400	DISK Head Select Fail
0500	DISK ECC Fail
0600	DISK Multisector Fail

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	Value
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

VERIFY - Verify

When the VERIFY option is used block checking is performed.

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
SNVS	Problem occurred while accessing DISK

DGN,EQPT,ETSI,CFT,X

DIAGNOSE ETSI

Input Message Format

[I.41261]

```
DGN-EQPT:[<xy>]:ETSI-sqq:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41261]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::ETSI-sqq:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41261] */
[  /* Questionable in-service ETSI */]
[  "ETSI-snn"]
   "{ATP|CATP-kk|STF-ppqq}"
[  "wd15,wd14,wd13,wd12,wd11,wd10,wd09,wd08"]
[  "wd07,wd06,wd05,wd04,wd03,wd02,wd01,wd00"]
;
```

Denial Message

[O.41261.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::ETSI-sqq:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41261.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41261]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41261] */
   /* Diagnosed entity:<diagnostic data> */
   "ETSI-sqq:{ATP|CATP-kk|STF-ppqq}"
[  "wd15,wd14,wd13,wd12,wd11,wd10,wd09,wd08"]
[  "wd07,wd06,wd05,wd04,wd03,wd02,wd01,wd00"]
;
```

[O.41261.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41221.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "ETSI-sqq"
;
```

Explanation Of Message

This message requests diagnostics to be run on an expanded time slot interchanger (ETSI).

Explanation Of Parameters

ETSI - Expanded Time slot Interchanger

s - Side number (0 or 1)

qq - Unit number (01 through 16)

CFT - Craft code

vwxy - Diagnostic test number (hexadecimal)

Test	*vwxy*
Clock and Sync exercise	0001
Control RAM and data RAM memory test	0002*
Address and data parity exercise	0004
Power monitor exercise	0008
Data source time slot exercise	0010
In-service port alarm exercise	0020
Out-of-service port alarm exercise	0040*
Data source and access test	0080
Receive multiplexer port alarm	0100
Control RAM parity exercise	0400
Unmapped code test	0800*
Data RAM unmapped test	1000*

* Can only be tested if the ETSI is out of service

The optional craft diagnostic test code field indicates which test(s) of the diagnostic is to be run under craft control. If this field is not entered, all tests of this diagnostic will be run.

nn - Unit number of the questionable in-service ETSI pack, (01 through 16)

ATP - All tests passed

This applies to the diagnostic of the ETSI pack, its connection with other in-service ETSIs and its cable.

STF - Some tests failed

This applies to the diagnostic of the ETSI pack, its connection with other in-service ETSIs and its cable.

ppqq - Trouble number for the craft (hexadecimal)

pp - Failing diagnostic number
qq - Test number

ppqq	*Explanation*
0001	Clock and sync exercise failed
0002	Control RAM and data RAM memory test failed
0004	Address and data parity exercise failed
0008	Power monitor exercise failed
0010	Data source time slot exercise failed
0020	In-service port alarm exercise failed
0040	Out-of-service port alarm test failed
0080	Data source and access test failed
0100	Receive multiplexer port alarm test failed
0200	Transmit demultiplexer port alarm test failed
0400	Control RAM parity exercise failed
0800	Unmapped code test failed
1000	Data RAM unmapped test failed
8000	ETSI Hardware initialization failed

wd15, ..., wd00
- Raw data

Sixteen raw data words relating to the failed diagnostic detected. Each data word contains two bytes, and each byte is presented as a two-digit hexadecimal number. The interpretation of raw data values cannot be done by a craftsperson.

wd15 - Low-level Diagnostic Actual Data
wd14 - Low-level Diagnostic Expected Data
wd13 - Low-level Diagnostic Return Code
wd12 - CCI ETSI Mask Register
wd11 - CCI ETSI ESR4
wd10 - CCI ETSI ESR3
wd09 - CCI ETSI ESR2
wd08 - CCI ETSI ESR1
wd07 - ETSI Receive Demultiplexer Mask Register
wd06 - ETSI Receive Multiplexer Mask Register
wd05 - ETSI Data Ram Alarm Register
wd04 - ETSI Control Ram Port Alarm Register
wd03 - ETSI Control Ram Exercise-Status Register
wd02 - ETSI Transmit Demultiplexer Status
wd01 - ETSI Receive Multiplexer Status
wd00 - ETSI Circuit Pack Summary Register

CATP - Conditional all tests passed

kk - Hexadecimal completion condition code

To interpret the values of kk see cc below.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
10	ENEQ	Unit is not equipped
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code
A9	SNVS	No unmapped time slot
CE	SAOS	CCI is out of service

DGN,EQPT,ETSIS,ECCN,ALL

DIAGNOSTICS

Input Message Format

[I.41271]

```
DGN-EQPT:[<xy>]:ETSIS:[ww]:ECCN-s:ALL;
```

Completion Message

[O.41271]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::ETSIS:[ww]:ECCN-s:ALL COMPLD
   /* [O.41271] */
   "s01,r,nn:s02,r,nn:s03,r,nn:s04,r,nn:s05,r,nn:s06,r,nn:\
s07,r,nn:s08,r,nn"
   "s09,r,nn:s10,r,nn:s11,r,nn:s12,r,nn:s13,r,nn:s14,r,nn:\
s15,r,nn:s16,r,nn"
   /* TOTAL ETSIs tt*/
   "TOTAL:tt"
   "COND-kk"
;
```

Note: For each ETSI pack that failed diagnostics a separate STF message will be output.

Denial Message

[O.41271.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::ETSIS:[ww]:ECCN-s:ALL DENY
   mmmm
   /* [O.41271.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41271]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41271] */
   /* Diagnosed entity */
   "ECCN-s-ETSIS"
   /* diagnostic data */
   "s01,r,nn:s02,r,nn:s03,r,nn:s04,r,nn:s05,r,nn:s06,r,nn:\
s07,r,nn:s08,r,nn"
   "s09,r,nn:s10,r,nn:s11,r,nn:s12,r,nn:s13,r,nn:s14,r,nn:\
s15,r,nn:s16,r,nn"
   /* TOTAL ETSIs tt */
   "TOTAL:tt"
   "COND-kk"
;
```

[O.41271.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41271.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "ECCN-s-ETSIS"
;
```

Explanation Of Message

This message requests diagnostic tests to be run on ALL expanded time slot interchangers (ETSIs) on an expanded cross-connect network (ECCN) side.

Explanation Of Parameters

ETSIS - Expanded time slot interchangers

ECCN - Expanded cross-connect network

s - Side number (s = 0 or 1)

pa - Priority of action.

pa	*Explanation*
M^	Manual response

(The "^" represents a blank space)

r - Diagnostic status for individual ETSI:

r	*Explanation*
A	ATP COMPL (All tests passed)
C	CATP COMPL (Conditional all tests passed)
S	STF COMPL (Some tests failed)
-	unequipped ETSI

nn - Condition code for each ETSI (-- for unequipped ETSI)

r	*nn*	*Explanation*
A	00	No condition
C	03	Subject entity is in service
C	A9	No unmapped time slot, data source and access test not run
S	00	No condition

tt - Total number of ETSIs equipped in the ECCN side (01 through 16)

kk - Hexadecimal completion condition code for the whole message

To interpret values of kk see cc below.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code
A9	SNVS	No unmapped time slot
CE	SAOS	CCI is out of service
CF	SNVS	SYNC is inservice but failed
D1	SNVS	CCI is not present
D4	SNVS	CCI is inservice but failed

DGN,EQPT,IN,PROGRESS

DIAGNOSTIC IN PROGRESS

Input Message Format

Not applicable.

Completion Message

[O.41004]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::<entity>:[ww] IN_PROGRESS
;
```

Denial Message

Not applicable.

Autonomous Message

[O.41005]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.41005] */
   "DGN:<entity>:IN_PROGRESS"
;
```

Explanation Of Message

This message indicates that the diagnosis of the specified entity is in progress. This message will be output every 20 seconds while waiting for the response to the diagnostic command or the autonomous diagnostic report to be output.

Explanation Of Parameters

entity

- The name of the entity being diagnosed

entity	*Explanation*
CCB	Cross-connect buffer
CCI	Clock and control interface
CCNI	Cross-connect network interface (NonCEF)
CI	Communications interface
DISK	Disk
DSPI	Digital signal processing interface
FC	Format converter
FLI	Facility line interface
FMT	Formatter
FTMI	Facility terminating module interface
LINK	Link
MC	Main controller
MIU	Multiplexer interface unit
MP	Main processor
MXR	Multiplexer
NPC	Network processing circuit
SSC	Secondary storage controller
SYNC	Synchronizer
TAPE	Tape
TLI	Timing link interface
TSI	Time slot interchange
ETSI	Expanded time slot interchanger
XC	Cross-connect
UC	Unit controller

DGN,EQPT,LINK,CFT,X

DIAGNOSE LINK

Input Message Format

[I.41011]

```
DGN-EQPT:[<xy>]:LINK-a:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::LINK-a:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41011] */
   "{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::LINK-a:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41011] */
   /* Diagnosed entity:<diagnostic data> */
   "LINK-a:ATP"
;
```

[O.41011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41011] */
   /* Diagnosed entity:<diagnostic data> */
   "LINK-a:STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

[O.41011.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41011.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "LINK-a"
;
```

Explanation Of Message

This message requests that diagnostic tests be run on an administrative link.

Explanation Of Parameters

CFT - Craft

vwxy - Diagnostic test number

test	**vwxy**
Link Loopback Test	0001
Input Port & Timer Test	0002

LINK - Link

a - Administrative link number (1 through 6)

ATP - All tests passed

STF - Some tests failed

ppqq - Diagnostic trouble number

ppqq	*Explanation*
0100	Link fail
0300	DUART test fail
0400	Timer test fail
0500	Input/output port test fail

pp - Failing diagnostic number (hexadecimal)

qq - Test number (hexadecimal)

d5,
d4,
...,
d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected

These data bytes can only be interpreted by an AT&T designer.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SNVS	Hardware mismatch or not present
SNVS	Clock absent for XPC to loop back
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code

DGN,EQPT,MC,CFT,X

DIAGNOSE MAIN CONTROLLER

Input Message Format

[I.41001]

```
DGN-EQPT:[<xy>]:MC:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::MC:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41001] */
   "{ATP|CATP-éé|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::MC:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41001]

```
   yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41001] */
   /* Diagnosed entity: <diagnostic data> */
   "MC:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41001.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41001.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "MC"
;
```

Explanation Of Message

This message requests diagnostics to be run on the main controller (MC). The optional CFT field specifies which test(s) is to be run on the MC.
The DGN <entity> IN PROGRESS message (O.41004) is output every 20 seconds while the MC is being diagnosed until the command response or the autonomous report is output.

Explanation Of Parameters

MC - Main controller

CFT - Craft

vwxy - Diagnostic test number (hexadecimal)

TEST	*vwxy*
MP Test	0001
SSC Test	0002
DISK Test	0004†
TAPE Test	0008†
CI Test	0010
EMTC/MTC Acknowledge Test	0020
EMTC/MTC Interrupt Test	0040*
EMTC/MTC Sanity Reg. Test	0080*
EMTC/MTC LAN Disable Test	0100*

EBX/BX RAM Test	0200*
EBX/BX Interrupt Test	0400*
EBX/BX Acknowledge Test	0800
EBX/BX Data/Address Parity Test	1000*

*Out-of-service test (not performed if MC is in-service)
†In-service test (not performed if MC is out-of-service or in maintenance condition (MCOND))

ATP - All tests passed

CATP - Conditional all tests passed

cc - Hexadecimal completion condition code

To interpret values of cc see the table of cc values below.

STF - Some tests failed

ppqq - Trouble number for the craft (hexadecimal)

pp - Failing diagnostic number
qq - Test number

ppqq	*Explanation*
0100	MP Fail
0200	CI Fail
0300	SSC Fail
0400	DISK Fail
0500	TAPE Fail
0600	EMTC/MTC Interrupt Fail
0700	EMTC/MTC Acknowledge Fail
0800	EMTC/MTC Sanity Reg. Fail
0900	EMTC/MTC LAN Disable Fail
0A01	EBX/BX RAM Data Fail
0A02	EBX/BX RAM Address Fail
0A03	EBX/BX RAM Access Fail
0A04	EBX/BX RAM Refresh Fail
0A05	EBX/BX RAM Parity Fail
0B00	EBX/BX Interrupt Fail
0C00	EBX/BX Acknowledge Fail
1000	EBX/BX Data/Address Parity Fail

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

These data bytes can only be interpreted by an AT&T designer.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SAOS	Subject entity is out of service
SNVS	Hardware mismatch or not present
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code
SNVS	TAPE is not present
SNVS	TAPE unit is not restored

DGN,EQPT,MP,CFT,X

DIAGNOSE MAIN PROCESSOR

Input Message Format

[I.41021]

```
DGN-EQPT:[<xy>]:MP:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::MP:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41021] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::MP:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41021.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41021] */
   /* Diagnosed entity:<diagnostic data> */
   "MP:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41021.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41021.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "MP"
;
```

Explanation Of Message

This message requests diagnostics to be run on the main processor (MP). The optional craft (CFT) field specifies which test(s) vwxy is to be run on the MP. The remainder of the MP diagnostics will then not be run.

An in-progress message (O.41004) is output every 20 seconds while the MP is being diagnosed until the command response or the autonomous report is output.

Explanation Of Parameters

MP - Main Processor

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
MP RAM Test	0001*
MP ROM Test	0002
MP Timer Test	0008
MP DMA Controller Test	0010*
MP LAN Controller Test	0020*
MP Interrupt Test	0040*
MP Acknowledge Test	0080

*Out-of-service test.

ATP - All tests passed

CATP - Conditional all tests passed

cc - Completion condition code (hexadecimal)

To interpret these codes see cc.

STF - Some tests failed

ppqq - Trouble number

pp - Failing diagnostic number (hexadecimal)

qq - Test number (hexadecimal)

ppqq	*Explanation*
0101	RAM Data Fail
0102	RAM Address Fail
0103	RAM Access Fail
0104	RAM Refresh Fail
0105	RAM Parity Fail
0200	ROM Fail
0400	Timer Fail
0500	Input Port Fail
0600	DMA Controller Fail
0700	LAN Controller Fail
0800	Interrupt Fail
0900	Acknowledge Fail.

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	*Value*
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

An in-progress message (O.41004) is output every 20 seconds while the MP is being

diagnosed until the command response or the autonomous report is output.

cc mmmm - Error condition code

cc	mmmm	*Explanation*
03	SAIS	Subject entity is in service
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,NPC

DIAGNOSE NETWORK PROCESSING CIRCUITS

Input Message Format

Nonhierarchical

[I.41361]

```
DGN-EQPT:[<xy>]:NPC-[s]abc&&-[t]def:[ww];
```

Hierarchical

[I.41361]

```
DGN-EQPT:[<xy>]:NPC-uv-m-np&&&-uv-k-qr:[ww];
```

Completion Message

Nonhierarchical

[O.41361]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-[s]abc&&-[t]def:[ww] COMPLD
   /* [O.41361] */
   /* ENTITY*/
   "NPC-[s]ghi&&-[t]jkl"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "TOT:ttt"
   "COND-nn"
;
```

Hierarchical

[O.41361]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-uv-m-np&&&-uv-k-qr:[ww] COMPLD
   /* [O.41361] */
   /* ENTITY*/
   "NPC-ab-c-de&&&-ab-c-fg"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "TOT:ttt"
   "COND-nn"
;
```

Denial Message

Nonhierarchical

[O.41361.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.41361.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.41361.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
   mmmm
   /* [O.41361.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Nonhierarchical

[O.41361]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41361] */
   /* Diagnosed entity */
   "NPC-[s]ghi&&-[t]jkl"
   /* <diagnostic data> */
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "TOT:ttt"
   "COND-nn"
;
```

Hierarchical

[O.41361]

```
    yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41361] */
   /* Diagnosed entity */
   "NPC-ab-c-de&&&-ab-c-fg"
   /* <diagnostic data> */
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk:r,kk"
   "TOT:ttt"
   "COND-nn"
;
```

Explanation Of Message

This command requests the diagnosis of a range of network processing circuits (NPCs) in a facility terminating unit. It cannot be used to request the diagnosis of NPCs in a digital signal processing unit.

This command will be denied if the requested NPC range crosses a unit boundary. This message cannot be used to request the diagnosis of NPCs in a DS3.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of a range.

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of a range.

[s]abc and [t]def must be in the same unit.

[s]ghi
- Lowest NPC number in the same FTM as [s]abc, if not equal to [s]abc

[t]jkl
- Highest NPC number in the same FTM as [t]def, if not equal to [t]def

The values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np
- Hierarchical NPC number, denoting the beginning of a range.

uv-k-qr
- Hierarchical NPC number, denoting the end of a range.

ab-c-de
- Lowest NPC number in the same FTM as uv-m-np, if not equal to uvmnp

ab-c-fg
- Highest NPC number in the same FTM as uv-k-qr, if not equal to uvkqr

uv,ab
- Unit number

m,k,c
- Module number

np,qr,de,fg
- NPC number within the module

The values are listed below:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

TOT - Total

ttt - Total number of equipped NPCs in a domestic FTM. The range of ttt is (001 through 040).

pa - Priority of action

pa	*Explanation*
**	Major
M	Manual

r - Result of diagnostics

r	*Explanation*
A	All Tests Passed
C	Conditional All Tests Passed
S	Some Test Failed
D	Diagnostics denied
N	NPC is not in the range
-	NPC is not equipped

If the diagnostic result is Some Test Failed, one output message will be generated for each NPC.

kk - Completion condition code for each NPC diagnostic (hexadecimal)

To interpret values of kk see cc in the condition code table. Some special values are given below.

r	*kk*
N	--
-	--

nn - Completion condition code for the whole message (hexadecimal)

To interpret values of nn see cc in the condition code table.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
13	ENEQ	FTMI is not equipped
14	SAOS	FTMI is out of service

cc	mmmm	*Explanation*
15	ENEQ	NPC is unequipped
36	ENEQ	DSPI not equipped
37	SAOS	DSPI out-of-service
40	SAOS	FC out of service
43	SROF	(NPC) Hardware mismatch
0B	IDNV	Invalid CEPT NPC
FD	IDRG	NPC range crosses unit boundary

DGN,EQPT,NPC,SIDE,CFT,X

DIAGNOSE NPCs

Input Message Format

Nonhierarchical

[I.41351]

```
DGN-EQPT:[<xy>]:NPC-[s]abc:[ww]:[[SIDE-s]:[CFT-X-vwxy]];
```

Hierarchical

[I.41351]

```
DGN-EQPT:[<xy>]:NPC-uv-m-np:[ww]:[[SIDE-s]:[CFT-X-vwxy]];
```

Completion Message

Nonhierarchical

[O.41351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-[s]abc:[ww]:[[SIDE-s]:[CFT-X-vwxy]] COMPLD
   /* [O.41351] */
   "[NPC-[s]abc[&&-[t]def]],TYPE-mnxyz,{ATP|CATP-cc|STF-ppqq,\
<d5>,<d4>,<d3>,<d2>,<d1>,<d0>}"
[  /* Unit Number:Unit Plug Number,ECCN Plug Number\
[,Bit Number and Direction] */]
[  "UNIT-qq:UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
;
```

Hierarchical

[O.41351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-uv-m-np:[ww]:[SIDE-s]:[CFT-X-vwxy] COMPLD
   /* [O.41351] */
   "[NPC-uv-m-np[&&&-uv-m-qr]],TYPE-mnxyz,{ATP|CATP-cc|\
STF-ppqq,<d5>,<d4>,<d3>,<d2>,<d1>,<d0>}"
[  /* Unit Number:Unit Plug Number,ECCN Plug Number\
[,Bit Number and Direction] */]
[  "UNIT-qq:UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
;
```

Denial Message

Nonhierarchical

[O.41351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-[s]abc:[ww]:[SIDE-s]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41351.01] */
   /* <explanation of error condition code> */
   /* TYPE-mnxyz */
;
```

Hierarchical

[O.41351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::NPC-uv-m-np:[ww]:[SIDE-s]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41351.01] */
   /* <explanation of error condition code> */
   /* TYPE-mnxyz */
;
```

Autonomous Message

Nonhierarchical

[O.41351]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41351] */
   /* Diagnosed entity:<diagnostic data> */
   "NPC-[s]abc[&&-[t]def][,SIDE-s],TYPE-mnxyz:\
{ATP|CATP-cc|STF-ppqq,<d5>,<d4>,<d3>,<d2>,<d1>,<d0>}"
[  /* Unit Number:Unit Plug Number,ECCN Plug Number\
[,Bit Number and Direction] */]
[  "UNIT-qq:UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
;
```

[O.41351.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41351.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "NPC-[s]abc[&&-[t]def][,SIDE-s]"
;
```

Hierarchical

[O.41351]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41351] */
   /* Diagnosed entity:<diagnostic data> */
   "NPC-uv-m-np[&&&-uv-m-qr][,SIDE-s],TYPE-mnxyz:\
{ATP|CATP-cc|STF-ppqq,<d5>,<d4>,<d3>,<d2>,<d1>,<d0>}"
[  /* Unit Number:Unit Plug Number,ECCN Plug Number\
[,Bit Number and Direction] */]
[  "UNIT-qq:UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
;
```

[O.41351.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmmm
   /* [O.41351.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "NPC-uv-m-np[&&&-uv-m-qr][,SIDE-s]"
;
```

Explanation Of Message

This message requests diagnostics to be run on a single network processing circuit (NPC) in a facility terminating unit (FTU) or a digital signal processing unit (DSPU). For a Capacity Expansion Frame (CEF), if the NPC is in a DSPU (that is, NPC types MB, SR, MJ, or CB), this message also initiates the continuity test for the cable between the NPC and its corresponding expanded time slot interchanger (ETSI). However, the continuity test will not be run if the optional craft code is entered.

This diagnostics request is not valid for NPCs in a DS3 unit (DS3U).

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

SIDE - Side

s - Side number (s = 0 or 1)

Side of the duplicated NPC circuit pack in a DSPU that is to be diagnosed.

CFT - Craft

vwxy - Diagnostic test number

The optional craft code field indicates the diagnostic test(s) to be run. If this field is omitted, all tests of this diagnostic will be run. If the NPC is in-service, only in-service diagnostics are run.

Craft codes for the DA type NPC are listed below:

Test	*vwxy*
CI stuck bit test	0001*
CI sanity timer test	0002
CI serial link test	0004*
CC configuration register test	0008
CC IRAM stuck bit test	0010
Miscellaneous CC tests	0020*
CC data parity test	0040
Transceiver alarm text	0080
EDCC memory test	0100*
BPV and ZCS tests	0200
CC receive stuff and CC->TX timeslot test	0400
Slip detector test	0800
Mode dependent system tests	1000
Continuity tests	2000
Miscellaneous register tests	4000
Transceiver BIST	8000

* In-service tests

Craft codes for the FTU NPC are listed below:

Test	*vwxy*
Communication Interface (CI) stuck bit test	0001
CI sanity timer test	0002
CI serial link test	0004
Channel Controller (CC) config stuck bit test	0008
CC data RAM stuck bit test	0010*
CC data parity test	0020*
Memory test	0040
Bipolar violation test	0080*
Stuff channel test	0100*
Slip detector test	0200*
Zero code suppression test	0400*
Mode dependent system test	0800*
CC tests	1000*
Transceiver tests	2000*
HSCC tests Data Link Controller (DLC) circuit pack level tests (DS NPC only)	4000*
DLC digroup level tests (DS NPC only)	8000*

Notes:

1. Only tests 1000 and 4000 can be run when the NPC is in service.
2. If both the requested NPC and its mate are out-of-service, any test may be run.

If the requested NPC is out-of-service and its mate is in service, only the tests marked with "" can be run.

Craft codes for the MB type NPC are listed below:

Test	*vwxy*
RAM test	0001*
Interrupt and mask register test	0002
Data processing error test	0004
Clock error test	0008
Serial interface error test	0010
Control memory 0 test	0020
Control memory 1 test	0040
Conference 0 test	0080
Conference 1 test	0100

* Out-of-service only test

Craft codes for the MJ type NPC are listed below:

Test	*vwxy*
Exercise the clock circuitry	0001
Exercise the Processor Interface Device	0002
Exercise the input data parity checker and ECD data input	0040
Exercise the ECD, the MJU control memory parity checker and data path to output	0080
Exercise the MJU control prom	0100
Exercise the MJU output block	0200
Exercise the control code and overwrite state machine	0400
Exercise the FTU PROM and secondary channel state machine	0800
Verify propagation of alarms to the DSPI circuit pack	2000
Run all out-of-service tests	8000

Note: Test 8000 may only be run on out-of-service circuit packs.

Craft codes for the SR type NPC are listed below:

Test	*vwxy*
Exercise the clock circuitry	0001
Exercise the Processor Interface Device	0002
Exercise the input data interface	0040
Exercise the data path internal to the SRM pack	0080
Exercise the output block of the SRM pack	0200
Exercise the bus feeding the output block	0800
Run all out-of-service tests	8000

Note: Test 8000 may only be run on out-of-service circuit packs.

[t]def
- The 3- or 4-digit nonhierarchical MB type NPC number ([t]def= [s]abc + 1)

uv-m-qr
- Hierarchical MB type NPC number

qr - MB type NPC number within module "m" (qr = np +1).

TYPE - Type

mnxyz - NPC type identifier

mnxyz	*NPC type*
DExyz	Facility Terminating Unit NPC
DSxyz	SLC Carrier Type NPC
MB100	Digital Multipoint Bridge
MJ100	Multipoint Junction Unit
SR100	Subrate Multiplexer Unit

qq - Unit number (01 through 16)

UPN - Unit plug number

upn - The value of the UPN.

XPN - ECCN plug number

xpn - The value of the XPN

BIT - Bit number of the data bus

TD - Transmit data

RD - Receive data

.

bb - Bit number (00 through 15)

The optional line which contains the unit, port, and pin information will only

be output if the NPC is in a DSPU and if the continuity check between the NPC and the ECCN is fails. In addition, the completion condition must always be the STF. The valid values and the associated information of the UPN and XPN are shown below. Note that, the numbers shown in the output are exactly the same as the numbers on the backplane.

Unit Plug No.	ECCN Plug No.	Side	Direction	Associated DSP Packs
P1	PqqA*	0	Receive	1st and 2nd DSP Packs
P2	PqqE	0	Transmit	1st and 2nd DSP Packs
P3	PqqB	0	Receive	3rd and 4th DSP Packs
P4	PqqF	0	Transmit	3rd and 4th DSP Packs
P5	PqqC	0	Receive	5th and 6th DSP Packs
P6	PqqG	0	Transmit	5th and 6th DSP Packs
P7	PqqD	0	Receive	7th and 8th DSP Packs
P8	PqqH	0	Transmit	7th and 8th DSP Packs
P10	PqqA	1	Receive	1st and 2nd DSP Packs
P11	PqqE	1	Transmit	1st and 2nd DSP Packs
P12	PqqB	1	Receive	3rd and 4th DSP Packs
P13	PqqF	1	Transmit	3rd and 4th DSP Packs
P14	PqqC	1	Receive	5th and 6th DSP Packs
P15	PqqG	1	Transmit	5th and 6th DSP Packs
P16	PqqD	1	Receive	7th and 2nd DSP Packs
P17	PqqH	1	Transmit	7th and 8th DSP Packs

* qq is the unit number

The bit number (that is, BIT = TD RD bb) will be shown if the software identifies the bit of the data bus as the failed one.

ATP - All tests passed

All tests passed on the diagnostic of NPC

CATP - Conditional all tests passed

The reason for the conditional completion is indicated by cc.

STF - Some tests failed

Some tests failed on the diagnostic of NPC.

ppqq - Trouble number for the craft

pp Failing diagnostic number (hexadecimal)

qq Test number (hexadecimal)

Trouble numbers for the DA type NPC are listed below

ppqq	*Cause of failure*
0001	TG191 Initialization - Phase 1
0002	TG191 Initialization - Phase 2
0003	digroup physical type verification
0004	devices/registers on the FC could not be accessed
0005	devices/registers on the FTMI could not be accessed
01--	TG191 initialization test
02--	CI stuck bit test
03--	CI sanity test
04--	CI serial link test
05--	CC configuration register stuck bit test
06--	CC IRAM stuck bit test
07--	CC loss of clock test
08--	CC sync error detector test
09--	CC sync and loss of clock error detector test
OA--	CC configuration register parity checker test
OB--	CC IRAM parity checker test
OC--	CC transmit data parity error detector test
OD--	CC receive data parity error detector test
OE--	CC receiver data checker test
OF--	TG191 memory test
10--	bipolar violations test
11--	zero code suppression test
12--	CC receive stuff register test
13--	CC to transceiver stuff test
14--	receive slip detection test
15--	mode dependent system tests
16--	transceiver provisioning test
17--	AIS test
18--	RFA test
19--	CFA test
1A--	LMA test
1B--	RMA test
1C--	CRC test
1D--	PRISM stuck bit test
1E--	PRISM internal loopback test
1F--	PRISM external loopback test
20--	signaling insertion and extraction test
21--	transparent mode test
22--	D4 framing mode initialization test
23--	CC to format converter continuity test
24--	ESF framing mode initialization test
25--	PRISM loopback initialization test
26--	CC to transceiver continuity test
27--	miscellaneous register test
28--	receive framer alarm test

29--	transceiver receive synchronizer alarm test
2A--	transceiver transmit alarm test
2B--	PRISM initialization test
2C--	transceiver BST
2D--	downloadable diagnostic interface test

Note: "--" indicates a two-digit hexadecimal value indicating a decision point within the source program. This value can only be interpreted by a programmer with access to the source program.

Trouble numbers for DE and DS type NPCs are listed below

ppqq	*Cause of failure*
0001	DDC initialization failure
0002	DDC initialization failure - second attempt
0003	Unable to read DDC circuit pack type or unknown DDC type
0004	Unable to read/pest DDC via the FC
0005	Unable to read/pest DDC via the FTMI
0009	Facility Processor on In-service NPC is insane
0100	Communication Interface Stuck Bit failure
0200	Communication Interface Sanity Timer failure
0300	Communication Interface Serial Link failure
0400	Channel Controller Configuration Register Stuck Bit failure
0500	Channel Controller Instruction Ram Stuck Bit failure
0600	DDC Memory failure
0700	Bipolar Violations failure
0800	Stuff Channel Programmability failure
0900	Slip Detector failure
0A00	Zero Code Suppression failure
0B00	Mode Dependent System failure
0C00	Channel Controller Loss of Clock Exercise failure
0D00	Channel Controller Sync Error Detector failure
0E00	Channel Controller Clock & Sync Error Detector failure
0F00	Channel Controller Configuration Register Parity Checker failure
1000	Channel Controller Configuration Register Parity Checker failure
2000	Channel Controller Instruction RAM Parity Checker failure
3000	Channel Controller Receive Data Parity failure
4000	Channel Controller Transmit Data Parity failure
5000	Transceiver Memory failure
6000	Transceiver Alarm failure
A000	SLC96 DLC Stuck Bit failure
B000	SLC96 DLC Update Mask failure
C000	SLC96 DLC Framer failure
D000	SLC96 DLC Alarm failure
E000	SLC96 Loss of Data Link failure
F000	SLC96 XMT/RCV failure

Trouble numbers for MB, SR, MJ, and CP type NPCs are listed below:

ppqq	*Cause of failure*
0F00	Error Summary Failure
0F01	Hardware Fail on ECCI pack
0F02	Hardware Fail on ETSI pack
0F03	RCV Network Data Bus Failure badbit, baddirection & badport
0F04	RCV Network Data Bus Failure baddirection & badport
0F05	XMIT Network Data Bus Failure badbit, baddirection & badport
0F06	XMIT Network Data Bus Failure baddirection & badport
0F07	Pack hardware failure
0F0A	Parent pack failed, for DSP packs *
0F0C	Network Parity or Frame Sync. or Network Data Bus error

Trouble numbers for only the MB type NPCs are listed below:

ppqq	*Cause of failure*
0F08	Pack Failed to Initialize for CT
0F0B	DMB clock problem during initialization

Trouble numbers for the MJ type NPCs are listed below (xx indicates ignore the value):

ppqq	*Cause of failure*
01xx	Failure occurred while exercising the clock circuitry
02xx	Failure occurred while exercising the Processor Interface Device
03xx	Failure occurred while exercising the RAM test
05xx	Multipoint Junction Unit (MJU) circuit pack initialization failed
06xx	Failure occurred while exercising the control RAM parity checker test
07xx	Failure occurred while exercising the input data parity checker and ECD data input
08xx	Failure occurred while exercising the ECD, the MJU control memory parity checker and data path to output
09xx	Failure occurred while exercising the MJU control PROM
0Axx	Failure occurred while exercising the MJU output block
0Bxx	Failure occurred while exercising the control code and over-write state machine
0Cxx	Failure occurred while exercising the Facility Terminating Unit(FTU) PROM and secondary channel state machine
0Dxx	Failure occurred while exercising the CCM control memory parity checker and data path to output
0Exx	Unable to verify propagation of alarms to Digital Signal Processing Interface (DSPI) interrupt register

Trouble numbers for SR type NPCs are listed below (xx indicates ignore the value):

ppqq	*Cause of failure*
01xx	Failure occurred while exercising the clock circuitry
02xx	Failure occurred while exercising the Processor Interface Device (PID)
03xx	Failure occurred while exercising the RAM test
05xx	Failure occurred while running circuit pack initialization
06xx	Failure occurred while exercising the control RAM parity checker test
07xx	Failure occurred while exercising the input data interface
08xx	Failure occurred while exercising the data path internal to the subrate multiplexer
09xx	Failure occurred while exercising the multiplexer state machine
0Axx	Failure occurred while exercising the output block of the SRM pack
0Bxx	Failure occurred while exercising the internal data RAMS
0Cxx	Failure occurred while exercising the bus feeding the output block
0Dxx	Unable to verify propagation of alarms to DSPI interrupt register

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected. For CPR, DMB, MJU, and SRM circuit packs, the values of d5-d0 are the same.

Data Byte	*Value*
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

cc mmmm - Error condition code

cc	mmmm	*Explanation*
03	SAIS	Subject entity is in service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
13	ENEQ	FTMI is not equipped
14	SAOS	FTMI is out of service
15	ENEQ	NPC is unequipped
17	SAOS	SYNC is out of service
36	ENEQ	DSPI not equipped
37	SAOS	DSPI out-of-service
38	ENEQ	FC not equipped
40	SAOS	FC out of service
43	SROF	(NPC) Hardware mismatch
0B	IDNV	Invalid CEPT NPC
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code
FD	IDRG	NPC range crosses unit boundary
C2	SNVS	ETSI cannot be initialized when ECCN side is OOS or inservice but pested
C3	SNVS	XMIT continuity test won't be run: CFT code specified
C4	SNVS	XMIT continuity test won't be run: no XMIT timeslots available
C7	SNVS	RCV continuity test won't be run: no DMB timeslots available
C8	SNVS	RCV continuity test won't be run: at least one timeslot in use
CB	SNVS	Skip error summary since adjacent pack not inservice or pested
CE	SAOS	CCI is out of service
E0	ENEQ	ETSI not equipped, not in service, or failed

DGN,EQPT,SSC,CFT,X

DIAGNOSE SSC

Input Message Format

[I.41041]

```
DGN-EQPT:[<xy>]:SSC:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SSC:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41041] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SSC:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41041.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41041]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41041] */
   /* Diagnosed entity:<diagnostic data> */
   "SSC:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41041.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41041.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "SSC"
;
```

Explanation Of Message

This message requests diagnostics to be run on the secondary storage controller (SSC). The optional craft (CFT) field specifies which test(s) vwxy is to be run on the SSC. The remainder of the SSC diagnostics will then not be run.
A DGN EQPT IN_PROGRESS message is output every 20 seconds while the SSC is being diagnosed until the command response or autonomous report is output.

Explanation Of Parameters

SSC - Secondary storage controller

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
SSC RAM Test	0001*
SSC ROM Test	0002
SSC Timer Test	0004
SSC FIFO Interface Test	0008
SSC Command/Response Port Test	0010
Disk Controller Test	0020
SSC Acknowledge Test.	0040

*Out-of-service test

ATP - All tests passed

CATP - Conditional all tests passed

cc - Hexadecimal condition code

To interpret values of cc see the table of cc values below.

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing diagnostic number (hexadecimal)

qq - Test number (hexadecimal)

ppqq	*Explanation*
0101	RAM Data Fail
0102	RAM Address Fail
0103	RAM Access Fault
0104	RAM Refresh Fail
0105	RAM Parity Fail
0200	ROM Fail
0400	Timer Fail
0500	Input Port Fail
0600	FIFO Interface Fail
0700	Command/Response Fail
0800	Disk Controller Fail
0900	Acknowledge Fail

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	*Value*
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code

DGN,EQPT,SYNC

DIAGNOSE SYNCHRONIZER

Input Message Format

[I.41101]

```
DGN-EQPT:[<xy>]:SYNC-a:[ww];
```

Completion Message

[O.41101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww] COMPLD
   /* [O.41101] */
   "ATP"
;
```

[O.41101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww] COMPLD
   /* [O.41101] */
   "CATP-cc"
;
```

[O.41101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww] COMPLD
   /* [O.41101] */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

Denial Message

[O.41101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww] DENY
   mmmm
   /* [O.41101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41101]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41101] */
   /* Diagnosed entity:<diagnostic data> */
   "SYNC-a:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41421.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41421.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "SYNC-a"
;
```

Explanation Of Message

This message runs diagnostics on the digital phase-locked loop (DPLL) and the time base (TB) of the specified synchronizer side.

Explanation Of Parameters

SYNC - Synchronizer

a - Synchronizer side (0 or 1)

ATP - All tests passed

CATP - Conditional all tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

ppqq	*Explanation*
0100	Sync diagnostic command returned error
0200	Hardware status query showed error

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

These data bytes can only be interpreted by an AT&T designer.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
8F	SROF	Can't lock or unlock ram database
AB	SNVS	Bad sync mode

DGN,EQPT,SYNC,TLI,CRO

DIAGNOSE SYNCHRONIZER

Input Message Format

[I.41111]

```
DGN-EQPT:[<xy>]:SYNC:[ww]:TLI-3:CRO;
```

Completion Message

[O.41111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC:[ww]:TLI-3:CRO COMPLD
   /* [O.41111] */
   "ATP"
;
```

[O.41111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC:[ww]:TLI-3:CRO COMPLD
   /* [O.41111] */
   "CATP-cc"
;
```

[O.41111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC:[ww]:TLI-3:CRO COMPLD
   /* [O.41111] */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

Denial Message

[O.41111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC:[ww]:TLI-3:CRO DENY
   mmmm
   /* [O.41111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41111]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41111] */
   /* Diagnosed entity:<diagnostic data> */
   "SYNC-TLI-3:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41111.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41111.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "SYNC-TLI-3"
;
```

Explanation Of Message

This message requests diagnostics to be run on the synchronizer's timing link interface 3 when provisioned as a clock reference oscillator. The command will be denied if a clock reference oscillator is not provisioned.

Explanation Of Parameters

SYNC - Synchronizer

TLI - Timing link interface

3 - TLI number 3

CRO - Clock reference oscillator

ATP - All tests pass

CATP - Conditional All Tests Pass

STF - Some tests failed

ppqq - Trouble number for the craft

ppqq	*Explanation*
0300	TLI status query showed error
0400	TLI status query showed error
0500	CRO status query showed error
0600	CRO frequency offset flag

d5,
d4,
...,
d0 - Hexadecimal data bytes.

Data Byte	Value
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

cc mmmm - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
8F	SROF	Can't lock or unlock ram database
AB	SNVS	Bad sync mode

DGN,EQPT,SYNC,TLI,SSP

DIAGNOSE SYNCHRONIZER TIMING LINK INTERFACE

Input Message Format

[I.41121]

```
DGN-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

Completion Message

[O.41121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww]:TLI-m:[SSP-b] COMPLD
   /* [O.41121] */
   "{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
[  "SSP-b[,1]"]
;
```

Denial Message

[O.41121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::SYNC-a:[ww]:TLI-m:[SSP-b] DENY
   mmmm
   /* [O.41121.01] */
   /* <explanation of error condition code> */
[  /* SSP-b[,1] */]
;
```

Autonomous Message

[O.41121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41121] */
   /* Diagnosed entity:<diagnostic data> */
   "SYNC-a-TLI-m-[SSP-b[-1]]:{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41121.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41121.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "SYNC-a-TLI-m-[SSP-b[-1]]"
;
```

Explanation Of Message

This command requests the diagnosis of a timing link interface on the synchronizer side. If the optional synchronizer sync port parameter is specified, only that single SSP is diagnosed. For autonomous diagnostics of a TD-type TLI circuit pack, the SSP field does not appear in the output message. Both arguments appear for autonomous removal of a timing extractor type TLI.

Explanation Of Parameters

SYNC - Synchronizer

a - Synchronizer side number (0 or 1)

TLI - Timing link interface

m - Timing link interface number (1 through 4)

SSP - Synchronizer synchronization port

b - Synchronizer Synchronization Port number (0 or 1)

Note 1: SSP must be specified if the TLI is a timing extractor type NPC.
Note 2: If the SSP parameter is supplied, only that SSP is diagnosed. Otherwise both SSPs are diagnosed.

ATP - All tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

Valid values are listed below:

ppqq	*Explanation*
0300	TLI status query showed error
0400	TLI status query showed error

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

These data bytes can only be interpreted by an AT&T designer.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SROF	Can't lock or unlock ram database
SNVS	Bad sync mode

DGN,EQPT,TAPE,CFT,X,PROG,DBASE

DIAGNOSE TAPE

Input Message Format

[I.41061]

```
DGN-EQPT:[<xy>]:TAPE:[ww]:[{CFT-X-vwxy|PROG|DBASE}];
```

Completion Message

[O.41061]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::TAPE:[ww]:[{CFT-X-vwxy|PROG|DBASE}] COMPLD
   /* [O.41061] */
   "{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41061.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::TAPE:[ww]:[{CFT-X-vwxy|PROG|DBASE}] DENY
   mmmm
   /* [O.41061.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41061]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41061] */
   /* Diagnosed entity:<diagnostic data> */
   "TAPE:{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
[  "TAPE:{PROG|DBASE}"]
;
```

[O.41061.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41061.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "TAPE"
;
```

Explanation Of Message

This command requests diagnostics to be run on the tape hardware. These must be run in sequence with CFT flags. These diagnostics test tape hardware and/or DACS II's ability to correctly read data stored on the tape.

A denial message is output when one of the two diagnostics (executable or data base) is successfully completed but the other one is not. The user must enter both keywords in order to diagnose both options.

For the MML autonomous report, the TAPE:[PROG][,DBASE] option is output only for the software diagnostic on executable files and the data base.

An **IN PROGRESS** progress message is output every 20 seconds while the tape hardware is being diagnosed until the command response or the autonomous report is output.

Explanation Of Parameters

CFT - Craft

The optional CFT field specifies which hardware test; i.e., which vwxy, is to be run on the tape. The remainder of the hardware diagnostics will not be run. If the option is not entered, DACS II will run all tests that can be specified by the craft codes, ie, the vwxy.

vwxy - Diagnostic test number

Test	*vwxy*
TAPE Format Test	0001
TAPE Stream Select Test	0002
TAPE Multisector Test	0004
TAPE Read/write Test	0008
TAPE Seek Test	0010

PROG - Programmable

Used to request diagnostics to be run on DACS II's ability to correctly read the executable files stored on tape. This diagnostic will be run only if the EXCT (or PROG) is entered.

DBASE - Data base

Used to request diagnostics to be run on DACS II's ability to correctly read the data base files stored on tape. This diagnostic will be run only if the DBASE is entered.

ATP - All tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing diagnostic number (hexadecimal)
qq - Test number (hexadecimal)

ppqq	*Explanation*
0100	TAPE Format Fail
0200	TAPE Read/write Fail
0300	TAPE Stream Select Fail
0400	TAPE Seek Fail
0500	TAPE Multisector Fail
0600	TAPE Executable Files Fail
0700	TAPE Data base Files Fail

d5,
d4,
...,
d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	Value
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
SNVS	TAPE is not present
SNVS	TAPE unit is not restored

DGN,EQPT,TSI,CCN,ALL

DIAGNOSE TIME SLOT INTERCHANGES

Input Message Format

[I.41241]

```
DGN-EQPT:[<xy>]:TSI:[ww]:CCN-s:ALL;
```

Completion Message

[O.41241]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI:[ww]:CCN-s:ALL COMPLD
   /* [O.41241] */
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   /* TOTAL TSI tt*/
   "TOTAL:tt"
   "COND-cc"
;
```

Denial Message

[O.41241.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI:[ww]:CCN-s:ALL DENY
   mmmm
   /* [O.41241.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41241]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41241] */
   /* Diagnosed entity */
   "CCN-s-TSI"
   /* <diagnostic data> */
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   /* TOTAL TSI tt */
   "TOTAL:tt"
   "COND-cc"
;
```

[O.41241.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41241.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "CCN-s-TSI"
;
```

Explanation Of Message

This command requests diagnostics to be run on all time slot interchangers (TSIs) on cross-connect side **s**.

Explanation Of Parameters

TSIS - Time slot interchangers

CCN - Cross-connect network

s - CCN side number

ALL - All

pa - Priority of action.

pa	*Explanation*
M^	Manual response
A^	Information from an autonomous activity

(A "^" represents a blank space)

s - See s under CCN above

f - FROM Unit (1 through 6)

t - TO Unit (1 through 6)

r - Diagnostic status for individual TSI:

r	*Explanation*
A	ATP COMPL (All Tests Passed)
C	CATP COMPL (Conditional All Tests Passed)
S	STF COMPL (Some Tests Failed)
D	DNY (Deny)
-	unequipped TSIs

nn - Condition code for each TSI addressed (-- for unequipped TSIs)

To interpret values of nn use the cc table below.

TOT - Total

tt - Total number of TSIs diagnosed

cc mmmm - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
1B	SAIS	CCN side s is in service
3D	SAIN	No mapped slots on a tsi
45	SAOS	A DMB on the UNIT is OOS
50	SATF	Can't run test on active side
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,TSI,CCN,UNIT

DIAGNOSE TIME SLOT INTERCHANGES

Input Message Format

[I.41232]

```
DGN-EQPT:[<xy>]:TSI:[ww]:CCN-s:UNIT-q\
:[a[,b[,c[,d[,e[,f]]]]]];
```

Completion Message

[O.41232]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI:[ww]:CCN-s:UNIT-q:[a[,b[,c[,d[,e[,f]]]]]] \
COMPLD
   /* [O.41232] */
   "COND-cc"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
                    .
                    .
                    .
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
;
```

Note: There are up to six sets of data on each line and up to six data lines.

Denial Message

[O.41232.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI:[ww]:CCN-s:UNIT-q\
:[a[,b[,c[,d[,e[,f]]]]]] DENY
   mmmm
   /* [O.41232.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41232]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41232] */
   /* Diagnosed entity */
   "CCN-s-UNIT-q-TSI"
   /* <diagnostic data> */
   "COND-cc"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
                    .
                    .
                    .
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
;
```

[O.41232.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41232.01] */
   /* Subject entity is equipped */
   /* Diagnosed entity */
   "CCN-s-UNIT-q-TSI"
;
```

Explanation Of Message

This command requests diagnostics to be run on all time slot interchangers (TSIs) between **UNIT-q** and the specified units. If the optional connectivity field is omitted, then all TSIs connected to **UNIT-q** will be diagnosed.

Explanation Of Parameters

TSIS - Time slot interchangers

CCN - Cross-connect network

s - Cross-Connect Network side number (0 or 1)

UNIT - Unit

[q]q - Unit number (1 through 16)

CONN - Unit connection

a,b,c,d,e,f
- Connected unit number

If the connected unit field is omitted, then all TSIs connected to the specified unit will be diagnosed.

sft - TSI identifier

s - See s under CCN above

f - FROM Unit

t - TO Unit

e - Number of lines in the message

r - Diagnostic status for an individual TSI

r	*Explanation*
A	ATP COMPL (All Tests Passed)
C	CATP COMPL (Conditional All Tests Passed)
S	STF COMPL (Some Tests Failed)
D	DNY (Deny)
-	unequipped TSIs

nn - Condition code for each TSI addressed (-- for unequipped TSIs)

See cc below to interpret values of nn.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
45	SAOS	A DMB on the UNIT is OOS

DGN,EQPT,TSI,CFT,X

DIAGNOSE TIME SLOT INTERCHANGE

Input Message Format

[I.41221]

```
DGN-EQPT:[<xy>]:TSI-sft:[ww]:[CFT-X-vwxy];
```

Completion Message

[O.41221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI-sft:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41221] */
   "ATP"
;
```

[O.41222]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI-sft:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41222] */
   "CATP-cc"
;
```

[O.41223]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI-sft:[ww]:[CFT-X-vwxy] COMPLD
   /* [O.41223] */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

Denial Message

[O.41221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::TSI-sft:[ww]:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41221.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41221]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41221] */
   /* Diagnosed entity:<diagnostic data> */
   "TSI-sft:ATP"
;
```

[O.41222]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41222] */
   /* Diagnosed entity:<diagnostic data> */
   "CATP-cc"
;
```

[O.41223]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41223] */
   /* Diagnosed entity:<diagnostic data> */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
;
```

[O.41221.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41221.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "TSI-sft"
;
```

Explanation Of Message

This command requests diagnostics to be run on a specific time slot interchange.

The optional **CFT** field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this diagnostic will be run.

If there are no mapped TSI slots, DACS II will respond with some tests failed (STF).

Explanation Of Parameters

TSI - Time slot interchange

s - Cross-connect network side number (0 or 1)

f - FROM unit number (1 through 6)

t - TO unit number (1 through 6)

CFT - Craft

vwxy - Diagnostic test number

Test	**vwxy**
Output data checker exercise	0001
Memory test	0002
Memory diagnostic	0004
Address bus parity test	0008
Loss of clock exercise 2	0010
Loss of clock exercise 1	0020
Memory diagnostic exercise	0040
Control RAM checker exercise	0080
Communication test	0100
Memory and Alarms diagnostic(s)	0200

Note:
1. If the CFT field is omitted, all tests of this diagnostic will be run.
2. Tests 0200, 0040, 0004, and 0002 can only be run when the TSI is out-of-service. All other tests can be run when the TSI is in service.

ATP - All tests passed

CATP - Conditional all tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

pp - Failing diagnostic number in hexadecimal form
qq - Test number in hexadecimal form.

ppqq	*Explanation*
011N	Address Bus Parity test: error bit not set. N is the circuit number where failure occurred: [0,f]
0120	Error returns after clear
013N	Status bit BUSERR not set
014N	Ccni error summary bit not set (involves ccni register, could be a ccni problem)
01B0	Ccni error summary not clear (involves ccni register, could be a ccni problem)
01F0	Software error
031N	LOTDEX1 test: error bit not set
051N	CREX test: error bit not set
0520	Error returns after clear
053N	Status bit not set
0540	Summary register on CCNI not set (NOTE this could be a CCNI problem)
05B0	Summary register on CCNI not cleared (NOTE this could be a CCNI problem)
05F0	Software error
081N	Error bit not set
0820	Error returns after clear
084N	Overall summary bit not set
0850	MEMDGN/DGNEX test: Busy bit not set
08F0	Software error
0980	Communication test: Circuit pack id is wrong
099N	Circuit id is wrong
09F0	Software error
033N	Status bit not set
0320	Error returns after clear
03F0	Software error
021N	LOTDEX2 test: error bit not set
023N	Status bit not set
0220	Error returns after clear
02F0	Software error
072N	MEMDGN test: memory diagnostic failed
07F0	Software error

ppqq	*Explanation*
064N	Memory test: overall error summary not set
066N	Value stored incorrectly in memory
06F0	Software error
047N	ODEX test: exercise bit not set
041N	Error bit not set
043N	Status bit not set
0420	Software error
0A2N	RAM test: status register bit was set on ram test
0A6N	Value stored incorrectly in memory
0ABN	Error summary bit set during test
0AFN	Software error
0B00	Could not initialize pack

d5-d0 - Raw data relating to the failed diagnostic detected.

Four hex digits each. Each data field contains sixteen bits. The significance of each data field and its individual bits is as follows:

d5 - CCNI Error Source Register 5

Bit	Explanation
15-8	Don't care
7	Error on autonomous switch enable circuit
6	Error on BSR parity
5	Parity error on high byte of data
4	Parity error on low byte of data
3	Address bus parity error
2	Synchronizer error
1	Error on CCB 6
0	Error on CCB 5

d4 - CCNI Error Source Register 4.

Each bit indicates an error on a pack connected to this CCNI

Bit	Explanation
15	Error on CCB 4
14	Error on CCB 3
13	Error on CCB 2
12	Error on CCB 1
11	Error on FTM 4, Unit 6
10	Error on FTM 3, Unit 6
09	Error on FTM 2, Unit 6
08	Error on FTM 1, Unit 6
07	Error on FTM 4, Unit 5
06	Error on FTM 3, Unit 5
05	Error on FTM 2, Unit 5
04	Error on FTM 1, Unit 5
03	Error on FTM 4, Unit 4
02	Error on FTM 3, Unit 4
01	Error on FTM 2, Unit 4
00	Error on FTM 1, Unit 4

d3 - CCNI Error Source Register 3.

Each bit indicates an error on a pack connected to this CCNI.

Bit	Explanation
15	Error on FTM 4, Unit 3
14	Error on FTM 3, Unit 3
13	Error on FTM 2, Unit 3
12	Error on FTM 1, Unit 3
11	Error on FTM 4, Unit 2
10	Error on FTM 3, Unit 2
09	Error on FTM 2, Unit 2
08	Error on FTM 1, Unit 2
07	Error on FTM 4, Unit 1
06	Error on FTM 3, Unit 1
05	Error on FTM 2, Unit 1
04	Error on FTM 1, Unit 1
03	Error on TSI 66
02	Error on TSI 56
01	Error on TSI 46
00	Error on TSI 36

d2 - CCNI Error Source Register 2.

Each bit indicates an error on a pack connected to this CCNI:

Bit	Explanation
15	Error on TSI 26
14	Error on TSI 16
13	Error on TSI 65
12	Error on TSI 55
11	Error on TSI 45
10	Error on TSI 35
09	Error on TSI 25
08	Error on TSI 15
07	Error on TSI 64
06	Error on TSI 54
05	Error on TSI 44
04	Error on TSI 34
03	Error on TSI 24
02	Error on TSI 14
01	Error on TSI 63
00	Error on TSI 53

d1 - CCNI Error Source Register 1.

Each bit indicates an error on a pack connected to this CCNI:

Bit	Explanation
15	Error on TSI 43
14	Error on TSI 33
13	Error on TSI 23
12	Error on TSI 13
11	Error on TSI 62
10	Error on TSI 52
09	Error on TSI 42
08	Error on TSI 32
07	Error on TSI 22
06	Error on TSI 12
05	Error on TSI 61
04	Error on TSI 51
03	Error on TSI 41
02	Error on TSI 31
01	Error on TSI 21
00	Error on TSI 11

d0 - Contents of Bus Status Register on CCNI

Bit	Explanation
15-04	Not used.
03	Indicates what side of the network is active. This bit is read by the unit controllers.
02	Indicates what side of the network is active. This bit is written by the MP.
01	ASE (Autonomous Switch Enable) bit 1 = ASE circuit controls the value of Bit 02 0 = MP controls the value of Bit 02 This bit is read by the units.
00	Odd parity over bits 02-00 of this register.

cc **mmmm** - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
1B	SAIS	CCN side s is in service
3D	SAIN	No mapped slots on a tsi
45	SAOS	A DMB on the UNIT is OOS
50	SATF	Can't run test on active side
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,UNIT,DSPI,CFT,X

DIAGNOSE DSPU

Input Message Format

[I.41341]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:DSPI:[CFT-X-vwxy];
```

Completion Message

[O.41341]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:DSPI:[CFT-X-vwxy] COMPLD
   /* [O.41341] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41341.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:DSPI:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41341.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41341]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41341] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-DSPI:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41341.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41341.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-DSPI"
;
```

Explanation Of Message

This message requests diagnostics to be run on the specified unit's digital signal processing interface.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

DSPI - Digital signal processing interface

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
Processor bus parity checker test (in-service test)	0001
Interrupt and mask register test (in-service test)	0002
Serial interface (in-service test)	0004
Serial interface (out-of-service test)	0008

The optional CFT field is used to indicate which diagnostic test(s) is to be run.

If this field is omitted, all DSPI diagnostic tests will be run.

ATP - All tests passed

CATP - Conditional all tests passed

cc	*Explanation*
03	Subject entity is in-service
37	DSPI out-of-service
44	DSPI is out-of-service; Digital Signaling Processing Circuit (DSPC) is in-service.

STF - Some tests failed

ppqq - Trouble number for the craft

pp	Failing diagnostic number in hexadecimal form
qq	Test number in hexadecimal form.

ppqq	*Explanation*
0100	MP Fail
0600	EMTC/MTC Interrupt Fail
0A01	EBX/BX RAM Data Fail
0B00	EBX/BX Interrupt Fail
0C00	EBX/BX Acknowledge Fail

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	*Description*
d5	Upper byte of interrupt register 0
d4	Lower byte of interrupt register 0
d3	Interrupt register 1
d2	Upper byte of side 0 service register 0
d1	Lower byte of side 0- service register 0
d0	Unused

cc mmmm - Error condition code

cc	mmmm	*Explanation*
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
36	ENEQ	DSPI not equipped
4D	SAIS	DSPI is in service
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DGN,EQPT,UNIT,FC,CFT,X

DIAGNOSE FORMAT CONVERTER

Input Message Format

[I.41331]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb:[CFT-X-vwxy];
```

Completion Message

[O.41331]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-qq:[ww]:FC-sb:[CFT-X-vwxy] COMPLD
   /* [O.41331] */
   "{ATP|CATP-kk|STF-ppqq,d5,d4,d3,d2,d1,d0}"
[  /* Unit Plug number,ECCN Plug Number[,Bit Number and \
Direction] */]
[  "UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
;
```

Denial Message

[O.41331.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FC-sb:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41331.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41331]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41331] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FC-sb:{ATP|CATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
[  /* Unit Plug number,ECCN Plug Number[,Bit Number and \
Direction] */]
[  "UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"]
```

[O.41331.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41331.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-FC-sb"
```

Explanation Of Message

This command requests diagnostics to be run on the specified format converter **UNIT-q**.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

s - Side number (0 or 1)

b - FC number (1 through 4)

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
CI device test	0001
Receiver test	0002
Transmitter test	0004

The optional craft diagnostic test number indicates which test(s) of the diagnostic is to be run under craft control. If this number is omitted, all tests including the continuity check will be run.

ATP - All tests passed

STF - Some tests failed

UPN - Unit plug number

upn - The value of UPN.

XPN - ECCN plug number

xpn - The value of XPN

BIT - Bit number of the data bus

TD - Transmit data

RD - Receive data

bb - Bit number (00 through 15)

The optional line which contains the unit, plug, and bit information will only be output if continuity checks between the NPC and the ECCN failed. The bit number (i.e., BIT={TD|RD}bb) will be shown if software identifies the bit of the data bus as the failed one. The optional line will always be output with the STF keyword. Valid values of the UPN and XPN are shown below. Note that the numbers shown in the output are exactly the same as the numbers on the backplane.

Unit Plug Number(FIB†)	Unit Plug Number(OIB‡)	ECCN Plug Number	Direction	Corresponding FC
P01	P02	PqqA*	Receive	FC 01
P02	P01	PqqE	Transmit	FC 01
P03	P07	PqqB	Receive	FC 02
P04	P06	PqqF	Transmit	FC 02
P05	P12	PqqC	Receive	FC 03
P06	P11	PqqG	Transmit	FC 03
P07	P17	PqqD	Receive	FC 04
P08	P16	PqqH	Transmit	FC 04
P10	P05	PqqA	Receive	FC 11
P11	P04	PqqE	Transmit	FC 11
P12	P10	PqqB	Receive	FC 12
P13	P09	PqqF	Transmit	FC 12
P14	P15	PqqC	Receive	FC 13
P15	P14	PqqG	Transmit	FC 13
P16	P20	PqqD	Receive	FC 14
P17	P19	PqqH	Transmit	FC 14

* qq is the unit number
† FIB - Flexible Interface Bay
‡ OIB - Original Interface Bay

ppqq - Trouble number for the craft (STF code)

pp	Failing diagnostic number in hexadecimal form
qq	Test number in hexadecimal form.

ppqq	*Explanation*
0100	CI device test fail
0200	Receiver test fail
0300	Transmitter test fail
0F00	Error Summary Failure
0F01	Hardware Fail on ECCI pack
0F02	Hardware Fail on ETSI pack
0F03	RCV Network Data Bus Failure badbit, baddirection & badport
0F04	RCV Network Data Bus Failure baddirection & badport
0F05	XMIT Network Data Bus Failure badbit, baddirection & badport
0F06	XMIT Network Data Bus Failure baddirection & badport
0F07	Pack hardware failure
0F08	Pack Failed to Initialize for CT
0F09	NPC failed when sourcing
0F0A	Parent pack failed. For DSP packs DSPI. For FC, FTMI. For FMT, UA.
0F0D	FC RCV Port alarms before RCV continuity Test
0F0E	FC RCV Port alarms after sourcing from MXR/DDC pack

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Byte	*Explanation*
d5	Communication interface error source register 0 (ESR0)
d4	Receive formatter (RF) ESR0
d3	RF ESR1
d2	RF ESR2
d1	RF STATUS
d0	Transmit formatter (TF) STATUS

CATP - Conditional all test passed on the diagnostic of FC

kk - Hexadecimal completion condition code

To interpret values of kk see cc below.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
13	ENEQ	FTMI is not equipped
14	SAOS	FTMI is out of service
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code
C3	SNVS	XMIT continuity test won't be run: CFT code specified
C4	SNVS	XMIT continuity test won't be run: no XMIT timeslots available
C5	SNVS	RCV continuity test won't be run: no available inservice NPCS for FC/FMT
C6	SNVS	No available timeslots on any of the inservice NPCS associated with FC/FMT
C7	SNVS	RCV continuity test won't be run: no DMB timeslots available
CC	SNVS	RCV continuity test won't be run: SYNC OOS or pested

DGN,EQPT,UNIT,FLI,CFT,X

DIAGNOSE FLI

Input Message Format

[I.41401]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k:[CFT-X-vwxy];
```

Completion Message

[O.41401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FLI-k:[CFT-X-vwxy] COMPLD
   /* [O.41401] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FLI-k:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41401]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41401] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FLI-k:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41401.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [ O.41401.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity*/
   "UNIT-[q]q-FLI-k"
;
```

Explanation Of Message

This message requests the diagnostic of one facility line interface (FLI) in a DS3 Unit. This message can also be autonomously invoked by error recovery and restoration routines.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility line interface

k - FLI identifier

k	*Explanation*
S	Service FLI
P	Protection FLI

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
CI device tests	0001
FLI ESR test	0002
Lock and Key Error Detector Test	0004
Loss of Signal and Loss of Clock tests	0008
LBO control test	0010
FSM test	0020*
FLI/MXR Bent Pin/Continuity Test	0040†

Unless otherwise designated, the above tests can only be executed when the entity is out of service. If no craft code is specified, all tests will be executed.

Note: *This test can be executed at any time.
†This test is an inservice-only test that requires the other FLI and at least one MXR to be inservice.

ATP - All tests passed

CATP - Conditional all tests passed

STF - Some tests failed

ppqq - Failed test number in hexadecimal form

ppqq	*Description*
0001	FLI not physically present
0002	FLI initialization Failed
0003	FLI CI device is not in-service
1000	FLI CI device Tests Failed
2000	FLI ESR Test Failed
3000	FLI Lock and Key Error Detector Test Failed
4000	FLI LOS/LOC Test Failed
5000	FLI LBO Test Failed
6000	FLI FSM Test Failed
7000	FLI/MXR Bent Pin/Continuity Test Failed

d5-d0 - Hexadecimal raw data fields relating to the failed diagnostic detected.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code
SAOS	The service FLI is out of service or pested (TOSRVC option)
SAOS	The protection FLI is out of service or pested (TOPRTN option)
SNVS	Other FLI is OOS
SNVS	There are no INS MXRs to run test on
SWFA	Selected FLI has LOC with at least one inservice MXR
SWFA	Unselected FLI has LOS with at least one inservice MXR
SWFA	MXR LOS with unselected FLI

DGN,EQPT,UNIT,FMT,CFT,X

DIAGNOSE FMT

Input Message Format

[I.41411]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy];
```

Completion Message

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy] COMPLD
   /* [O.41411] */
   "ATP"
;
```

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy] COMPLD
   /* [O.41411] */
   "CATP-cc"
[  /* Unit Plug Number,ECCN Plug Number,Condition Code */]
[  "upn,xpn,nn:upn,xpn,nn:upn,xpn,nn:upn,xpn,nn"]
[  "upn,xpn,nn:upn,xpn,nn:upn,xpn,nn:upn,xpn,nn"]
;
```

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy] COMPLD
   /* [O.41411] */
   "STF-ppqq,d5,d4,d3,d2,d1,d0"
   /* Unit Plug Number,ECCN Plug Number[,Bit Number and \
Direction] */
   "UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"
;
```

Denial Message

[O.41411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:FMT-s:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41411.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41411] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FMT-s:ATP"
;
```

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41411] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FMT-s:CATP-cc"
[  /* Unit Plug Number,ECCN Plug Number,Condition Code */]
[  "upn,xpn,nn:upn,xpn,nn:upn,xpn,nn:upn,xpn,nn"]
[  "upn,xpn,nn:upn,xpn,nn:upn,xpn,nn:upn,xpn,nn"]
;
```

[O.41411]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41411] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FMT-s:STF-ppqq,d5,d4,d3,d2,d1,d0"
   /* Unit Plug Number,ECCN Plug Number[,Bit Number and \
Direction] */
   "UPN=<upn>,XPN=<xpn>[,BIT={TD|RD}bb]"
;
```

[O.41411.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmmm
   /* [ O.41411.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-FMT-s"
;
```

Explanation Of Message

This message requests the diagnostic of one formatter (FMT) in a DS3 unit. This message can also be autonomously invoked by error recovery and restoration routines.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FMT - Format converter

s - FMT side identifier

s	*Explanation*
0	CCN side 0
1	CCN side 1

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
FMT Communication Interface device Test	0001*
FMT MXR Protection Switch test	0002
FMT RF device test	0004
FMT TF device test	0008

Note: *This test can only be executed when the entity is out of service. If no craft code is specified, all tests including the continuity check will be executed.

ATP - All tests passed

CATP - Conditional all tests passed

nn - Hexadecimal condition code shown in the CATP output to indicate continuity test condition on each individual port

STF - Some tests failed

ppqq - Failed test number in hexadecimal form

ppqq	*Description*
0001	FMT is not physically present
0002	FMT initialization Failed
0003	Unable to read FMT RAM Mask
0004	Unable to restore FMT RAM Mask
0100	FMT CI Test Failed
0200	FMT MPS Test Failed
0300	FMT Receive Formatter Test Failed
0400	FMT Transmit Formatter Test Failed
0F0D	FMT RCV Port alarms before RCV Continuity Test
0F0E	FMT RCV Port alarms after sourcing from MXR/DDC pack

d5-d0 - Raw data

Hexadecimal raw data fields relating to the failed diagnostic detected. The assignment of these data bytes is not fixed but varies with the failure detected. Interpretation of the information requires access to the software and to the programmer that wrote it.

e - Number of lines in the segment (2 or 3)

UPN - Unit plug number

upn - Value of the UPN

XPN - ECCN Plug Number

xpn - Value of the XPN

BIT - Bit

TD - Transmit data

RD - Receive data

bb - Bit number (00 through 15)

For the STF output, the optional line which contains the unit, port, and pin information will only be output if the continuity check between the format converter and its corresponding ETSI is failed. Valid values of the UPN and XPN are shown below. Note that the numbers shown in the output are exactly the same as the numbers on the backplane.

Unit Plug Number	ECCN Plug Number	FMT Number	Direction
P01	PqqA*	FMT 0	Receive
P02	PqqE	FMT 0	Transmit
P03	PqqB	FMT 0	Receive
P04	PqqF	FMT 0	Transmit
P05	PqqC	FMT 0	Receive
P06	PqqG	FMT 0	Transmit
P07	PqqD	FMT 0	Receive
P08	PqqH	FMT 0	Transmit
P10	PqqA	FMT 1	Receive
P11	PqqE	FMT 1	Transmit
P12	PqqB	FMT 1	Receive
P13	PqqF	FMT 1	Transmit
P14	PqqC	FMT 1	Receive
P15	PqqG	FMT 1	Transmit
P16	PqqD	FMT 1	Receive
P17	PqqH	FMT 1	Transmit

* qq is the unit number

The bit number (i.e., BIT={TD|RD}bb) will be shown if software identifies the bit of the data bus as the failed one.

For the CATP output, the optional output line related to continuity test will be shown only if there is at least one port that cannot be diagnosed. The UPN and XPN numbers of the port(s) that is(are) not diagnosed will be output, while those that passed the diagnostic will be represented by dashes (--). The port number will be output in ascending order by UPN number. That is, for side 0, the output will be from P1 to P8, and for side 1 it will be from P10 to P17.

Note that the STF output will supersede the CATP output. That is, as long as there is one port that failed the diagnostic, DACS II must output the STF message without concern about a port that cannot be diagnosed.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SAOS	Subject entity is out of service
SAIN	Subject entity is pested
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code
SNVS	XMIT continuity test won't be run: CFT code specified
SNVS	XMIT continuity test won't be run: no XMIT timeslots available
SNVS	RCV continuity test won't be run: no available inservice NPCS for FC/FMT
SNVS	CATP due to skipping continuity test for FMT
SNVS	RCV continuity test won't be run: SYNC OOS or pested

DGN,EQPT,UNIT,FTMI,CFT,X

DIAGNOSE FACILITY TERMINATING MODULE INTERFACE

Input Message Format

[I.41321]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:[CFT-X-vwxy];
```

Completion Message

[O.41321]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::UNIT-[q]q:[ww]:FTMI-d:[CFT-X-vwxy] COMPLD
   /* [O.41321] */
   "{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41321.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  DGN EQPT::UNIT-[q]q:[ww]:FTMI-d:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41321.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41321]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41321] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-FTMI-d:{ATP|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41321.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41321.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-FTMI-d"
;
```

Explanation Of Message

This message requests diagnostics to be run on the unit's facility terminating module interface.

Explanation Of Parameters

UNIT	- Unit
[q]q	- Unit number (1 through 16)
FTMI	- Facility Terminating Module Interface
d	- FTMI number (1 through 4)

CFT - Craft

vwxy - Diagnostic test number

Test	*vwxy*
Register test	0001
Address parity test	0002
High data parity test	0004
Low data parity test	0008
CI A data strobe test	0010
CI A pack id test	0020
CI B data strobe test	0040
CI B pack id test	0080
CI C data strobe test	0100
CI C pack id test.	0200

All tests listed above can be run in-service.

Note: The optional **CFT** field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this diagnostic will be run.

ATP - All tests passed

STF - Some tests failed

ppqq - Trouble number for the craft

pp	Failing diagnostic number in hexadecimal form
qq	Test number in hexadecimal form.

ppqq	*Explanation*
0100	Register Test Fail
0200	Address Parity Test Fail
0300	High Data Parity Test Fail
0400	Low Data Parity Test Fail
0500	Data Strobe A Test Fail
0600	Pack ID A Test Fail
0700	Data Strobe B Test Fail
0800	Pack ID B Test Fail
0900	Data Strobe C Test Fail
0A00	Pack ID C Test Fail

d5-d0 - Raw data

Hexadecimal raw data bytes relating to the failed diagnostic detected. These data bytes are only used for system development.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
ENEQ	FTMI is not equipped
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code

DGN,EQPT,UNIT,MIU,CFT,X

DIAGNOSE MIU

Input Message Format

[I.41431]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c:[CFT-X-vwxy];
```

Completion Message

[O.41431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:MIU-c:[CFT-X-vwxy] COMPLD
   /* [O.41431] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:MIU-c:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41431.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41431]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41431] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-MIU-c:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41431.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [ 0.41431.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-MIU-c"
;
```

Explanation Of Message

This message requests the diagnostic of one Multiplexer Interface Unit (MIU) in a DS3 Unit. This message can also be autonomously invoked by error recovery and restoration routines.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c - the number of the MIU within the unit (P, $1 \leq c \leq 6$)

CFT - Craft

vwxy - Diagnostic test number (hexadecimal)

Test	*vwxy*
MIU Sanity test	0001*
Facility (NPC level) test	0002*
MXR Interface test	0004
MIU timer test	0008

*This test can only be executed if the entity is out of service.
If no craft code is specified, all tests will be executed.

ATP - All tests passed

pa - Priority of action

pa	*Explanation*
M^	Manual
I^	Information

^ represents a blank character

CATP - Conditional all tests passed

STF - Some tests failed

ppqq - Failed test number in hexadecimal form

ppqq	*Description*
0001	MIU not physically present
0002	MIU pack type not readable
0003	MIU software download failed
0004	MIU initialization of MXR TX devices failed
0005	MIU provisioning of MXR TX devices failed
0006	MIU initialization #1 of MXR failed
0007	MIU initialization #2 of MXR failed
0008	MIU initialization of MXR CC devices failed
0100	MIU Sanity test failed
0200	MIU Facility data link test failed (OOS)
0300	MIU/MXR HSCC test failed (OOS)
0301	MIU/MXR HSCC test failed (IS)
0400	MIU Timer test failed (OOS)
0401	MIU Timer test failed (IS)

d5-d0 - Hexadecimal raw data fields relating to the failed diagnostic detected.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	Required MXR not equipped, not in service, or failed
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code
SAIS	MIU is already in service
ENEQ	MIU is not equipped

mmmm	*Explanation*
ENEQ	The MXR is not grown
SAOS	FLI is out of service
SAOS	FMT is out of service
SAOS	MXR is out of service
SROF	Mismatch between MXR and MIU HDW types

DGN,EQPT,UNIT,MXR,DEV,CFT,X

DIAGNOSE MXR

Input Message Format

[I.41421]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c:[DEV-devc\
:[CFT-X-vwxy]];
```

Completion Message

[O.41421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:MXR-c:[DEV-devc:[CFT-X-vwxy]] \
COMPLD
   /* [O.41421] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:MXR-c:[DEV-devc:[CFT-X-vwxy]] DENY
   mmmm
   /* [O.41421.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41421]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41421] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-MXR-c:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41421.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [ O.41421.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-MXR-c"
;
```

Explanation Of Message

This message request the diagnostic of one multiplexer (MXR) in a DS3 unit. This message can also be autonomously invoked by error recovery and restoration routines.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MXR - Multiplexer

c - MXR number within the unit (P, 1 through 6)

DEV - Device

devc - MXR device

CFT - Craft

vwxy - Diagnostic test number (Hexadecimal)

devc	*Explanation*	
	Test	*vwxy*
DS3	General devices	
	UA interface Address Parity Test	0001
	Error Source/Mask Register	0002
	PLL Out of Lock - DS3 LOC test	0004
	UA Sanity - Shared RAM	0008
M13	M12 and M13 devices	
	M13 Muldem Tests	0001
	MXR/FLI Bent Pin/Continuity Test	0002†
PIF	Processor Interface	
	PIF Bus Parity Detector	0001
HSC	High-level Serial Communication Controller	
	HSC Stuck Bit/Internal Loopback Test	0001
CCxx	Channel Controllers (xx = 00 (all); xx = 01 through 14)	
	CC Address Parity Test	0001
	CC Stuck Bit of Configuration Register Test	0002
	CC IR Stuck Bit and Parity Check	0004*
	CC Loss of Clock/Sync Error Test	0008*
	CC Configuration Register Parity	0010*
	CC Transmit/Receive Data Parity	0020
	CC Data Parity Exercise	0040
TXyy	Transceiver devices (yy = 00 (all); yy = 01 through 28)	
	Mode Independent System Tests	0001
	Mode Dependent System Tests.	0002

Unless otherwise designated, the above tests can only be executed when the entity is out of service.

*These tests can be executed at any time.
†This test is an inservice-only test that requires this entity and both FLIs to be inservice.

If no device (devc) is specified, all tests on the MXR will be executed.

If a test number (vwxy) is not specified, all tests related to devc will be executed.

ATP - All tests passed

CATP - Conditional all tests passed

STF - Some tests failed

ppqq - Failed test number

ppqq	*Description*
0001	MXR is not plugged in
0002	MXR Initialization failure
0003	Hardware not ready after reset
0004	Hardware reset failed
0009	MXR/Unit Database failure
000A	Failure to read MXR HDW type
000B	MXR Database failure
0010	HDW/SW mismatch of FLI selection
0011	Failure to clear alarms
0012	Failure to mask MXR on FLI
0013	Unable to loopback MXR on FLI
0020	NPC database failure
0100	UC Interface/Address parity failure
0200	Error Source/Mask failure
0300	PLL Out-of-Lock/DS3 LOC failure
0400	UA Sanity/Shared RAM failure
0500	M13 Muldem failure
0600	CC Address Parity failure
0700	CC Stuck Bit in CNFR Register failure
0800	CC IR Stuck Bit/Parity Check failure
0900	CC LOC/Sync Error failure
1000	CC Recieve Data Parity failure
1100	CC Transmit Data Parity failure
1200	CC Data Parity Exercise failure
1300	HSCC Stuck Bit/Internal Loopback failure
1400	Mode Independent Tests failure
1500	Mode Dependent Tests failure
1600	PIF Bus Parity Detector failure
1700	FLI/MXR BENT PIN Test failure

d5-d0 - Raw data

Hexadecimal raw data fields relating to the failed diagnostic detected

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SROF	(NPC) Hardware mismatch
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
IDNV	Invalid CFT code
IDNV	Unrunnable CFT code
SNVS	No Facility Line Interface (FLI) is In Service
ENEQ	The MXR is not grown
SAOS	FLI is out of service
SAOS	FMT is out of service
SWFA	Selected FLI has LOC with at least one inservice MXR
SWFA	Unselected FLI has LOS with at least one inservice MXR
SWFA	MXR LOS with unselected FLI

DGN,EQPT,UNIT,UC,CFT,X

DIAGNOSE UNIT ON UC

Input Message Format

[I.41311]

```
DGN-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC:[CFT-X-vwxy];
```

Completion Message

[O.41311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:UC:[CFT-X-vwxy] COMPLD
   /* [O.41311] */
   "{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

Denial Message

[O.41311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DGN EQPT::UNIT-[q]q:[ww]:UC:[CFT-X-vwxy] DENY
   mmmm
   /* [O.41311.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.41311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.41311] */
   /* Diagnosed entity:<diagnostic data> */
   "UNIT-[q]q-UC:{ATP|CATP-cc|STF-ppqq,d5,d4,d3,d2,d1,d0}"
;
```

[O.41311.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   mmmm
   /* [O.41311.01] */
   /* <explanation of error condition code> */
   /* Diagnosed entity */
   "UNIT-[q]q-UC"
;
```

Explanation Of Message

This command requests diagnostics to be run on the **UNIT-q**'s unit controller.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

UC - Unit controller

CFT - Craft diagnostic test code

vwxy - Diagnostic test number (hexadecimal)

Test	*vwxy*
UC RAM test (out-of-service test)	0001
UC ROM test (in-service test)	0002
UC timer test (in-service test)	0004
UC DMA test (out-of-service test)	0008
UC LAN test (out-of-service test)	0010
UC bus error test (in-service test)	0020
UBX register test (out-of-service test)	0040
UBX sanity test (out-of-service test)	0080

Notes:

1. The optional **CFT** field indicates which test(s) of the diagnostic is to be run under craft control. If this field is omitted, all tests of this

diagnostic will be run.

2. Out-of-service diagnostics on the UC will run successfully only if the UC circuit pack is present in the frame and the diagnostic program can communicate with the unit. Otherwise, this message will be denied.

ATP - All tests passed

CATP - Conditional all tests passed

The reason for the conditional completion is indicated by cc.

STF - Some tests failed

ppqq - Trouble number for the craft (hexadecimal)

pp	Failing diagnostic number
qq	Test number

ppqq	*Explanation*
0101	RAM Test Failed - Data Error
0102	RAM Test Failed - Address Error
0103	RAM Test Failed - Access Error
0104	RAM Test Failed - Refresh Error
0105	RAM Test Failed - Parity Error
0200	ROM Test Failed
0400	Timer Test Failed - Timer Error
0500	Timer Test Failed - Input Port Error
0600	DMA Test Failed
0700	LAN Test Failed
0900	Bus Error Test Failed
0A00	UBX Register Test Failed
0B00	UBX Sanity Test Failed

d5-d0 - Hexadecimal raw data bytes relating to the failed diagnostic detected.

Data Byte	*Value*
d5	Unused
d4	Unused
d3	Unused
d2	Unused
d1	Unused
d0	Unused

For in-service UC:

- In-service tests will return ATP (All Tests Passed)
- Out-of-service tests will return CATP (Conditional All Tests Passed)

For out-of-service UC:

- In-service tests will return ATP
- Out-of-service tests will return ATP

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
03	SAIS	Subject entity is in service
03	SAIS	Subject entity is in service
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
42	SROF	RST failed to boot program
55	IDNV	Invalid CFT code
56	IDNV	Unrunnable CFT code

DISC,BDCST,T0,INCL,OOS,DCC

BROADCAST DISCONNECTIONS

Input Message Format

Nonhierarchical

[I.15201]

```
DISC-BDCST-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC][,CONV];
```

Hierarchical

[I.15201]

```
DISC-BDCST-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC][,CONV];
```

Completion Message

Nonhierarchical

[O.15201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] COMPLD
   /* [O.15201] */
[  "[RDLD[,CUS][,BRDIS]"]
;
```

Note: On output, if the primary line in the MML message exceeds 80-characters in length, it will be split into two lines.

Hierarchical

[O.15201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] COMPLD
   /* [O.15201] */
[  "[RDLD[,CUS][,BRDIS]"]
;
```

Note: On output, if the primary line in the MML message is longer than 80-characters long, it will be split into two lines.

Denial Message

Nonhierarchical

[O.15201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] DENY
   mmmm
   /* [O.15201.01] */
   /* <explanation of error condition code> */
[  /* BCAST */]
[   /* [t]wxy-zzz */]
;
```

[O.15201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] DENY
   mmmm
   /* [O.15201.02] */
   /* <explanation of error condition code> */
[   /* [t]wxy-zzz */]
;
```

Hierarchical

[O.15201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] DENY
   mmmm
   /* [O.15201.01] */
   /* <explanation of error condition code> */
[  /* BCAST */]
[   /* ed-h-fg-zzz */]
;
```

[O.15201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC][,CONV] DENY
   mmmm
   /* [O.15201.02] */
   /* <explanation of error condition code> */
[   /* ed-h-fg-zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the disconnection of a broadcast circuit. If the TO network processing circuit is a full tributary, the command will execute only if there are no other tributaries.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd,jjj
- Channel number for beginning of channel range

eee,kkk
- Channel number for end of channel range.

Without the optional CONV keyword, ddd and jjj must be the lowest numbered channels in the range of channels that make up the broadcast circuit. If the range fields [-eee] and [-kkk] are used, the entire width of the conference tributaries must be indicated.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

CONV - Convert

The CONV keyword is given to disconnect the indicated tributary from the broadcast circuit and convert the circuit to a two-way, two-point circuit. If more than two tributaries to the broadcast exist or if the return path tributary is being disconnected, this option will be denied.

OOS - Out-of-service

An OOS disconnection may be done by giving the optional OOS keyword. At least one end of the circuit must be out-of-service or the OOS disconnection will be denied.

INCL - Inclusive

Use the optional INCL keyword to disconnect a circuit or range of circuits including one or more circuits marked as a red circuit or under customer control.
If this option is not used, the message will be denied if any circuits in the range are red circuits or customer controlled.

DCC - Disconnect code

If the DCC keyword is specified, DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the trunk conditioning field used to connect the circuit. If the DCC option is not used, the disconnect code specified in the CRTE-EQPT::NPC command will be used.

[t]wxy

- The 3- or 4-digit nonhierarchical NPC number that caused the denial, with the same valid values as [s]abc.

ed-h-fg

- Hierarchical NPC number that caused the denial

zzz - Channel number that caused the denial, with the same valid value as ddd.

BRDIS - Broadcast disconnect

The BRDIS keyword indicates that the conference is entirely disconnected (no tributaries remain).

CUS - Customer

Customer-controlled circuit

CUS indicates a customer controlled circuit.

RDLD - Red lined

Indicates that the disconnection was performed on a red circuit. This implies that the INCL keyword was given in the input message. If the disconnection was given on more than one circuit, at least one of them was a red circuit or under customer control.

BCAST - Broadcast

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IIDT	No RDLD or CUS circuits and INCL keyword used
IIDT	No NPC's out of service and OOS keyword used
IIDT	Invalid use of CONV keyword
SAOS	NPC out of service or failed
ENEQ	NPC not equipped
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Termination is under test
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
SNVS	TO side of two-way to be converted is not an FTU NPC
SNVS	Width of existing two way does not match conference width
SNVS	FROM is not a backbone leg
SNVS	Specified width does not match existing conference width
SNVS	NTR invalid since existing conference is not already NTR
SNVS	LPD invalid since existing conference is not already LPD
SNVS	TO is not a leg of this/any conference

mmmm	*Explanation*
SNVS	Can't disconnect return leg unless entire conference disconnected
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SNVS	Range overlapping between FROM and TO or between two TOs
ENRE	FROM NPC is not provisioned as DGA
ENRE	TO NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	Corresponding NPC for TO virtual channel is not provisioned
IDRG	Invalid FROM channel number range
IDRG	Invalid TO channel number range
SNVS	A loopback is active on the FROM termination
SAAS	Termination is in process of being rolled
ENEQ	ETSI not equipped, not in service, or failed

st	d	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

DISC,BDCST,T0,INCL,OOS,DCC

BROADCAST DISCONNECTION

Input Message Format

Nonhierarchical

[I.15211]

```
DISC-BDCST-T0:[<xy>]:[s]abc-ddd[&&-eee],\
[t]ghi-jjj[&[u]klm-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV];
```

Hierarchical

[I.15211]

```
DISC-BDCST-T0:[<xy>]:uv-m-np-ddd[&&-eee],\
wx-k-qr-jjj[&ed-h-fg-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV];
```

Completion Message

Nonhierarchical

[O.15211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::[s]abc-ddd[&&-eee],\
[t]ghi-jjj[&[u]klm-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV] \
COMPLD
   /* [O.15211] */
[  "[RDLD][,CUS][,BRDIS]"]
;
```

Note: On output if the primary lines in the MML messages exceed 80-characters in length, they will be split into two lines.

Hierarchical

[O.15211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::uv-m-np-ddd[&&-eee],\
wx-k-qr-jjj[&ed-h-fg-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV] \
COMPLD
   /* [O.15211] */
[  "[RDLD][,CUS][,BRDIS]"]
;
```

Denial Message

Nonhierarchical

[O.15211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::[s]abc-ddd[&&-eee],\
[t]ghi-jjj[&[u]klm-nnn&..]:
[ww]:[INCL]:[OOS][,DCC][,CONV] DENY
   mmmm
   /* [O.15211.01] */
   /* <explanation of error condition code> */
[  /* BCAST */]
[   /* [t]wxy-zzz */]
;
```

Hierarchical

[O.15211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T0::uv-m-np-ddd[&&-eee],\
wx-k-qr-jjj[&ed-h-fg-nnn&..]:[ww]:[INCL]:[OOS][,DCC][,CONV] \
DENY
   mmmm
   /* [O.15211.01] */
   /* <explanation of error condition code> */
[  /* BCAST */]
[   /* op-j-st-zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a disconnection of a broadcast circuit from a source to up to eight tributaries.

The **FROM** field designates the source termination. The optional range field **[&&-eee]** indicates the width of the conference backbone. The allowable width ranges from 001 to 024 channels and must be the same as the width of the existing conference backbone (if any).

The fields in the TO end designate the tributaries to be connected to the backbone. Although a conference may have any number of tributaries (limited only by the frame configuration), at most eight at a time may be disconnected using this command. More tributaries can be disconnected by subsequent broadcast disconnect commands.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number designating the source termination

[t]ghi,[u]klm
- The 3- or 4-digit nonhierarchical tributary NPC numbers

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number designating the source termination (MML)

wx-k-qr
- Hierarchical FROM NPC number designating the source termination

ed-h-fg
- Hierarchical tributary NPC numbers

uv,wx,ed - Unit number
m,k,h - Module number
np,qr,fg - NPC number within the module

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM channel number
eee - FROM channel number denoting end of width

The optional range field [-eee] or [&&-eee] indicates the width of the conference backbone. Note that a range may be specified for the source only.

jjj - Channel number of tributary legs
nnn - Channel number of the last tributary leg of the range

Without the optional CONV keyword, ddd and jjj must be the lowest numbered channels in the range of channels that make up the broadcast circuit. If the range field [-eee] is used, the entire width of the conference tributaries must be indicated.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The fields following the subsequent channel numbers designate the tributaries that are connected to the backbone.

Although a conference may have any number of tributaries (limited only by frame configuration), at most eight at a time may be disconnected using this command. More tributaries can be disconnected by subsequent commands.

CONV - Convert

The CONV keyword is given to disconnect the indicated tributaries from the broadcast circuit and convert the source and one remaining tributary to a two-way, two-point circuit. This remaining tributary must not be included in the disconnect conversion command. All other tributaries in the broadcast circuit must be included in the conversion command or it will be denied. Disconnection of the return path tributary using this option will be denied.

OOS - Out-of-service

An OOS disconnection may be done by giving the optional OOS keyword. At least one end of the circuit must be out-of-service or the OOS disconnection will be denied.

DCC - Disconnect code

If the DCC keyword is specified, DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the trunk conditioning field used to connect the circuit. If the DCC option is not used, the disconnect code specified in the CRTE-EQPT::NPC command will be used.

INCL - Inclusive

To disconnect a circuit or range of circuits including one or more circuits marked as a red circuit or under customer control, use the INCL option. If this option is not used, the message will be denied if any circuits in the range are red circuits or customer controlled.

[t]wxy

- The 3- or 4-digit nonhierarchical NPC number involved in the denial. (with the same valid value as [s]abc.)

zzz - Channel number involved in the denial. Otherwise the same as ddd.

BCAST - Broadcast

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IIDT	No RDLD or CUS circuits and INCL keyword used
IIDT	No NPC's out of service and OOS keyword used
IIDT	Invalid use of CONV keyword
SAOS	NPC out of service or failed
ENEQ	NPC not equipped
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	Termination is under test
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
SNVS	TO side of two-way to be converted is not an FTU NPC
SNVS	Width of existing two way does not match conference width
SNVS	FROM is not a backbone leg
SNVS	Specified width does not match existing conference width
SNVS	NTR invalid since existing conference is not already NTR
SNVS	LPD invalid since existing conference is not already LPD
SNVS	TO is not a leg of this/any conference
SNVS	Can't disconnect return leg unless entire conference disconnected
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SNVS	Range overlapping between FROM and TO or between two TOs
ENRE	FROM NPC is not provisioned as DGA
ENRE	TO NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	Corresponding NPC for TO virtual channel is not provisioned
IDNV	Invalid FROM channel number
IDNV	Invalid TO channel number
IDRG	Invalid FROM channel number range
IDRG	Invalid TO channel number range
SNVS	A loopback is active on the FROM termination
IDNV	Invalid channel 000 cross-connection specified
IDNV	Invalid channel 031 cross-connection specified
SAAS	Termination is in process of being rolled
ENEQ	ETSI not equipped, not in service, or failed

DISC,BDCST,T1,INCL,OOS,CONV

BROADCAST DISCONNECT

Input Message Format

Nonhierarchical

[I.15221]

```
DISC-BDCST-T1:[<xy>]:[s]abc,[t]ghi[&[u]jkl][&[v]mno][...]:\
[ww]:[INCL]:[OOS][,CONV];
```

Hierarchical

[I.15221]

```
DISC-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr[&ed-h-fg][&op-q-rs][...]:\
[ww]:[INCL]:[OOS][,CONV];
```

Completion Message

Nonhierarchical

[O.15221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::[s]abc,[t]ghi[&[u]jkl][&[v]mno][...]:\
[ww]:[INCL]:[OOS][,CONV] COMPLD
[  /* [O.15221] */]
[  "[RDLD][,CUS]"]
[  "BRDIS"]
;
```

Hierarchical

[O.15221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::uv-m-np,wx-k-qr[&ed-h-fg][&op-q-rs][...]:\
[ww]:[INCL]:[OOS][,CONV] COMPLD
[  /* [O.15221] */]
[  "[RDLD][,CUS]"]
[  "BRDIS"]
;
```

Denial Message

Nonhierarchical

[O.15221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::[s]abc,[t]ghi[&[u]jkl][&[v]mno][...]:\
[ww]:[INCL]:[OOS][,CONV] DENY
   mmmm
   /*[O.15221.01]*/
   /* <explanation of error condition code> */
[  /* [t]qrs */]
;
```

Hierarchical

[O.15221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::uv-m-np,wx-k-qr[&ed-h-fg][&op-q-rs][...]:\
[ww]:[INCL]:[OOS][,CONV] DENY
   mmmm
   /*[O.15221.01]*/
   /* <explanation of error condition code> */
[  /* uv-j-kl */ ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message disconnects upto eight non-channelized tributaries from a non-channelized source network processing circuit (NPC). The NPCs can be in different units. This message also disconnects tributaries and can convert a broadcast conference to a two-way, two-point circuit. When the circuit is disconnected, the idle code (AIS) is transmitted.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized Source(backbone) NPC number

[t]ghi
- The 3- or 4-digit non-hierarchical non-channelized tributary NPC number

[u]jkl
- Explained for [t]ghi

[v]mno
- Explained for [t]ghi

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of non-channelized source NPC

wx-k-qr
- Hierarchical NPC number of non-channelized tributary

ed-h-fg
- Hierarchical number of NPC

op-q-rs
- Hierarchical number of tributary

uv,wx,ed,op
- Unit number

m,x,h,q
- Module number

np,qr,fg,rs
- NPC number within the module

The values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

OOS - Out-of-service keyword may be specified if one or more of the backbone or tributary NPCs is out of service

INCL - Inclusive keyword required for customer-controlled or Red circuits

CONV - Convert circuit to a two-way, two-point circuit by disconnecting the indicated tributaries; as long as more than two tributaries remain, or if no return path exists, the option is denied.

If the broadcast circuit has one full tributary, it can be disconnected only when there are no other tributaries.

[t]qrs
- The 3- or 4-digit nonhierarchical NPC number causing denial

uv-q-rs
- Hierarchical NPC number causing denial

BRDIS - Broadcast conference completely disconnected

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG		Invalid range for specified NPC type
IIDT		No RDLD or CUS circuits and INCL keyword used
IIDT	INERR	No NPC's out of service and OOS keyword used
IIDT	BCAST	Invalid use of CONV keyword
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Termination is under test
SNVS		Termination is a test port
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
SNVS	BCAST	CUS flag doesn't match that of conference

mmmm	st	*Explanation*
SNVS	BCAST	RDLD flag doesn't match that of conference
SNVS	BCAST	FROM is not a backbone leg
SNVS		Specified width does not match existing conference width
SNVS	BCAST	TO is not a leg of this/any conference
SNVS	BCAST	Can't disconnect return leg unless entire conference disconnected
IIDT		NPC type mismatch
IIDT		NPC is a channelized NPC
IIDT		NPC is a non-channelized NPC
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SNVS	MCOND	Range overlapping between FROM and TO or between two TOs
IDNV	INERR	Unmatched channel range
SNVS	MCOND	NPC invalid type
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

DISC,BDCST,T1,INCL,OOS,CONV

BROADCAST DISCONNECTION

Input Message Format

Nonhierarchical

[I.15231]

```
DISC-BDCST-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS][,CONV];
```

Hierarchical

[I.15231]

```
DISC-BDCST-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS][,CONV];
```

Completion Message

Nonhierarchical

[O.15231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS][,CONV] \
COMPLD
[  /* [O.15231] */ ]
[  "[RDLD][,CUS]"]
[  "BRDIS"]
;
```

Hierarchical

[O.15231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS][,CONV] \
COMPLD
[  /* [O.15231] */ ]
[  "[RDLD][,CUS]"]
[  "BRDIS"]
;
```

Denial Message

Nonhierarchical

[O.15231.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS][,CONV] \
DENY
   mmmm
   /*[O.15231.01]*/
   /* <explanation of error condition code> */
[  /* [t]qrs */ ]
;
```

Hierarchical

[O.15231.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC BDCST T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS][,CONV] \
DENY
   mmmm
   /*[O.15231.01]*/
   /* <explanation of error condition code> */
[  /* uv-q-rs */ ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message disconnects a single non-channelized tributary network processing circuit from a non-channelized digital signal broadcast circuit. It also disconnects a single tributary and converts a broadcast conference to a two-way, two-point circuit.

When the circuit is disconnected, the idle code (AIS) is transmitted.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized source(backbone) NPC number

[t]ghi
- The 3- or 4-digit non-hierarchical non-channelized tributary NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical non-channelized source (backbone) NPC number

wx-k-qr
- Hierarchical non-channelized tributary NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

OOS - Out-of-service keyword may be specified if one or more of the backbone or tributary NPCs is out of service

INCL - Inclusive keyword required for Customer-controlled (CUS) or Red circuits

CONV - Convert circuit to a two-way, two-point circuit by disconnecting the indicated tributary; as long as more than two tributaries remain, or no return path exists, the option is denied.

If the indicated tributary is a full tributary, it can be disconnected only when there are no

other tributaries.

[t]qrs
- The 3- or 4-digit nonhierarchical NPC number causing denial

uv-q-rs
- Hierarchical NPC number causing denial

RDLD - Red lined
CUS - Customer

Customer-controlled circuit
BRDIS - Broadcast conference completely disconnected

st - Status of denial
mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG	INERR	Invalid range for specified NPC type
IIDT	INERR	No RDLD or CUS circuits and INCL keyword used
IIDT	INERR	No NPC's out of service and OOS keyword used
IIDT	BCAST	Invalid use of CONV keyword
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	MCOND	Termination is already assigned
SNVS	MCOND	Termination is under test
SNVS	INERR	Termination is a test port
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
SNVS	BCAST	CUS flag doesn't match that of conference
SNVS	BCAST	RDLD flag doesn't match that of conference
SNVS	BCAST	FROM is not a backbone leg
SNVS	INERR	Specified width does not match existing conference width
SNVS	BCAST	TO is not a leg of this/any conference
SNVS	BCAST	Can't disconnect return leg unless entire conference disconnected
IIDT		NPC type mismatch
IIDT		NPC is a channelized NPC
IIDT		NPC is a non-channelized NPC

mmmm	st	*Explanation*
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SNVS	MCOND	Range overlapping between FROM and TO or between two TOs
IDNV	INERR	Unmatched channel range
SNVS	MCOND	NPC invalid type
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

DISC,CRS,T0,INCL,DCC,OOS

TWO-WAY DISCONNECTIONS

Input Message Format

Nonhierarchical

[I.15002]

```
DISC-CRS-T0:[<xy>]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]:\
[DCC][,OOS];
```

Hierarchical

[I.15002]

```
DISC-CRS-T0:[<xy>]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]:\
[DCC][,OOS];
```

Completion Message

Nonhierarchical

[O.15002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]:\
[OOS][,DCC] COMPLD
[  /* [O.15002] */]
[  "[RDLD][,CUS]"]
[  "NOBBL-{F|T},MPDIS-{F|T|B}"]
;
```

Hierarchical

[O.15002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]:\
[OOS][,DCC] COMPLD
[  /* [O.15002] */]
[  "[RDLD][,CUS]"]
[  "NOBBL-{F|T},MPDIS-{F|T|B}"]
;
```

Denial Message

Nonhierarchical

[O.15001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15001.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.15001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a disconnection between the specified FROM and TO end terminations and is used to disconnect a leg or legs from a multipoint circuit. Disconnections may be between various Network Processing Circuit (NPC) types:

Facility Terminating Unit (FTU)/DS3U NPC and Digital Signal Processing (DSPU) Unit NPC

FTU/DS3U NPC and Virtual NPC

DSPU NPC and DSPU NPC

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical FROM NPC number for beginning of NPC range

wx-k-qr
- Hierarchical TO NPC number for end of NPC range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

Note: The range of allowable NPC numbers is dependent on the equipage of the frame.

ddd - FROM channel or conference number
jjj - TO channel number or conference number

Channel Numbers

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference Numbers

001-085	(MB NPC)
001-500	(Virtual NPC)

INCL - Inclusive

To disconnect a channel or range of channels including one or more channels marked as a Red Circuit, use the INCL (inclusive) option. If this option is not used, the message will be denied if any circuits in the range are Red Circuits.

OOS - Out-of-service

An Out-Of-Service disconnection may be done by giving the optional OOS keyword. At least one end of the circuit must be out-of-service or the OOS disconnection will be denied.

DCC - Disconnect code

If DCC is specified, DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the trunk conditioning field of the TCON command that initially connected to the channels. If the DCC option is not used, the disconnect code specified in the CRTE-EQPT::NPC command will be used.

mmm,nnn
- Channel numbers involved in the denial. Otherwise, the same as ddd.

CUS - Customer

Indicates the circuit is a customer controlled Circuit.

NOBBL - No backbone leg

This optional field will appear if the multipoint circuit(s) FROM or TO is in the broadcast mode but has no backbone leg after the TDIS command.

MPDIS - Multipoint disconnect

Full disconnection of the multipoint circuits is indicated by MPDIS for FROM, TO, or BOTH.

RDLD - Red lined

RDLD indicates that the disconnection was performed on a Red Circuit. This implies that the INCL keyword was given in the input message. If the disconnection was given on more than one circuit, then at least one of them was a Red Circuit.

d - Direction

d	*Explanation*
F	- From
T	- To
B	- Both

st - Status of denial

17	Required ETSI not equipped, not in service, or failed or inactive side ETSI not equipped or not in service

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	DSPI not equipped, not in service, or failed
SNVS	CONFERR	Try to delete a BBL leg from VC;however, VC has no BBL leg
SNVS	CONFERR	The NPC of VC BBL leg doesn't match that in the input command
SNVS	CONFERR	The first channel of VC BBL leg doesn't match that in the input command

mmmm	st	*Explanation*
SNVS	CONFERR	Try to delete a BRD leg from VC; however, VC has no BRD leg
SNVS	CONFERR	The input BRD leg is not in VC
SNVS	CONFERR	The first channel of VC BRD leg doesn't match that in the input command
SNVS	CONFERR	Tried to disconnect a nonexisting VC
IIFM	CONFERR	Try to operate a ONE-WAY conference with a TWO-WAY input command
IIDT	CONFERR	Database conference width does not match the range in input command
SNVS	CONFERR	Trying to add or delete a leg when a conference is under test
IIDT	INERR	Illegal BBL BBL combination
IIDT	INERR	Illegal BRD BRD combination
IIDT	INERR	Illegal SYM BRD combination
IIDT	INERR	Illegal BRD SYM combination
IIDT	INERR	Illegal BBL SYM combination
IIDT	INERR	Illegal SYM BBL combination
SNVS	INERR	Delete or change a leg from a conference that has no leg
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
ENRE	SCERR	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	SCERR	Corresponding NPC for TO virtual channel is not provisioned
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
NOMTH	{FITIB}	No Match
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
TP	{FITIB}	NPC is used for test access
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

DISC,CRS,T0,INCL,OOS,DCC

DISCONNECTIONS, CROSS-CONNECT CIRCUITS

Input Message Format

Nonhierarchical

[I.15001]

```
DISC-CRS-T0:[<xy>]:[s]abc-ddd[&&-eee],[s]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

Hierarchical

[I.15001]

```
DISC-CRS-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

Completion Message

Nonhierarchical

[O.15001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
  [/* [O.15001] */]
  ["[RDLD][,CUS]"]
;
```

Hierarchical

[O.15001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
  [/* [O.15001] */]
  ["[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.15001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.02] */
   /* <explanation of error condition code> */
[  /* <d>-<st> */]
[  /* mmm,nnn */]
;
```

Hierarchical

[O.15001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15001.02] */
   /* <explanation of error condition code> */
[  /* <d>-<st> */]
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the disconnection of two-way, two-point cross-connect circuits or a range of cross-connected circuits.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module
The values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd,jjj
- Channel numbers

eee,kkk
- Channel numbers, denoting the end of a range.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

INCL - Inclusive

To disconnect a circuit or range of circuits including one or more circuits marked either RDC or CUS, use the optional INCL keyword. If this keyword is not used, the message will be denied if any circuits in the range are red circuits or customer controlled circuits.

OOS - Out of service

An Out-Of-Service disconnection may be done by giving the optional OOS keyword. At least one end of the circuit must be out-of-service or the OOS disconnection will be denied.

DCC - Disconnect code

If the Disconnect Code (DCC) option is specified, DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the trunk conditioning field of the cross connect command that initially connected the channels. If the DCC option was specified on a fully transparent (TRSP with no insertion word) domestic circuit, DACS II will insert the default trouble code X'E4. If the DCC option is not used, the disconnect code specified in the grow NPC command will be used.

CUS - Customer

Customer-controlled circuit

Terminations cross-connected using the optional CUS keyword retain their CUS status when disconnected. If the terminations are reconnected without the CUS or INCL keyword, the command will be denied. When they are reconnected with the INCL keyword, they lose their customer controlled status.

RDLD - Red lined

mmm,nnn

- Channel number involved in the denial. Otherwise the same as ddd.

d - Direction

d	*Explanation*
F	From
T	To
B	Both

st - Status of denial

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
NOMTH	{FITIB}	No Match
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
ROLL	{FITIB}	Circuit is involved in a roll
TP	{FITIB}	NPC is used for test access
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

DISC,CRS,T1,INCL,OOS

TWO-WAY DISCONNECTION

Input Message Format

Nonhierarchical

[I.15011]

```
DISC-CRS-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS];
```

Hierarchical

[I.15011]

```
DISC-CRS-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS];
```

Completion Message

Nonhierarchical

[O.15011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS] COMPLD
[  /* [O.15011] */]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.15011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] COMPLD
[  /* [O.15011] */]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.15011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::[s]abc,[s]ghi:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15011.01] */
   /* <explanation of error condition code> */
;
```

[O.15011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::[s]abc,[s]ghi:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15011.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
;
```

Hierarchical

[O.15011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15011.01] */
   /* <explanation of error condition code> */
;
```

[O.15011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15011.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message disconnects a two-way cross-connection between two non-channelized network processing circuits. When the circuit is disconnected, the idle code (AIS) is transmitted.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized FROM NPC number

[t]ghi
- The 3- or 4-digit non-hierarchical non-channelized TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of non-channelized FROM NPC

wx-k-qr
- Hierarchical number of non-channelized TO NPC

uv,wx - Unit number
m,k - Module number
np,qr
- NPC number
The valid values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive

Required for a CUS circuit or a red circuit

OOS - Out-of-Service

May be specified if one or both NPCs are out of service

RDC - Red circuit

RDLD - Red lined

CUS - Customer

Disconnection of Customer-controlled Circuit

st - Status of denial

d - Direction

d *Explanation*

F From
T To
B Both

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed

mmmm	st	*Explanation*
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
INVLD	{FITIB}	Invalid NPC type
NOMTH	{FITIB}	No Match
NPCTA	{FITIB}	NPC used for Test Access
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
ROLL	{FITIB}	Circuit is involved in a roll
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

DISC,CRS,TS,MJU,RATE

SUBRATE DISCONNECTION

Input Message Format

Nonhierarchical

[I.19421]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>];
```

Hierarchical

[I.19421]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>];
```

Completion Message

Nonhierarchical

[O.19421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>] COMPLD
   /* [O.19421] */
[  "RATE-rr"]
   /* NEW MJU:MA,TERM */
   "ssss:{tttt u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  "OOS"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
[  /* BR1 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR2 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR3 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR4 external facility termination */]
[  "[t]ghi-jjj-ll"]
;
```

Note: The RATE-rr information in line 4 only appears if this field is not specified in the input command. Also, the MPTM, BR customer number and/or external facility information at the end of this message only appears if the corresponding ff, ghi-jjj, and/or ll fields are not specified in the input command.

Hierarchical

[O.19421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::wx-k-qr-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>] COMPLD
   /* [O.19421] */
[  "RATE-rr"]
   /* NEW MJU:MA,TERM */
   "ssss:{tttt u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  "OOS"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
[  /* BR1 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR2 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR3 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR4 external facility termination */]
[  "wx-k-qr-jjj-ll"]
;
```

Note: The RATE-rr information in line 4 appears only if this field is not specified in the input command. Also, the MPTM, BR customer number and/or external facility information at the end of this message appears only if the corresponding ff, ghi-jjj, and/or ll fields are not specified in the input command.

Denial Message

Nonhierarchical

[O.19421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>] DENY
   mmmm
   /* [O.19421.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
[  /* BR1 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR2 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR3 external facility termination */]
[  "[t]ghi-jjj-ll"]
[  /* BR4 external facility termination */]
[  "[t]ghi-jjj-ll"]
;
```

Hierarchical

[O.19421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]:\
<branch>[,<branch>][,<branch>][,<branch>] DENY
   mmmm
   /* [O.19421.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* BR1 customer number */]
[  "01"]
[  /* BR2 customer number */]
[  "01"]
[  /* BR3 customer number */]
[  "01"]
[  /* BR4 customer number */]
[  "01"]
[  /* BR1 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR2 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR3 external facility termination */]
[  "wx-k-qr-jjj-ll"]
[  /* BR4 external facility termination */]
[  "wx-k-qr-jjj-ll"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command provides multipoint branch disconnection of customers in both directions. All channels must have been cross-connected using the **CONN-CRS-TS MJU NORM** or **CONN-CRS-TS MJU TERM** commands before they can be disconnected with **DISC-CRS-TS**. It is used to disconnect customers from the branches of a multipoint junction unit (MJU). The MJU itself remains connected to the circuit. As many as four branches can be disconnected from an MJU with one command. This command *cannot* be used to disconnect MJUs or branches that are cascaded to additional MJUs. To disconnect MJUs and branches, see DISC,CRS,TS,MJU,RATE,ALL

Multipoint circuits can be disconnected incrementally, one command at a time. Many commands can address the same multipoint circuit. Indeed, many commands can address the same MJU of a circuit. A command might address an MJU, say MJU 0005 which has branches 1, 2, 3, and 4 connected, and disconnect customers from branches 1 and 2. This

command results in no service interruption to branches 3 and 4 which are still connected. Another command might also address MJU 0005 and disconnect the customer from branch 3, leaving branch 4 undisturbed.

Red Circuit and Customer Control Marking

Subrate cross-connections are automatically marked as red circuits. Removal (RMV) of a facility terminating NPC with Subrate circuits connected to it requires the INCL keyword. The DISC-CRS-TS action does not affect the customer control marking of a channel.
The CUS marking is disabled while the channel is established to the Subrate feature, but is returned once the channel is disestablished.
Once customers are disconnected, the UMC code is sent towards the customers' facilities.
Disconnected customers do not require a re-establishment (CRTE-CRS-TS) of their channels before being re-connected (CONN-CRS-TS MJU NORM or CONN-CRS-TS MJU TERM).

The master leg of the multipoint circuit (MPTM) is specified by digroup abc, channel ddd, customer number ff, and serves as the reference for addressing all MJUs and branches in the circuit. At least one branch must be specified with its corresponding external facility termination data.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number of the master leg

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical FROM NPC number of the master leg

The allowable values are presented below:

uv - Unit number
m - Module number
np - NPC number within the module

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number of the multipoint circuit master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of the multipoint circuit master leg (1 through 20)

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

RATE rr is always optional on a DISC-CRS-TS. rr specifies the rate at which customers are cross-connected, and thus, the rate at which MJUs operate. All MJUs in the same circuit operate at the same rate. If specified, RATE rr will be checked, and must be the same rate as originally appeared in the CONN-CRS-TS MJU NORM or CONN-CRS-TS MJU TERM command. If it is not the same, the DISC-CRS-TS command will be denied.

MPTM - Multipoint master

[s]abcddd[/ff] -
The NPC channel and optional customer number connected to the control leg of MJU 1. This field is used to identify the circuit as a whole. There is exactly one multipoint master for a multipoint circuit.

The data sent BY the multipoint master is broadcast to all branches on the circuit. The data sent TO the multipoint master is a summation of data sent by the branches.

The customer number, ff, is optional when the customer is in a DS0A

channel. This is because there is only one customer in a DS0A channel. If specified, it must appear as 01.

A customer number is required when specifying a customer in a DS0B

signal. Allowed customer numbers differ depending on the type of DS0B channel, as shown below.

DS0B nn	*Allowed Subrate Customer Numbers*
DS0B 20	1 through 20
DS0B 10	1 through 10
DS0B 5	1 through 5

Because the multipoint master is used to uniquely identify the circuit as a whole, it is required for all DISC-CRS-TS commands, regardless of which MJU the command addresses (MJU ssss in the message formats above).

MJU - Multipoint junction unit

ssss - MJU number of cross-connected MJU (0001-9999)

MJU ssss identifies the MJU that the command addresses. All MJUs are given a number, ssss, when the circuit is built with the CONN-CRS-TS MJU NORM or CONN-CRS-TS MJU TERM commands. This number should be used in the DISC-CRS-TS command to address an MJU.

nnnn - For branches connected to another MJU with number nnnn (0002-9999)

branch
- External facility terminations for branches connected to MJU ssss

Branch has the format "BRi [[t]ghijjj[/ll]]" where NPC [t]ghi channel jjj customer number ll is connected to branch i (BRi) of MJU ssss. At least one branch must be specified. This field may be repeated for four branches. The [t]ghijjj[/ll] part of this field is optional since the system knows what customer is connected to MJU ssss branch i. If the hierarchical format is used the NPC number is wxkqr.

BR - Branch

i - Branch number of MJU ssss (1 through 4)

[t]ghi
- The 3- or 4-digit nonhierarchical NPC number of termination connected to BRi

wx-k-qr
- Hierarchical NPC number of termination connected to BRi.

jjj - Channel number of termination connected to BRi
ll - Customer number of termination connected to BRi

The branch field identifies a branch that will be disconnected from the

customer connected to it. Again, if the customer is a DS0A customer, [/ll] is optional and, if present, must be /01.

If [t]ghijjj[/ll] is specified for a DS0B customer, [/ll] is required.

Branch can appear from one to four times in a DISC-CRS-TS command, disconnecting up to four customers from the four branches of an MJU. At least one branch field is required in this command format. The <branch> fields can appear in any order and all but one branch field can be omitted. Hence, the <branch> field for the last three branches, is optional and surrounded by [ ] in the format above. Nothing is disconnected from branches that are omitted from (do not appear in) the command.

Branch fields might be omitted for several reasons. Suppose branches 1, 2, and 3 of MJU ssss are connected with branch 4 unconnected. If the user wished to disconnect only the customer from branch 3, then only BR3 [[t]ghijjj[/ll]] would appear in the command. Branches 1 and 2 would not appear because the user does not want to disconnect them. Branch 4 would not appear because there is no customer to disconnect.

If an unconnected branch, like branch 4, does appear in a DISC-CRS-TS command, the command will be denied.

NEW - New

data - Branch connection data

data	*Explanation*
[0]000-000-00	Nonhierarchical format for unassigned branches
00-0-00-000-00	Hierarchical format for unassigned branches
[t]ghi-jjj-ll	Nonhierarchical format for branches connected to external facility terminations
wx-k-qrjjj/ll	Hierarchical format for branches connected to external facility terminations
MJU-nnnn	For branches connected to another MJU with number nnnn (0002 through 9999)

tttt - MJU number connected to control leg of MJU ssss (0001 through 9999)
u - Branch number of MJU tttt (1 through 4)

s - Termination state of the MJU control or branch leg

Indicates whether either or both ends of the cross-connection are in the terminate and leave state. The "TO" direction is defined as the direction facing the MJU.

s	*Explanation*
F	FROM (FROM side is terminated)
T	TO (TO side is terminated)
B	BOTH (BOTH sides are terminated)
R	RELEASED (Neither side is terminated)

The branch number disconnected from MJU ssss is indicated by the **BRi** field. Its external facility termination is listed in the **[t]ghijjj/ll** field. Data for any additional disconnected branches (<branch>) appears in the same format.

The last two lines summarize the total connection data for MJU ssss upon completion of the branch disconnection. The **MA** field identifies the upstream MJU number and branch connected to the control leg of MJU ssss. In the case of MJU 1, the control leg is actually the master leg of the circuit and is indicated in the MA field by **MPTM** The **BRn <data>** fields refer to the connection data associated with the four **branch leg of MJU ssss,** Each branch data field can take one of three forms, depending on whether the branch is unassigned, cross-connected to an external facility termination, or cross-connected to a cascaded MJU control leg. The field corresponding to **BRi** in the second line is listed as unassigned as a result of this command's completion. The **s** fields contained in the MA and

branch data indicate the terminate and leave status of each MJU connection.

The OOS keyword appears in the output whenever the disconnection involves an out-of-service or failed facility termination NPC. In this case, the user should note that the Unassigned Multiplexer Channel (UMC) code may not be inserted towards the facilities of the disconnected circuit until the facility is restored to service.

As is the case in all output messages, the customer number field in all external facility termination data (for example, [s]abcddd/ff) is always set to

/01 for DS0A channels.

mmmm	*Explanation*
IDNV	*Input, data not valid*
	CHANNEL [s]abcddd IS A PARITY CHANNEL
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd
	CHANNEL [s]abcddd/FF IS CONNECTED BUT NOT AS A MULTIPOINT MASTER LEG
	CHANNEL [s]abcddd/ff IS IS SPECIFIED MORE THAN ONCE
	INVALID CHANNEL NUMBER FOR CHANNEL [X]XXXYYY
	SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
	BR i IS SPECIFIED MORE THAN ONCE
	BR i IS CONNECTED TO A DOWNSTREAM MJU
	MJU ssss DOES NOT EXIST IN THE CIRCUIT
	BR i IS NOT CONNECTED AS SPECIFIED
IDRG	Input, data out of range
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
	CHANNEL [s]abcddd IS OUT OF RANGE
	[X]XXXYYY-FFF IS AN INVALID RANGE OF CHANNELS
SNAS	Status, not assigned
	BR i IS UNASSIGNED
	CHANNEL [s]abcddd/ff IS UNASSIGNED

SNVS Status, not in valid state

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd/ff IS UNDER TEST
NPC [X]XXX IS NOT PROVISIONED AS DIGROUP-A OF AN RT
THE NETWORK PROCESSING CIRCUIT ASSOCIATED WITH VIRTUAL CHANNEL [X]XXXYYY IS NOT PROVISIONED
NPC [X]XXX IS IN LINE LOOPBACK STATE
CIRCUIT IS UNDER TEST

ENEQ Equipage, not equipped

TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS OUT-OF-SERVICE
UNIT [q]q MXR c NOT EQUIPPED

IDNV Input, data not valid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
ACTIVE CCN SIDE IS PESTED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

DISC,CRS,TS,MJU,RATE,ALL

SUBRATE DISCONNECTION

Input Message Format

Nonhierarchical

[I.19431]

```
DISC-CRS-TS::[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL];
```

Hierarchical

[I.19431]

```
DISC-CRS-TS::[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL];
```

Completion Message

Nonhierarchical

[O.19431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL] COMPLD
   /* [O.19431] */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
   /* OLD MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"

                    .
                    .
                    .

   /* OLD MJU:MA,TERM */
   "vvvv:{wwww x|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
   /* NEW MJU:MA,TERM */
   "tttt:{yyyy z|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  "OOS"]
;
```

Note: The optional RATE information in line 4 and the customer number information in lines 5 and 6 only appear if the RATE-rr and/or ff fields are not specified in the input command.

Hierarchical

[O.19431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL] COMPLD
   /* [O.19431] */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
   /* OLD MJU:MA,TERM */
   "ssss:{tttt-u|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"

                    .
                    .
                    .

   /* OLD MJU:MA,TERM */
   "vvvv:{wwww x|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
   /* NEW MJU:MA,TERM */
   "tttt:{yyyy z|MPTM},s"
   /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */
   "<data>,s:<data>,s:<data>,s:<data>,s"
[  "OOS"]
;
```

Common

Note: The optional RATE information in line 4 and the customer number information in lines 5 and 6 only appear if the RATE-rr and/or ff fields are not specified in the input command.
Not applicable.

Denial Message

Nonhierarchical

[O.19431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]\
:[ALL] DENY
   mmmm
   /* [O.19431.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* OLD MJU:MA,TERM */]
[  "ssss:{tttt u|MPTM},s"]
[  /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */]
[  "<data>,s:<data>,s:<data>,s:<data>,s"]
;
```

Hierarchical

[O.19431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[RATE-rr]
:[ALL] DENY
   mmmm
   /* [O.19431.01] */
   /* <explanation of error condition code> */
[  "RATE-rr"]
[  /* MPTM customer number */]
[  "01"]
[  /* OLD MJU:MA,TERM */]
[  "ssss:{tttt u|MPTM},s"]
[  /* BR1,TERM:BR2,TERM:BR3,TERM:BR4,TERM */]
[  "<data>,s:<data>,s:<data>,s:<data>,s"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command provides deletion of MJUs and disconnection of customers in both directions. Customers must have beeen cross-connected (using the **CONN-CRS-TS,NORM** or **CONN-CRS-TS,TERM** commands) before they can be disconnected with the **DISC-CRS-TS** command. This command performs a cascaded MJU disconnection. The **MJU ssss** field identifies the place to begin the disconnection. **MJU ssss** as well as any MJUs cascaded from it will be disconnected. A maximum of 21 MJUs can be disconnected in one command. The DISC-CRS-TS command only disconnects customers from branches of MJUs.

Explanation Of Parameters

RATE - Rate

rr - Circuit rate (24, 48, 96, 56)

The optional RATE rr field specifies the rate at which customers are cross-connected, and thus, the rate at which MJUs operate. All MJUs in the same circuit operate at the same rate. If specified, rr will be checked and must be the same rate as originally appeared in the SCON or SCNT command. If it is not the same, the SDIS command will be denied.

MPTM - Multipoint master

MultiPoinT Master. The NPC, channel and optional customer number connected to the control leg of MJU 1. There is exactly one multipoint master for a multipoint circuit. This field is used to identify the circuit as a whole. The data sent by this multipoint master is broadcast to all branches on the circuit. The data sent to the multipoint master is a summation of data sent by the branches.

Because the multipoint master is used to uniquely identify the circuit as a whole, it is required for all SDIS commands, regardless of which MJU the command addresses (MJU ssss in the format above).

[s]abc

- The 3- of 4-digit nonhierarchical NPC number of the multipoint circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number of the multipoint circuit master leg

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of the multipoint circuit master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of the multipoint circuit master leg (1 - 20)

ff is optional when the customer is in a DS0A channel. This is because

there is only one customer in a DS0A channel. If specified, it must appear as 01.

A customer number is required when specifying a customer in a DS0B

signal. Allowed customer numbers differ depending on the type of DS0B channel, as shown below.

DS0B nn	Allowed Subrate Customer Numbers
DS0B 20	1 through 20
DS0B 10	1 through 10
DS0B 5	1 through 5

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

MJU - Multipoint junction unit

ssss - MJU number of disconnected MJU (0001-9999)

ssss identifies the MJU at which to begin the disconnection. Leading zeros are not required when specifying ssss. All MJUs are given a number, ssss, when the circuit is built with the SCON or SCNT commands. This number should be used in the SDIS command to choose the MJU at which to begin the disconnection. The maximum number of MJUs that can be disconnected with a single command is 21. If there are more than 20 MJUs cascaded (connected directly or indirectly) to MJU ssss, the command will be denied. If by specifying ssss, 21 or fewer MJUs will be disconnected, the control leg of MJU ssss will be disconnected as will everything cascaded from the branches of MJU ssss. If the multipoint circuit is composed of 21 or fewer MJUs and ssss is specified as 0001, the entire multipoint circuit is disconnected.

ALL - All

If ALL is not specified, all the branches of MJU ssss must be unconnected. Then, MJU ssss and its control leg will be disconnected.

If ALL is specified, it denotes that MJU ssss, its control leg, and everything connected directly or indirectly to the branches of MJU ssss will be disconnected.

Differences Between This Format And That Of DACS/SRDC

Due to significant operational improvements, the format of the multipoint SDIS command described in this message and message number 19421 is **not** compatible with the multipoint command of DACS/SRDC. This section highlights the improvements in this command and that of I.19421 over the SDIS command of DACS/SRDC. It is intended for users familiar with DACS/SRDC. Readers not familiar with DACS/SRDC can skip this section.

- Using this command, the maximum number of MJUs that can be disconnected with a single command line has been increased from 1 to 21.
- Multipoint circuits can be disconnected incrementally, using one-line commands. Thus there is no need for the editor (SEDIT) function provided in DACS/SRDC. There is also no need for the SMOD command provided in DACS/SRDC as existing circuits may be modified incrementally with the SCON and SDIS commands.
- MJU-to-MJU connections are not specified on an SDIS command instead of being specified twice for DACS/SRDC. This reduces the possibility of input error and enabled the elimination of the INT keyword used in DACS/SRDC.
- Arbitrary MJU numbering is allowed. Any MJU can be disconnected from the circuit without the need for disconnecting the entire circuit, re-connecting it, and re-numbering the remaining MJUs to follow a strict numerical order as in DACS/SRDC.

- SDIS command syntax has been simplified. The NMJU, INT and MPT keywords, and parentheses and semi-colons used in the DACS/SRDC SCON command have been eliminated. Specifying the customer connected to a branch, the customer number

  for DS0A customers, and circuit rate has been made optional.

Red Circuit and Customer Control Marking

SRDC cross-connections are automatically marked as red circuits. Removal (RMV) of a facility terminating NPC with SRDC circuits connected to it requires the INCL keyword.

The SDIS action does not affect the customer control marking of a channel. The CUS marking is disabled while the channel is established to the Subrate feature, but is returned once the channel is disestablished.

Trunk Conditioning for Disconnected Customers

Once customers are disconnected, the Unassigned Multiplex Code (UMC) code is sent towards the customers' facilities. Disconnected customers do not require a re-establishment (SECH) of their channels before being re-connected (SCON or SCNT). If the disconnected facilities are associated with one or more out-of-service (OOS) facility NPCs, the OOS keyword appears in the output message. This output message is a result of the deletion of MJU ssss and all of its associated downstream connections (if present). The format is divided into "OLD" and "NEW" sections. The OLD section lists all of the disconnected MJUs and branches associated with MJU ssss. This includes the branch data of MJU ssss, as well as the data for up to twenty additional MJUs that may have been cascaded from MJU ssss and its associated downstream connections. The NEW section lists the new connection data for the just-upstream MJU *after* the disconnection of the control leg of MJU ssss.

The **RATE rr** field indicates the customer rate of the circuit. The **MPTM [s]abcddd/ff** field identifies the external facility termination of the master leg of the circuit, i.e., the termination connected to the control leg of MJU 1. The MJU number being disconnected is identified by the **MJU ssss** field. The optional **ALL** keyword appears whenever the disconnection of MJU ssss also results in the disconnection of its branches from external facility terminations or cascaded MJUs. In the latter case, all of the downstream MJUs and their associated branches are also disconnected.

The second and third lines of output summarize the disconnected cross-connections of MJU ssss. The **MA** field identifies the upstream MJU number and branch connected to the control leg of MJU ssss. In the case of MJU 1, the control leg is actually the master leg of the circuit and is indicated in the MA field by **MPTM**. The **BR <data>** fields refer to the connection data associated with the four branch leg of MJU ssss. Each branch data field can take one of three forms, depending on whether the branch is unassigned, cross-connected to an external facility termination, or cross-connected to a cascaded MJU control leg. The **s** fields contained in the MA and branch data indicate the terminate and leave status of each MJU connection.

When necessary, the remaining **OLD MJU** fields describe the cross-connection data for additional (up to twenty) disconnected MJUs. The MJU, MA, and BR fields are analagous to those of MJU ssss with the exception that no MA field can list MPTM as the control leg connection.

The **NEW MJU** field describes the cross-connection data for the MJU whose branch was disconnected from the control leg of MJU ssss. These cross-connections remain in effect after completion of the SDIS command. If the disconnected MJU ssss is MJU 1, the NEW MJU fields are filled with zeroes, indicating that no MJUs remain in the circuit.

The OOS keyword appears in the output whenever the disconnection involves one or more out-of-service or failed facility termination NPCs. In this case, the user should note that the Unassigned Multiplexer Channel (UMC) code may not be inserted towards the facilities of the disconnected circuits until they are restored to service.

As is the case in all output messages, the customer number field in all external facility termination data (e.g., [s]abcddd/ff) always is set to 01 for DS0A channels.

[s]abcddd/ff
- External facility termination of circuit master leg

tttt - MJU number connected to control leg of MJU ssss (0001-9999)

u - Branch number of MJU tttt (1-4)

[0]000-000-00
- Nonhierarchical format for unassigned branches

[t]ghi-jjj-11
- Nonhierarchical format for branches connected to external facility terminations

00-0-00-000-00
- Nonhierarchical format for unassigned branches

wx-k-qr-jjj-11
- Nonhierarchical format for branches connected to external facility terminations

MJU-nnnn
- For branches connected to another MJU with number nnnn (0002-9999)

s - Termination state of the MJU control or branch leg

Indicates whether either or both ends of the cross-connection are in the terminate and leave state. The "TO" direction is defined as the direction facing the MJU.

s	*Explanation*
R	Released. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

vvvv - MJU number of additional cascaded MJUs (0002-9999)

wwww - MJU number connected to control leg of MJU vvvv
x - Branch number of MJU connected to control leg of MJU vvvv

yyyy - MJU number connected to control leg of MJU tttt
z - Branch number of MJU connected to control leg of MJU tttt
This output message is due to a request for the deletion of MJU ssss and all of its associated downstream connections (if present).

The RATE rr field indicates the customer rate of the circuit, and appears if present in the input command. The optional **ALL** keyword appears only if present in the input command, and is normally used whenever the disconnection of MJU ssss also results in the disconnection of its branches from external facility terminations or cascaded MJUs.

The second and third lines of output summarize the disconnected cross-connections of MJU ssss. These lines appear whenever the specified MJU has branches that are cross-connected or under test. From this data, the user is able to determine which branches are the cause of the denial.

mmmm - Error condition code

mmmm	*Explanation*

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL
[s]abcddd

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL
[s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL
[s]abcddd
CHANNEL [s]abcddd/FF IS CONNECTED BUT NOT AS A MULTIPOINT
MASTER LEG
CHANNEL [s]abcddd/ff IS UNDER TEST
CHANNEL [s]abcddd/ff IS UNASSIGNED
CHANNEL [s]abcddd IS OUT OF RANGE

NPC [X]XXX IS NOT PROVISIONED AS DIGROUP-A OF AN RT
THE NPC ASSOCIATED WITH VIRTUAL CHANNEL [X]XXXYYY IS
NOT PROVISIONED
INVALID CHANNEL NUMBER FOR CHANNEL [X]XXXYYY
[X]XXXYYY-FFF IS AN INVALID RANGE OF CHANNELS
NPC [X]XXX IS IN LINE LOOPBACK STATE
MJU ssss DOES NOT EXIST IN THE CIRCUIT

NUMBER OF DISCONNECTED MJUS EXCEEDS THE LIMIT OF 21
SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
CIRCUIT IS UNDER TEST
CONNECTED BRANCHES ARE PRESENT AND THE ALL KEYWORD
IS NOT SPECIFIED

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS {OUT-OF-SERVICE|FAILED|PESTED}
UNIT [q]q IS NOT FACILITY TERMINATING TYPE
CCNI s IS {OUT-OF-SERVICE|FAILED}
TSI sft IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
CCB sf IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
CCI s IS {OUT-OF-SERVICE|FAILED}
ETSI sqq IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q FTMI d IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q FC sb IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}

DSPI IN UNIT [q]q IS {OUT-OF-SERVICE|FAILED}
NPC [s]abc IS NOT EQUIPPED
NPC [s]abc SIDE s IS {OUT-OF-SERVICE|FAILED}
MAINTENANCE CONDITION PREVENTS COMPLETION OF
THIS COMMAND

DS3U related errors

ENEQ Equipage, not equipped

UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service

UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed

UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

DISC,CRS,TS,RATE

SUBRATE DISCONNECTION

Input Message Format

Nonhierarchical

[I.19401]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:\
[ww]:[RATE-rr];
```

Hierarchical

[I.19401]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:\
[ww]:[RATE-rr];
```

Completion Message

Nonhierarchical

[O.19401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:\
[ww]:[RATE-rr] COMPLD
[  /* [O.19401] */]
[  "RATE-rr"]
[  "OOS"]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:\
[ww]:[RATE-rr] COMPLD
[  /* [O.19401] */]
[  "RATE-rr"]
[  "OOS"]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional RATE information in line 4 and the customer number information in lines 6 through 9 only appear if the RATE-rr, ff and/or the ll fields are not specified in the corresponding input command.

Denial Message

Nonhierarchical

[O.19401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:\
[ww]:[RATE-rr] DENY
   mmmm
   /* [O.19401.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:\
[ww]:[RATE-rr] DENY
   mmmm
   /* [O.19401.01] */
   /* <explanation of error condition code> */
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional FROM and TO customer number information in lines 6 through 9 only appears if the ff and/or the ll fields are not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command disconnects the **FROM** and **TO** customers in both directions. The channels **abcddd** and **ghijjj** must be cross-connected (using the **CONN-CRS-TS,NORM** or **CONN-CRS-TS,TERM** verbs) before they can be disconnected with **DISC-CRS-TS**.

The optional **RATE rr** field defines the rate at which the **FROM** and **TO** customers were cross-connected. If specified it will be checked and must be the same rate as originally appeared in the **CONN-CRS-TS,NORM** or **CONN-CRS-TS,TERM** command. The **TPT** keyword means two-point and is optional. It conveys no information and is retained for DACS/SRDC compatibility.

Explanation Of Parameters

rr - Circuit rate (24, 48, 96, or 56)

TPT - Two-point

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ll - TO customer number
ff - FROM customer number

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

mmmm	*Explanation*
IDNV	*Input, data not valid*
	CHANNEL [s]abcddd IS A PARITY CHANNEL
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B CHANNEL [s]abcddd INVALID CHANNEL NUMBER FOR CHANNEL [X]XXXYYY SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
IDRG	Input, data out of range
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd CHANNEL [s]abcddd IS OUT OF RANGE

SAAS	Status, already assigned
	CHANNELS ARE NOT CONNECTED TO EACH OTHER
SNVS	Status, not in valid state
	CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE CHANNEL [s]abcddd/ff IS UNDER TEST NPC [X]XXX IS NOT PROVISIONED AS DIGROUP-A OF AN RT THE NPC ASSOCIATED WITH VIRTUAL CHANNEL [X]XXXYYY IS NOT PROVISIONED NPC [X]XXX IS IN LINE LOOPBACK STATE
IDNV	Input, data not valid
	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
ENEQ	Equipage, not equipped
	TSI sft IS NOT EQUIPPED CCB sf IS NOT EQUIPPED ETSI sqq IS NOT EQUIPPED NPC [s]abc IS NOT EQUIPPED UNIT [q]q IS NOT EQUIPPED UNIT [q]q FTMI d IS NOT EQUIPPED UNIT [q]q FC sb IS OUT-OF-SERVICE UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED
ACTIVE CCN SIDE IS PESTED

st	d	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

DISC,CRS,TS,RATE

SUBRATE DISCONNECTION

Input Message Format

Nonhierarchical

[I.19411]

```
DISC-CRS-TS:[<xy>]:[s]abc-ddd{&&-eee[-01]|-ff&&-mm},\
[t]ghi-jjj{&&-kkk[-01]|-ff&&-mm}:[ww]:[RATE-rr];
```

Hierarchical

[I.19411]

```
DISC-CRS-TS:[<xy>]:uv-m-np-ddd{&&-eee[-01]|-ff&&-mm},\
wx-k-qr-jjj{&&-kkk[-01]|-ll&&-nn}:[ww]:[RATE-rr];
```

Completion Message

Nonhierarchical

[O.19411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd{&&-eee[-01]|-ff&&-mm},\
[t]ghi-jjj{&&-kkk[-01]|-ff&&-mm}:[ww]:[RATE-rr] COMPLD
[  /* [O.19411] */]
[  "OOS"]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd{&&-eee[-01]|-ff&&-mm},\
wx-k-qr-jjj{&&-kkk[-01]|-ff&&-mm}:[ww]:[RATE-rr] COMPLD
[  /* [O.19411] */]
[  "OOS"]
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Denial Message

Nonhierarchical

[O.19411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::[s]abc-ddd{&&-eee[-01]|-ff&&-mm},\
[t]ghi-jjj{&&-kkk[-01]|-ll&&-nn}:[ww]:[RATE-rr] DENY
   mmmm
   /* [O.19411.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   "ddd-{01|ff},jjj-{01|ll}"
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS TS::uv-m-np-ddd{&&-eee[-01]|-ff&&-mm},\
wx-k-qr-jjj{&&-kkk[-01]|-ll&&-nn}:[ww]:[RATE-rr] DENY
   mmmm
   /* [O.19411.01] */
   /* <explanation of error condition code> */
   /* FROM,TO terminations involved in the denial where */
   /* ppp = channel number, -pp = customer number */
   "ddd-{01|ff},jjj-{01|ll}"
[  /* FROM customer number */]
[  "01"]
[  /* TO customer number */]
[  "01"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command disconnects the **FROM** and **TO** customers in both directions. It extends the format of the **DISC-CRS-TS** command to ranges of two-point, two-way disconnections. This command is the same as the **DISC-CRS-TS** command except for the range feature. See message **DISC-CRS-TS** for an explanation of features not related to the range feature.

The **FROM** and TO fields specify the customers to disconnect. The **FROM** and **TO** keywords have no significance to DACS II and either customer or range of customers may be designated **FROM** or **TO**. The **FROM** and **TO** designations do not have to be the same on an **DISC-CRS-TS** command as they were on the corresponding **CONN-CRS-TS,NORM** or **CONN-CRS-TS,TERM** command.

Explanation Of Parameters

TPT - Two-Point, Two-way disconnection

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The allowable values are presented below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM Channel number
eee - FROM channel number for end of range specified
jjj - TO Channel number
kkk - TO channel number for end of range specified

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - FROM DS0A or DS0B Customer number

mm - FROM DS0B Customer number for end of range

ll - TO DS0A or DS0B Customer number, similar to ff

nn - TO DS0B Customer number for end of range

ff	explanation
01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

rr - Circuit rate (24, 48, 96, or 56)

The FROM and TO fields specify the customers to disconnect. The FROM and TO keywords have no significance to DACS II and either customer or range of customers may be FROM or TO. The FROM and TO designations do not have to be the same on an SDIS command as they were on the corresponding SCON or SCNT command.

There are two ways to specify ranges, as evidenced by the two formats that may follow the FROM and TO keywords:

- Range specified in channel field: [s]abcddd-eee[/01]

  This option only applies to DS0A channels, and the channel range, i.e., eee, must be specified when a range of DS0A customers is desired. The customer number for DS0a channels is always 01. For example, [0]001002-010/01 specifies

a range of nine DS0A customers on NPC 001, while [0]001002-010 does the same thing without the optional customer number.

- Range specified in customer number field: [s]abcddd/ff-mm

This option only applies to a DS0B channel, and the range must be specified in

the customer number field when a range of DS0B customers is desired. If NPC [0]020, channel 004 was established (using the SECH verb)

as a 10 customer DS0B channel, then [0]020004/01-09 specifies a range of nine customers on NPC [0]020 channel 004.

Specifying a range in both the channel and customer number field for the same customer specification, such as [0]001001-009/01-09, will be denied.

mmmm	*Explanation*	
IDNV	*Input, data not*	*valid*

CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B
CHANNEL [s]abcddd

CUSTOMER NUMBER RANGE NOT ALLOWED FOR DS0A
CHANNEL [s]abcddd

CHANNEL RANGE NOT ALLOWED FOR DS-OB CHANNEL [s]abcddd
INVALID CHANNEL NUMBER FOR CHANNEL [X]XXXYYY
FROM AND TO RANGES ARE NOT THE SAME SIZE
FROM AND TO RANGES PARTIALLY OVERLAP
SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd
CHANNEL [s]abcddd IS OUT OF RANGE
[X]XXXYYY-FFF IS AN INVALID RANGE OF CHANNELS

SAAS Status, already assigned

CHANNEL [s]abcddd/ff IS UNDER TEST
CHANNELS ARE NOT CONNECTED TO EACH OTHER

SNAS Status,not in pending state

CHANNEL [s]abcddd/ff IS UNASSIGNED

SNVS Status, not in valid state

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
NPC [X]XXX IS NOT PROVISIONED AS DIGROUP-A OF AN RT
THE NPC ASSOCIATED WITH VIRTUAL CHANNEL [X]XXXYYY IS NOT PROVISIONED
NPC [X]XXX IS IN LINE LOOPBACK STATE

IDNV Input, data not valid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

ENEQ Equipage, not equipped

TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS OUT-OF-SERVICE
UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMAND

SROF Status, requested operation failed

ACTIVE CCN SIDE IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc IS FAILED
NPC [s]abc SIDE s IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS OUT-OF-SERVICE
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED
ACTIVE CCN SIDE IS PESTED

DISC,CRS1,T0,INCL,OOS,DCC

ONE-WAY DISCONNECT

Input Message Format

Nonhierarchical

[I.15101]

```
DISC-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

Hierarchical

[I.15101]

```
DISC-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC];
```

Completion Message

Nonhierarchical

[O.15101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
[  /* [O.15101] */]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.15101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
[  /* [O.15101] */]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.15101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15101.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.15101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] DENY
   mmmm
   /* [O.15101.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the disconnection of a one-way two-point cross-connect circuit or a range of one-way circuits.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number for beginning of NPC range

wx-k-qr
- Hierarchical TO NPC number for end of NPC range

The valid values are listed below:

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - FROM channel number
jjj - TO channel number
eee - FROM channel number denoting the end of a channel range.
kkk - TO channel number denoting the end of a channel range.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

INCL - Inclusive

To disconnect a circuit or range of circuits including one or more circuits marked either RDC or CUS, use the optional INCL keyword. If this keyword is not used, the message will be denied if any circuits in the range are red circuits or customer controlled circuits.

OOS - Out-of-service

An Out-Of-Service disconnect may be done by giving the optional OOS keyword.
At least one end of the circuit must be out-of-service or the OOS disconnect will be denied.

DCC - Disconnect code

If DCC is specified, DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the <tc> field of the TCON command that initially connected the channels. If the DCC option is not used, the disconnect code specified in the CRTE-EQPT::NPC command will be used.

RDLD - Red lined

CUS - Customer

Customer-controlled circuit

Terminations cross-connected using the optional CUS keyword retain their CUS status when disconnected. If the terminations are reconnected without the CUS or INCL keyword, the command will be denied. When they are reconnected with the INCL keyword, they lose their customer controlled status.

mmm,nnn

- Channel number involved in denial. Otherwise the same as ddd.

d - Direction

d	*Explanation*
F	From
T	To
B	Both

st - Status

mmmm - Error condition code

mmmm	st	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
CUS	{FIT|B}	Customer-controlled Circuit
FAIL	{FIT|B}	Failed
NOMTH	{FIT|B}	No Match
OOS	{FIT|B}	Out-of-service
RDLD	{FIT|B}	Red Lined
ROLL	{FIT|B}	Circuit is involved in a roll
TP	{FIT|B}	NPC is used for test access
UNPASGN	{FIT|B}	Unassigned or Not Properly Assigned
UEQD	{FIT|B}	Unequipped
UTST	{FIT|B}	Under Test

DISC,CRS1,T0,INCL,OOS,DCC

ONE-WAY MULTIPOINT DISCONNECTIONS

Input Message Format

Nonhierarchical

[I.15102]

```
DISC-CRS1-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC];
```

Hierarchical

[I.15102]

```
DISC-CRS1-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:\
[ww]:[INCL]:[OOS][,DCC];
```

Completion Message

Nonhierarchical

[O.15102]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
   /* [O.15102] */
[  "[RDLD][,CUS]"]
[  "NOBBL-{F|T},MPDIS-{F|T|B}"]
;
```

Hierarchical

[O.15102]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,DCC] COMPLD
   /* [O.15102] */
[  "[RDLD][,CUS]"]
[  "NOBBL-{F|T},MPDIS-{F|T|B}"]
;
```

Denial Message

Nonhierarchical

[O.15101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15101.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.15101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15101.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

[O.15101.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:[OOS][,CUS][,DCC] DENY
   mmmm
   /* [O.15101.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a one-way disconnection from the specified FROM end termination(s) and to the TO end termination. It is used to disconnect a one-way multipoint circuit.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd,jjj

- Channel number

eee,kkk

- Channel number denoting the end of range.

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The backbone termination is on the Virtual NPC (001 through 500).

INCL - Inclusive

To disconnect a channel or range of channels including one or more channels marked as a Red Circuit, use the INCL option.
The message will be denied if any circuits in the range are Red Circuits and the INCL option is not used.

OOS - Out of service

At least one end of the circuit must be out-of-service or the OOS disconnect will be denied.

DCC - Disconnect code

DACS II will insert the user-defined disconnect code and signaling into the disconnected channels. This disconnect code and signaling are specified by the trunk conditioning field of the TCON command that initially connected the channels.
If the DCC option is not used, the disconnect code specified in the grow NPC command will be used.

NOBBL - No backbone leg

The optional NOBBL will appear if the multipoint circuit FROM or TO was in the broadcast mode but has no backbone leg.

MPDIS - Multipoint disconnect

F - From
T - To

Full disconnection of the multipoint circuits is indicated by MPDIS for FROM or TO.

CUS - Customer

Customer-control circuit

RDLD - Red lined

Disconnection was performed on a red lined circuit.
If the disconnection was given on more than one circuit, then at least one of them was a red lined circuit.

mmm,nnn
- Channel number involved in denial.

st - Status of denial

d - Direction

d	*Explanation*
F	From
T	To
B	Both

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
IIFM	INERR	Invalid FROM NPC type for AIS insertion
IIFM	INERR	Invalid TO NPC type for AIS insertion
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
SNVS	CONFERR	Try to delete a BBL leg from VC;however, VC has no BBL leg
SNVS	CONFERR	The NPC of VC BBL leg doesn't match that in the input command
SNVS	CONFERR	The first channel of VC BBL leg doesn't match that in the input command
SNVS	CONFERR	Try to delete a BRD leg from VC; however, VC has no BRD leg
SNVS	CONFERR	The input BRD leg is not in VC
SNVS	CONFERR	The first channel of VC BRD leg doesn't match that in the input command
SNVS	CONFERR	Tried to disconnect a nonexisting VC
IIFM	CONFERR	Try to operate a TWO-WAY conference with an ONE-WAY input command
IIDT	CONFERR	Database conference width does not match the range in input command
IIDT		Invalid input BBL as fmd in ONE-WAY command
IIDT		Invalid input BRD as tmd in ONE-WAY command
SNVS	CONFERR	Trying to add or delete a leg when a conference is under test
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed

mnnnn	st	*Explanation*
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
ENRE	SCERR	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	SCERR	Corresponding NPC for TO virtual channel is not provisioned
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
NOMTH	{FITIB}	No Match
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
TP	{FITIB}	NPC is used for test access
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

DISC,CRS1,T1,INCL,OOS

ONE-WAY DISCONNECT

Input Message Format

Nonhierarchical

[I.15111]

```
DISC-CRS1-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:[OOS];
```

Hierarchical

[I.15111]

```
DISC-CRS1-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS];
```

Completion Message

Nonhierarchical

[O.15111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS] COMPLD
[  /* [O.15111] */ ]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.15111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] COMPLD
[  /* [O.15111] */ ]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.15111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15111.01] */
   /* <explanation of error condition code> */
;
```

[O.15111.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::[s]abc,[t]ghi:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15111.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
;
```

Hierarchical

[O.15111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15111.01] */
   /* <explanation of error condition code> */
;
```

[O.15111.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC CRS1 T1::uv-m-np,wx-k-qr:[ww]:[INCL]:[OOS] DENY
   mmmm
   /* [O.15111.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message disconnects a one-way cross-connection between two non-channelized network processing circuits. When the circuit is disconnected, the idle code (AIS) is transmitted.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized FROM NPC number

[t]ghi
- The 3- or 4-digit non-hierarchical non-channelized TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of non-channelized FROM NPC

wx-k-qr
- Hierarchical number of non-channelized TO NPC

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive
Required for a customer-controlled circuit or a red circuit

OOS - Out-of-Service
May be specified if one or both NPCs are out of service

RDC - Red circuit

RDLD - Red lined

Disconnection of Red circuit

CUS - Customer

Disconnection of Customer-controlled circuit

st - Status of denial

d - Direction {F-from I T-to I B-both}

mmmm - Error condition code

mmmm	**st**	*Explanation*
IIDT	INERR	No NPC's out of service and OOS keyword used
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed

mmmm	st	*Explanation*
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
INVLD	{FITIB}	Invalid NPC type
NOMTH	{FITIB}	No Match
NPCTA	{FITIB}	NPC used for Test Access
OOS	{FITIB}	Out-of-service
ROLL	{FITIB}	Circuit is involved in a roll
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

DISC,EQPT,NPC

DEGROWTH NPC

Input Message Format

Nonhierarchical

[I.32341]

```
DISC-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

Hierarchical

[I.32341]

```
DISC-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww];
```

Completion Message

Nonhierarchical

[O.32341]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] COMPLD
   /* [O.32341] */
   "TYPE-mnxyz"
   /* NPC number */
   "[s]ghi"
;
```

Hierarchical

[O.32341]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] COMPLD
   /* [O.32341] */
   "TYPE-mnxyz"
   /* NPC number */
   "uv-g-hi"
;
```

Denial Message

Nonhierarchical

[O.32341.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.32341.01] */
   /* <explanation of error condition code> */
[  /* UEQD */]
[  "TYPE-mnxyz"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.32341.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.32341.02] */
   /* <explanation of error condition code> */
[  /* IS */]
[  "TYPE-mnxyz"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.32341.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.32341.03] */
   /* <explanation of error condition code> */
[  /* {NPCTP|NPCTG} */]
[  "TYPE-mnxyz"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.32341.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.32341.04] */
   /* <explanation of error condition code> */
[  /* TERM ASGN */]
[  "TYPE-mnxyz"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

[O.32341.05]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.32341.05] */
   /* <explanation of error condition code> */
[  "TYPE-mnxyz"]
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.32341.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
    mmmm
    /* [O.32341.01] */
    /* <explanation of error condition code> */
[   /* UEQD */]
[   "TYPE-mnxyz"]
    /* NPC number */
    "uv-j-kl[&&&-uv-m-no]"
;
```

[O.32341.02]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
    mmmm
    /* [O.32341.02] */
    /* <explanation of error condition code> */
[   /* IS */]
[   "TYPE-mnxyz"]
    /* NPC number */
    "uv-j-kl[&&&-uv-m-no]"
;
```

[O.32341.03]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
    mmmm
    /* [O.32341.03] */
    /* <explanation of error condition code> */
[   /* {NPCTP|NPCTG} */]
[   "TYPE-mnxyz"]
    /* NPC number */
    "uv-j-kl[&&&-uv-m-no]"
;
```

[O.32341.04]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
    mmmm
    /* [O.32341.04] */
    /* <explanation of error condition code> */
[   /* TERM ASGN */]
[   "TYPE-mnxyz"]
    /* NPC number */
    "uv-j-kl[&&&-uv-m-no]"
;
```

[O.32341.05]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww] DENY
   mmmm
   /* [O.32341.05] */
   /* <explanation of error condition code> */
[  "TYPE-mnxyz"]
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command unequips network processing circuits (NPCs) in DACS II Facility Terminating Units (FTU), DS3 Units (DS3U) and Digital Signal Processing Units (DSPU).

It may be used to unequip a single NPC or a range of NPCs in an FTU or DS3U. However, Digital Signal Processing Circuits must be individually unequipped.
When ranges of NPCs are addressed, the DISC-EQPT command will show a completion indication after the last NPC in the range is unequipped or the highest numbered NPC is successfully unequipped. **Before** the completion indication is output, individual denial messages will be output for each **NPC that is denied unequipage.**
One output message is printed for each NPC that is successfully unequipped.

When an NPC range degrowth command within a unit crosses a Facility Terminating Module (FTM) boundary, if the FTM is unequipped, or the NPC is unequipped, in-service, designated as NPC test port for test ports, has active terminations or circuits under test, or for other conditions, gaps for such FTMs or two or more such NPCs will be skipped, with a summary message, as noted below.

Specifically:

(a) Degrowth commands where the range address crosses a unit boundary will be denied.

(b) For the degrowth NPC range command: output messages for such gaps of two or more NPCs will be denied in a summary command. The denial summary will use a floating window denial:

Floating Window Denial Message
Where a range NPC command is denied for successive NPCs in the range **for the same reason**, a summary denial message will be output, giving the range of NPCs denied, and the reason. The execution of the normal completions, or of denials for a reason other than diagnostic failures, then resumes at the next NPC, up to the end of the range.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of the range.

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of the range.

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641        0801        0961        1121
0661        0821        0981        1141
0681        0841        1001        1161
0701        0861        1021        1181
0721        0881        1041        1201
0741        0901        1061        1221
0761        0921        1081        1241
0781        0941        1101        1261


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281        1441        1601        1761
1301        1461        1621        1781
1321        1481        1641        1801
1341        1501        1661        1821
1361        1521        1681        1841
1381        1541        1701        1861
1401        1561        1721        1881
1421        1581        1741        1901
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921        2081        2241        2401
1941        2101        2261        2421
1961        2121        2281        2441
1981        2141        2301        2461
2001        2161        2321        2481
2021        2181        2341        2501
2041        2201        2361        2521
2061        2221        2381        2541
```

uv-m-np, uv-k-qr
- Hierarchical NPC numbers

uv - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are:

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB, SR, and MJ type numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01
```

Note: Range is not allowed for DSPU NPC degrowth.

With exceptions, an NPC must first be removed from service with the REPT,RMV,EQPT,NPC,SIDE,INCL message before it can be degrown.

The exceptions are DSPU, CCB, TSI, and FC NPCs. **If a cross-connected channel or a channel under test is present on the NPC,** the message will be denied.

Degrowth of DMB NPCs results in degrowth of both duplicated NPCs in a DSPU NPC circuit pack.

For other DSPU NPCs, there is only one NPC per circuit pack.

One of the duplicated NPCs may first be removed from service with the REPT,RMV,EQPT,NPC,SIDE,INCL message.
If both NPCs are in service, both will be automatically removed during the degrowth of NPC operation. If a cross-connected channel is present on the NPC, the message will be denied.

Additionally, the SLC carrier terminated digroups must be deleted from the SLC carrier bank by executing the DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD,DGP,RT,DL command.

[s]ghi
- The 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]def)

[s]jkl
- The 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]mno)

[t]mno
- The 3- or 4-digit nonhierarchical NPC number ([s]ghi through [t]def)

uv-g-hi
- Hierarchical NPC number within the range of uv-m-np and uv-k-qr

uv-j-kl
- Hierarchical NPC number within the range of uv-m-np and uv-m-no

uv-m-no
- Hierarchical NPC number within the range of uv-j-kl and uv-k-qr

TYPE - Type
mnxyz - NPC-type identifier

mn	Explanation
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC

TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC
MB	Digital multipoint bridge NPC
MJ	Multipoint junction unit NPC
SR	Subrate multiplexer unit NPC

UEQD - Unequipped

The specified NPC is already unequipped

IS - In-service

The specified NPC is in service

NPCTP - NPC (for) test port

The specified NPC is designated for DS0 test ports

NPCTG - NPC (for) test group

The specified NPC is designated for Nx64Kbit/s test groups

TERM - Termination

ASGN - Assigned

The specified NPC has active or under-test assigned termination

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
SNVS	Unit type error
SNVS	NPC has active circuit
SAWS	Conference exists in a DMB
SNVS	NPC not deleted
IICM	SRDC timeslots are allocated on this NPC
SNVS	Invalid NPC number specified
IDRG	NPC range crosses unit boundary

mmmm	*Explanation*
SAIS	DS3U NPC already In-Service
SNVS	Use of this NPC is RESERVED for SLC 96 MD 1

DISC,EQPT,NPC,NPCTG,TGR

DEGROWTH TEST-ACCESS GROUP NPC

Input Message Format

Nonhierarchical

[I.32401]

```
DISC-EQPT:[xy]:NPC-[s]abc:[ww]:NPCTG-rrr:[TGR];
```

Hierarchical

[I.32401]

```
DISC-EQPT:[xy]:NPC-uv-m-np:[ww]:NPCTG-rrr:[TGR];
```

Completion Message

Nonhierarchical

[O.32401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc:[ww]:NPCTG-rrr:[TGR] COMPLD
;
```

or

[O.32402]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc:[ww]:NPCTG-rrr:[TGR] COMPLD
   /* [O.32402] */
   "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"
[  "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"]
[  "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"]
;
```

Hierarchical

[O.32401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np:[ww]:NPCTG-rrr:[TGR] COMPLD
;
```

[O.32402]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np:[ww]:NPCTG-rrr:[TGR] COMPLD
   /* [O.32402] */
   "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"
[  "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"]
[  "TG-mmm[&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm][&-mmm]"]
;
```

Denial Message

Nonhierarchical

[O.32401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc:[ww]:NPCTG-rrr:[TGR] DENY
   mmmmm
   /* [O.32401.01] */
   /* <explanation of error condition code> */
   "TG-mmm"
;
```

Hierarchical

[O.32401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np:[ww]:NPCTG-rrr:[TGR] DENY
   mmmmm
   /* [O.32401.01] */
   /* <explanation of error condition code> */
   "TG-mmm"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request the removal of the test-access group (TG) designation from a network processing circuit for test-access groups. All TGs associated with this NPCTG must be released before the NPCTG can be deprovisioned. If "TGR" is specified in the command all active TGs will be released and deprovisioned before the NPCTG is deprovisioned. Any out-of-servive (OOS) condition will be bypassed.

A TG may be supported by one or two NPCTGs. Deprovisioning of an NPCTG that supports half (one bundle) of an active TG, will result in the release and deprovisioning of the entire TG; provided "TGR" was specified.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

NPCTG - NPC (for) test group

rrr - NPCTG number (1 through 400)

TGR - TG release

This keyword causes any active TGs supported by this NPCTG to be released from testing and degrown before the NPCTG is degrown. It is required if the NPCTG has active TGs.

TGS - TGs supported by the NPCTG

mmm - TG number (1 through 400)

Lowest TG number supported by the NPCTG. This number will be '000' if all TGs have been degrown.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC is not designated for this test port
ENEQ	Test port group is not grown
SNVS	NPC is not a NPCTG
SAIS	Test group is not idle or frame is not In Service
SRTN	Test group release failed

DISC,EQPT,NPC,NPCTP,TPR

DEGROWTH TEST PORT NPC

Input Message Format

Nonhierarchical

[I.32381]

```
DISC-EQPT:[xy]:NPC-[s]abc:[ww]:NPCTP-n:[TPR];
```

Hierarchical

[I.32381]

```
DISC-EQPT:[xy]:NPC-uv-m-np:[ww]:NPCTP-n:[TPR];
```

Completion Message

Nonhierarchical

[O.32381]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc:[ww]:NPCTP-n:[TPR] COMPLD
   /* [O.32381] */
   "TPS-kk&&-nn"
;
```

Hierarchical

[O.32381]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np:[ww]:NPCTP-n:[TPR] COMPLD
   /* [O.32381] */
   "TPS-kk&&-nn"
;
```

Denial Message

Nonhierarchical

[O.32381.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-[s]abc:[ww]:NPCTP-n:[TPR] DENY
   nnnnn
   /* [O.32381.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.32381.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::NPC-uv-m-np:[ww]:NPCTP-n:[TPR] DENY
   nnnnn
   /* [O.32381.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests removal of the specified test port designation from the network processing circuit. It deprovisions all test ports in all four test access digroups.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640


Unit         Unit         Unit         Unit
5            6            7            8

NPC          NPC          NPC          NPC
0641-0800    0801-0960    0961-1120    1121-1280


Unit         Unit         Unit         Unit
9            10           11           12

NPC          NPC          NPC          NPC
1281-1440    1441-1600    1601-1760    1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

NPCTP - NPC test port
n - NPCTP number (1 throught 8)

TPR - Test port release

This keyword causes any active test ports to be released from service before the test port NPC is degrown. Without the TPR keyword, the test ports must all be idle or the command is denied.

TPS - Test ports

kk - Beginning test port number

nn - Ending test port number

kk and nn indicate the range of test port numbers which the named NPC included

n	*kk*	*nn*
1	01	12
2	13	24
3	25	36
4	37	48
5	49	60
6	61	72
7	73	84
8	85	96

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC is not a NPCTP
SNVS	NPC is not designated for this NPCTP/NPCTG
ENEQ	TP/TG is not grown
SAIS	Test port is not idle or frame is not inservice
SRTN	Test Port release failed

DISC,EQPT,SYNC,TB

DEGROWTH SYNCHRONIZER TIME BASE

Input Message Format

[I.32101]

```
DISC-EQPT:[<xy>]:SYNC:[ww]:TB;
```

Completion Message

[O.32101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::SYNC:[ww]:TB COMPLD
   /* [O.32101] */
   "TYPE-TBpqr"
;
```

Denial Message

[O.32101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::SYNC:[ww]:TB DENY
   mmmm
   "TYPE-TBpqr"
   /* [O.32101.01] */
   /* <explanation of error condition code> */
   /* TYPE-TBpqr */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the deprovisioning of the synchronizer time base.

Explanation Of Parameters

SYNC - Synchronizer

TYPE - Type

TB - Time base

p - Time base identifier

qr - Unassigned

q and r can take any value from 0 through 9

p	*Time base*
0	Stratum 3
1	CEPT Local
2	CEPT Toll
3	Stratum 2

Note: pqr will be shown as "---" if the synchronizer is not equipped.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	SYNC TB is not equipped
SAIS	Both syncs are in-service

DISC,EQPT,SYNC,TLI,SSP

DEPROVISION SYNCHRONIZER TIMING LINK INTERFACE

Input Message Format

[I.32121]

```
DISC-EQPT:[<xy>]:SYNC:[ww]:TLI-m:[SSP-a];
```

Completion Message

[O.32121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::SYNC:[ww]:TLI-m:[SSP-a]  COMPLD
   /* [O.32121] */
   "COND-cc"
   /* {SSP-a,SRC-p,TYPE-texyz|TYPE-TDpqr|TYPE-TBpqr} */
;
```

Denial Message

[O.32121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::SYNC:[ww]:TLI-m:[SSP-a] DENY
   mmmm
   /* [O.32121.01] */
   /* <explanation of error condition code> */
   /* {SSP-a,SRC-p,TYPE-texyz|TYPE-TDpqr|TYPE-TBpqr} */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the deprovisioning of the synchronizer's timing link interface.

If the timing link interface was configured as a timing extractor (**TYPE-texyz**), the synchronizer sync port must be specified as well.

On output, note that the NPC option can be a source of synchronization for a timing link interface. When a TU type TLI receiving its input from an NPC is degrown, the NPC must be marked as no longer being a synchronizer source.

Explanation Of Parameters

SYNC - Synchronizer

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Synchronizer synchronization port

a - SSP number (0 or 1)

SRC - Source

p - Synchronization port priority (1 through 8)

p	*Explanation*
1	HIGHEST priority
8	LOWEST priority

TYPE - Type

texyz - Timing extractor type

texyz	*Explanation*
TCxyz	Composite Clock Timing Extractor
TExyz	DS1 Timing extractor
TPxyz	Primary Block Timing Extractor (xyz values are listed below)
TRxyz	Basic System Reference Frequency
TUxyz	Unipolar Clock Timing Extractor
-----	Not Equipped

TE-type TLI xyz fields

x - Frame format

x	*Explanation*
0	Invalid
1	D4 Format
2 or 3	ESF Format
4	DDS (T1DM) Format
5-9	Invalid

y - Line format

y	*Explanation*
0 or 1	Bipolar Line Coding
2	B8ZS Line Coding
3	Invalid
4 or 5	Bipolar Line Coding
6	B8ZS Line Coding
7-9	Invalid

z - Channel format

z	*Explanation*
0-9	Unassigned

TP-type TLI xyz fields

x - Frame format

x	*Explanation*
1 or 5	Common Channel Signaling
2 or 6	Channel Associated Signaling - Mode 0
3 or 7	Channel Associated Signaling - Mode 1
4 or 8	European Remote Switching Module
0 or 9	Invalid

y - Line format

y	*Explanation*
0 or 2	Alternate Mark Inversion (Bipolar)
1 or 3	High Density Bipolar (HDB3)
4-9	Invalid

z - Channel format

z	*Explanation*
0-9	Unassigned

TC, TR, and TU-type TLI xyz fields

x - Frame format

y - Line format

z - Channel format

Values for x, y, and z are unassigned.

TD - Timing distributor

p - Timing distributor identification

Variable TDpqr equals "-----" if the timing distributor is not equipped.

p	*Explanation*
1	Composite clock timing distribution
2	Sinusoidal 2.048 MHz timing distribution

qr Unassigned

TB - Time base

p - Time base identifier

qr - Unassigned

q and r can take any value from 0 through 9

p	*Time base*
0	Stratum 3
1	CEPT Local
2	CEPT Toll
3	Stratum 2

Note: pqr will be shown as "---" if the synchronizer is not equipped.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
A1	SNVS	CRO type TLI (SSP portion not required)
A2	SNVS	SSP number is illegal
A3	SNVS	SSP number required
B8	SAIS	CRO is still equipped
BE	SNVS	Hardware mismatch or not present
CC	SNVS	NPC is still provisioned to provide sync timing

DISC,EQPT,TG

DEGROWTH TEST-ACCESS GROUP

Input Message Format

[I.32421]

```
DISC-EQPT:[<xy>]:TG-mmm[&&-nnn]:[ww];
```

Completion Message

[O.32421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TG-mmm[&&-nnn]:[ww] COMPLD
   /* [O.32421] */
   /* TG,east-bundle NPCTG, west-bundle NPCTG */
   "mmm,rrr,sss[:mmm,rrr,sss][:mmm,rrr,sss][:mmm,rrr,sss]"
[  "mmm,rrr,sss[:mmm,rrr,sss][:mmm,rrr,sss][:mmm,rrr,sss]"]
[  "mmm,rrr,sss[:mmm,rrr,sss][:mmm,rrr,sss][:mmm,rrr,sss]"]
[  "mmm,rrr,sss[:mmm,rrr,sss][:mmm,rrr,sss][:mmm,rrr,sss]"]
{>|;}
```

or

[O.32421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TG-mmm[&&-nnn]:[ww] COMPLD
   /* [O.32421] */
   "UEQD:ppp[&&qqq]"
{>|;}
```

Denial Message

[O.32421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TG-mmm[&&-nnn]:[ww] DENY
   mmmm
   /* [O.32421.01] */
   /* <explanation of error condition code> */
[  /* NOT-IDLE */]
[  "TGS-ttt[&&-uuu]"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request the deprovisioning of one or more idle test-access groups.

Explanation Of Parameters

TG - Test-access Group

mmm - TG number (1 through 400)

nnn - End of TG range number (1 through 400)

rrr - East-bundle NPCTG number (1 through 400)

sss - West-bundle NPCTG number (1 through 400)

UEQD - Unequipped

ppp,qqq - Unequipped TGs in specified range

ttt,uuu - Active TGs in specified range

mmmm - Error condition code

mmmm	*Explanation*
SROF	None of the designated TG(s) are equipped
SAIS	Test group is not idle or frame is not In Service

DISC,EQPT,TP

DEGROWTH

Input Message Format

[I.32411]

```
DISC-EQPT:[<xy>]:TP-kk:[ww];
```

Completion Message

[O.32411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TP-kk:[ww] COMPLD
;
```

Denial Message

[O.32411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TP-kk:[ww] DENY
   mmmm
   /* [O.32411.01] */
   /* <explanation of error condition code> */
   /* NPCTP-UEQD */
;
```

[O.32411.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TP-kk:[ww] DENY
   mmmm
   /* [O.32411.02] */
   /* <explanation of error condition code> */
   /* NOT-IDLE */
;
```

[O.32411.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::TP-kk:[ww] DENY
   mmmm
   /* [O.32411.03] */
   /* <explanation of error condition code> */
   /* TPMAX-nn,TP,NSO */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the unequipage of a specified test port. Any subsequent test access requests for this test port will be denied. Also, if the specified test port is in use, the command will be denied.

When degrowth of the specified test port is completed, the channel units associated with this test port are no longer assumed in place, and no test ports with numbers greater than the one specified remain equipped.

Explanation Of Parameters

TP - Test port

kk - Test port number (01 through 96)

NPCTP - NPC for test ports

UEQD - Unequipped

TPMAX - Test port maximum

nn - Test port number (01 through 96)

NSO - Not in sequence order

Degrowth of test port kk can be denied under the following conditions:

- The NPCTP (network processing circuit for test ports) has not been designated or UEQD.
- The requested test port is not idle. The test port is currently assigned to a cross-connected channel for test access (NOT-IDLE).

- The requested test port is NSO (not in sequence order) (TPMAX=nn, TP, NSO). That is, kk is not equal to the highest existing test port number nn in the NPCTP.

DISC,EQPT,UNIT

DEGROW UNIT

Input Message Format

[I.32211]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww];
```

Completion Message

For DACS II Non-CEF frames:
[O.32211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-q:[ww]  COMPLD
   /* [O.32211] */
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   /* DEGROWN:TSI Degrown by this command */
   "DEGROWN:sft,sft:sft,sft:sft,sft:sft,sft:... ..."
                    .
                    .
                    .
   "DEGROWN:sft,sft:sft,sft:sft,sft:sft,sft:... ..."
   /* TOTAL TSI tt, DEGROWN TSI dd */
   "tt,dd"
  [/* REMOVED:FMTs Removed by This Command */]
  ["REMOVED:[0],[1]"]
  [/* DEGROWN:FMTs:FLIs:Multiplexers degrown by this \
command */]
  ["DEGROWN:0,1:S,P:P"]
```

Note: The line corresponding to FMT removal will only be output if one or both FMTs have been removed.

For DACS II CEF frames:

[O.32212]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-qq:[ww]  COMPLD
   /* [O.32212] */
   "0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:\
0rr,1rr"
   "0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:0rr,1rr:\
0rr,1rr"
   /* ETSI degrown by this command */
   "0qq,1qq"
   /* Total ETSIS */
   "kk"
[  /* REMOVED:FMTs removed by this command */]
[  "REMOVED:[0],[1]"]
[  /* DEGROWN:FMTs:FLIs:MXR degrown by this command */]
[  "DEGROWN:0,1:S,P:P"]
;
```

Note: The line corresponding to FMT removal will only be output if one or both FMTs have been removed.

Denial Message

[O.32211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]  DENY
   mmmm
   /* [O.32211.01] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

[O.32211.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]  DENY
   mmmm
   /* [O.32211.02] */
   /* <explanation of error condition code> */
   /* [FLI-c,IS,][{FTMI-m,EQD|NPC-1,EQD|[MXR-k,][MIU-P,]\
[EQD]}] */
;
```

[O.32211.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]  DENY
   mmmm
   /* [O.32211.03] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the unequipage of a DACS II unit.

When this request is completed, all cross-connect buffer and time slot interchange circuit packs required by the subject unit to cross-connect to other equipped units are unequipped.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

tt - Total number of provisioned TSIs in frame after unit is degrown (00 through 70)

dd - Number of TSIs deprovisioned by command (00 through 22)

sft - TSI equipped status

s - Service side number (0 or 1)

f
- FROM unit number

f	*Explanation*
n	Unit number n (equals 1 through 6) is equipped
-	Not equipped

t
- TO unit number

t	*Explanation*
n	Unit number n (equals 1 through 6) is equipped
-	Not equipped

DEGROWN
- Degrown

Degrowth of UNIT q (1 through 6) can be denied because:

kk - Total number of equipped ETSIs in the frame after the unit is degrown (00 through 30)

ETSIS - Expanded time slot interchangers

ETSI - Expanded time slot interchanger

0qq - ETSI number side 0

1qq - ETSI number side 1

0qq and 1qq identify the ETSI packs deprovisioned by this command. qq is the unit number (see UNIT above).

Three dashes "---" are shown if an ETSI pack is not provisioned.

0rr - ETSI number side 0

1rr - ETSI number side 1

0rr and 1rr give the ETSIs equipage status. rr is the unit number (see UNIT above)

Three dashes "---" are shown if an ETSI pack is not provisioned.

- The unit is already degrown (UEQD), or
- The FTU is still equipped with m FTMIs (facility terminating module interfaces), or
-

  The DSPU is supporting l NPCs, or
- The unit controller (UC) is in service (IS)

-

  The DS3U is still equipped with k multiplexers (MXRs) and/or the protection multiple interface unit (MIU P), or

-

  The DS3U is supporting at least one in-service facility line interface (FLI),

FLI - Facility line interface

S - Service

P - Protection

FMT - Formatter

0 - Side number 0

1 - Side number 1

MIU - Multiple interface unit

MXR - Multiplexer

P - Protection

m - Number of FTMIs (1 through 4). Will appear if the unit is equipped as an FTU.

l - Number of NPCs in DSP unit (1 through 8). Will appear if the unit is equipped as a DSPU.

k - Number of MXRs (1 through 6). Will appear if the unit is equipped as a DS3U.

c - Number of FLIs that are in service (1 or 2). Will appear if the unit is equipped as a DS3U.

EQD - Equipped

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SAIS	Subject entity is in service
SAIS	DSPI is in service

DISC,EQPT,UNIT,FTMI

DEPROVISION FACILITY TERMINATING MODULE INTERFACE

Input Message Format

[I.32321]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d;
```

Completion Message

[O.32321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:FTMI-d COMPLD
   /* [O.32321] */
   "FC-0d,1d"
;
```

Denial Message

[O.32321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:FTMI-d DENY
   mmmm
   /* [O.32321.01] */
   /* <explanation of error condition code> */
   /* {UEQD|EQD|IS} */
[  /* {FC-sd|NPC-n} */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests unequipage of a DACS II facility terminating module and its associated facility terminating module interface.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

d - FTMI number in the DACS II unit (1 through 4)

FC - Format converter

s - Side of in-service FC

s	*Explanation*
0	Side 0 FC in-service
1	Side 1 FC in-service
2	Both sides in-service

NPC - Network processing circuit

n - Number of the NPC in the FTM that is still equipped (1 through 40)

UEQD - The FTMI is unequipped

EQD - Equipped

IS - In service

Format converter side (FC sd) is still in-service

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SAIS	Subject entity is in service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	Unit is not FTU type

DISC,EQPT,UNIT,MIU

DEPROVISION MULTIPLEXER INTERFACE UNIT

Input Message Format

[I.32511]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d];
```

Completion Message

[O.32511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d] COMPLD
   /* [O.32511] */
   "TYPE-mnxyz"
   /* MIU Number */
   "a"
>
                    .
                    .
                    .
;
```

Denial Message

[O.32511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d] DENY
   mmmm
   /* [O.32511.01] */
   /* <explanation of error condition code> */
  [/* TYPE-mnxyz */]
   /* MIU Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests and reports the unequipage (unequip) of one or more Multiplexer Interface Units (MIUs) in a DS3 unit.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c,d - The number of the MIU within the unit (P, 1 through 6)

TYPE - Type

mnxyz - Type identifier

mnxyz	*Explanation*
MI100	MIU type. This is the only MIU type available.

a - MIU number within the range of c and d.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAIS	MIU is already in service
ENEQ	MIU is not equipped
SNVS	The MMFG is protected
SNVS	The associated MMFG is under protection (for Service MIUs)
SNVS	Some associated NPCs are equipped

DISC,EQPT,UNIT,MXR

DEGROWTH MULTIPLEXER

Input Message Format

[I.32501]

```
DISC-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c[&&-d];
```

Completion Message

[O.32501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:MXR-c[&&-d] COMPLD
   /* [O.32501] */
   /* MXR Number */
   "a"
>
          .          .
          .          .
;
```

Denial Message

[O.32501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC EQPT::UNIT-[q]q:[ww]:MXR-c[&&-d] DENY
   mmmm
   /* [O.32501.01] */
   /* <explanation of error condition code> */
  ["TYPE-mnxyz"]
   /* MXR Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests and reports the unequippage (unequip) of one or more Multiplexers (MXRs) and associated DS3 facilities in the service slots of a DS3 unit.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MXR - Multiplexer

c,d - The number of the MXR within the unit ($1 \leq c,d \leq 6$)

Note: The Protection MXR is degrown along with the UNIT.

a - MXR number within the range of c and d

TYPE - The requested DS3 format that will be processed by the MXR.

mnxyz - The DS3 format processed by the MXR:

mn - the type of DS3 facility

MX : the original R4.0 DS3 facility type supported by the Multiplexer (MXR) circuit pack

EX : the enhanced R6.0 DS3 facility type supported by the Enhanced Multiplexer (EMXR) circuit pack

Default is the MX type for backward compatibility.

x - the DS3 framing format
1 - M13 format.(default)
2 - C-bit parity format

y - not assigned (the only valid value is 0)

z - not assigned (the only valid value is 0)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	The MXR is not grown
SNVS	The MMFG is protected
SNVS	The associated MMFG is under protection (for Service MIUs)
SAAS	The MIU is already equipped
SNVS	Some associated NPCs are equipped
SAIS	The MXR is in service

DISC,TACC,T0,ALL,OOS

TEST PORT RELEASE

Input Message Format

[I.27002]

```
DISC-TACC-T0:[<xy>]::[ww]:ALL:[OOS];
```

Completion Message

[O.27002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:ALL:[OOS] COMPLD
   mmmm
   /* [O.27002.01] */
   /* <explanation of error condition code> */
;
```

Denial Message

Not applicable.

Autonomous Message

[O.27002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.27002] */
   /* <explanation of error condition code> */
   /* Test port:Event */
   "ALL:DISC-TACC-T0[,OOS]"
;
```

Explanation Of Message

This command requests that all test ports set up by the link on which this command is input be restored to the released mode. An individual output message will be received for each test port released (see REPT,EVT,EQPT,DISC,TACC,T0,OOS)
This output message will be received after all test ports have been released.
Subrate test sessions are also released by this command.

Explanation Of Parameters

TPR - Test Port Release

ALL - All

OOS - Out-of-service

The OOS keyword is used to release test ports on an out-of-service circuit. Any test port, regardless of the type of circuit accessed, will be released.

mmmm - Four-character error condition code
mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SARL	No test ports were activated by link n
SNVS	One or more test ports could not be released

DISC,TACC,T0,OOS

TWO-WAY TEST ACCESS

Input Message Format

[I.27001]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:[OOS];
```

Completion Message

Nonhierarchical

[O.27001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:[OOS] [NTR] COMPLD
   /* [O.27001] */
[  "[RDLD][,CUS]"]
[  "[OOS,]TERM{R|F|T|B}" ]
[  "[s]abc-ddd,[t]ghi-jjj"]
;
```

Hierarchical

[O.27001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:[OOS] [NTR] COMPLD
   /* [O.27001] */
[  "[RDLD,CUS]"]
[  "[OOS,]TERM{R|F|T|B}"]
[  "wx-k-qr-ddd,uv-m-np-jjj"]
;
```

Denial Message

Nonhierarchical

[O.27001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:[OOS] DENY
   mmmm
   /* [O.27001.02] */
   /* <reason> */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

Hierarchical

[O.27001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:[OOS] DENY
   mmmm
   /* [O.27001.02] */
   /* <reason> */
   /* wx-k-qr-ddd,uv-m-np-jjj */
;
```

Common

[O.27001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:[OOS] DENY
   mmmm
   /* [O.27001.01] */
   /* <reason> */
;
```

Autonomous Message

Nonhierarchical

[O.27001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27001] */
   /* Test port:Event */
   "kk:DISC-TACC-T0[,OOS]"
   /* Channel tested:Status */
   "[s]abc-ddd,[t]ghi-jjj:[RDLD,][CUS,][OOS,][NTR]\
[TERM{R|F|T|B}]"
;
```

[O.27001.02]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27001.02] */
   /* Test port:Event */
   "kk:DISC-TACC-T0[,OOS]"
   /* Channel tested */
   "[s]abc-ddd,[t]ghi-jjj"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.27001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27001] */
   /* Test port:Event */
   "kk:DISC-TACC-T0[,OOS]"
   /* Channel tested:Status */
   "wx-k-qr-ddd,uv-m-np-jjj:[RDLD,][CUS,][OOS,][NTR]\
[TERM{R|F|T|B}]"
;
```

[O.27001.02]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27001.02] */
   /* Test port:Event */
   "kk:DISC-TACC-T0[,OOS]"
   /* Channel tested */
   "wx-k-qr-ddd,uv-m-np-jjj"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Common

[O.27001.01]

```
A  ff REPT EVT EQPT
   /* [O.27001.01] */
   /* Test port:Event */
   "kk:DISC-TACC-T0[,OOS]"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Explanation Of Message

This command allows a circuit under test to be put in the release mode and to be restored to its mapped (terminated or normal) state. When the Subrate Feature is used for a circuit termination, the system response will be a Subrate test port release message.

Explanation Of Parameters

kk - Test port number (01 through 96)

OOS - Out-of-service

Used to release test ports on an out-of-service circuit

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
016A-016H    032A-032H    048A-048H    064A-064H

Unit         Unit         Unit         Unit
5            6            7            8

NPC          NPC          NPC          NPC
0641-0800    0801-0960    0961-1120    1121-1280
080A-080H    096A-096H    112A-112H    128A-128H

Unit         Unit         Unit         Unit
9            10           11           12

NPC          NPC          NPC          NPC
1281-1440    1441-1600    1601-1760    1761-1920
144A-144H    160A-160H    176A-176H    192A-192H

Unit         Unit         Unit         Unit
13           14           15           16

NPC          NPC          NPC          NPC
1921-2080    2081-2240    2241-2400    2401-2560
208A-208H    224A-224H    240A-240H    256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical TO NPC number of the circuit assigned to the test port.

wx-k-qr
- Hierarchical FROM NPC number of the circuit assigned to the test port.

If the test port is assigned to an unmapped termination, this field will be all zeroes.

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Module     NPC
01-16       1-4        01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01-02

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit        Module     NPC
01-16       1-6        01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit        Module     NPC
99          1          01-02   (DACS II Non-CEF frames)
99          1          01-06   (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd - FROM channel or conference number
jjj - TO channel or conference number

Channel numbers

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085 (MB NPC)

001-500 (Virtual NPC)

TERM - Terminate

R	RELEASED. Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	Both sides are terminated

RDLD - Red lined

CUS - Customer

Customer-controlled circuit

NTR - No transmit

st	Explanation
F FAIL	FROM side NPC is marked failed
F OOS	FROM side NPC (abc) is out of service
F UEQD	The DACS unit supporting the FROM termination is out-of-service or failed
FAIL	Test port Group NPC failed
MCOND	An entity in the network is OOS or failed
NA	DACS CCN or UNIT involved cannot perform the cross-connect
NUTST	Test port kk is presently idle
OOS	Test port Group NPC out of service
T FAIL	TO side NPC is marked failed
T OOS	TO side NPC is Out Of Service
T UEQD	The DACS unit supporting the TO termination is out-of-service or failed
UEQD	The test port Group NPC or the test port is not equipped

DISC,TACC,T0,RLS,F,T,B,L,G,A

TWO-WAY TEST ACCESS

Input Message Format

Nonhierarchical

[I.25501]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:RLS{F|T|B|L|G|A}\
:[NOT-[t]rst-vvv];
```

Hierarchical

[I.25501]

```
DISC-TACC-T0:[<xy>]::[ww]:kk:RLS{F|T|B|L|G|A}\
:[NOT-uv-m-np-vvv];
```

Completion Message

Nonhierarchical

[O.25501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
COMPLD
   /* [O.25501] */
   "RLS{R|F|T|B}"
[  "[RDLD][,CUS]"]
   "[s]abc-ddd,[t]ghi-jjj"
;
```

Hierarchical

[O.25501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
COMPLD
   /* [O.25501] */
   "RLS{R|F|T|B}"
[  "[RDLD][,CUS]"]
   "ed-h-fg-ddd,wx-k-qr-jjj"
;
```

Denial Message

Nonhierarchical

[O.25501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25501.01] */
   /* <reason> */
;
```

[O.25501.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25501.02] */
   /* T-UASGN */
   /* [t]ghi-jjj */
;
```

[O.25501.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25501.03] */
   /* <reason> */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

[O.25501.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-[t]rst-vvv]\
DENY
   mmmm
   /* [O.25501.04] */
   /* NTLA */
   /* TERM{R|F|T|B} */
   /* [RDLD][,CUS] */
   /* [s]abc-ddd,[t]ghi-jjj */
;
```

Hierarchical

[O.25501.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
DENY
   mmmm
   /* [O.25501.02] */
   /* T-UASGN */
   /* wx-k-qr-jjj */
;
```

[O.25501.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
DENY
   mmmm
   /* [O.25501.03] */
   /* <reason> */
   /* ed-h-fg-ddd,wx-k-qr-jjj */
;
```

[O.25501.04]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:kk:RLS{F|T|B|L|G|A}:[NOT-uv-m-np-vvv]\
DENY
   mmmm
   /* [O.25501.04] */
   /* NTLA */
   /* TERM{R|F|T|B} */
   /* [RDLD][,CUS] */
   /* ed-h-fg-ddd,wx-k-qr-jjj */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to modify the Terminate and Leave Release status of one or both ends of the cross-connected channels associated with the specified test port. This message will be denied if the specified test port is not in the monitor or split mode or if the tested circuit is already in the specified termination release state.
When used with the Subrate Feature for a circuit termination, the system response will be DISC TACC TS RLS or DISC TACC TS RLS MJU.

Explanation Of Parameters

RLS - Release

F Apply RLS to the FROM end
T Apply RLS to the TO end
B Apply RLS to BOTH ends

The following apply only to multipoint circuits

L Apply RLS on all legs towards facilities
G Apply RLS on all legs towards bridge
A Apply RLS on all legs in both directions

NOT - Not

NOT means that the termination number following the NOT keyword is not to be affected by this command. This field is only valid for RLS values L, G, or A.

kk - Test port number (01 through 96)

The test port is mapped to predesignated channels of a network processing circuit for test ports (NPCTP) during the provisioning of that test port. All domestic nonSLC NPC types can be provisioned as NPCTP. For the mapping between the test ports and the channels of the test NPCs, see the CRTE-EQPT::TP: message.

[t]rst

- The 3- or 4-digit Nonhierarchical NPC number of a termination that must not be affected by the command.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np

- Hierarchical NPC number of a termination that must not be affected by this command

uv	- Unit number
m	- Module number
np	- NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

vvv - Channel or conference number

Channel numbers

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085 (MB NPC)

001-500 (Virtual NPC)

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number with the same valid values as [t]rst.

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number with the same valid values as [t]rst.

wx-k-qr
- The hierarchical NPC number of the TO termination of the circuit assigned to the test port with the same valid values as uv-m-np.

ed-h-fg
- The NPC number of the FROM termination of the circuit assigned to the test port. If the test port is assigned to an unmapped termination, this field will be all zeros (with the same valid values as uv-m-np).

ed,wx - Unit number
h,k - Module number
fg,qr - NPC number

jjj - TO channel with the same valid values as vvv.
ddd - FROM channel with the same valid values as vvv.

CUS - Customer

The circuit is a Customer-controlled Circuit

RDLD - Red lined

The tested circuit is a protected circuit

F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated
R	Neither side is terminated

T UASGN
- The test port is assigned to an unmapped termination

NTLA - The requested TLA state is the present TLR (RLS) state

reason

- Denial reason

st	mmmm	Explanation
SCERR D2	ENRE	NOT NPC is not provisioned as DGA
SCERR D5	ENRE	Corresponding NPC for NOT virtual channel is not provisioned
SCERR D8	IDNV	Invalid NOT channel number
BADCCN	NCON	CCN OOS or failed
BADFC	NCON	FC OOS or failed
BADFLI	NCON	FLI OOS or failed
BADFMT	NCON	FMT (Formatter) OOS or failed
BADFTMI	NCON	FTMI OOS or failed
BADMIU	NCON	MIU OOS or failed
BADMXR	NCON	MXR OOS or failed
BADUNIT	NCON	UNIT OOS or failed
CHREST	NCON	CAS channel 031 not allowed
F FAIL	NCON	FROM side NPC is marked failed
F OOS	NCON	FROM side NPC (abc) is out of service
FAIL	NCON	Test port Group NPC failed
INERR	NCON	Input error in the specification of TLA direction
MCOND	NCON	An entity in the network is OOS or failed
NA	NCON	DACS CCN or UNIT involved cannot perform the cross-connect
OOS	NCON	Test port Group NPC out of service
T FAIL	NCON	TO side NPC is marked failed
T OOS	NCON	TO side NPC is Out Of Service

DISC,TACC,T0,TG,OOS

NX64Kbit/s TWO-WAY TEST ACCESS, TEST-ACCESS GROUP RELEASE

Input Message Format

[I.27021]

```
DISC-TACC-T0:[xy]::[ww]:TG-mmm[&&-nnn]:[OOS];
```

Completion Message

Nonhierarchical

[O.27021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:TG-mmm[&&-nnn]:[OOS] COMPLD
   /* [O.27021] */
```

(Followed by one of the following fragments)

```
   "mmm:NN[,TERM{R|F|T|B}][,RDLD][,CUS][,OOS][,NTR]"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
{>|;}

or

   "mmm[&&nnn]:UEQD"
{>|;}

or

   "mmm:NN,{UASGN|LOOP}"
{>|;}

or

   "mmm:NN,HUB[,OOS],[s]abc-ddd,[t]ghi-jjj"
{>|;}
```

Hierarchical

[O.27021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:TG-mmm[&&-nnn]:[OOS] COMPLD
   /* [O.27021] */
```

(Followed by one of the following fragments)

```
   "mmm:NN[,TERM{R|F|T|B}][,RDLD][,CUS][,OOS][,NTR]"
   "FROM-NPC:uv-m-np,TO-NPC:wx-k-qr"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
{>|;}

or

   "mmm[&&nnn]:UEQD"
{>|;}

or

   "mmm:NN,{UASGN|LOOP}"
{>|;}

or

   "mmm:NN,HUB[,OOS],uv-m-np-ddd,wx-k-qr-jjj"
{>|;}
```

Denial Message

[O.27021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:::[ww]:TG-mmm[&&-nnn]:[OOS] DENY
   mmmm
   /* [O.27021.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Nonhierarchical

[O.27021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021] */
   /* Test-access Group:Width,Event */
   "mmm:NN,DISC-TACC-T0[,OOS]"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi[,TERM{R|F|T|B}][,RDLD][,CUS]\
[,NTR]"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;

or

   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021] */
   /* Test-access Group:Width,Event */
   "mmm:NN,DISC-TACC-T0[,OOS]"
   "HUB,[s]abc-ddd,[t]ghi-jjj"
;
```

Hierarchical

[O.27021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021] */
   /* Test-access Group:Width,Event */
   "mmm:NN,DISC-TACC-T0[,OOS]"
   "FROM-NPC:uv-m-np,TO-NPC:wx-k-qr[,TERM{R|F|T|B}][,RDLD][,CUS]\
[,NTR]"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;

or

   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021] */
   /* Test-access Group:Width,Event */
   "mmm:NN,DISC-TACC-T0[,OOS]"
   "HUB,uv-m-np-ddd,wx-k-qr-jjj"
;
```

Common

[O.27021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021] */
   /* Test-access Group:Width,Event */
   "mmm:NN,DISC-TACC-T0[,OOS]"
   "{UASGN|LOOP}"
;
```

[O.27021.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.27021.01] */
   /* Test-access Group:Event */
   "mmm:DISC-TACC-T0[,OOS]"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Explanation Of Message

This command is used to release one or more currently active test-access groups, and restore any circuits under test to their normal, terminated, or unmapped state. The OOS keyword is required to release a test-access group in two cases:

1. The associated circuit under test is out-of-service.
2. One of both of the NPCs supporting the test-access group is out-of-service.

Where more than one test-access group is specified in the input command the completion message will list the test-access groups in ascending order by the test-access group number and provide information for all test-access groups. If an attempt is made to release a range of test-access groups and no test-access groups in the range have been provisioned the release will be denied. The output for test-access groups testing in other monitor or split modes is printed with a mapping of channels.

When an administrative link fails, all test-access groups associated with that link will be released; automatically. All circuits under test by those TGs will be restored to their normal state; mapped or unmapped. Any termination state entered before or during the test access will remain in effect.

If a failure in an entity involved in an autonomous test-access group release causes the release to fail the release may be performed manually by this command.

Explanation Of Parameters

TGR - Test (access) group release

TG - Test (access) group

mmm - TG number (001 through 400)

nnn - TG number (001 through 400, greater than mmm)

Variable mmm is used to specify a single TG number or to specify the beginning of a range of TG numbers. Variable nnn is used to specify the end of a range of TG numbers.

[s]abc

- 3- or 4-digit non-hierarchical FROM NPC number or first TO NPC number if TG is in HUB mode

[t]ghi

- 3- or 4-digit non-hierarchical TO NPC number or second TO NPC number if TG is in HUB mode

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
016A-016H    032A-032H    048A-048H    064A-064H

Unit         Unit         Unit         Unit
5            6            7            8

NPC          NPC          NPC          NPC
0641-0800    0801-0960    0961-1120    1121-1280
080A-080H    096A-096H    112A-112H    128A-128H

Unit         Unit         Unit         Unit
9            10           11           12

NPC          NPC          NPC          NPC
1281-1440    1441-1600    1601-1760    1761-1920
144A-144H    160A-160H    176A-176H    192A-192H

Unit         Unit         Unit         Unit
13           14           15           16

NPC          NPC          NPC          NPC
1921-2080    2081-2240    2241-2400    2401-2560
208A-208H    224A-224H    240A-240H    256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical FROM NPC number or first TO NPC number if TG is in HUB mode

wx-k-qr

- Hierarchical TO NPC number or second TO NPC number if TG is in HUB mode

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

For an unmapped TO termination, or a backbone leg (BBL) without a return, the FROM NPC number will be shown as zeroes.

ddd - FROM channel number or starting channel of first TO NPC in HUB mode
jjj - Starting channel of second TO NPC in HUB mode

001 through 024

001-031* Primary NPCs grown as Channel Associated Signaling (CAS)
001-031 Primary NPCs grown as Non Signaling Associated (NSA)

* Circuits involving CAS channel 31 can only be tested for N = 1.

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s).
If channel jjj is mapped to a channel 000 (N = 1 only), the corresponding FROM channel ddd will be '000'.

OOS - Out-of-service

RDLD - Red lined

The circuit is a red circuit

CUS - Customer

The circuit is customer controlled

TLA - Terminate and leave active

TERM - Terminate

s	Explanation
R	All channels are released
F	One or more FROM channel is terminated
T	One or more TO channel is terminated
B	One or more of FROM and TO channels are terminated

NTR - No Transmit

Backbone leg with no return

UASGN - Unassigned

TG is unassigned or idle

LPD - Looped

UEQD - Unequipped

TG is not equipped

HUB - Hub

TG is in Hub mode

mmmm - Four-character error condition code

NN - TG width (1 through 24)
mmmm - Error condition code

mmmm	*Explanation*
SWFA	Active CCN side not IS or failed or pested or hardware OOS
SWFA	SYNC summary is set on CCI circuit pack
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
ENEQ	test group unequipped
SNIS	NPC is OOS for a TGR command and OOS keyword not specified
SNIS	NPC not in service or failed

DISC,TACC,T0,TG,RLS,F,T,B

NX64Kbit/s TWO-WAY TEST ACCESS, TERMINATE-AND-LEAVE-RELEASE

Input Message Format

[I.25521]

```
DISC-TACC-T0:[xy]::[ww]:TG-mmm:RLS{F|T|B};
```

Completion Message

Nonhierarchical

[O.25521]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:[xy]::[ww]:TG-mmm:RLS{F|T|B} COMPLD
   /* [O.25521] */
   "TERM{R|F|T}[,RDLD][,CUS][,ONEWAY]"
   "FROM-NPC:[s]abc,TO-NPC:[t]ghi"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Hierarchical

[O.25521]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:[xy]::[ww]:TG-mmm:RLS{F|T|B} COMPLD
   /* [O.25521] */
   "TERM{R|F|T}[,RDLD][,CUS][,ONEWAY]"
   "FROM-NPC:uv-m-np,TO-NPC:wx-k-qr"
   /* FROM channels */
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
   "ddd,ddd,ddd,ddd,ddd,ddd,ddd,ddd"
;
```

Denial Message

[O.25521.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T0:[xy]::[ww]:TG-mmm:RLS{F|T|B} DENY
   mmmm
   /* [O.25521.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to release one or both ends of an Nx64Kbit/s cross-connection associated with the specified test-access group. The circuit to be released must be a terminated, mapped one-way or two-way circuit, that is currently in the Monitor or Split test access mode. Upon release normal data transmission is restored in the direction specified

in the command.

Explanation Of Parameters

TG - Test-access group

mmm - Test-access Group number (001 through 400)

The TG is designated as in message 31421

[s]abc
- 3- or 4-digit non-hierarchical FROM NPC number

[t]ghi
- 3- or 4-digit non-hierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - FROM Channel number

001 through 024

The FROM channel ddd will be '---' for circuits not involved in this test session. For unmapped TO channel(s) or a BBL without return, ddd will be '000' in the corresponding channel position(s). If TO channel is mapped to a channel 000, the circuit can only be tested as N = 1, the corresponding FROM channel ddd will be '000'.

RDLD - Red lined

The cross-connection tested is a red circuit.

CUS - Customer

The cross-connection tested is a customer-controlled circuit.

RLS - Release

m	*Explanation*
F	FROM side is released
T	TO side is released
B	BOTH sides are released

TERM - Terminate

s	*Explanation*
R	All channels are released
F	One or more FROM channel is terminated
T	One or more TO channel is terminated

UNMAP - Unmapped

Circuit under test is unmapped.

mmmm - Four-character error condition code.

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Active CCN side not IS or failed or pested or hardware OOS
SWFA	SYNC summary is set on CCI circuit pack
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
IPNV	Invalid direction specified for NTST TLA/TLR
ENEQ	test group unequipped
SNVS	Circuit not terminated
SNIS	NPC not in service or failed

DISC,TACC,T1,ALL,OOS

NON-CHANNELIZED TEST NPC RELEASE

Input Message Format

[I.20202]

```
DISC-TACC-T1:[<xy>]::[ww]:ALL:[OOS];
```

Completion Message

[O.20202]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T1:::[ww]:ALL:[OOS] COMPLD
   mmmm
   /* [O.20202.01] */
   /* <explanation of error condition code> */
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message releases ALL non-channelized facility access digroups (FADs), or test network processing circuits (NPCs) activated by the user, and restores the test session to its original mapped or unmapped state.
It is preceded by individual REPT,DISC,TACC,T1,OOS messages printed for each test session which is in progress.

If the circuit under test was a mapped circuit before the test session started, upon release of the FAD, the original cross-connection is restored. If the circuit was unmapped, it is

restored to the unmapped or idle state that existed prior to testing.

Explanation Of Parameters

ALL - All

Release all test NPCs

OOS - Out-of-service

The OOS keyword must be entered if one or more NPC(s) is OOS. Mapped NPC(s) that are OOS will not be restored to original cross-connection until NPC(s) are returned to service.

mmmm - Four-character error condition code
mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SARL	No FADs were activated by link n
SNVS	One or more FADs could not be released

DISC,TACC,T1,OOS

NON-CHANNELIZED TEST NPC RELEASE

Input Message Format

Nonhierarchical

[I.20201]

```
DISC-TACC-T1:[<xy>]:[s]abc[&[t]def]:[ww]:[OOS];
```

Hierarchical

[I.20201]

```
DISC-TACC-T1:[<xy>]:uv-m-np[&wx-k-qr]:[ww]:[OOS];
```

Completion Message

Nonhierarchical

[O.20201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T1::[s]abc[&[t]def]:[ww]:[OOS] COMPLD
   /* [O.20201] */
   /* Test NPC(s) released:NPC(s) formerly under test */
   "[s]abc[&[t]def][:[u]ghi[,[v]jkl]]"
[  /* RDLD-Red Lined,CUS-customer:Termination status:OOS-Out of\
Service */]
[  "[RDLD][,CUS]:[{UMPD|[<emode>],<fmode>}]:[OOS]"]
;
```

Hierarchical

[O.20201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T1::uv-m-np[&wx-k-qr]:[ww]:[OOS] COMPLD
   /* [O.20201] */
   /* Test NPC(s) released:NPC(s) formerly under test */
   "uv-m-np[&wx-k-qr][:eg-h-ij[,jk-l-mn]]"
[  /* RDLD-Red Lined,CUS-customer:Termination status:OOS-Out of\
Service */]
[  "[RDLD][,CUS]:[{UMPD|[<emode>],<fmode>}]:[OOS]"]
;
```

Denial Message

Nonhierarchical

[O.20201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T1::[s]abc[&[t]def]:[ww]:[OOS] DENY
   mmmm
   /*[O.20201.01]*/
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.20201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC T1::uv-m-np[&wx-k-qr]:[ww]:[OOS] DENY
   mmmm
   /*[O.20201.01]*/
   /* <explanation of error condition code> */
;
```

Autonomous Message

Nonhierarchical

[O.20201]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.20201] */
   /* Facility Access Digroup(s):Event */
   "[s]abc[&[t]def]:DISC-TACC-T1[,OOS]"
   /* Channel tested:Status */
   "[u]ghi,[v]jkl:[RDLD],[CUS],[{UMPD|[<emode>],<fmode>}][,OOS]"
;
```

[O.20201.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.20201.01] */
   /* Facility Access Digroup:Event */
   "[s]abc[&[t]def]:DISC-TACC-T1[,OOS]"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.20201]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.20201] */
   /* Facility Access Digroup:Event */
   "uv-m-np[&wx-k-qr]:DISC-TACC-T1[,OOS]"
   /* Channel tested:Status */
   "[eg-h-ij[,jk-l-mn]]:[RDLD,][CUS,][OOS]"
;
```

[O.20201.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.20201.01] */
   /* Facility Access Digroup:Event */
   "uv-m-np[&wx-k-qr]:DISC-TACC-T1[,OOS]"
   "DENY:mmmm"
   /* <explanation of error condition code> */
;
```

Explanation Of Message

This message releases a non-channelized facility access digroup (FAD) or test Network Processing Circuit (NPC) and restores the test session to its original mapped or unmapped state and releases ALL test NPCs activated by the user from the current link.

For test modes using two FADs, if one of the two FADs is entered, both FADs will be released from testing. If both FADs are entered, they must be associated with one another in the same test connection. Both FADs can be entered in any order and will still be released.

If the circuit under test was a mapped circuit before the test session start, upon release of FAD(s), the circuit is restored to cross-connection. If the circuit was unmapped, it is restored to the unmapped or idle state that existed prior to testing.

For this message, NPC(s) that are out-of-service (OOS) should not be a reason for denial; 'NPC unequipped, failed, or not a test NPC' is a denial condition only for the case of one NPC.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical test NPC or Facility Access Digroup (FAD) number

[t]def

- The second 3- or 4-digit nonhierarchical FAD number, if applicable

[u]ghi

- The 3- or 4-digit nonhierarchical E-end NPC number of test session. Not applicable to loopback FAD

[v]jkl

- The 3- or 4-digit nonhierarchical F-end NPC number of a mapped test session. Not applicable to loopback FAD

The values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number for FAD

wx-k-qr
- Hierarchical NPC number of second FAD, if applicable

eg-h-ij
- Hierarchical E-end NPC number of test session. Not applicable to loopback FAD

jk-l-mn
- Hierarchical F-end NPC number of a mapped test session. Not applicable to loopback FAD

uv,wx,eg,jk
- Unit number

m,k,h,l - Module number

np,qr,ij,mn
- NPC number

The valid values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

UMPD - Unmapped

Test session has unmapped NPC

emode
fmode *Explanation*

NORM - The circuit under test is not terminated in this direction
TERM - The circuit under test terminated in this direction

The emode output is omitted for one-way circuits
Both emode and fmode are omitted for unmapped circuits

OOS - Out-of-service

The OOS keyword must be entered if one or more NPC(s) is OOS. Mapped NPC(s) that are OOS will not be restored to original cross-connection until NPC(s) are returned to service.

RDLD - Red lined

Test session has red circuit

CUS - Customer

Test session has customer-controlled Circuit

mmmm - Error condition code

mmmm	**st**	*Explanation*
NCON		No conditions
ENEQ		Subject entity is not equipped
SAOS		Subject entity is out of service
SAOS		NPC out of service or failed
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF		NPC Failed or Out of Service
IIDT		NPC is not a Facility Access Digroup
IDNC		The two FADS entered are not associated with one another.

DISC,TACC,TS

SUBRATE TEST ACCESS

Input Message Format

[I.19671]

```
DISC-TACC-TS:[<xy>]::[ww]:kk;
```

Completion Message

Nonhierarchical

USAGE: For standard (DS0A) Subrate test access points:

[O.19671]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19671] */
   /* TO facility termination */
   "[s]abc-ddd-ff"
   "TERM{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
[  "OOS"]
```

USAGE: For DS0B test access points:

[O.19672]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19672] */
   /* TO facility termination */
   "[s]abc-ddd"
   "TERMR"
   "DS0B-nn"
[  "OOS"]
```

USAGE: For access points specified in terms of an MJU and (optional) branch number:

[O.19674]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19674] */
   /* Multipoint master leg facility termination */
   "[s]abc-ddd-ff"
   "MJU-ssss[,BRi]"
   "TERM{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
;
```

Hierarchical

USAGE: For standard (DS0A) Subrate test access points:

[O.19671]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19671] */
   /* TO facility termination */
   "uv-m-np-ddd-ff"
   "TERM{R|F|T|B}"
   "RATE-rr"
[  "{UNMAP|LPD}"]
[  "OOS"]
```

USAGE: For DS0B test access points:

[O.19672]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19672] */
   /* TO facility termination */
   "uv-m-np-ddd"
   "TERMR"
   "DS0B-nn"
[  "OOS"]
```

USAGE: For access points specified in terms of an MJU and (optional) branch number:

[O.19674]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk COMPLD
   /* [O.19674] */
   /* Multipoint master leg facility termination */
   "uv-m-np-ddd-ff"
   "MJU-ssss[,BRi]"
   "TERM{R|F|T|B}"
   "RATE-rr"
[  "UNMAP"]
;
```

Denial Message

[O.19671.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk DENY
   mmmm
   /* [O.19671.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command releases a subrate circuit from test access on a test port and restores the circuit to normal. The output from this command depends upon whether the access point is a DS0A, DS0B, or MJU.

This command does not affect the terminate and leave state of the released circuit. If the circuit is terminated either before or during test access, it will retain the termination state

upon release.

Explanation Of Parameters

The termination number (combined NPC, channel, and customer number) indicates the external facility termination of the circuit released from the TO side of the test port.

kk - Test port number (01 through 96)

[s]abcddd/ff
- External facility termination released from the TO test port channel

RATE - Rate

rr - Transmission rate (24, 48, 96, or 56)

rr	*rate in kb/s*
24	2.4
48	4.8
96	9.6
56	56

If the circuit is mapped (subrate cross-connected) the listed RATE is equal to the subrate cross-connect rate. For unmapped circuits, the listed rate depends on the type of test access point. If test

access is to a DS0A established channel, the establish channel rate is listed. If the access is to an unconnected subrate channel of

a DS0B, the listed rate is the maximum subrate supported by the DS0B.

UNMAP - Unmapped

LPD - Looped

This keyword appears when a two-point circuit is looped on itself.

TERM - Terminate

F - FROM side is terminated
B - BOTH sides are terminated
R - RELEASED. Neither side is terminated
T - TO side is terminated

TERMR - Termination released

[s]abc

- The 3- or 4-digit nonhierarchical NPC number of circuit under test, or of multipoint master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number of circuit under test, or of multipoint master leg

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number of circuit under test, or of multipoint master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of circuit under test, or of multipoint master leg

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

DS0B - Digital signal zero B

nn - Number of DS0B subrate customer channels (05, 10, or 20)

MJU - Multipoint junction unit

ssss - MJU number of MJU under test (0001 through 9999)

BR - Branch

i - Branch number

ppp - Parity error correction channel number

ll - Test port number used for parity error correction channel (02 - 48)

i - Branch number of MJU under test (1 - 4)

OOS - Out of service

The facility terminating NPC is out-of-service

pa - Priority of action

pa	Explanation
M	Manual
A	Autonomous

mmmm - Error condition code

mmmm	Explanation
ENEQ	Equipage, not equipped

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDNV Input, data not valid

UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status, not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON
INACTIVE SIDE IS OOS
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

ACTIVE CCN SIDE s IS FAILED
ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

THE SPECIFIED TEST PORT IS NOT ESTABLISHED TO A SR CIRCUIT

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

DISC,TACC,TS,ALL,LINKS

DISCONNECT TEST ACCESS TIME SLOT

Input Message Format

[I.19681]

```
DISC-TACC-TS:[<xy>]::[ww]:{ALL|LINKS};
```

Completion Message

[O.19681]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:{ALL|LINKS} COMPLD
[  /* [O.19681] */]
;
```

[O.19682]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:{ALL|LINKS} COMPLD
[  /* [O.19682] */]
[  /* NO SUBRATE TEST PORTS WERE ACTIVE */]
;
```

[O.19686]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:{ALL|LINKS} COMPLD
[  /* [O.19686] */]
[  /* NO SUBRATE TEST PORTS WERE ACTIVE BY LINK */]
;
```

[O.19687]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:{ALL|LINKS} COMPLD
[  /* [O.19681] */]
[  /* ONE OR MORE SUBRATE TEST PORTS COULD NOT BE RELEASED \
*/]
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command releases all Subrate circuits from test access and restores the circuit to normal. If the **ALL** keyword is specified, only those test ports whose test access was originally connected by administrative link **n[vv]** are released. If the **LINKS** keyword is specified, all test ports connected to subrate channels or customers are released, regardless of which administrative link initiated the test access.

This command does not affect the terminate and leave state of the released circuit. If the circuit was terminated either before or during test access, it will retain the termination state upon release.

Explanation Of Parameters

TPR - Test port release

ALL - All

When specified, this keyword causes the release of only those test ports whose test access was initiated (that is, originally connected) by administrative link n[vv]. If the ALL keyword is used, both SRDC and non-SRDC circuits are released.

LINKS - Links

When specified, this keyword causes all test ports connected to Subrate channels or customers to be released, regardless of which administrative link initiated the test access.

DISC,TACC,TS,RLS,F,T,B

SUBRATE TEST ACCESS TERMINATE AND LEAVE RELEASE

Input Message Format

[I.19666]

```
DISC-TACC-TS:[<xy>]::[ww]:kk:RLS{F|T|B};
```

Completion Message

Nonhierarchical

Usage: For standard (DS0A) access points:

[O.19666]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk:RLS{F|T|B} COMPLD
   /* [O.19666] */
   /* TO facility termination */
   "[s]abc-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{F|T|B}"
   "RATE-rr"
;
```

Usage: For access points specified in terms of an MJU and (optional) branch number:

[O.19667]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk:RLS{F|T|B} COMPLD
   /* [O.19667] */
   /* Multipoint master leg facility termination  */
   "[s]abc-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
;
```

Hierarchical

Usage: For standard (DS0A) access points:

[O.19666]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk:RLS{F|T|B} COMPLD
   /* [O.19666] */
   /* TO facility termination */
   "uv-m-np-ddd-ff"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{F|T|B}"
   "RATE-rr"
;
```

Usage: For access points specified in terms of an MJU and (optional) branch number:

[O.19667]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk:RLS{F|T|B} COMPLD
   /* [O.19667] */
   /* Multipoint master leg facility termination  */
   "uv-m-np-ddd-ff"
   "MJU-ssss[,BRi]"
   /* CGA Status FROM,TO,TEST PORT,TERM */
   "{F|0},{T|0},{P|0},{R|F|T|B}"
   "RATE-rr"
;
```

Denial Message

[O.19666.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DISC TACC TS:::[ww]:kk:RLS{F|T|B} DENY
   mmmm
   /* [O.19666.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command releases the terminate and leave state of a Subrate two-point or multipoint circuit under test access

Explanation Of Parameters

kk - Test port number (1 through 48)

RLS - Terminate and leave release

Direction of the requested terminate and leave state change:

F	Release the FROM side
T	Release the TO side
B	Release BOTH sides

[s]abc

- The 3- or 4-digit nonhierarchical NPC number of circuit under test, or of multipoint master leg

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number of circuit under test, or of multipoint master leg

uv - Unit number
m - Module number
np - NPC number within the module

The valid NPC values are:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number of circuit under test, or of multipoint master leg

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of circuit under test, or of multipoint master leg

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

RATE - Rate

rr - Circuit rate (24, 48, 96, or 56)

MJU - Multipoint Junction Unit

ssss - MJU number of MJU under test (0001 through 9999)

BR - Branch

i - Branch number of MJU under test (1 through 4)

CGA Status

F - FROM facility in CGA
T - TO facility in CGA
P - Test port facility in CGA
0 - Facility is not in CGA

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Equipage, not equipped

reason

THE SPECIFIED TEST PORT IS NOT EQUIPPED
THE TEST PORT GROUP NPC [s]abc IS NOT EQUIPPED
THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
THE TO SIDE NPC [s]abc IS NOT EQUIPPED
TSI sft IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED
ETSI sqq IS NOT EQUIPPED
UNIT [q]q IS NOT EQUIPPED
UNIT [q]q FTMI d IS NOT EQUIPPED
UNIT [q]q FC sb IS NOT EQUIPPED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED

IDNV Input, data not valid

TLA CANNOT BE SPECIFIED FOR A LOOPED CHANNEL

TLA CANNOT BE SPECIFIED FOR DS0B
TLA CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
TLR CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT

MCOND UNIT [q]q IS NOT FACILITY TERMINATING TYPE

SNIS Status,not in-service

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE s IS OUT-OF -SERVICE
THE TEST PORT GROUP NPC [s]abc IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
CCNI s IS OUT-OF-SERVICE
TSI sft IS OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
CCI s IS OUT-OF-SERVICE
ETSI sqq IS OUT-OF-SERVICE
UNIT [q]q IS OUT-OF-SERVICE
UNIT [q]q FTMI d IS OUT-OF-SERVICE
UNIT [q]q FC sb IS OUT-OF-SERVICE

DSPI IN UNIT [q]q IS OUT-OF-SERVICE
NPC [s]abc SIDE s IS OUT-OF-SERVICE

SROF Status, requested operation failed

ACTIVE CCN SIDE s IS FAILED

ACTIVE CCN SIDE s IS PESTED
THE TEST PORT GROUP NPC [s]abc IS FAILED
THE FROM SIDE NPC [s]abc IS FAILED
THE TO SIDE NPC [s]abc IS FAILED
CCNI s IS FAILED
TSI sft IS FAILED
CCB sf IS FAILED
CCI s IS FAILED
ETSI sqq IS FAILED
UNIT [q]q IS FAILED
UNIT [q]q FTMI d IS FAILED
UNIT [q]q FC sb IS FAILED

DSPI IN UNIT [q]q IS FAILED
NPC [s]abc SIDE s IS FAILED

SNVS Status, not in valid state

A SR CIRCUIT IS NOT CONNECTED TO THE SPECIFIED TEST PORT
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLR MODE
THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE

SNAS Status, not assigned

THE SPECIFIED TEST PORT IS UNASSIGNED

SARB Status, all resource busy

CONNECTION EXCEEDS REMAINING EC CAPACITY

Index

A

About This Document, i
ABT,CMD, 6-1
ABT,PROC, 6-5
ALW,LPBK,T1,DGA,DGB,DGC,DGD, 6-7
ALW,PMREPT,T1,NPC,ALL, 6-9
ALW,SW,EQPT,UNIT,MMFG,PROTN, 6-15
ALW,SW,T1,NPC,RT,INCL, 6-18
APPEND,END, 6-23

B

BADVERB,CMD,BAD,SYNTAX,STOPPED, 7-1
BADVERB,CMD,INERR,STOPPED, 7-3
BOOT,FROM,DISK,TAPE, 7-6
BX2,STF,ATP, 7-7

C

CHG,ACCMD,T1,AIS,INCL, 8-1
CHG,LGN,PASSWD, 8-10
CHG,RPATH,T0,INCL, 8-13
CHG,RPATH,T1,INCL, 8-21
CHG,TACC,T0,MON, 8-27
CHG,TACC,T0,SPLT, 8-38
CHG,TACC,T0,TG,MON, 8-48
CHG,TACC,T0,TG,SPLT, 8-58
CHG,TACC,T1,INCL, 8-67
CHG,TACC,TS,MON, 8-75
CHG,TACC,TS,SPLT, 8-84
CHG,TL,T0,TERM,F,T,B,L,G,A,NOT, 8-95
CHG,TL,T0,TG,TERM,F,T,B, 8-107
CHG,TL,TS,TERM,F,T,B, 8-116
CI,ECI,RESET, 8-126
CI,ECI,STARTUP,STF,ATP, 8-128
CMD,MC,OOS,MCOND,INSERVICE, 8-130
CONN,BDCST,T0,RDLD,CUS,INCL, 8-132, 8-143
CONN,BDCST,T1,RDLD,CUS,INCL, 8-153, 8-161
CONN,CRS,T0,RDLD,CUS,INCL,AIS, 8-169
CONN,CRS,T0,RDLD,CUS,INCL,NTR, 8-181
CONN,CRS,T1,RDLD,CUS,INCL,NORM, 8-197
CONN,CRS,TS,MJU,RATE,MA,NORM, 8-204
CONN,CRS,TS,MJU,RATE,MA,TERM, 8-222
CONN,CRS,TS,RATE,NORM, 8-236, 8-247
CONN,CRS,TS,RATE,TERM, 8-260, 8-270
CONN,CRS1,T0,RDLD,CUS,INCL, 8-282, 8-293
CONN,CRS1,T1,RDLD,CUS,INCL, 8-304
CONN,HUB,T0, 8-311
CONN,HUB,T0,TG, 8-318
CONN,HUB,T1,INCL, 8-327
CONN,TACC,T0,MON, 8-333
CONN,TACC,T0,TG,MON, 8-347
CONN,TACC,T1,AIS,INCL, 8-358
CONN,TACC,TS,MON, 8-368
CONN,TACC,TS,MON,MJU, 8-380
CONN,TACC,TS,SPLT, 8-391
CONN,TACC,TS,SPLT,MJU, 8-404
COPY,EQPT,NPC, 8-415
CPY,MEM,PROG,DBASE,INSTL,INCL, 8-432
CRTE,CNFGRN,EQPT,UNIT, 8-436
CRTE,CRS,TS,DS0A,DS0B,SEC,PCH, 8-442
CRTE,CRS,TS,RATE,DP,PCH, 8-453
CRTE,EQPT,NPC, 8-463
CRTE,EQPT,NPC,IW,X, 8-469
CRTE,EQPT,NPC,IW,X,INCL,AIS, 8-481, 8-503
CRTE,EQPT,NPC,NPCTG, 8-518
CRTE,EQPT,NPC,NPCTP, 8-526
CRTE,EQPT,SYNC, 8-532
CRTE,EQPT,SYNC,TLI, 8-534
CRTE,EQPT,SYNC,TLI,SSP,SRC, 8-536
CRTE,EQPT,TG, 8-541
CRTE,EQPT,TP, 8-544
CRTE,EQPT,UNIT,FTMI,EQL, 8-548
CRTE,EQPT,UNIT,MIU, 8-551
CRTE,EQPT,UNIT,MXR,BERM,BERT, 8-553
CRTE,LGN,NEW,PASSWD,REENTER, 8-557

D

DELETE,END, 9-1
DGN,EQPT,CCB,CFT,X, 9-3
DGN,EQPT,CCI,CFT,X, 9-10
DGN,EQPT,CCNI,CFT,X, 9-14
DGN,EQPT,CI,CFT,X, 9-20
DGN,EQPT,DISK,CFT,X,VERIFY, 9-24
DGN,EQPT,ETSI,CFT,X, 9-27
DGN,EQPT,ETSIS,ECCN,ALL, 9-32
DGN,EQPT,IN,PROGRESS, 9-35

DGN,EQPT,LINK,CFT,X, 9-37
DGN,EQPT,MC,CFT,X, 9-40
DGN,EQPT,MP,CFT,X, 9-44
DGN,EQPT,NPC, 9-48
DGN,EQPT,NPC,SIDE,CFT,X, 9-55
DGN,EQPT,SSC,CFT,X, 9-73
DGN,EQPT,SYNC, 9-77
DGN,EQPT,SYNC,TLI,CRO, 9-80
DGN,EQPT,SYNC,TLI,SSP, 9-84
DGN,EQPT,TAPE,CFT,X,PROG,DBASE, 9-87
DGN,EQPT,TSI,CCN,ALL, 9-91
DGN,EQPT,TSI,CCN,UNIT, 9-95
DGN,EQPT,TSI,CFT,X, 9-99
DGN,EQPT,UNIT,DSPI,CFT,X, 9-107
DGN,EQPT,UNIT,FC,CFT,X, 9-111
DGN,EQPT,UNIT,FLI,CFT,X, 9-117
DGN,EQPT,UNIT,FMT,CFT,X, 9-121
DGN,EQPT,UNIT,FTMI,CFT,X, 9-127
DGN,EQPT,UNIT,MIU,CFT,X, 9-131
DGN,EQPT,UNIT,MXR,DEV,CFT,X, 9-135
DGN,EQPT,UNIT,UC,CFT,X, 9-140
DISC,BDCST,T0,INCL,OOS,DCC, 10-1, 10-10
DISC,BDCST,T1,INCL,OOS,CONV, 10-18, 10-25
DISC,CRS,T0,INCL,DCC,OOS, 10-32
DISC,CRS,T0,INCL,OOS,DCC, 10-45
DISC,CRS,T1,INCL,OOS, 10-54
DISC,CRS,TS,MJU,RATE, 10-61
DISC,CRS,TS,MJU,RATE,ALL, 10-76
DISC,CRS,TS,RATE, 10-91, 10-101
DISC,CRS1,T0,INCL,OOS,DCC, 10-111, 10-120
DISC,CRS1,T1,INCL,OOS, 10-130
DISC,EQPT,NPC, 10-137
DISC,EQPT,NPC,NPCTG,TGR, 10-150
DISC,EQPT,NPC,NPCTP,TPR, 10-158
DISC,EQPT,SYNC,TB, 10-164
DISC,EQPT,SYNC,TLI,SSP, 10-166
DISC,EQPT,TG, 10-171
DISC,EQPT,TP, 10-174
DISC,EQPT,UNIT, 10-177
DISC,EQPT,UNIT,FTMI, 10-183
DISC,EQPT,UNIT,MIU, 10-185
DISC,EQPT,UNIT,MXR, 10-187
DISC,TACC,T0,ALL,OOS, 10-190
DISC,TACC,T0,OOS, 10-192
DISC,TACC,T0,RLS,F,T,B,L,G,A, 10-203
DISC,TACC,T0,TG,OOS, 10-215
DISC,TACC,T0,TG,RLS,F,T,B, 10-228
DISC,TACC,T1,ALL,OOS, 10-237
DISC,TACC,T1,OOS, 10-239
DISC,TACC,TS, 10-247
DISC,TACC,TS,ALL,LINKS, 10-257
DISC,TACC,TS,RLS,F,T,B, 10-259
DLT,CRS,TS,PCH,DCC, 11-1
DLT,FPKG, 11-9
DLT,LGN, 11-13
DLT,MACRO,MAP, 11-15
DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD, 11-17

E

EBX,STARTUP,STF,ATP, 12-1
ED,ADD,MAP,NPC, 12-3
ED,CNFGRN,EQPT,UNIT, 12-7
ED,CONN,TS, 12-10
ED,CONN,TS,MPTM, 12-20
ED,CRS,T0,INCL, 12-32
ED,CRTE,TS,PCH,DCC, 12-39
ED,DATE,INT, 12-49
ED,DLT,MAP,NPC, 12-51
ED,MACRO,MAP, 12-56
ED,OPT,T1,NPC,TYPE,ALL, 12-62
ED,PRMTR,EQPT,DGA,DGB,DGC,DGD, 12-74
ED,PRMTR,EQPT,NPC, 12-81
ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT, 12-106
ED,PRMTR,EQPT,NPC,IW,X,INCL, 12-118, 12-129
ED,PRMTR,EQPT,NPC,RT,DL,TYPE, 12-138
ED,PRMTR,EQPT,RT,DL, 12-165
ED,PRMTR,EQPT,RT,RTF,SWMN, 12-167
ED,PRMTR,EQPT,SYNC,MASTER, 12-172
ED,PRMTR,EQPT,SYNC,STR2,STR3, 12-174
ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC, 12-176
ED,PRMTR,EQPT,TYPE, 12-182

I

IN,PROGRESS, 13-1
INH,LPBK,T1,DGA,DGB,DGC,DGD, 13-2
INH,PMREPT,T1,NPC,ALL, 13-4
INH,SW,EQPT,UNIT,MMFG,PROTN, 13-9
INH,SW,T1,NPC,RT,FRC,INCL, 13-11
INIT,LOG,ERR,HWER,SWER, 13-16
INIT,REG,ALL, 13-18
INIT,REG,NPC, 13-20
INIT,REG,NPC,RT,DL, 13-26

INIT,REG,PWR,BMTRALM, 13-33
INIT,REG,T1,NPC,ALL, 13-36

M

MOVE,END, 14-1
MP,STARTUP,STF,ATP, 14-3
MTC,STF,ATP, 14-5

O

OPR,ACO,ALL, 15-1
OPR,LPBK,T0, 15-3
OPR,LPBK,T0,TG, 15-7
OPR,LPBK,T1, 15-9
OPR,LPBK,T1,DGA,DGB,DGC,DGD, 15-15
OPR,LPBK,T1,LPBKT,INCL, 15-17
OPR,TSIG,T1, 15-23

P

Purpose of Document, vii

R

REPT,ALM,EQPT,AR01,MISC,NPC, 16-1
REPT,ALM,EQPT,AR01,MISC,NPC,MJ, 16-6
REPT,ALM,EQPT,BMTR,TAPE,MN, 16-11
REPT,ALM,EQPT,BOOT,FAILED,BAD, 16-13
REPT,ALM,EQPT,CCN,MJ,IDLD,OOS, 16-14
REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS, 16-16
REPT,ALM,EQPT,NPC,IDLD, 16-18
REPT,ALM,EQPT,NPC,MJ,MN,INFO, 16-23
REPT,ALM,EQPT,RESET,DATE,TOD, 16-29
REPT,ALM,EQPT,SC,ALARM,NPC,RT, 16-31
REPT,ALM,EQPT,SC,ALARM,RT,COMP, 16-36
REPT,ALM,EQPT,SC,DPLX,ALARM, 16-38
REPT,ALM,SC,ALARM,MC,UC,FTMI, 16-43
REPT,ALM,SC,ALARM,RT,DL,FE, 16-45
REPT,ALM,T3,IDLD,UNIT,DS3, 16-47
REPT,ALM,T3,UNIT,DS3, 16-49
REPT,ALMDET,EQPT,ANALYSIS, 16-51
REPT,ALMDET,EQPT,ERR,HARDWARE, 16-54
RST,CNFGRN,EQPT,UNIT,CCN,TSIS, 17-1
RST,EQPT,CCB, 17-4
RST,EQPT,CCI, 17-6
RST,EQPT,CCNI, 17-8
RST,EQPT,DISK,TAPE,CLR,CLEAN, 17-10
RST,EQPT,ETSI, 17-13
RST,EQPT,ETSIS,ECCN, 17-15
RST,EQPT,LINK, 17-18
RST,EQPT,MC,MCOND,TAPE,NOJRNL, 17-20
RST,EQPT,NPC,SIDE, 17-26
RST,EQPT,SYNC, 17-41
RST,EQPT,SYNC,TLI,SSP, 17-43
RST,EQPT,TLI,CRO, 17-45
RST,EQPT,TSI, 17-47
RST,EQPT,TSIS,CCN, 17-49
RST,EQPT,UNIT,FC, 17-52
RST,EQPT,UNIT,FLI, 17-54
RST,EQPT,UNIT,FMT, 17-56
RST,EQPT,UNIT,FTMI,DSPI, 17-58
RST,EQPT,UNIT,MIU,INCL, 17-60
RST,EQPT,UNIT,MMFG,INCL, 17-63
RST,EQPT,UNIT,UC, 17-67
RST,PASSWD, 17-69
RTRV,ALM,EQPT, 18-1
RTRV,ALM,EQPT,DBASE, 18-28
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS, 18-33, 18-42, 18-52
RTRV,ALM,EQPT,RT,DL, 18-54
RTRV,ALM,T3, 18-57
RTRV,BDCST,T0, 18-61
RTRV,BDCST,T0,ALL, 18-70
RTRV,BDCST,T1,FROM, 18-76
RTRV,BKUPSCHED,MEM,SEC,DATA, 18-83
RTRV,CNFGRN,EQPT,UNIT,EQPD, 18-85
RTRV,COND,EQPT,NPC,CS, 18-87
RTRV,CRS,T1,MAP, 18-93
RTRV,CRS,T1,NPC,MAP, 18-120
RTRV,CRS,T1,RTMAP,DLMAP, 18-144
RTRV,CRS,TS, 18-162
RTRV,EQPT,TS,SRHDW, 18-169
RTRV,EVT,EQPT,NPC,BER,FTU,DS3U, 18-182
RTRV,EVT,EQPT,NPC,BER,NPCS, 18-195
RTRV,EVT,TS,SROOF,ALL, 18-197
RTRV,FPKG,NE, 18-207
RTRV,HDR, 18-210
RTRV,HDR,NE, 18-211
RTRV,LOC,EQPT, 18-215
RTRV,LOG,ERR,SWER,HWER,INT, 18-230
RTRV,MACRO, 18-241

RTRV,MACRO,COM, 18-244
RTRV,MAP,COM, 18-247
RTRV,MAP,EQPT,NPC, 18-250
RTRV,OPT,T1,NPC,ALL, 18-255
RTRV,PM,T1,NPC,ALL, 18-261
RTRV,PMREPT,SCHED,CFA,MONDAT, 18-282
RTRV,PMSCHED,T1,NPC,ALL, 18-286
RTRV,PRMTR,EQPT,LOAD,TOTAL, 18-299
RTRV,PRMTR,EQPT,NPC,ALL, 18-308
RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS, 18-318
RTRV,PRMTR,EQPT,NPC,RT,DL, 18-328
RTRV,PRMTR,EQPT,NPC,SCDG,STATE, 18-348
RTRV,PRMTR,LINK, 18-358
RTRV,PRMTR,MACRO,ATTR,ALL, 18-368
RTRV,PRMTR,MACRO,MAP,SPACE,ALL, 18-372
RTRV,PRMTR,MAP,ATTR,ALL, 18-376
RTRV,PRMTR,NE, 18-379
RTRV,PRMTR,NE,ECLOC, 18-382
RTRV,PRMTR,NE,HUBID, 18-384
RTRV,PRMTR,SQN, 18-386
RTRV,PRMTR,T0,FROM, 18-388
RTRV,PRMTR,T0,MARK, 18-407
RTRV,PRMTR,T0,TO, 18-422
RTRV,PRMTR,T1,FROM, 18-439
RTRV,PRMTR,T1,MARK, 18-445
RTRV,PRMTR,T1,TO, 18-460
RTRV,PRMTR,T3,LBO, 18-468
RTRV,PRMTR,T3,UNIT,BERMT, 18-470
RTRV,PRMTR,TS, 18-473
RTRV,PRVG,TERM,USER,ALL, 18-484
RTRV,PRVG,USER,LOG,ALL, 18-496
RTRV,REG,EQPT,CCN,ESR, 18-499
RTRV,REG,EQPT,ECCN,ESR, 18-502
RTRV,REG,EQPT,MP,ESR, 18-506
RTRV,REG,EQPT,NPC,SIDE,ESR, 18-511
RTRV,REG,EQPT,SYNC,STR, 18-522
RTRV,REG,EQPT,SYNC,TLI,SSP,STR, 18-528
RTRV,REG,EQPT,SYNC,TLI,STR, 18-532
RTRV,REG,EQPT,UNIT,DSPI,ESR, 18-535
RTRV,REG,EQPT,UNIT,ESR, 18-537
RTRV,REG,EQPT,UNIT,FC,ESR, 18-541
RTRV,REG,EQPT,UNIT,FLI,ESR, 18-545
RTRV,REG,EQPT,UNIT,FMT,ESR, 18-549
RTRV,REG,EQPT,UNIT,FTMI,ESR, 18-552
RTRV,REG,EQPT,UNIT,MIU,ESR, 18-556
RTRV,REG,EQPT,UNIT,MXR,ESR, 18-558
RTRV,REG,EQPT,XC,STR, 18-562
RTRV,REG,EQPT,XCSB,UNIT, 18-564
RTRV,ROLL,T0,NPC,ALL,UNIT, 18-572
RTRV,ROLL,T1,NPC,ALL,UNIT, 18-580
RTRV,STATE,COM,ALL, 18-590
RTRV,STATE,COM,EQPD, 18-596
RTRV,STATE,COM,PEST,FAIL,OOS, 18-600
RTRV,STATE,EQPT,ACO, 18-606
RTRV,STATE,EQPT,ETSI,EQPD, 18-608
RTRV,STATE,EQPT,MIU,EQPD, 18-610
RTRV,STATE,EQPT,MXR,EQPD, 18-612
RTRV,STATE,EQPT,NPC, 18-615, 18-633
RTRV,STATE,EQPT,NPC,EQPD,TOTAL, 18-650
RTRV,STATE,EQPT,NPC,TSIG, 18-661
RTRV,STATE,EQPT,SYNC, 18-670
RTRV,STATE,EQPT,SYNC,EQPD, 18-673
RTRV,STATE,EQPT,TSI,EQPD, 18-676
RTRV,STATE,EQPT,UNIT,ALL, 18-678
RTRV,STATE,EQPT,UNIT,EQPD, 18-699, 18-701
RTRV,STATE,EQPT,UNIT,FTMI, 18-722
RTRV,STATE,EQPT,UNIT,PEST,FAIL, 18-725
RTRV,STATE,EQPT,UNIT,PROTN, 18-745
RTRV,STATE,T3,UNIT,DS3, 18-750
RTRV,STATE,TS, 18-755
RTRV,SYSID, 18-762
RTRV,TACC,T0,NPCTG, 18-764
RTRV,TACC,T0,TG, 18-774
RTRV,TACC,T1, 18-782

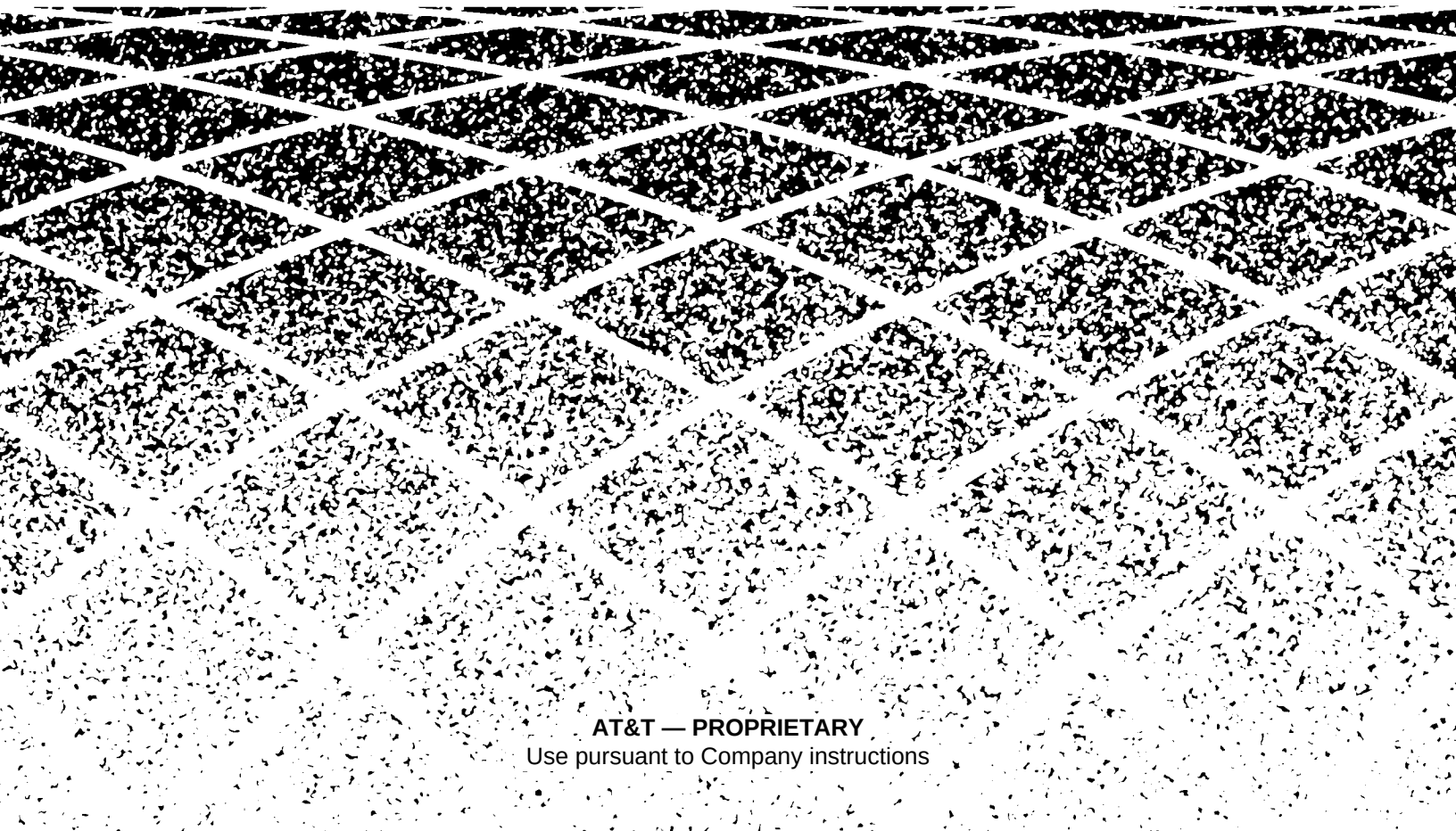
S

SAVE, 19-1
SCHED,BKUP,MEM,SEC,DATA,HR, 19-3
SCHED,PMREPT,ALL,CFA,FAC,X, 19-5
SCHED,PMREPT,T1,NPC, 19-21
SET,ATTR,EQPT,ALM, 19-31
SET,PRVG,TERM,USER,INCL,SCR,GR, 19-33
SET,PRVG,USER,TERM,ALL,INCL, 19-37
SSC,STARTUP,STF,ATP, 19-45
STA,LOCL,RST,PRI,SEC,CLR, 19-47
SW,BDCST,T0,INCL, 19-49
SW,BDCST,T1,INCL, 19-57
SW,DISC,T0,OOS, 19-64
SW,DISC,T1,OOS, 19-71
SW,DX,EQPT,XC,INCL, 19-78
SW,ROLL,T0,INCL,FRC,OOS, 19-81
SW,ROLL,T1,INCL,FRC,OOS,TWAY, 19-88
SW,TOPROTN,EQPT,UNIT,FLI, 19-95
SW,TOPROTN,EQPT,UNIT,MMFG,FRC, 19-97
SW,TOPROTN,T1,NPC,RT,INCL, 19-100
SW,TOWKG,EQPT,UNIT,FLI, 19-105
SW,TOWKG,EQPT,UNIT,MMFG, 19-107
SW,TOWKG,T1,NPC,RT,DL,INCL, 19-109

AT&T 365-353-012
Issue 2 (Revision 1)
April 1996

DACS II
Release 6.1.9, MML
Command and Message Manual

Volume II



AT&T — PROPRIETARY
Use pursuant to Company instructions

Copyright © 1996 AT&T
All Rights Reserved
Printed in U.S.A

Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

Security Statement

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such event, applicable tariffs require that the customer pay all network charges for traffic. AT&T cannot be responsible for such charges, and will not make any allowance or give any credit for charges that result from unauthorized access.

Documentation Ordering Information

The ordering number for this document is AT&T 365-353-012. To order this document, call the AT&T Customer Information Center in Indianapolis, Indiana, on 1-800-432-6600. For more ordering information, refer to "How to Order Documentation" in the section "About this Document."

Technical Support Telephone Number

The AT&T Regional Technical Assistance Center (RTAC) provides a technical assistance telephone number which is staffed 24 hours a day. For technical assistance, simply call 1-800-225-RTAC.

Documentation Support Telephone Number

AT&T provides a telephone number for you to report errors or to ask questions about the information in this document. The support telephone numbers are:

Outside North Carolina - 1-800-334-0404
Inside North Carolina - 1-919-727-6681.

Developed by The AT&T Document Development Organization

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume II

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume II

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

History-of-Revisions Sheet

Revisions to:

DACS II
Release 6.1.9, MML
Command and Message Manual

Always retain the latest History-of-Revisions Sheet. File it in the ring binder immediately following the Update Instructions Sheet (if retained) or immediately following the title page.

Revised Item	Revision Date	Reason for Revision
Revised RTRV,PRVG,TERM,USER,ALL and SET,PRVG,USER,TERM,ALL,INCL,LANG,P,M,F commands.	April 1996	Commands revised from DACS II Release 6.1 (new capabilities) for a specific customer.

DLT,CRS,TS,PCH,DCC

SUBRATE DISESTABLISH CHANNEL

Input Message Format

Nonhierarchical

[I.19151]

```
DLT-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC];
```

Hierarchical

[I.19151]

```
DLT-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC];
```

Completion Message

Nonhierarchical

[O.19151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT CRS TS::[s]abc-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC] \
COMPLD
[  /* [O.19151] */]
[  "OOS"]
[  /* Parity channel */]
[  "ppp"]
;
```

Hierarchical

[O.19151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT CRS TS::uv-m-np-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC] \
COMPLD
[  /* [O.19151] */]
[  "OOS"]
[  /* Parity channel */]
[  "ppp"]
;
```

Note: The optional parity channel information in lines 5 and 6 is output whenever the ppp field is not specified in the input command and the disestablishment involves a parity channel.

Denial Message

Nonhierarchical

[O.19151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT CRS TS::[s]abc-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC] \
DENY
   mmmmm
   /* [O.19151.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Hierarchical

[O.19151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT CRS TS::uv-m-np-ddd[&&-eee]:[ww]:[PCH[-ppp]]:[DCC] \
DENY
   mmmmm
   /* [O.19151.01] */
   /* <explanation of error condition code> */
[  /* Channel number involved in the denial */]
[  /* qqq */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message disconnects a channel (or a range of channels) in a digroup from use by the subrate feature. If an error correction parity channel is associated with the named channel and is *not* named in the input command, the system automatically finds and disestablishes it as well. However, one should not take this to imply that the parity channel may be disconnected in a range, since this is not the case.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number
eee - Channel number for end of range specified

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

PCH - Parity Channel

ppp - Parity error correction channel number

Included only for downward compatibility with the equivalent DACS/Subrate command. The PCH field indicates that a parity channel associated with channel ddd is to be disestablished as well.

If the PCH field is not used and a parity channel is present, the system automatically finds and disestablishes the parity channel associated with channel ddd.

ppp must agree with the parity channel assignment associated with channel ddd or the command will be denied. Channel ranges are not allowed if the range includes any channel associated with parity channel error correction.

Note: Disestablishment can only be done after all Subrate cross-connections are disconnected.

DCC - Disconnect Code

Causes the Digital Data System (DDS) Unassigned Multiplexer Channel (UMC) control code to be inserted in the disestablished channel(s) towards the digroup facility. If DDC is not specified, the disconnect code specified in the growth NPC command associated with the specified digroup is used.

OOS - Out of service

Channels connected with an out-of-service facility NPC may be disestablished with this command. Such disestablishments require no special keyword in the input command, but the output message will contain the OOS keyword to indicate that the facility is out-of-service. The user should note that the appropriate disconnect channel code may not be inserted in the disestablished channel until the facility is restored to service under these conditions.

CUS - Customer

Customer-controlled circuit

This disestablish command returns the customer control marking of channels that were previously marked with as CUS prior to being established to the Subrate feature.

The optional **PCH ppp** field appears whenever an associated error correction parity channel is also disestablished. It is not necessary for this field to be included in the input command, as the system automatically locates and disestablishes the parity channel whenever the associated data channel is disestablished.

qqq - Channel number involved in the denial (ddd through eee)

The user should note that none of the preceding channels in the range are completed if a problem is found, and subsequent channels may or may not have additional problems.

INPUT ERRORS

mmmm Error classification code

explanation of error condition code

CHANNEL NUMBER IS OUT OF RANGE FOR NPC TYPE SPECIFIED
SPECIFIED CHANNEL IS NOT ESTABLISHED TO THE SUBRATE
SPECIFIED CHANNEL HAS NO ASSOCIATED PARITY CHANNEL
SPECIFIED DATA AND PARITY CHANNEL NUMBERS ARE INCONSISTENT
RANGE DISCONNECT OF CHANNEL WITH PCH IS NOT ALLOWED
CHANNEL [s]abcddd OR A CUSTOMER IS UNDER TEST
RANGE DISESTABLISH OF DATA CH [s]abcddd HAVING PCH IS NOT ALLOWED
ACTIVE SUBRATE CROSS-CONNECTS ARE PRESENT ON THE CHANNEL

DS3U reasons for denial

mmmm	*Explanation* *explanation of error condition code*
ENEQ	Equipage, not equipped UNIT [q]q MXR c NOT EQUIPPED
SNIS	Status, not in-service UNIT [q]q FLI k IS OUT-OF-SERVICE UNIT [q]q FMT s IS OUT-OF-SERVICE UNIT [q]q MXR c IS OUT-OF-SERVICE UNIT [q]q MIU c IS OUT-OF-SERVICE
SROF	Status, requested operation failed UNIT [q]q FLI k IS FAILED UNIT [q]q FMT s IS FAILED UNIT [q]q MXR c IS FAILED UNIT [q]q MIU c IS FAILED

st	**d**	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

DLT,FPKG

DELETE FEATURE PACKAGE IDENTIFICATION

Input Message Format

[I.37301]

```
DLT-FPKG:[<xy>]::[ww]:nnnnnnnn;
```

Completion Message

[O.37301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT FPKG:::[ww]:nnnnnnnn COMPLD
   /* [O.37301] */
   /* Old FPI:New FPI */
   "aabbccdd:kkttuuvv"
;
```

Denial Message

[O.37301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT FPKG:::[ww]:nnnnnnnn DENY
   mmmm
   /* [O.37301.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

The frame administrator enters this command to change the feature package identification code. This command is used to reduce the feature package set by a single feature at a time.

Note: The execution of this command requires DACS II superuser privileges. The frame must be in the **MCOND** (maintenance condition) state at execution.

Because of the impact of this command on the available features, the following dialogue will be displayed by DACS II.

ARE YOU SURE?

The user must respond with an affirmative Y for the command to be executed.

Explanation Of Parameters

FPKG - Feature package

nnnnnnnn
- Feature Package number (hexadecimal)

nnnnnnnn	*Explanation*
00000001	DS1 Terminations (Not deletable)
00000002	CEPT
00000004	Subrate
00000008	Direct SLC® 96 and Series 5 Carrier Interface
00000010	DS3 Terminations
00000020	Enhanced CEPT
00000040	Switched Teleconferencing
00000080	CEF (Cannot be deleted)
00000100	Enhanced DS1 Performance Monitoring
00000200	Roll
00000400	AT&T Security Warning Message
00000800	CEPT NX64KBIT Test Access (Not deletable)
00001000	Clear E1 Interface
00002000	CEPT TS0 to Non-TS0 Cross-connection

FPI - Feature package identifier

aabbccdd
- New feature package identification code (hexadecimal)

kkttuuvv
- Old feature package identification code (hexadecimal)

kkttuuvv	Feature
00000001	DS1
00000002	CEPT
00000004	Subrate
00000008	Direct SLC® 96 and Series 5 Carrier Interface
00000010	DS3 Terminations
00000020	Enhanced CEPT
00000040	Switched Teleconferencing
00000080	CEF
00000100	Enhanced DS1 Performance Monitoring
00000200	Roll
00000400	AT&T Security Warning Message
00000800	NX64KBIT Test Access
00001000	Clear 2MB/S Interface
00002000	TS0 to Non-TS0 Cross-connection

In general a feature package identification code is a combination of several individual feature package numbers. To determine the individual features that make up a feature package it is necessary to decode the feature package identification code. This code is an eight digit hexadecimal number. Each hexadecimal number represents a four-bit binary number. Within this binary number each feature is associated with one particular bit. Consequently to determine the feature list from a feature package identification code it is necessary to convert each hexadecimal digit to its binary equivalent and look up the features in the list above. For example the feature package identification code 00000007 can be converted to the following binary number working from left to right one hex digit at a time.

0000 0000 0000 0000 0000 0000 0000 0111

This number contains eight binary numbers each representing one of the hexadecimal numbers in the feature package identification code 00000007. The rightmost digit of the code contains three features since there are three bits set to one. This would be decoded as follows using the table of features above.

	hexadecimal	binary	Feature	
	0000	0	Feature unavailable	
	0001	1	DS1	
	0010	2	CEPT	
	0100	4	Subrate	
	Total 0111		7	(DS1 + CEPT + Subrate)

mmmm - Error condition code

mmmm	*Explanation*
SNIS	Unit(s) OOS, and/or additional backup required
IDNV	Invalid FPI value
SNVS	Feature deactivation would leave system with core software
SNVS	Disable not allowed - supports another feature
SAAL	Feature is active
SNVS	Feature not enabled
SNVS	Database not loaded
SNVS	Reading Feature Package Id from disk failed
SNVS	Writing Feature Package Id to disk failed
SNVS	Backup required before executing this command

DLT,LGN

DELETE USER

Input Message Format

[I.37101]

```
DLT-LGN:[<xy>]::[ww]:<user id>;
```

Completion Message

[O.37101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT LGN:::[ww]:<user id> COMPLD
;
```

Denial Message

[O.37101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT LGN:::[ww]:<user id> DENY
   mmmm
   /* [O.37101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the deletion of **<user id>** from the DACS II system.

Output from this command is sent only to the link on which the command was input.

Note: This command may be used only by the DACS II frame administrator. It may be

executed on any administrative link.

Explanation Of Parameters

user id

- User identifier

User login identification (two to eight alphabetic characters)

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	Cannot remove Frame administrator
SNVS	User has logged in somewhere
SNVS	User still owns files

DLT,MACRO,MAP

DELETE MACRO

Input Message Format

[I.37201]

```
DLT-{MACRO|MAP}:[<xy>]::[ww]:{<macro name>|<map name>}:\
[<user id>];
```

Completion Message

[O.37201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT {MACRO|MAP}:::[ww]:{<macro name>|<map name>}:\
[<user id>] COMPLD
;
```

Denial Message

[O.37201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  DLT {MACRO|MAP}:::[ww]:{<macro name>|<map name>}:\
[<user id>] DENY
   mmmm
   /* [O.37201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the deletion of a macro or alternate map from the DACS II system.

Note: Only the DACS II frame administrator can remove a public macro or another user's

macros and maps. The names of public macros begin with the letter P.

Explanation Of Parameters

macro name

- Macro name (seven characters maximum length)

The name of a collection of DACS II commands executed as a group.

A macro name is a string of capitalized alphanumeric characters. There are two type of macros; public and private. A private macros is created by a user in space allocated to the user by the system administrator. Only the user that created it can execute or read (LIST) a private macro. A public macro is created by the system administrator and is executable and readable by all users. A public macro name must start with the letter "P". A private macro name must not start with the letter "P".

map name

- Map name (seven characters maximum length)

The name of a collection of DACS II cross-connect commands that can be activated as a group to produce a new set of cross-connections (a new cross-connect map).

A map name is a string of capitalized alphanumeric characters.

user id

- User identifier (two to eight alphabetic characters)

The user field is the user's login identifier. It is used only by the frame administrator to delete a private macro or map owned by the user specified. A user does not need to specify this information in order to delete a personally owned (private) macro or map.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File is being accessed
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD

DELETE {RT|DL}

Input Message Format

Nonhierarchical

[I.37211]

```
DLT-PRMTR-EQPT:[<xy>]:[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd] [,DGP-[s]ppp]:[ww]:{RT|DL}-ffff;
```

Hierarchical

[I.37211]

```
DLT-PRMTR-EQPT:[<xy>]:[DGA-uv-j-ab][,DGB-uv-k-cd]\
[,DGC-uv-l-ef][,DGD-uv-m-gh][,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff;
```

Completion Message

Nonhierarchical

[O.37211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M DLT PRMTR EQPT::[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:[ww]:{RT|DL}-ffff COMPLD
;
```

Hierarchical

[O.37211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M DLT PRMTR EQPT::[DGA-uv-j-ab][,DGB-uv-k-cd][,DGC-uv-l-ef]\
[,DGD-uv-m-gh][,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff COMPLD
;
```

Denial Message

Nonhierarchical

[O.37211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M DLT PRMTR EQPT::[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:[ww]:{RT|DL}-ffff DENY
   mmmm
   /* O.37211.01 */
   /* <explanation of the error condition code> */
[  /* digroup causing the error */]
[  "{A|B|C|D|P}"]
;
```

Hierarchical

[O.37211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M DLT PRMTR EQPT::[DGA-uv-j-ab][,DGB-uv-k-cd][,DGC-uv-l-ef]\
[,DGD-uv-m-gh] [,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff DENY
   mmmm
   /* O.37211.01 */
   /* <explanation of the error condition code> */
[  /* digroup causing the error */]
[  "{A|B|C|D|P}"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to delete the association of a network processing circuit (NPC) number with a SLC® carrier remote terminal (RT) or digital carrier line unit (DCLU) bank's digroup name. Once all of digroups of a specific bank are deleted, the bank's identification number and its mode of operation will also be deleted.

Note that at least one digroup name and NPC number must be specified on input.

For the denial message, the optional A, B, C, D, or P character will be shown to indicate the digroup that causes the denial.

Explanation Of Parameters

RT - SLC® Carrier Remote Terminal

DL - Digital Carrier Line Unit
ffff - Bank identification number (0000 to 9999 inclusive)

DGA - SLC Carrier digroup A
DGB - SLC Carrier digroup B
DGC - SLC Carrier digroup C
DGD - SLC Carrier digroup D
DGP - SLC Carrier digroup P

[s]aaa
- The 3- or 4-digit nonhierarchical DGA NPC number

[s]bbb
- The 3- or 4-digit nonhierarchical DGB NPC number

[s]ccc
- The 3- or 4-digit nonhierarchical DGC NPC number

[s]ddd
- The 3- or 4-digit nonhierarchical DGD NPC number

[s]ppp
- The 3- or 4-digit nonhierarchical DGP NPC number

If NPC numbers are expressed in three digits, the valid values are:

DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv - Unit number
j,k,l,m - Module number within the unit
ab - Digroup A (DGA) NPC number within the module
cd - Digroup B (DGB) NPC number within the module
ef - Digroup C (DGC) NPC number within the module
gh - Digroup D (DGD) NPC number within the module
pr - Digroup P (DGP) NPC number within the module

The allowable values are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

A,B,C,D,P
- Digroup A, B, C, D, or P.
This is used to indicate the digroup that caused the denial.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	NPC is unequipped
SNVS	NPC has active circuit
IDNV	NPC type is not DS type
SPFA	Protection switch process failed
IDNV	Bank id number not found
SNVS	NPC is not added
IDNV	NPC number and bank id don't match
IDNV	NPC number and digroup name don't match
SNVS	DGP is protecting a primary digroup
IDNV	Can't delete because not all associated NPCs of the RT are entered
IDNV	Digroup name and bank id don't match
SNVS	Digroup is protected
SNVS	All digroups not out of service
IDNV	DGA and DGB must be specified together in the command
IDNV	DGC and DGD must be specified together in the command
SAIS	Mate NPC (DGA/DGP) is in service
IDNV	The limit on the maximum number of DGPs has been reached
SNVS	Use of this NPC is RESERVED for SLC 96 MD 1
SAAL	Manual Pending is Active

EBX,STARTUP,STF,ATP

EXPANDED BUS EXTENDER STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01272]

```
EBX STARTUP {STF|ATP}
```

Explanation Of Message

This message reports that the expanded bus extender has initialized itself and has performed self-diagnostics. The results of these diagnostics are reported. For all tests passed, no action is required.

Explanation Of Parameters

EBX - Expanded bus extender

STARTUP
- Startup

Indicates initialization

STF - Some tests failed

ATP - All tests passed

ED,ADD,MAP,NPC

ADD NETWORK PROCESSING CIRCUIT

Input Message Format

Nonhierarchical

[I.36021]

```
ED-ADD-MAP:[<xy>]:NPC-{[s]abc&&-[t]def|[s]abc[&-[s]ghi]....\
[&-[t]def]};
```

Hierarchical

[I.36021]

```
ED-ADD-MAP:[<xy>]:NPC-{uv-m-np&&&-wx-k-qr|\
uv-m-np[&-ab-c-de]....[&-wx-k-qr]};
```

Completion Message

If the command is accepted by DACS II, the following input acknowledgement will be output.

```
OK
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message adds one or more network processing circuits (NPCs) of the facility terminating unit (FTU) into an alternate map while in a map session.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc,[t]def,[s]ghi
- The 3- or 4-digit nonhierarchical NPC numbers

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np,wx-k-qr,ab-c-de
- Hierarchical NPC number

uv,wx,ab
- Unit number

m,k,c
- Module number

np,qr,de
- NPC number within the module

The valid values are:

DE type NPC numbers listed by unit, module, and NPC No.

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ED,CNFGRN,EQPT,UNIT

CHANGE CONNECTIVITY

Input Message Format

[I.38101]

```
ED-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:a[,b[,c[,d[,e[,f]]]]];
```

Completion Message

[O.38101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CNFGRN EQPT::UNIT-q:[ww]:a[,b[,c[,d[,e[,f]]]]] COMPLD
   /* [O.38101] */
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   "sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft:sft,sft"
   /* CHANGED TSI Changed by the ED-PRMTR-EQPT Command */
   "CHANGED TSI:sft,sft:sft,sft:sft,sft:sft,sft..."
   "CHANGED TSI:sft,sft:sft,sft:sft,sft:sft,sft..."
   /* TOTAL TSI tt, NEW TSI nn, DEGROWN TSI dd */
   "tt,nn,d"
;
```

Denial Message

[O.38101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CNFGRN EQPT::UNIT-q:[ww]:a[,b[,c[,d[,e[,f]]]]] DENY
   mmmm
   /* [O.38101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a change of a unit's connectivity. Timeslot interchange (TSI) circuit packs will be automatically grown and/ or degrown (deprovisioned) as needed.

New or degrown TSIs are listed at the end of the output message. They are listed pairwise with up to six pairs listed per message line. At most there will be 10 of these pairs when the connectivity of a unit is changed.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

TSI - Time slot interchange

CONN - Connectivity

a b c d e f
- The new complement of the subject unit's TSIs is changed to (1 through 6)

tt - Total number of grown TSIs in frame (02 through 72)

nn - Number of TSIs grown by command (00 through 10)

dd - Number of TSIs degrown by command (00 through 10)

sft - TSI equipped status

- **s** - Service side (0 or 1)
- **f** - FROM unit number
  1 through 6 if equipped
  - if not equipped
- **t** - TO unit number
  1 through 6 if equipped
  - if not equipped

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENRE	Illegal connectivity specified
SNAS	Connectivity contains unequipped units
SAIS	Some TSIs to degrow are in service
SAWS	Mapped slots exist on a tsi

ED,CONN,TS

CHANGE SUBRATE CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19581]

```
ED-CONN-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww];
```

Hierarchical

[I.19581]

```
ED-CONN-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww];
```

Completion Message

Nonhierarchical

[O.19581]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww] COMPLD
[  /* [O.19581] */]
[  "OOS"]
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Hierarchical

[O.19581]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww] \
COMPLD
[  /* [O.19581] */]
[  "OOS"]
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Note: The optional OLD and NEW customer number information in lines 5 through 8 only appears if the ff and/or the ll fields are not specified in the input command.

Denial Message

Nonhierarchical

[O.19581.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww] \
DENY
   mmmm
   /* [O.19581.01] */
   /* <explanation of error condition code> */
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Hierarchical

[O.19581.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   ED CONN TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww] DENY
    mmmm
    /* [O.19581.01] */
    /* <explanation of error condition code> */
[   /* OLD customer number */]
[   "01"]
[   /* NEW customer number */]
[   "01"]
;
```

Note: The optional OLD and NEW customer number information in lines 6 through 9 only appears if the ff and/or the ll fields are not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command changes the external facility termination associated with a multipoint circuit branch from an existing digroup, channel, and (optional) customer number to a **NEW** digroup, channel, and (optional) customer number.

Execution of this command causes the disconnection of the existing facility and reconnection to a **NEW** external facility termination. The external facility termination associated with the original connection is left established to the Subrate feature with an unassigned multiplexer channel (UMC) code inserted towards the **OLD** facility.

In effect, this command combines the operations of the **DISC-CRS-TS** and **CONN-CRS-TS** commands that would be necessary to do the same change but with a minimum of service interruption.

Before using this command, the **NEW** channel must be established to the Subrate feature (**CRTE-CRS-TS**), and the **NEW** facility termination must not already be cross-connected (for example, with a previous **CONN-CRS-TS**). The specified **OLD** facility termination must be cross-connected in an existing Subrate multipoint circuit and the specified **NEW** facility termination cannot be the same as the **OLD**. Also, neither the **NEW** termination nor any portion of the existing circuit can be under test access at the time this command is issued.

Circuits connected to an out-of-service facility NPC may also be moved with this command. Such changes require no special keyword in the input command, but the output message will indicate that the facility is out-of-service. The user should note that the UMC code may not be inserted in the disconnected facility channel until the facility is restored to service under these conditions.

If the facility NPC associated with the **NEW** channel is out-of-service, the command will be denied.

Explanation Of Parameters

[s]abc
- The 3- or 4- digit OLD nonhierarchical NPC number

[t]ghi
- The 3- or 4- digit NEW nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- OLD hierarchical NPC number

wx-k-qr
- NEW hierarchical NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number
jjj - Channel number

The valid values are listed below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number
ll - Customer number

The valid values are listed below:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

The customer numbers, ff and/or **ll,**

are optional when the facility termination is a DS0A channel

because there is only one customer in a DS0A channel. If specified for this type of channel, the customer number must appear as 01. A customer number is required when specifying a facility termination

in a DS0B (subrate multiplexed) channel. The allowed customer numbers for the NEW termination field depend on the rate of the existing circuit and the

type of DS0B channel associated with the NEW termination.

If the circuit rate is equal to or lower than the maximum DS0B rate, the command will be allowed, as shown below:

[Multipoint] Circuit Rate	NEW DS0B Type		
	20-channel (max. customer rate 2.4 kb/s)	10-channel (max. customer rate 4.8 kb/s)	5-channel (max. customer rate 9.6 kb/s)
24	Customer No. 1-20 Allowed	Customer No. 1-10 Allowed	Customer No. 1-5 Allowed
48	Denied	Customer No. 1-10 Allowed	Customer No. 1-5 Allowed
96	Denied	Denied	Customer No. 1-5 Allowed
56	Denied	Denied	Denied

The user must ensure that a circuit using the secondary channel capability is only assigned to a NEW facility termination that is compatible with this

capability. If the NEW termination is a DS0A or if zero suppression was NOT specified when its associated facility NPC was equipped then any assignment of the NEW termination is compatible with the secondary channel capability. If the

NEW termination is in a DS0B **and** if zero suppression was specified when its associated facility NPC was equipped the user can only assign secondary channel services to a NEW termination with

the following customer numbers within the given DS0B type:

DS0B Type	Allowed Customer Numbers
20-channel	2, 3, 6, 8, 11, 12, 13, and 18
10-channel	2, 3, 6, and 8
5-channel	2 and 3

Once moved to the NEW facility termination, the circuit or the multipoint circuit master leg and all of its associated branches is(are) left in the same terminate and leave state that existed with the OLD channel. For example, if the OLD channel was terminated in the TO direction before the change command, it remains terminated in the same direction after the command.

If desired, changes to the terminate and leave state can be done either before or after moving the channel by using the Subrate Test Access command or the Subrate Change Termination command.

If the OLD facility is connected to a branch of a multipoint circuit, it is disconnected from the MJU and the NEW facility is connected to the same MJU and branch.

The **OOS** keyword appears in the output whenever the disconnection of the OLD facility has taken place with its facility terminating NPC out-of-service or failed. In this case, the user should note that the Unassigned Multiplexer Channel (UMC) code may not be inserted towards the disconnected OLD facility until its NPC is restored to service.

As is the case in all output messages, the customer number field in all external facility termination data (e.g., [s]abcddd/ff) is always set to

01 for DS0A channels.

[s]abcddd/ff
- OLD external facility termination

[t]ghijjj/ll
- NEW external facility termination

mmmm - Error classification code

mmmm Explanation

explanation of error condition code

Input Errors

reason

CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE
CHANNEL [s]abcddd IS A PARITY CHANNEL

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-OA CHANNEL [s]abcddd

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS-OB CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-0B CHANNEL [s]abcddd
CHANNEL [s]abcddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
CHANNEL [s]abcddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
CHANNEL [s]abcddd/ff IS ASSIGNED
CHANNEL [s]abcddd/ff IS IS SPECIFIED MORE THAN ONCE
CHANNEL [s]abcddd/ff IS UNDER TEST
CHANNEL [s]abcddd/ff IS UNASSIGNED
CHANNEL [s]abcddd IS OUT OF RANGE
CHANNEL [s]abcddd/ff IS NOT CONNECTED IN A MULTIPOINT CIRCUIT
CHANNEL [s]abcddd/ff IS A MULTIPOINT MASTER, MPTM KEYWORD FORBIDDEN
NPC [s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abcddd IS NOT PROVISIONED
INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
NPC [s]abc IS IN LINE LOOPBACK STATE

SPECIFIED RATE DOES NOT MATCH EXISTING CIRCUIT RATE
CIRCUIT IS UNDER TEST

Maintenance Conditions

mmmm Explanation

explanation of error condition code

reason

BOTH CCN SIDES ARE OUT-OF-SERVICE
ACTIVE CCN SIDE IS {OUT-OF-SERVICE|FAILED|PESTED}
CCNI s IS {OUT-OR -SERVICE|FAILED}
TSI sft IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
CCB sf IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
CCI s IS {OUT-OR -SERVICE|FAILED}
ETSI sqq IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q FTMI d IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
UNIT [q]q FC sb IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}

DSPI IN UNIT [q]q IS {OUT-OF-SERVICE|FAILED}
NPC [s]abc IS {NOT EQUIPPED|OUT-OF-SERVICE|FAILED}
NPC [s]abc SIDE s IS {OUT-OF-SERVICE|FAILED}
UNIT [q]q IS NOT FACILITY TERMINATING TYPE
MAINTENANCE CONDITION PREVENTS COMPLETION OF THIS COMMANC

ENEQ Equipage, not equipped
UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service
UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT [q]q FMT s IS OUT-OF-SERVICE
UNIT [q]q MXR c IS OUT-OF-SERVICE
UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed
UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

ED,CONN,TS,MPTM

CHANGE SUBRATE CROSS-CONNECTION

Input Message Format

Nonhierarchical

[I.19591]

```
ED-CONN-TS:[<xy>]:[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:MPTM;
```

Hierarchical

[I.19591]

```
ED-CONN-TS:[<xy>]:uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:\
MPTM;
```

Completion Message

Nonhierarchical

[O.19591]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:MPTM \
COMPLD
[  /* [O.19591] */]
[  "OOS"]
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Hierarchical

[O.19591]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:MPTM \
COMPLD
[  /* [O.19591] */]
[  "OOS"]
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Note:
The optional **OLD** and **NEW** customer number information in lines 5 through 8 appears only if the ff and/or the ll fields are not specified in the input command.

Denial Message

Nonhierarchical

[O.19591.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::[s]abc-ddd[-ff],[t]ghi-jjj[-ll]:[ww]:MPTM \
DENY
   mmmm
   /* [O.19591.01] */
   /* <explanation of error condition code> */
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

Hierarchical

[O.19591.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CONN TS::uv-m-np-ddd[-ff],wx-k-qr-jjj[-ll]:[ww]:MPTM \
DENY
   mmmm
   /* [O.19591.01] */
   /* <explanation of error condition code> */
[  /* OLD customer number */]
[  "01"]
[  /* NEW customer number */]
[  "01"]
;
```

NOTE:
The optional **OLD** and **NEW** customer number information in lines 6 through 9 appears only if the ff and/or the ll fields are not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command changes the external facility termination associated with the MPTM (multipoint master) leg of a Subrate multipoint circuit from an existing digroup, channel, and (optional) customer number to a **NEW** digroup, channel, and (optional) customer number. Execution of this command causes the disconnection of the existing multipoint circuit's master leg (that is, the control leg of MJU 1) and its reconnection to a **NEW** external facility termination. All branches associated with the circuit are left with their existing external and internal connections. Also, the external facility termination associated with the original connection is left established to the Subrate feature with an Unassigned Multiplexer Channel (UMC) code inserted towards the **OLD** facility. In effect, this command combines the operations of multipoint **DISC-CRS-TS** and **CONN-CRS-TS** commands that would be necessary to do the same change but with a minimum of service interruption.

Before using this command, the **NEW** channel must be established to the Subrate feature (**CRTE-CRS-TS**) and the **NEW** facility termination must not already be cross-connected (for example, with a previous **CONN-CRS-TS**). The specified **OLD** facility termination must be the multipoint master termination of an existing Subrate multipoint circuit, and the specified **NEW** facility termination cannot be the same as the **OLD**. Also, neither the **NEW** termination nor any portion of the existing multipoint circuit can be under test access at the time this command is issued.

The user must ensure that a multipoint circuit using the secondary channel capability is assigned only to a **NEW** facility termination that is compatible with this capability. If the **NEW** termination is a DS0A or if its associated facility NPC was provisioned without zero suppression, any assignment of the **NEW** termination is compatible with the secondary channel capability. If the **NEW** termination is in a DS0B **and** its associated facility NPC was grown with zero suppression, the user can only assign secondary channel services to a **NEW** termination with the following customer numbers within the given DS0B type:

DS0B Type	Allowed Customer Numbers
20-channel	2, 3, 6, 8, 11, 12, 13, and 18
10-channel	2, 3, 6, and 8
5-channel	2 and 3

Once moved to the **NEW** facility termination, the multipoint circuit master leg and all of its associated branches are left in the same terminate and leave state that existed with the **OLD** channel. For example, if the master leg was terminated in the **TO** direction before the change command, it remains terminated in the same direction after the command. If desired, changes to the terminate and leave state can be done either before or after moving the channel by using the Subrate Test Access command (CHG-TL-TS) or the Subrate Change Termination command (ED-PRMTR-TS).

Multipoint masters connected to an out-of-service facility NPC may also be moved with this command. Such changes require no special keyword in the input command, but the output message will indicate that the facility is out-of-service. The user should note that the UMC code may not be inserted in the disconnected facility channel until the facility is restored to service under these conditions. If the facility NPC associated with the **NEW** channel is out-of-service, the command will be denied.

Explanation Of Parameters

MPTM - Multipoint master

[s]abc
- The 3- or 4-digit nonhierarchical **OLD** NPC number of the multipoint circuit master leg

[t]ghi
- The 3- or 4-digit nonhierarchical **NEW** NPC number of the multipoint circuit master leg

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical **OLD** NPC number of the multipoint circuit master leg

wx-k-qr
- Hierarchical **NEW** NPC number of the multipoint circuit master leg

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - **OLD** channel number of the multipoint circuit master leg
jjj - **NEW** channel number of the multipoint circuit master leg

ff - **OLD** customer number of the multipoint circuit master leg (1 through 20)

11 - **NEW** customer number of the multipoint circuit master leg (1 through 20)

The customer numbers, **ff** and/or **11**, are optional

when the multipoint master termination is a DS0A channel. This is

because there is only one customer in a DS0A channel. If specified for this type of channel, it must appear as 01. A customer number is required when specifying a multipoint master termination in a

DS0B (subrate multiplexed) channel. The allowed customer numbers for the **NEW** termination field depend on the rate of the

existing multipoint circuit and the type of DS0B channel associated with the **NEW** termination. If the circuit rate is equal to

or lower than the maximum DS0B rate, the command will be allowed, as shown in the following table.

MULTIPOINT CIRCUIT RATE	NEW DS0B TYPE		
	20-CHANNEL (MAX. CUSTOMER RATE 2.4 kb/s)	10-CHANNEL (MAX. CUSTOMER RATE 4.8 kb/s)	5-CHANNEL (MAX. CUSTOMER RATE 9.6 kb/s)
24	Customer No. 1-20 Allowed	Customer No. 1-10 Allowed	Customer No. 1-5 Allowed
48	Denied	Customer No. 1-10 Allowed	Customer No. 1-5 Allowed
96	Denied	Denied	Customer No. 1-5 Allowed
56	Denied	Denied	Denied

OOS - Out-of-service

The **OOS** keyword appears in the output whenever the disconnection of the **OLD** facility has taken place with its facility terminating NPC out-of-service or failed. In this case, the user should note that the unassigned multiplexer channel (UMC) code may not be inserted towards the disconnected **OLD** facility until its NPC is restored to service.

[s]abcddd/ff
- **OLD** master leg external facility termination

[t]ghijjj/ll
- **NEW** master leg external facility termination

Nonhierarchical addresses are used for termination numbers in the reason for denial tables given below. Hierarchical addresses may be substituted wherever the Nonhierarchical form is shown. The address received by the user is determined by the users' machine.

Input Errors

mmmm Explanation

explanation of error condition code

CHANNEL [s]abc-ddd-ff IS A MULTIPOINT MASTER, MPTM KEYWORD REQUIRED

IDNV **Input, data not valid**

CHANNEL [s]abc-ddd IS A PARITY CHANNEL
CHANNEL [s]abc-ddd SR MULTIPLEXER RATE CANNOT SUPPORT CIRCUIT RATE
CHANNEL [s]abc-ddd WITH SR ERROR CORRECTION AND RATE 56 NOT ALLOWED
CHANNEL [s]abc-ddd-ff IS NOT CONNECTED IN A MULTIPOINT CIRCUIT
CHANNEL [s]abc-ddd-ff IS SPECIFIED MORE THAN ONCE
CHANNEL [s]abc-ddd-ff NOT MULTIPOINT MASTER, MPTM KEYWORD FORBIDDEN

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS-0B CHANNEL [s]abc-ddd
INVALID CHANNEL NUMBER FOR CHANNEL [s]abc-ddd
UNIT-[q]q IS NOT FACILITY TERMINATING TYPE

IDRG Input, data out of range

```
CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-0A CHANNEL
[s]abc-ddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-0B CHANNEL
[s]abc-ddd
CHANNEL [s]abc-ddd IS OUT OF RANGE
[s]abc-ddd&&-ddd IS AN INVALID RANGE OF CHANNELS
```

SAAS Status, already assigned

```
CHANNEL [s]abc-ddd-ff IS UNASSIGNED
```

SARB Status, all resource busy

```
CONNECTION EXCEEDS REMAINING EC CAPACITY

CONNECTION EXCEEDS REMAINING SRM CAPACITY

CONNECTION EXCEEDS REMAINING MJU CAPACITY
```

SNVS Status, not in valid state

```
CHANNEL [s]abc-ddd-ff IS UNDER TEST
CHANNEL [s]abc-ddd IS NOT ESTABLISHED TO SR FEATURE
NPC-[s]abc IS IN LINE LOOPBACK STATE
NPC-[s]abc IS NOT PROVISIONED AS DIGROUP-A OF AN RT
DIGROUP-B ASSOCIATED WITH VIRTUAL CHANNEL [s]abc-ddd
          NOT PROVISIONED
DIGROUP-C ASSOCIATED WITH VIRTUAL CHANNEL [s]abc-ddd
          NOT PROVISIONED
DIGROUP-D ASSOCIATED WITH VIRTUAL CHANNEL [s]abc-ddd
          NOT PROVISIONED

NO DSPU IS EQUIPPED
NO SRM OR MJU TYPE NPC IS EQUIPPED
NO SRM TYPE NPC IS EQUIPPED
NO MJU TYPE NPC IS EQUIPPED
```

mmmm Explanation

explanation of error condition code

ENEQ Equipage, not equipped

```
ACTIVE CCN SIDE-s IS NOT EQUIPPED
CCB sf IS NOT EQUIPPED

DSPI IN UNIT-[q]q IS NOT EQUIPPED
NPC-[s]abc IS NOT EQUIPPED
UNIT-[q]q IS NOT EQUIPPED
UNIT-[q]q FTMI-d IS NOT EQUIPPED
UNIT-[q]q FLI-k IS NOT EQUIPPED
UNIT-[q]q MXR-c IS NOT EQUIPPED
UNIT-[q]q FMT-s IS NOT EQUIPPED
```

SAAS Status, already assigned

```
CHANNEL [s]abc-ddd-ff IS INVOLVED IN A ROLL
```

SNIS Status, not in-service

```
ACTIVE CCN SIDE s IS OUT-OF-SERVICE
BOTH CCN SIDES ARE OUT-OF-SERVICE
CCB sf IS OUT-OF-SERVICE
ACTIVE CCN SIDE-s IS OUT-OF-SERVICE
CCB-sf IS OUT-OF-SERVICE

DSPI IN UNIT-[q]q IS OUT-OF-SERVICE
ETSI-s[q]q IS OUT-OF-SERVICE
INACTIVE CCN SIDE IN-SERVICE AND NPC-[s]abc ON INACTIVE SIDE IS
         OOS
TSI-sft IS OUT-OF-SERVICE
UNIT-[q]q FC-sb IS OUT-OF-SERVICE
UNIT-[q]q FLI-k IS OUT-OF-SERVICE
UNIT-[q]q FMT-s IS OUT-OF-SERVICE
UNIT-[q]q MIU-c IS OUT-OF-SERVICE
UNIT-[q]q MXR-c IS OUT-OF-SERVICE
UNIT-[q]q FTMI-d IS OUT-OF-SERVICE
UNIT-[q]q IS OUT-OF-SERVICE
```

SROF Status, requested operation failed

ACTIVE CCN SIDE-s IS FAILED
ACTIVE CCN SIDE-s IS PESTED
CCB-sf IS FAILED

DSPI IN UNIT-[q]q IS FAILED
ETSI-s[q]q IS FAILED
NPC-[s]abc IS FAILED
NPC-[s]abc SIDE-s IS FAILED
TSI-sft IS FAILED
UNIT-[q]q FLI-k IS FAILED
UNIT-[q]q FMT-s IS FAILED
UNIT-[q]q FTMI-d IS FAILED
UNIT-[q]q IS FAILED
UNIT-[q]q MIU-c IS FAILED
UNIT-[q]q MXR-c IS FAILED

ED,CRS,T0,INCL

ALTERNATE CROSS-CONNECTIONS

Input Message Format

Nonhierarchical

[I.14001]

```
ED-CRS-T0:[xy]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL];
```

Hierarchical

[I.14001]

```
ED-CRS-T0:[xy]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL];
```

Completion Message

Nonhierarchical

[O.14001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED CRS T0::[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL] COMPLD
;
```

Hierarchical

[O.14001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED CRS T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED CRS T0::[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL] DENY
   mmmm
   /* [O.14001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.14001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED CRS T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL] DENY
   mmmm
   /* [O.14001.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests an alternate cross-connection for a channel or a range of channels from one NPC to another NPC through DACS II. It moves circuits from one (OLD) service-carrying digroup to another (NEW) service-carrying digroup. All circuit parameters associated with the circuit on the OLD digroup before the ACON command is executed will be retained with the circuit on the NEW digroup after the ACON command is executed.

The ACON command will create a new connection consistent with existing DACS II cross-connect topologies. The user should make sure that this connection is suitable for the type of traffic intended for the circuit.
Test signals may exist on the new digroup. If allowed to remain they will overwrite the signal transferred from the old digroup.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical OLD NPC number

[t]ghi

- The 3- or 4-digit nonhierarchical NEW NPC number

Note: Valid types for old and new NPC's are DExyz (except DE9yz) and TExyz (except TE9yz).

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd,jjj
- Channel numbers for beginning of channel range

eee,kkk
- Channel numbers for end of channel range

To connect a range of channels, use the optional fields eee and kkk.

INCL - Inclusive

A circuit designated as a customer controlled circuit or a red circuit cannot be modified without using the inclusive keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the INCL keyword is given in the remove message.

mmm - The OLD channel number involved in denial (ddd through eee).

nnn - The NEW channel number involved in denial (jjj through kkk).

mmmm - Error condition code

mmmm	**st**	*Explanation*
ERLC		Customer control or red circuit exists
IDRG		Invalid range for specified NPC type
SAOS		NPC out of service or failed
ENEQ		NPC not equipped
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ		DSPI not equipped, not in service, or failed
IIDT		Trunk conditioning is invalid
SNVS		Termination is under test
SNVS		Termination is a test port
IIDT		Database conference width does not match the range in input command
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
IDNV	INERR	Invalid channel number
SNVS		Inactive side NPC out of service and inactive side in service
IDNV		Unmatched channel range
IDNV	INERR	Invalid channel 000 cross-connection specified
SNVS	INERR	NPC invalid type
SAAS		Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed
SNVS		OLD termination is not mapped
IDNV		Invalid circuit type
IDNV		Range not allowed for circuit type
IDNV		OLD and NEW channels cannot be the same
IDNV		Conference first channel doesn't match input
IDNV		Leg type mismatch

mmmm	st	*Explanation*
IDNV		OLD data channel cannot be parity channel type
IDNV		OLD and NEW Data and Parity channels partially overlap

ED,CRTE,TS,PCH,DCC

CHANGE SUBRATE ESTABLISHED CHANNEL

Input Message Format

Nonhierarchical

[I.19501]

```
ED-CRTE-TS:[<xy>]:[s]abc-ddd[-eee],[t]ghi-jjj[-kkk]:[ww]\
:[PCH-ppp]:[DCC];
```

Hierarchical

[I.19501]

```
ED-CRTE-TS:[<xy>]:uv-m-np-ddd[-eee],wx-k-qr-jjj[-kkk]:[ww]\
:[PCH-ppp]:[DCC];
```

Completion Message

Nonhierarchical

[O.19501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::[s]abc-ddd[-eee],[t]ghi-jjj[-kkk]:[ww]::[DCC] \
COMPLD
[  /* [O.19501] */]
[  "OOS"]
;
```

[O.19502]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::[s]abc-ddd,[t]ghi-jjj:[ww]:PCH-ppp:[DCC] \
COMPLD
   /* [O.19502] */
   /* OLD parity channel */
   "nnn"
[  "OOS"]
;
```

Hierarchical

[O.19501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::uv-m-np-ddd[-eee],wx-k-qr-jjj[-kkk]:[ww]\
::[DCC] COMPLD
[  /* [O.19501] */]
[  "OOS"]
;
```

[O.19502]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::uv-m-np-ddd,wx-k-qr-jjj:[ww]:PCH-ppp\
:[DCC] COMPLD
   /* [O.19502] */
   /* OLD parity channel */
   "nnn"
[  "OOS"]
;
```

Denial Message

Nonhierarchical

[O.19501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::[s]abc-ddd[-eee],[t]ghi-jjj[-kkk]:[ww]\
::[DCC] DENY
   mmmm
   /* [O.19501.01] */
   /* <explanation of error condition code> */
[  /* OLD and NEW channel numbers involved in the denial]
[  /* yyy,zzz */]
;
```

Hierarchical

[O.19501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED CRTE TS::uv-m-np-ddd[-eee],wx-k-qr-jjj[-kkk]:[ww]:\
PCH-ppp:[DCC] DENY
   mmmm
   /* [O.19502.01] */
   /* <explanation of error condition code> */
[  /* OLD and NEW channel numbers involved in the denial]
[  /* yyy,zzz */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command moves a subrate established channel (**DS0A** or **DS0B**) and all associated subrate cross-connections from an existing digroup and channel to a **NEW** digroup and channel. Once the command executes, the **OLD** channel is left disestablished and the **NEW** channel is established with exactly the same format (that is, rate, **DS0A/DS0B** format, number of subrate multiplexer channels, error correction, etc.) as the **OLD**. When present, any subrate circuits (that is, **CONN-CRS-TS**s) that use the **OLD** channel for one or more ends are also moved to the **NEW** channel. In effect, this command combines the operations of the **DISC-CRS-TS**, **DLT-CRS-TS**, **CRTE-CRS-TS**, and **CONN-CRS-TS** commands that would be necessary to do the same change.

Prior to this command, the **NEW** channel must not be established or used in any DACS cross-connection unless it is already established with exactly the same format as the **OLD** channel. However, in the latter case, no prior subrate cross-connections (for example, **CONN-CRS-TS**s) can be present on the **NEW** channel. Also, none of the **OLD** or **NEW** established channels nor any portion of the subrate circuits associated with them can be under test access at the time this command is issued. If no subrate cross-connections are present on the **OLD** channel and the **NEW** channel is already established in the same manner, the command will be denied. In this case, the **OLD** channel can simply be disestablished (**DLT-CRS-TS**) to achieve the same effect as the **CHG** command would otherwise do.

Once moved to the **NEW** channel, the established channel and all associated subrate cross-connections are left in the same terminate and leave state that existed with the **OLD** channel. For example, if one of the subrate circuits in a moved **DS0B** was terminated in the **TO** direction before the change command, it remains terminated in the same direction after the command. If desired, changes to the terminate and leave state can be done either before or after moving the channel by using the **SRDC** Test Access command (CHG-TL-TS,TERM) or the subrate change termination command (ED-PRMTR-TS,TERM,RLS)

A range of channels may be specified, provided that parity channel error correction is not used with any channels within the **OLD** or **NEW** channel ranges. If the **OLD** channel has an error correction parity channel associated with it, the **NEW** channel must be specified with the location of the new parity channel by use of the **PCH ppp** field. [Note that the location of the **OLD** channel's parity channel need not be specified since the system will locate and move it along with the data channel automatically.] When specified, the **NEW** parity channel must not be already established or cross-connected unless it is already established as the **NEW** channel's parity channel. If the **OLD** channel is not established with parity channel error correction, the **NEW** channel cannot be specified with the **PCH** field.
Use of the optional **DCC** keyword causes the DDS unassigned multiplexer channel (UMC) code to be inserted in the **OLD** channel(s) towards digroup facility **abc** when the command completes. If this keyword is not specified, the disconnection code specified in the **CRTE-EQPT,NPC** command associated with digroup **abc** is used.
OLD channels connected to an out-of-service facility NPC may also be moved with this command. Such changes require no special keyword in the input command, but the output message will contain the **OOS** keyword to indicate that the facility is out-of-service. The user should note that the appropriate disconnection channel code may not be inserted in the **OLD** facility channels until the facility is restored to service under these conditions. If the facility NPC associated with the **NEW** channels is out-of-service, the command will be denied.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of OLD established channel.

[t]ghi
- The 3- or 4-digit nonhierarchical NPC number of NEW established channel.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640
016A-016H     032A-032H     048A-048H     064A-064H

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
080A-080H     096A-096H     112A-112H     128A-128H

Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H

Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
208A-208H     224A-224H     240A-240H     256A-256H
```

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The allowable values are presented below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - OLD channel number
jjj - NEW channel number
eee - Channel number for end of OLD range specified
kkk - Channel number for end of NEW range specified

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

PCH - Parity channel

ppp - Channel number of NEW parity error correction channel

DCC - Disconnect code

Appearance of the **DCC** keyword indicates that the DDS unassigned multiplexer channel (UMC) code is inserted towards the OLD channel's facilities when the command completes. If this keyword is not present, the disconnect code specified in the command used to provision digroup abc is used.

The **DCC** keyword appears only if present in the input command.

OOS - Out-of-service

The OOS keyword appears in the output whenever the established channel change has taken place with the OLD channel's facility terminating NPC out-of-service or failed. In this case, the user should note that the appropriate disconnect channel code may not be inserted in the disestablished channel until the facility is restored to service.

nnn - Channel number of OLD error correction parity channel

yyy - OLD channel number involved in the denial

zzz - NEW channel number involved in the denial

reason
- Reason for denial

Input Errors

mmmm	*Explanation* *reason*
	NEW DIGROUP DOES NOT SUPPORT SUBRATE CHANNELS NEW CHANNEL IS A TEST PORT NEW CHANNEL IS ALREADY ESTABLISHED DIFFERENTLY THAN OLD NEW CHANNEL [s]abcddd HAS ACTIVE SR CROSS-CONNECTS NEW CHANNEL IS ALREADY ASSIGNED OLD AND NEW CHANNELS ARE THE SAME OLD AND NEW CHANNELS PARTIALLY OVERLAP NO CUSTOMERS ARE MOVED TO THE ALREADY ESTABLISHED NEW CHANNEL
IDMS	Input, data missing
	PARITY CHANNEL AND PCH KEYWORD IS REQUIRED
IDRG	Input, data out of range
	OLD CHANNEL NUMBER IS OUT OF RANGE FOR NPC TYPE SPECIFIED NEW CHANNEL NUMBER IS OUT OF RANGE FOR NPC TYPE SPECIFIED
IDNV	Input, data not valid
	RANGE CHANGE OF OLD DATA CHANNEL [s]abcddd HAVING PCH NOT ALLOWED OLD CHANNEL IS A PARITY CHANNEL
SNVS	Status, not in valid state
	OLD CHANNEL [s]abcddd OR A CUSTOMER IS UNDER TEST OLD CHANNEL [s]abcddd IS NOT ESTABLISHED TO THE SR FEATURE NEW CHANNEL [s]abcddd OR A CUSTOMER IS UNDER TEST

Maintenance Conditions

mmmm	*Explanation* *reason*
	ACTIVE CROSS-CONNECT NETWORK SIDE IS FAILED NEW NPC IS OUT-OF-SERVICE NEW NPC IS FAILED REQUIRED UNIT NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED CCB NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED FTMI NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED FC NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED TSI NOT EQUIPPED, NOT IN SERVICE, OR FAILED
	REQUIRED DSPI NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED SRM NOT EQUIPPED, NOT IN SERVICE, OR FAILED REQUIRED SUBRATE PACK NOT EQUIPPED, NOT IN SERVICE, OR FAILED
ENEQ	Equipage, not equipped
	UNIT [q]q MXR c NOT EQUIPPED
SNIS	Status, not in-service
	UNIT [q]q FLI k IS OUT-OF-SERVICE UNIT [q]q FMT s IS OUT-OF-SERVICE UNIT [q]q MXR c IS OUT-OF-SERVICE UNIT [q]q MIU c IS OUT-OF-SERVICE
SROF	Status, requested operation failed
	UNIT [q]q FLI k IS FAILED UNIT [q]q FMT s IS FAILED UNIT [q]q MXR c IS FAILED UNIT [q]q MIU c IS FAILED

st	**d**	*Explanation*
ROLL	{FITIB}	Circuit is involved in a roll

ED,DATE,INT

UTILITIES, SET DATE

Input Message Format

[I.51021]

```
ED-DATE:[<xy>]::[ww]:[ce]yr-mo-da:[INT-ii];
```

[I.51021]

```
ED-DATE:[<xy>]::[ww]:,hr-mn-sc;
```

Completion Message

[O.51021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED DATE:::[ww]:{[ce]yr-mo-da]|,[hr-mn-sc]}:[INT-ii] COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message sets the date (month, day, year) and the interval at which it will be printed for the DACS II clock. The time (hour, minute, second) can also be set, but not simultaneously with the date.

Explanation Of Parameters

mo - month
da - day
ce - century
yr - year
The 2-digit century (ce) field is optional. If the user enters a 2-digit number for the year field, DACS II assumes a default value of 19 for the century and accepts only the range of years from 86 through 99. However, any 4-digit century-year entry from 1986 onward is acceptable.

The INT-ii option is only allowed with the yr-mo-da portion of the MML version of the message.

INT - Interval

ii - Interval at which DACS II will print the date.

ii	*Meaning*
01	Every hour on the hour.
02	Every even hour on the hour.
04	Every fourth hour on the hour: 04, 08, 12, 16, 20, 24
06	Every sixth hour on the hour: 06, 12, 18, 24
08	Every eighth hour on the hour: 08, 16, 24
12	Twice daily on the hour: 12, 24
24	Once daily at midnight (default).

hr-mn-sc
- Time of Day

hr - Hours (00 through 23)
mn - Minutes (00 through 59)
sc - Seconds (00 through 59)

ED,DLT,MAP,NPC

EDIT DELETE MAP

Input Message Format

Nonhierarchical

[I.37001]

```
ED-DLT-MAP:[<xy>]:NPC-{[s]abc&&-[s]def|[s]abc[&-[s]ghi]....\
[&-[t]def]};
```

Hierarchical

[I.37001]

```
ED-DLT-MAP:[<xy>]:NPC-{uv-m-np&&&-wx-k-qr|uv-m-np\
[&-ab-c-de]....[&-wx-k-qr]};
```

Completion Message

If the command is accepted by DACS II, the following input acknowledgement is output.

```
OK
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command is only used in the open and create session of the alternate map feature. It is not intended to be used as a regular command under any circumstances.

This message is used to *delete* a single NPC, a range of NPCs, or a list of NPCs, from an alternate map.
To delete circuits from an alternate map, enter the **CONN-CRS** command (I.11001) with the DEL keyword at the end.
The only system response to this command is:

OK

Denials in response to this command are sent only to the link on which the command was input.

Explanation Of Parameters

[s]abc,[t]def,[s]ghi
- The 3- or 4-digit non-hierarchical NPC numbers

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
080A-080H     096A-096H     112A-112H     128A-128H

Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H

Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
208A-208H     224A-224H     240A-240H     256A-256H
```

uv-m-np,wk-x-qr,ab-c-de
- Hierarchical NPC number

uv,wk,ab
- Unit number

m,x,c
- Module number

np,qr,de
- NPC number

The values are:

```
DE type NPC numbers listed by unit, module,
and NPC No.

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
SNVS	The NPC to delete has not been previously added to map

ED,MACRO,MAP

CREATE OR EDIT A MACRO OR MAP

Input Message Format

[I.19001]

```
ED-{MACRO|MAP}:[<xy>]::[ww]:{<macro name>|<map name>};
```

Completion Message

[O.19001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED {MACRO|MAP}:::[ww]:{<macro name>|<map name>} COMPLD
   /* [O.19001] */
  ["COND-cc"]
;
```

[O.19002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED {MACRO|MAP}:::[ww]:{<macro name>|<map name>} COMPLD
   /* [O.19002] */
   "QTEND,[COND-cc]"
;
```

Denial Message

[O.19001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED {MACRO|MAP}:::[ww]:{<macro name>|<map name>} DENY
   mmmm
   /* [O.19001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.19002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT LGT
   /* [O.19002] */
   /* <explanation of error condition code> */
   "QTEND"
;
```

Explanation Of Message

This command is dual purpose. It can be used to create a new macro or alternate map or to edit an existing macro or map. A macro is a collection of DACS II commands that can be executed as a group by a single command. A map is a collection of DACS II cross-connect commands that can be activated as a group by a single command to create a new cross-connect map.

Once a macro has been created, and is free of errors, it can be executed repeatedly. For commonly used command sequences this saves a lot of typing, speeds execution, and assures the user of repeatability. Similarly a map, once created, can be repeatedly activated. However, prior to each activation of a map the information specified in the map must be edited to create a new map. On the other hand the information in a macro can be changed, without editing, when the command is executed. The new information is inserted into the command line and replaces information within the macro at execution time.

The commands used in the macro, the macro commands, will always be executed in the order they are listed in the macro. However, because the commands can use variables as well as constants, the information within the macro can vary with each execution. A command within the macro that addresses a given NPC can be made to address a different NPC the next time the macro is executed. This is done by replacing the constant, representing the NPC number, listed in the macro command with a variable. Many other command parameters can be changed from execution to execution by the use of variables in the macro commands.

Consider the private macro named "DEMO" below. Some elements of these macro commands have been omitted in order to focus on the use of variables.

DISC-CRS-T0::001-001,003-001:STOP;OK
CONN-CRS-T0::001-001,005-001::::::;OK
CONN-CRS-T0::001-002,005-002::::::;OK
CONN-CRS-T0::001-003,005-003::::::;OK
RTRV-CRS-T1::001::MAP;OK

This macro will always disconnect, connect, and query the same NPCs. If DEMO were written as follows, using variables, the NPCs affected could be specified each time the macro was executed without having to reenter the macro. A macro written in this manner is referred to as a universal macro. This particular macro would be even more universal if the channel numbers were represented by variables.

```
DISC-CRS-T0::#01-001,003-001:STOP;OK
CONN-CRS-T0::#01-001,#02-001:::::;OK
CONN-CRS-T0::#01-002,#02-002:::::;OK
CONN-CRS-T0::#01-003,#02-003:::::;OK
RTRV-CRS-T1::#01::MAP;OK
```

Variables have replaced some of the constants in macro DEMO. NPC number 001 has been replaced with variable #01 and NPC number 005 has been replaced with variable #02. The numbers in these variable names refer to the position of the replacement in the command used to execute the macro. To execute this macro replacing #01 with 020 and #02 with 040 we would enter the following command.

```
EXC-MACRO::DEMO:020&040;

DISC-CRS-T0::020-001,003-001:STOP;OK
CONN-CRS-T0::020-001,040-001:::::;OK
CONN-CRS-T0::020-002,040-002:::::;OK
CONN-CRS-T0::020-003,040-003:::::;OK
RTRV-CRS-T1::020::MAP;OK
```

Variables may be used for any macro command parameter except action verbs and punctuation. The number of variables used in a macro is limited to 10. A variable may be used wherever its value is needed, that is, it is not restricted to an NPC number just because it was used for that purpose at some other point in the macro. If the user wished to address NPC number 003 and channel 003 the variable #01 with value 003 could be used for both the NPC number and the channel number. The macro command would look as follows.

```
CONN-CRS-T0::#01-#01,...;
```

At execution time this would translate to the following.

```
CONN-CRS-T0::003-003,...;
```

Note:
To represent hierarchical NPC numbers a variable must be used for each part (unit, module, NPC) of the NPC number. A macro expecting a hierarchical format parameter should not be executed with a nonhierarchical format parameter.

NPC 01101 would be represented in a macro command with variables #01, #02, and #03 as follows.

```
RTRV-CRS-T1::#01#02#03::MAP;
```

WARNING:
Any command prompting "Are You Sure?" which is accepted as a macro command will always have the "No" answer to the question.

The system responds with "OK" when the ED-MAP command is entered.
The system responds with LINE and SAVE messages, as shown below, when the ED-MACRO command is entered.

```
[O.19071]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LINE:::[ww] COMPLD

;
[O.19081]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SAVE:::[ww] COMPLD

;
```

A macro session is the period between entering the command to create a macro and entering the command to exit the macro. A line pointer is maintained by the system during the session to mark the position of the current line within the macro. As a line is added to the macro the line pointer moves down a line; tracking the position of the current line. The LINE command is used to determine the current line pointer value and the total number of lines currently in the macro.

The SAVE command is used during a macro session to save the current set of macro commands in the macro represented in the message by "macro name." The macro name is chosen by the user.

The completion messages correspond to the frame response when END or QTEND is entered after completion of editing or creating a macro. The END command saves all the changes before ending (exiting) a macro session. The QTEND command ends the macro session without saving the changes.

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

macro name

- Macro name (seven characters maximum length)

The name of a collection of DACS II commands executed as a group.

A macro name is a string of capitalized alphanumeric characters. There are two type of macros; public and private. A private macros is created by a user in space allocated to the user by the system administrator. Only the user that created it can execute or read (LIST) a private macro. A public macro is created by the system administrator and is executable and readable by all users. A public macro name must start with the letter "P". A private macro name must not start with the letter "P".

map name

- Map name (seven characters maximum length)

The name of a collection of DACS II cross-connect commands that can be activated as a group to produce a new set of cross-connections (a new cross-connect map).

A map name is a string of capitalized alphanumeric characters.

QTEND - Quit end

Quit to end a macro or map session without saving any changes to the macro or map.

COND - Condition
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
00	NCON	No conditions
60	SNVS	User macro/map space is full
60	SNVS	User macro/map space is full
62	SNVS	File is being accessed
65	SNVS	Command invalid while backup in progress
66	SNVS	Map/macro file write deferred until backup is completed
67	SNVS	User logged off during session
68	SNVS	Incorrect language/addressing mode
6F	SNVS	The session is terminated due to maintenance operation

cc	mmmm	*Explanation*
6F	SNVS	The session is terminated due to maintenance operation
7C	SNVS	Logical conflicts found in the map
7D	SNVS	Can't start new session - previous session still verifying
D0	SNVS	Command is Frame administrator (DAX) only.
D5	SNVS	No user is logged in on the link/vc
6C	SNVS	File is empty

ED,OPT,T1,NPC,TYPE,ALL

CHANGE/SET OPTIONS

Input Message Format

[I.38201]

```
ED-OPT-T1:[<xy>]:NPC:[ww]:{TYPE-mn|ALL}:rr:a,b,c;
```

Completion Message

[O.38201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED OPT T1::NPC:[ww]:{TYPE-mn|ALL}:rr:a,b,c COMPLD
   /* [O.38201] */
   "OPT:rr:OLD:ttttt[tttt],aaaaa[aaaa],bbbbb[bbbb],ccccc[cccc],\
[<talm>],<pname>[,TYPE-mn]"
   ["OPT:rr:OLD:ttttt[tttt],aaaaa[aaaa],bbbbb[bbbb],ccccc[cccc],\
[<talm>],<pname>,TYPE-mn"]
   "OPT:rr:NEW:ttttt[tttt],xxxxx[xxxx],yyyyy[yyyy],zzzzz[zzzz],\
[<talm>],<pname>"
;
```

Denial Message

Nonhierarchical

[O.38201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED OPT T1::NPC:[ww]:{TYPE-mn|ALL}:rr:a,b,c DENY
   mmmm
   /* [O.38201.01] */
   /* <explanation of error condition code> */
[  /* NPC-[s]abc */]
;
```

Hierarchical

[O.38201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED OPT T1::NPC:[ww]:{TYPE-mn|ALL}:rr:a,b,c DENY
   mmmm
   /* [O.38201.01] */
   /* <explanation of error condition code> */
[  /* NPC-uv-m-np */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message initializes or changes the DACS II threshold data base, which contains the programmable set of selectable alarm thresholds for facility performance parameters accumulated by DACS II NPCs.
This command will be denied if an attempt is made to set the minor threshold greater than or equal to the major threshold of any parameter specified on *any* NPC currently in the frame.
This command will be also denied if an attempt is made to *disable* the minor slip threshold (by setting its value to zero) before disabling the major slip threshold on *any* in-service NPC on the frame.

Threshold values are entered in free format (1 to 9 digits) separated by commas. Enter a hyphen (-) for values that are *not* to be changed.
Note: This command will not reboot the NPC hardware. Therefore, if any NPCs are in service, use the **UTL::BOOT,FRAME** command (Message I.58001) to avoid any possible inconsistency.
Following DACS II installation, the user-programmable (non-default) values are empty until this **ED-OPT-T1** command enters a value. A user-programmable threshold value must first be initialized by this message before it can be used as an argument to the **OPTS** keyword of the **CRTE-EQPT** (Message I.31352) and **ED-PRMTR** (Message I.38221).
Note: This command will not reboot the NPC hardware. Therefore, if any NPCs are in service, use the **STA-LOCL-RST** command (Message I.58001) to avoid any possible

inconsistency.

Explanation Of Parameters

OPT - Option

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being set or changed. The parameters and their corresponding rr values are given in the table below.

The Major and Minor *Slip* threshold crossing alarms can be disabled by programming a value of zero for the Slip Major and Slip Minor thresholds, respectively.

To use this feature, the Slip Major threshold must be disabled before the Slip Minor threshold. This command will be denied if an attempt is made to disable the Minor Slip threshold (by setting its value to zero) before disabling the Major Slip threshold on *any* in-service NPC on the frame.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the following Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the following Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. All of the following Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. The only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

rr	Parameter	Threshold Value Range	Default Threshold Value
41	Daily Near-end Path Coding Violations	000000000 to 134217727	132960†
42	Daily Near-end Path Errored Seconds	00000 to 86400	648
43	Daily Near-end Path Severely Errored Seconds	00000 to 86400	100
44	Daily Near-end Severely Errored Framing Seconds	00000 to 86400	17
45	Daily Near-end Controlled Slip Seconds	00000 to 86400	4
46	Daily Near-end Unavailable Seconds	00000 to 86400	10
47	Daily Near-end Line Coding Violations	000000000 to 134217727	133400
48	Daily Near-end Line Errored Seconds	00000 to 86400	648
49	Daily Near-end Line Severely Errored Seconds	00000 to 86400	100
50	Daily Far-end Path Coding Violations	000000000 to 134217727	132960†
51	Daily Far-end Path Errored Seconds	00000 to 86400	648
52	Daily Far-end Path Severely Errored Seconds	00000 to 86400	100
53	Daily Far-end Severely Errored Framing Seconds	00000 to 86400	17
54	Daily Far-end Controlled Slip Seconds	00000 to 86400	4
55	Daily Far-end Unavailable Seconds	00000 to 86400	10
56	Daily Far-end Line Errored Seconds	00000 to 86400	648
57	15-Minute Near-end Path Coding Violations	0000000 to 2097151	13296‡
58	15-Minute Near-end Path Errored Seconds	000 to 900	65
59	15-Minute Near-end Path Severely Errored Seconds	000 to 900	10
60	15-Minute Near-end Severely Errored Framing Seconds	000 to 900	2
61	15-Minute Near-end Controlled Slip Seconds	000 to 900	1
62	15-Minute Near-end Unavailable Seconds	000 to 900	10
63	15-Minute Near-end Line Coding Violations	0000000 to 2097151	13340
64	15-Minute Near-end Line Errored Seconds	000 to 900	65
65	15-Minute Near-end Line Severely Errored Seconds	000 to 900	10
66	15-Minute Far-end Path Coding Violations	0000000 to 2097151	13296‡
67	15-Minute Far-end Path Errored Seconds	000 to 900	65

68	15-Minute Far-end Path Severely Errored Seconds	000 to 900	10
69	15-Minute Far-end Severely Errored Framing Seconds	000 to 900	2
70	15-Minute Far-end Controlled Slip Seconds	000 to 900	1
71	15-Minute Far-end Unavailable Seconds	000 to 900	10
72	15-Minute Far-end Line Errored Seconds	000 to 900	65

† The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default Daily value is 691.

‡ The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default 15-Minute value is 72.

TYPE - Type

Type of NPC for which the options are being set. Note that not all parameter threshold options apply to all NPC types.

mn - NPC Type prefix

mn	*Explanation*
DA	FTU ANSI NPC type
DE	FTU NPC type
DS	SLC carrier digroup circuit
TA	DS3U ANSI NPC type
TE	DS3U NPC type

ALL - All

All NPC types. If specified, the given thresholds will be written into the secondary data base for all types of NPCs for which the associated parameter is valid.

a - Threshold setting 1 (m=1) for given parameter rr
b - Threshold setting 2 (m=2) for given parameter rr
c - Threshold setting 3 (m=3) for given parameter rr

Thresholds are entered in free format (1 to 9 digits) separated by commas. Enter a "-" (hyphen) for values that are not to be changed.

For ANSI NPC types (DA and TA type NPCs), a threshold value of zero can be programmed for any parameter to disable threshold crossing alert messages for that parameter.

DACS II provides a set of default threshold values (m=0) for each NPC type. Only the default threshold value for each parameter exists in the DACS II database prior to user programming using the ED-OPT-T1::NPC command. Before any non-default threshold value (m=1,2,3) can be provisioned to be used by an NPC for performance monitoring, it must be entered in the DACS II database using this command. Otherwise, an error message will occur. When this command is executed, all threshold values in the DACS II frame are changed, including the ones previously set or in use. Performance monitoring thresholds are provisioned for NPCs using the "rr/m" argument of the CRTE::NPC or ED-PRMTR-EQPT::NPC command

The default values are accessed using threshold setting 0. Threshold settings 1, 2, and 3 are user-programmable. That is, set1, set2, and set3 do not have default values; they must be programmed by the user before they can be used.

ttttt[tttt]
- Default threshold value for option rr

aaaaa[aaaa]
- Old set1 threshold value

bbbbb[bbbb]
- Old set2 threshold value

ccccc[cccc]
- Old set3 threshold value

talm - Type of alarm

talm	*Explanation*
MJ	Major
MN	Minor

pname - Parameter name

pname	*Explanation*
SLIP	Slip
BER	Bit error rate
ERS	Errored seconds
SERS	Severely errored seconds
COFA	Change of frame alignment
SANE	Shelf alarm near end
SAFE	Shelf alarm far end

CVP,{DIQ}{NIF}	Path Coding Violations
CVL,{DIQ}{NIF}	Line Coding Violations
ESP,{DIQ}{NIF}	Path Errored Seconds
ESL,{DIQ}{NIF}	Line Errored Seconds
SESP,{DIQ}{NIF}	Path Severely Errored Seconds
SESL,{DIQ}{NIF}	Line Severely Errored Seconds
SEFS,{DIQ}{NIF}	Severely Errored Framing Seconds
CSSP,{DIQ}{NIF}	Path Controlled Slip Seconds
UASP,{DIQ}{NIF}	Path Unavailable Seconds

D, F, N, and Q are defined below

D	- Daily
F	- Far-end
N	- Near-end
Q	- 15 minute

xxxxx[xxxx]
- New set1 threshold value

yyyyy[yyyy]
- New set2 threshold value

zzzzz[zzzz]
- New set3 threshold value

Note: If the "TYPE mn" option is used in the input command to change the thresholds for a single NPC type and a hyphen is entered for at least one of the thresholds to preserve its value, the output response will show that the respective new threshold values are unchanged by outputting the same value for the new threshold that is output for the old threshold.

If the "ALL" types option is used in the input command to change the thresholds for all NPC types and a hyphen is entered for at least one set of thresholds to preserve their values, the output response will show that the respective threshold values are unchanged by outputting "-----[----]" (a dash) for the new threshold value and the respective unchanged values in the old threshold fields for each NPC type.

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of problematic NPC

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical number of problematic NPC

The valid NPC numbers are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	MajlMin BER threshold is 7, but not in T1DM or Fe mode
SNVS	1 hr >= 24 hr for DM opt
SNVS	15 min >= 24 hr for SERS opt
SNVS	15 min >= 24 hr for ERS opt
SNVS	15 min >= 24 hr for US opt
SNVS	15 min >= 24 hr for SLIP opt
SNVS	Major/Minor BER threshold value is invalid for SLC NPCs
IDNV	BER must not be less than 4 for Clear DS1
IDNV	Option not programmable for this NPC type
SNVS	Change to non-ESF digroup with 16-state cross-connect
SNVS	Change to T1DM digroup with cross-connect that is not TRSP
SNVS	Minor Slip threshold disabled before Major Slip threshold
IDRG	Threshold value is out of range

ED,PRMTR,EQPT,DGA,DGB,DGC,DGD

ADD RT I DL

Input Message Format

Nonhierarchical

[I.36201]

```
ED-PRMTR-EQPT:[<xy>]:[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:\
[ww]:{RT|DL}-ffff,g[g]:[{sss|NDL|RTF}];
```

Hierarchical

[I.36201]

```
ED-PRMTR-EQPT:[<xy>]:[DGA-uv-j-ab][,DGB-uv-k-cd]\
[,DGC-uv-l-ef][,DGD-uv-m-gh] [,DGP-uv-j-pr]:[ww]:\
{RT|DL}-ffff,g[g]:[{sss|NDL|RTF}];
```

Completion Message

Nonhierarchical

[O.36201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:[ww]:{RT|DL}-ffff,g[g]\
:[{sss|NDL|RTF}] COMPLD
;
```

Hierarchical

[O.36201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::[DGA-uv-j-ab][,DGB-uv-k-cd][,DGC-uv-l-ef]\
[,DGD-uv-m-gh][,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff,g[g]\
:[{sss|NDL|RTF}] COMPLD
;
```

Denial Message

Nonhierarchical

[O.36201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::[DGA-[s]aaa][,DGB-[s]bbb][,DGC-[s]ccc]\
[,DGD-[s]ddd][,DGP-[s]ppp]:[ww]:{RT|DL}-ffff,g[g]\
:[{sss|NDL|RTF}] DENY
   mmmm
   /* [O.36201.01] */
   /* <explanation of error condition code> */
[  /* digroup causing the error */]
[  "{A|B|C|D|P}"]
;
```

Hierarchical

[O.36201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::[DGA-uv-j-ab][,DGB-uv-k-cd][,DGC-uv-l-ef]\
[,DGD-uv-m-gh][,DGP-uv-j-pr]:[ww]:{RT|DL}-ffff,g[g]\
:[{sss|NDL|RTF}] DENY
   mmmm
   /* [O.36201.01] */
   /* <explanation of error condition code> */
[  /* digroup causing the error */]
[  "{A|B|C|D|P}"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request assignment of from one to five network processing circuits of type DSxyz to a specific SLC® carrier bank or a digital carrier line unit system. This command also allows for designation of remote terminal digital line parameters to a grown DS-type network processing circuit.

Use this command to enter the bank's identification number, its mode of operation and to designate the digroups associated with the network processing circuit.

For SLC 96 carrier, the existence of a data link on digroup A and the meaning of the PWR/MISC alarm carried on the data link are identified. For a SLC Series 5 Carrier Feature Package C (FPC) interface, this message allows the user to specify if the remote terminal is to be retrofitted from a Central Office Terminal (COT) to DACS II.

The retrofit (**RTF**) keyword is applicable only to SLC Series 5 Carrier FPC remote terminals. If the remote terminal exists and is to be cutover from an RT-COT interface to DACS II, the **RTF** keyword must be entered in this command, and the remote terminal retrofit procedure must be followed. Note that, at least one digroup with its associated NPC number must be present on input. Also note that options **sss** and no data line (**NDL**) can only be specified if DGA **aaa** is present on input.
Note that at least one digroup with its associated NPC number must be present on the input message. Also, note that, the options of sss and NDL can only be specified if the DGA [s]aaa is present on the input message. The RTF key word is applicable only to SLC Series 5 FPC RTs. If the FPC RT is in service and is to be cutover from an RT-COT interface to DACS II, the RTF keyword must be entered in this command, and the RT retrofit procedure must be followed.

Explanation Of Parameters

DGA - Digroup A of SLC carrier bank
DGB - Digroup B of SLC carrier bank
DGC - Digroup C of SLC carrier bank
DGD - Digroup D of SLC carrier bank
DGP - Digroup P of SLC carrier bank

[s]aaa
- The 3- or 4-digit nonhierarchical DGA NPC number

[s]bbb
- The 3- or 4-digit nonhierarchical DGB NPC number

[s]ccc
- The 3- or 4-digit nonhierarchical DGC NPC number

[s]ddd
- The 3- or 4-digit nonhierarchical DGD NPC number

[s]ppp
- The 3- or 4-digit nonhierarchical DGP NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-j-ab
- Hierarchical DGA NPC number

uv-k-cd
- Hierarchical DGB NPC number

uv-l-ef
- Hierarchical DGC NPC number

uv-m-gh
- Hierarchical DGD NPC number

uv-j-pr
- Hierarchical DGP NPC number

uv - Unit number
j,k,l,m
- Module number within the unit
(For FPC RT j=k=l=m)
ab - DGA NPC number within the module
cd - DGB NPC number within the module
ef - DGC NPC number within the module
gh - DGD NPC number within the module
pr - DGP NPC number within the module

The allowable values are presented below:

DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

RT - SLC remote terminal

DL - Digital carrier line unit

ffff - Bank identification number (0000 through 9999)

NDL - No data link

RTF - Retrofit (only applies to SLC Series 5 FPC RT)

MD g[g]
- Mode of operation of SLC carrier bank

g[g]	*Explanation*
1	SLC 96 Carrier Mode I
3	SLC 96 Carrier Mode III
C	SLC Series 5 Carrier

sss - Power or miscellaneous alarm option

sss	*Explanation*
PMJ	The PWR/MISC alarm from the data link is a power major alarm
PMN	The PWR/MISC alarm from the data link is a power minor alarm
MMJ	The PWR/MISC alarm from the data link is a miscellaneous major alarm
MMN	The PWR/MISC alarm from the data link is a miscellaneous minor alarm

A,B,C,D,P
- Digroup name indicating the digroup that caused the denial.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
IDNV	RTF keyword is used without DGA
IDNV	RTF keyword and the operation mode does not match
SAWS	NPC is already grown and added as SLC digroup
SAAS	Another NPC is grown and added as this digroup
IDNV	DGP designated to bank without data link
SNVS	DGA is not added
IDNV	NDL option is used without DGA
IDNV	NPC type is not DS type
IDNV	Operation mode and digroup name don't match
IDNV	Framing format, digroup name & operational mode don't match
IDNV	Counting sequence and operational mode don't match
IDNV	DGA with NDL option is not provisioned with D4 or ESF framing format
IDNV	Adding two digroups from one bank on same DDC
IDNV	Digroups from same bank have different modes
IDNV	Digroups from same bank have different counting sequence
IDNV	Digroups from same bank are added to two different FTUs
SNVS	Invalid PWR/MISC alarm level
IDNV	PWR/MISC alarm is specified to a digroup other than DGA
IDNV	Alarm option and bank mode don't match
SNVS	Unassigned operational mode
SPFA	Protection switch process failed
IDNV	DGA/DGP of RT/DL Mode I must be assigned to one DDC
IDNV	Mode I RT/DL IDs don't match for DGA/DGP on same DDC

mmmm	*Explanation*
SNVS	Other NPC on this DDC not the same digroup for Mode I DGA/DGP
SNVS	Different DSxyz types are used for DGA/DGP on same DDC for Mode I
SNVS	The NDL options are different for DGA's on the same DDC for Mode I
SNVS	DL ffff is used w/ operational mode other than Mode I
SNVS	Mate RT/DL mode is different
SNVS	Number of SLC RT's on each unit is limited
IDNV	DGA and DGB must be specified together in the command
IDNV	DGC and DGD must be specified together in the command
IDNV	NPC type option Y is invalid for SLC-96 NPC
SNVS	Two digroups from same bank added to different FTMIs
SNVS	Active CCN side is out of service
SNVS	Adding DL DGP forbidden for SLC 96 MD 1
SNVS	No DL digroups can be added until the associated RT bank is created
SNVS	SLC 96 MD 1 RT DGP requires mate NPC to be unequipped
IDNV	The limit on the maximum number of DGPs has been reached
SNVS	Use of this NPC is RESERVED for SLC 96 MD 1

ED,PRMTR,EQPT,NPC

CHANGE NPC OPTIONS

Input Message Format

Nonhierarchical

[I.38221]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc:[ww]:rr/m[&rr/m][...];
```

Hierarchical

[I.38221]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np:[ww]:rr/m[&rr/m][...];
```

Completion Message

Nonhierarchical

[O.38221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc:[ww]:rr/m[&rr/m][...] COMPLD
   /* [0.38221] */
   /* THRESHOLD:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "THRESHOLD:mmm,nnn:p,q:rrrrr:sss:ttt,uuu[:xxxxx:zzzzz]"
   /* OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OPTIONS:e,f:g,h:i:j:k,l[:m:n]"
   /* OLD OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OLD OPTIONS:s,t:u,v:w:x:y,z[:b:c]"
   "TYPE-mnxyz[,IW-x-pq]"
[  /* IW-X-pq: pq is the hex value of the Insertion Word */]
;
```

For ANSI (DA and TA type) NPCs:

[O.38222]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc:[ww]:rr/m[&rr/m][...] COMPLD
   /* [O.38222] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:gggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Old Options) */
   "á:b́:ć:d́:é:f́:ǵ:h́:í"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Old Options) */
   "j́:ḱ:ĺ:ḿ:ń:ó:ṕ"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Old Options) */
   "á:b́:ć:d́:é:f́:ǵ:h́:í"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Old Options) */
   "j́:ḱ:ĺ:ḿ:ń:ó:ṕ"
   "TYPE-mnxyz[,IW-x-pq]"
[  /* IW-X-pq: pq is the hex value of the Insertion Word */]
;
```

Hierarchical

[O.38221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np:[ww]:rr/m[&rr/m][...] COMPLD
   /* [0.38221] */
   /* THRESHOLD:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "THRESHOLD:mmm,nnn:p,q:rrrrr:sss:ttt,uuu[:xxxxxx:zzzzz]"
   /* OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OPTIONS:e,f:g,h:i:j:k,l[:m:n]"
   /* OLD OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OLD OPTIONS:s,t:u,v:w:x:y,z[:b:c]"
   "TYPE-mnxyz[,IW-x-pq]"
[  /* IW-X-pq: pq is the hex value of the Insertion Word */]
;
```

For ANSI (DA and TA type) NPCs:

[O.38222]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np:[ww]:rr/m[&rr/m][...] COMPLD
   /* [O.38222] */
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Old Options) */
   "á:b̓:ć:d̓:é:f:ǵ:h̓:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Old Options) */
   "j́:k̓:ĺ:m̓:ń:ó:p̓"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Old Options) */
   "á:b̓:ć:d̓:é:f:ǵ:h̓:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Old Options) */
   "j́:k̓:ĺ:m̓:ń:ó:p̓"
   "TYPE-mnxyz[,IW-x-pq]"
[  /* IW-X-pq: pq is the hex value of the Insertion Word */]
;
```

Denial Message

Nonhierarchical

[O.38221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc:[ww]:rr/m[&rr/m][...] DENY
   mmmm
   /* [O.38221.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
;
```

Hierarchical

[O.38221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np:[ww]:rr/m[&rr/m][...] DENY
   mmmm
   /* [O.38221.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message changes the facility performance parameter threshold values on a specified Network Processing Circuit (NPC) without disconnecting and reconnecting provisioned circuits.

One or more alarm or information threshold values for the designated NPC may be changed to a value previously stored in the DACS II threshold data base. These previously stored values are selected through use of the indices **rr/m**.
Each facility parameter of an NPC has a default threshold and up to three user-programmable threshold values stored in the DACS II threshold data base. The **ED-OPT-T1** command sets these values.

Note: This command will not reboot the NPC hardware. Therefore, if any NPCs are in service, use the **STA-LOCL-RST** command (Message I.58001) to avoid any possible inconsistency.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

The valid numbers are:

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	**NPC**	**NPC**	**NPC**
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected.

m - Facility performance parameter threshold index (0 through 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by m=1 through m=3 must exist; that is, must have been programmed prior to being selected. The non-default thresholds can be set by using the CHG::SETOP (I.38201) command.

Clear-DS1 ANSI NPCs (DAxy9/TAxy9) provide the same set of path and line performance monitoring parameters that are provided by terminated ANSI

NPC types. ANSI NPCs in DS3 Units (TAxyz) do not provide near-end DS1 line performance monitoring parameters.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

Note 4: Only parameters 01 through 04 are allowed for DE type clear DS1.

Note 5: Only 01 through 02 are allowed for TE type clear DS1

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the following Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the following Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. All of the following Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. The only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

rr	Parameter	Threshold Value Range	Default Threshold Value
41	Daily Near-end Path Coding Violations	000000000 to 134217727	132960†
42	Daily Near-end Path Errored Seconds	00000 to 86400	648
43	Daily Near-end Path Severely Errored Seconds	00000 to 86400	100
44	Daily Near-end Severely Errored Framing Seconds	00000 to 86400	17
45	Daily Near-end Controlled Slip Seconds	00000 to 86400	4
46	Daily Near-end Unavailable Seconds	00000 to 86400	10
47	Daily Near-end Line Coding Violations	000000000 to 134217727	133400
48	Daily Near-end Line Errored Seconds	00000 to 86400	648
49	Daily Near-end Line Severely Errored Seconds	00000 to 86400	100
50	Daily Far-end Path Coding Violations	000000000 to 134217727	132960†
51	Daily Far-end Path Errored Seconds	00000 to 86400	648
52	Daily Far-end Path Severely Errored Seconds	00000 to 86400	100
53	Daily Far-end Severely Errored Framing Seconds	00000 to 86400	17
54	Daily Far-end Controlled Slip Seconds	00000 to 86400	4
55	Daily Far-end Unavailable Seconds	00000 to 86400	10
56	Daily Far-end Line Errored Seconds	00000 to 86400	648
57	15-Minute Near-end Path Coding Violations	0000000 to 2097151	13296‡
58	15-Minute Near-end Path Errored Seconds	000 to 900	65
59	15-Minute Near-end Path Severely Errored Seconds	000 to 900	10
60	15-Minute Near-end Severely Errored Framing Seconds	000 to 900	2
61	15-Minute Near-end Controlled Slip Seconds	000 to 900	1
62	15-Minute Near-end Unavailable Seconds	000 to 900	10

63	15-Minute Near-end Line Coding Violations	0000000 to 2097151	13340
64	15-Minute Near-end Line Errored Seconds	000 to 900	65
65	15-Minute Near-end Line Severely Errored Seconds	000 to 900	10
66	15-Minute Far-end Path Coding Violations	0000000 to 2097151	13296‡
67	15-Minute Far-end Path Errored Seconds	000 to 900	65
68	15-Minute Far-end Path Severely Errored Seconds	000 to 900	10
69	15-Minute Far-end Severely Errored Framing Seconds	000 to 900	2
70	15-Minute Far-end Controlled Slip Seconds	000 to 900	1
71	15-Minute Far-end Unavailable Seconds	000 to 900	10
72	15-Minute Far-end Line Errored Seconds	000 to 900	65

† The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default Daily value is 691.

‡ The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default 15-Minute value is 72.

TYPE - Type

mnxyz - NPC type

DExyz - FTU DS1 NPC type

TExyz - DS3U DS1 NPC type

DSxyz - SLC Carrier digroup terminating NPC type

DAxyz - FTU DS1 ANSI NPC type

TAxyz - DS3U DS1 ANSI NPC type

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

NOTE:

DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

IW - Insertion word

pq - Insertion word value (hexadecimal)

The value entered for pq is used as the disconnect code (DCC) or idle code. This value is inserted in the transmit direction on unassigned

channels. An insertion word is not allowed for clear-DS1 NPCs; the all

ones signal is transmitted for an idle clear-DS1 NPC. Thus, information about the disconnect code will not appear for any message involving a

clear-DS1 type NPC. Although any hexadecimal value may be assigned, the following are some commonly used values:

pq	*Explanation*
7F	UAC (unassigned channel code), the default value
18	UMC (unassigned multiplex code), should only be used with type DE4yz, TE4yz, DA4yz, and TA4yz, for a T1DM formatted facility. The growth command does not enforce this restriction.
FF	Per channel all ones code, needed for not connected channels in SLC carrier and CPI applications.

SLIP - Timing Slip
BER - Bit Error Rate
ERS - Errored Seconds
SERS - Severely Errored Seconds
COFA - Change of Frame Alignment
SANE - Shelf Alarm Near End
SAFE - Shelf Alarm Far End

SLIP

mmm - Slip major alarm threshold (0 through 255)
nnn - Slip minor alarm threshold (0 through 255)
e - Slip major alarm option selection (0 through 3)
s - Slip major alarm option old selection (0 through 3)
f - Slip minor alarm option selection (0 through 3)
t - Slip minor alarm option old selection (0 through 3)

BER (Bit Error Rate)

p - BER major alarm threshold, (1E-p, $3^{\dagger} \leq p \leq 6^{*}$)
q - BER minor alarm threshold, (1E-q, $3^{\dagger} \leq q \leq 6^{*}$)
* 7 on T1DM and Fe framing

† 4 for DE type clear-DS1 or DS type NPCs

g - BER major alarm option selection (0 through 3)
u - BER major alarm option old selection (0 through 3)
h - BER minor alarm option selection (0 through 3)
v - BER minor alarm option old selection (0 through 3)

ERS (Errored Seconds)

rrrrr - ERS threshold (1 through 65535)
i - ERS option selection (0 through 3)
w - ERS option old selection (0 through 3)

SERS (Severely Errored Seconds)

sss - SERS threshold (1 through 255)
j - SERS option selection (0 through 3)
x - SERS option old selection (0 through 3)

COFA (Change of Frame Alignment)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)
k - COFA major alarm option selection (0 through 3)
y - COFA major alarm option old selection (0 through 3)
l - COFA minor alarm option selection (0 through 3)
z - COFA minor alarm option old selection (0 through 3)

SANE (Shelf Alarm Near End)

xxxxx - SANE threshold (0 through 65535)
m - SANE option selection (0 through 3)
b - SANE option old selection (0 through 3)

SAFE (Shelf Alarm Far End)

zzzzz - SAFE threshold (0 through 65535)
n - SAFE option selection (0 through 3)
c - SAFE option old selection (0 through 3)

Note: Major thresholds must be greater than minor thresholds, except for the BER threshold of SLC® 96 carrier NPCs.

For DE type clear-DS1 NPCs only SLIP and BER parameters are listed.

For TE type clear-DS1 DS3U NPCs only SLIP parameters are listed. Both SANE and SAFE are only applicable to SLC 96 carrier NPCs.

For ANSI NPC types:

CVP - Path Coding Violations
ESP - Path Errored Seconds
SESP - Path Severely Errored Seconds
SEFS - Severely Errored Framing Seconds
CSSP - Path Controlled Slip Seconds
UASP - Path Unavailable Seconds
CVL - Line Coding Violations
ESL - Line Errored Seconds
SESL - Line Severely Errored Seconds

CVP (Path Coding Violations)

aaaaaaaaa
- Path Coding Violation Daily NE threshold (0 to 134217727)

jjjjjjjjj
- Path Coding Violation Daily FE threshold (0 to 134217727)

aaaaaaa - Path Coding Violation 15Min NE threshold (0 to 2097151)
jjjjjjj - Path Coding Violation 15Min FE threshold (0 to 2097151)
a - Path Coding Violation Daily NE option selection (0 to 3)
j - Path Coding Violation Daily FE option selection (0 to 3)
a - Path Coding Violation 15Min NE option selection (0 to 3)
j - Path Coding Violation 15Min FE option selection (0 to 3)
á - Path Coding Violation Daily NE option old selection (0 to 3)
ǰ - Path Coding Violation Daily FE option old selection (0 to 3)
á - Path Coding Violation 15Min NE option old selection (0 to 3)
ǰ - Path Coding Violation 15Min FE option old selection (0 to 3)

ESP (Path Errored Seconds)

bbbbb - Path Errored Seconds Daily NE threshold (0 to 86400)
kkkkk - Path Errored Seconds Daily FE threshold (0 to 86400)
b b b - Path Errored Seconds 15Min NE threshold (0 to 900)
k k k - Path Errored Seconds 15Min FE threshold (0 to 900)
b - Path Errored Seconds Daily NE option selection (0 to 3)
k - Path Errored Seconds Daily FE option selection (0 to 3)
b - Path Errored Seconds 15Min NE option selection (0 to 3)
k - Path Errored Seconds 15Min FE option selection (0 to 3)
b̈ - Path Errored Seconds Daily NE option old selection (0 to 3)
k̈ - Path Errored Seconds Daily FE option old selection (0 to 3)
b̈ - Path Errored Seconds 15Min NE option old selection (0 to 3)
k̈ - Path Errored Seconds 15Min FE option old selection (0 to 3)

SESP (Path Severely Errored Seconds)

ccccc - Path Severely Errored Seconds Daily NE threshold (0 to 86400)
11111 - Path Severely Errored Seconds Daily FE threshold (0 to 86400)
c c c - Path Severely Errored Seconds 15Min NE threshold (0 to 900)
l l l - Path Severely Errored Seconds 15Min FE threshold (0 to 900)
c - Path Severely Errored Seconds Daily NE option selection (0 to 3)
1 - Path Severely Errored Seconds Daily FE option selection (0 to 3)
c - Path Severely Errored Seconds 15Min NE option selection (0 to 3)
l - Path Severely Errored Seconds 15Min FE option selection (0 to 3)
c̈ - Path Severely Errored Seconds Daily NE option old selection (0 to 3)
l̈ - Path Severely Errored Seconds Daily FE option old selection (0 to 3)
c̈ - Path Severely Errored Seconds 15Min NE option old selection (0 to 3)
l̈ - Path Severely Errored Seconds 15Min FE option old selection (0 to 3)

SEFS (Severely Errored Framing Seconds)

ddddd - Severely Errored Framing Seconds Daily NE threshold (0 to 86400)
mmmmm - Severely Errored Framing Seconds Daily FE threshold (0 to 86400)
d d d - Severely Errored Framing Seconds 15Min NE threshold (0 to 900)
m m m - Severely Errored Framing Seconds 15Min FE threshold (0 to 900)
d - Severely Errored Framing Seconds Daily NE option selection (0 to 3)
m - Severely Errored Framing Seconds Daily FE option selection (0 to 3)
d - Severely Errored Framing Seconds 15Min NE option selection (0 to 3)
m - Severely Errored Framing Seconds 15Min FE option selection (0 to 3)
d̈ - Severely Errored Framing Seconds Daily NE option old selection (0 to 3)
m̈ - Severely Errored Framing Seconds Daily FE option old selection (0 to 3)
d̈ - Severely Errored Framing Seconds 15Min NE option old selection (0 to 3)
m̈ - Severely Errored Framing Seconds 15Min FE option old selection (0 to 3)

CSSP (Path Controlled Slip Seconds)

eeeee - Path Controlled Slip Seconds Daily NE threshold (0 to 86400)
nnnnn - Path Controlled Slip Seconds Daily FE threshold (0 to 86400)
e e e - Path Controlled Slip Seconds 15Min NE threshold (0 to 900)
n n n - Path Controlled Slip Seconds 15Min FE threshold (0 to 900)
e - Path Controlled Slip Seconds Daily NE option selection (0 to 3)
n - Path Controlled Slip Seconds Daily FE option selection (0 to 3)
e - Path Controlled Slip Seconds 15Min NE option selection (0 to 3)
n - Path Controlled Slip Seconds 15Min FE option selection (0 to 3)
ė - Path Controlled Slip Seconds Daily NE option old selection (0 to 3)
ṅ - Path Controlled Slip Seconds Daily FE option old selection (0 to 3)
ė - Path Controlled Slip Seconds 15Min NE option old selection (0 to 3)
ṅ - Path Controlled Slip Seconds 15Min FE option old selection (0 to 3)

UASP (Path Unavailable Seconds)

fffff - Path Unavailable Seconds Daily NE threshold (0 to 86400)
ooooo - Path Unavailable Seconds Daily FE threshold (0 to 86400)
f f f - Path Unavailable Seconds 15Min NE threshold (0 to 900)
o o o - Path Unavailable Seconds 15Min FE threshold (0 to 900)
f - Path Unavailable Seconds Daily NE option selection (0 to 3)
o - Path Unavailable Seconds Daily FE option selection (0 to 3)
f - Path Unavailable Seconds 15Min NE option selection (0 to 3)
o - Path Unavailable Seconds 15Min FE option selection (0 to 3)
f - Path Unavailable Seconds Daily NE option old selection (0 to 3)
ȯ - Path Unavailable Seconds Daily FE option old selection (0 to 3)
f - Path Unavailable Seconds 15Min NE option old selection (0 to 3)
ȯ - Path Unavailable Seconds 15Min FE option old selection (0 to 3)

CVL (Line Coding Violations)

ggggggggg
- Line Coding Violation Daily NE threshold (0 to 134217727)
g g g g g g g - Line Coding Violation 15Min NE threshold (0 to 2097151)
g - Line Coding Violation Daily NE option selection (0 to 3)
g - Line Coding Violation 15Min NE option selection (0 to 3)
ġ - Line Coding Violation Daily NE option old selection (0 to 3)
ġ - Line Coding Violation 15Min NE option old selection (0 to 3)

ESL (Line Errored Seconds)

hhhhh - Line Errored Seconds Daily NE threshold (0 to 86400)
ppppp - Line Errored Seconds Daily FE threshold (0 to 86400)
h h h - Line Errored Seconds 15Min NE threshold (0 to 900)
p p p - Line Errored Seconds 15Min FE threshold (0 to 900)
h - Line Errored Seconds Daily NE option selection (0 to 3)
p - Line Errored Seconds Daily FE option selection (0 to 3)
h - Line Errored Seconds 15Min NE option selection (0 to 3)
p - Line Errored Seconds 15Min FE option selection (0 to 3)
ĥ - Line Errored Seconds Daily NE option old selection (0 to 3)
p̀ - Line Errored Seconds Daily FE option old selection (0 to 3)
ĥ - Line Errored Seconds 15Min NE option old selection (0 to 3)
p̀ - Line Errored Seconds 15Min FE option old selection (0 to 3)

SESL (Line Severely Errored Seconds)

iiiii - Line Severely Errored Seconds Daily NE threshold (0 to 86400)
i i i - Line Severely Errored Seconds 15Min NE threshold (0 to 900)
i - Line Severely Errored Seconds Daily NE option selection (0 to 3)
i - Line Severely Errored Seconds 15Min NE option selection (0 to 3)
ì - Line Severely Errored Seconds Daily NE option old selection (0 to 3)
i - Line Severely Errored Seconds 15Min NE option old selection (0 to 3)

ss/n - First improper values of "rr/m" for which message is denied.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	NPC type error
SNVS	IW is UMUX (18) but NPC not type DE4yz
SNVS	DMI combined with T1DM
SNVS	MajlMin BER threshold is 7, but not in T1DM or Fe mode
IDNV	BER must not be less than 4 for Clear DS1
IDNV	Option not programmable for this NPC type
SNVS	NPC is a test port
ENEQ	Service MXR is not equipped

mmmm	*Explanation*
SNVS	Minor Slip threshold disabled before Major Slip threshold
IDRG	Threshold value is out of range

ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT

CHANGE NPC AIS ALARM OPTION

Input Message Format

Nonhierarchical

[I.38281]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[t]ghi]:[ww]:{ALMOPT|PLOPT}:\
{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}};
```

Hierarchical

[I.38281]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}};
```

Completion Message

Nonhierarchical

Usage: FOR FT UNIT

[O.38281]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   /* NPC Number:Total */
   "[s]abc[&&-[s]def]:nnn"
>
          :                   :                   :
          :                   :                   :
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   /* NPC Number:Total */
   "[t]jkl[&&-[t]ghi]:nnn"
>
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
;
```

Usage: FOR DS3 UNIT

[O.38281]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   /* NPC Number:Total */
   "[s]abc[&&-[s]def]:nnn"
>
          :                   :                   :
          :                   :                   :
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   /* NPC Number:Total */
   "[t]jkl[&&-[t]ghi]:nnn"
>
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
;
```

Hierarchical

Usage: FOR FT UNIT

[O.38281]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   /* NPC Number:Total */
   "uv-m-np[&&-de-f-gh]:nnn"
>
          :                   :                   :
          :                   :                   :
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt,stttt,\
stttt,stttt"
   /* NPC Number:Total */
   "ij-k-lm[&&-wx-k-qr]:nnn"
>
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
;
```

Usage: FOR DS3 UNIT

[O.38281]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   /* NPC Number:Total */
   "uv-m-np[&&-de-f-gh]:nnn"
>
          :                  :                  :
          :                  :                  :
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
   /* [O.38281] */
   /* Status (s = * for successful change) \
And Old Alarm Type */
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   "stttt,stttt,stttt,stttt,stttt,stttt,stttt"
   /* NPC Number:Total */
   "ij-k-lm[&&-wx-k-qr]:nnn"
>
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} COMPLD
;
```

Denial Message

Nonhierarchical

[O.38281.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} DENY
   mmmm
   /* [O.38281.01] */
   /* <explanation of error condition code> */
;
```

[O.38281.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]ghi]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} DENY
   mmmm
   /* [O.38281.02] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

Hierarchical

[O.38281.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} DENY
   mmmm
   /* [O.38281.01] */
   /* <explanation of error condition code> */
;
```

[O.38281.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:\
{ALMOPT|PLOPT}:{AIS-{INFO|MJ|MN}|PL-{ENA|DSA}} DENY
   mmmm
   /* [O.38281.02] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command may be used to program either the Network Processing Circuit (NPC) Alarm Indication Signal (AIS) alarm option or the ANSI NPC payload loopback capability, but not both simultaneously.

To program the AIS alarm option, the input command must contain the ALMOPT and AIS {INFO|MJ|MN} keywords in the command line; it must not contain the PLOPT and PL {ENA|DSA} keywords. In this case, the command changes the NPC AIS alarm option to Information (INFO), Major (MJ), or Minor (MN) alarm for all domestic non-SLC® NPC types. This command is not valid for DS-type NPCs.

To program the payload loopback capability, the input command must contain the PLOPT and PL {ENA|DSA} keywords in the command line; it must not contain the ALMOPT and AIS {INFO|MJ|MN} keywords. In this case, the command changes the far-end initiated (via the ESF data link) payload loopback capability for ANSI NPCs to Enabled (ENA) or Disabled (DSA) for domestic ANSI NPCs (DA and TA types).

If both keyword sets appear simultaneously in the input command, or if the AIS and payload loopback keywords are mixed, the command will be denied.

If the feature applies to one or more NPCs within the addressed range, DACS II will perform the command on the NPCs in the range that support the requested feature, but skip the NPCs which do not support the requested feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports the requested feature, DACS II will generate a completion message for the entire unit of NPCs; individual denial messages will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range support the requested feature, DACS II will generate a range denial message.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical NPC number at beginning of a range

[t]ghi
- The 3- or-4 digit nonhierarchical NPC number at end of a range

[s]def
- The 3- or 4-digit nonhierarchical NPC number between [s]abc and [t]jkl

[t]jkl
- The 3- or 4-digit nonhierarchical NPC number between [s]def and [t]ghi

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number at end of range

wx-k-qr
- Hierarchical NPC number at end of range

de-f-gh
- Hierarchical NPC number between uv-m-np and ij-k-lm

ij-k-lm
- Hierarchical NPC number between de-f-gh and wx-k-qr

uv,wx - Unit number
m,k - Module number in unit uv
np,qr - NPC number in module m

The allowable values are presented below:

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ALMOPT
- Alarm option

AIS - Alarm indication signal

Type of alarm. AIS is not detected by unframed clear (unchannelized) 2Mbit/s PAxDz type NPCs. Therefore, specifying AIS with one of the alarm level types MI, DMA, or PMA, is unnecessary. However, the command will not be denied if AIS is specified with an alarm level for unframed clear PAxDz NPCs. AIS with its alarm level will simply never be reported for unframed clear PAxDz NPCs.

INFO - Information

Information message (not an alarm). It is used for all domestic NPCs. This is the default option for domestic NPCs.

MJ - Major

Major alarm. This alarm is used for all domestic NPCs.

MN - Minor

Minor alarm. This alarm is used for all domestic NPCs.

nnn - Total number of NPCs in the output segment.

PLOPT - Payload loopback option

PL - Payload loopback

ENA - Enabled

The ANSI NPC will respond to payload loopback requests received from the far-end terminal over the ESF data link. This is the default option.

DSA - Disabled

The ANSI NPC will not respond to payload loopback requests received from the far-end terminal over the ESF data link.

s - Status of the AIS alarm or payload loopback capability.

s	*Explanation*
*	The AIS alarm option/payload loopback capability of the NPC has been changed.
blank	The AIS alarm option/payload loopback capability of the NPC has not been changed.

tttt - The old AIS alarm option/payload loopback setting for the NPC.

tttt	*Explanation*
INFO	AIS programmed for Information message
MJ	AIS programmed for Major alarm
MN	AIS programmed for Minor alarm
ENA	ANSI payload loopback capability enabled
DSA	ANSI payload loopback capability disabled
----	Not applicable (for unequipped NPCs or not valid NPC type within the specified NPC range)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
ENEQ	NPC is unequipped
SNVS	NPC invalid type
IDNV	Selectable AIS not valid for DS type NPC(s)
IDNV	All NPC(s) are either not valid or not grown
IDNV	IU type NPC(s) cannot be provisioned for Minor Alarm
IDNV	NPC(s) actual type incompatible with TYPE keyword and/or alarm type
IDNV	AIS keyword incompatible with NPC type

ED,PRMTR,EQPT,NPC,IW,X,INCL

CHANGE NPC TYPE

Input Message Format

Nonhierarchical

[I.38211]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc:[ww]:mnxyz:[IW-X-pq[,INCL]];
```

Hierarchical

[I.38211]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np:[ww]:mnxyz:[IW-X-pq[,INCL]];
```

Completion Message

Nonhierarchical

[O.38211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc:[ww]:mnxyz:[IW-X-pq[,INCL]] COMPLD
   /* [O.38211] */
   "OLD:TYPE-ttuvw"
[  "OLD:IW-X-rs"]
[/* IW-X-pq:'pq' is the hex value of the Insertion Word */]
;
```

Hierarchical

[O.38211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np:[ww]:mnxyz:[IW-X-pq[,INCL]] \
COMPLD
   /* [O.38211] */
   "OLD:TYPE-ttuvw"
[  "OLD:IW-X-rs"]
[/* IW-X-pq:'pq' is the hex value of the Insertion Word */]
;
```

Denial Message

Nonhierarchical

[O.38211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc:[ww]:mnxyz:[IW-X-pq[,INCL]] DENY
   mmmm
   /* [O.38211.01] */
   /* <explanation of error condition code> */
[/* IW-X-pq:'pq' is the hex value of the Insertion Word */]
;
```

Hierarchical

[O.38211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np:[ww]:mnxyz:[IW-X-pq[,INCL]] DENY
   mmmm
   /* [O.38211.01] */
   /* <explanation of error condition code> */
[/* IW-X-pq:'pq' is the hex value of the Insertion Word */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to change the type and, optionally, the insertion word of a specified network processing Circuit (NPC) equipped in a facility terminating unit (FTU). The insertion word field is used to change the NPC's disconnect code (DCC). These changes may be made without disconnecting and reconnecting the provisioned circuits, but the NPC must be out of service when this command is executed.

Permissible type changes depend upon the digroup card in use. For NPCs provisioned on the DACS II Enhanced Dual Digroup Card (TG191-EDDC), the **mn**, **x**, and **y** values of the NPC TYPE may be changed if the NPC is out of service. This feature makes use of the flexibility of the TG191 circuit pack. The **z** value must not be changed from the value entered when the NPC was provisioned.

For NPCs provisioned on other DACS II Dual Digroup Cards, only the **x** and **y** values of the NPC TYPE may be changed with this command. The **mn** and **z** values must not be changed from the values entered in the NPC provisioning command.

The **z** value specifies the NPC's channel numbering format. The channel numbering format cannot be changed if cross-connections exist on the NPC.

The NPC must be out of service to change the facility provisioning. It can be taken out of service using the **RMV-EQPT** command. Changes to the parameters will take effect when the NPC is restored (**RST-EQPT**) to service. When the NPC facility provisioning is changed, all programmable alarm thresholds revert to the default values. These default thresholds are defined in the **CRTE-EQPT::NPC** message. If values other than the defaults are desired, a separate **ED-PRMTR-EQPT** command must be given for each value.

For DS3U NPCs, use ED-PRMTR::NPC to request a change of the NPC type and insertion word.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

The allowable values are presented below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number in unit uv
np - NPC number in module m

The allowable values are presented below:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

TYPE - Type

mnxyz - NPC type

mnxyz	*Type*
DAxyz	FTU ANSI DS1 NPC type
DExyz	FTU DS1 NPC type
DSxyz	SLC® Carrier Terminating NPC type

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

ttuvw - Previous value of mnxyz

IW - Insertion word

pq - Insertion word value (hexadecimal)

Hexadecimal value of the growth insertion word (GIW). Specifies the insertion word sent in the transmit direction on unassigned channels. If this value is not specified, it remains unchanged from its previous value.

An eight-bit code, called the growth insertion word, is transmitted by this NPC on unassigned 64kb/s channels. This code is specified by the optional keyword IW and its argument pq. This code was previously called the Disconnect Code (DCC), but that name is properly reserved for the cross-connect insertion word, which is transmitted when the disconnect message with DDC specified is used.

For Clear-DS1 NPCs, the insertion word option is **NOT** available and the message will be denied if this option is entered. The alarm indication signal (AIS) is transmitted in the disconnect or idle state.

Although any 2-digit hexadecimal code may be used (see INCL below), some common GIWs are:

pq	*Explanation*
7F	Unassigned Channel Code (UAC). Default value for all NPC types with non-T1DM framing.
18	Unassigned Multiplex Code (UMC). Default value for DE/DA type NPCs provisioned with T1DM framing. This value should only be provisioned with T1DM framing (DE4yz or DA4yz), so the change command enforces this restriction.
FF	Per channel all ones code, needed for unconnected channels in SLC® carrier (DS type NPCs) and computer-to-PBX interface (CPI) applications.

rs - Previous value of pq

INCL - Inclusive

As a protection to users, this keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero. NPCs grown in the D4 format (DE1yz/DA1yz) transmit a DS1 yellow alarm by setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word "pq" is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h define the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	FTMI is in service but failed
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	NPC type error
SNVS	IW is UMUX (18) but NPC not type DE4yz
SNVS	DMI combined with T1DM

mmmm	*Explanation*
SNVS	MajlMin BER threshold is 7, but not in T1DM or Fe mode
SNVS	NPC type option xyz is unassigned
SNVS	NPC has active circuit
SNVS	RTBC conference exists
SNVS	NPC is NPCTG and chan 24 is used in a TG;Can't change to T1DM or DMI
SNVS	Test ports must be on CAS
SNVS	Alarm bits can not be passed through or inverted
IDNV	IW option is not allowed for new type of Clear-DS1 NPC
IDNV	BER must not be less than 4 for Clear DS1
SNVS	NPC providing timing to inservice SSP
SNVS	Different DSxyz types are used for DGA/DGP on same DDC for Mode I
IDNV	Option not programmable for this NPC type
IDNV	x & z parameters on DSxyz are inconsistent
SNVS	NPC not deleted
SNVS	Timeslot channel numbering not allowed with CAS
SNOS	In-service NPC change not allowed
SNVS	NPC not designated as sync timing source
SNVS	Invalid NPC number specified
SNVS	T1DM or DMI mode and channel 24 is connected
IDNV	ZBTSI option is only valid with the ESF mode
SNVS	Change to non-ESF digroup with 16-state cross-connect
SNVS	Change to T1DM digroup with cross-connect that is not TRSP
SNVS	INCL keyword needed when restricted Insertion Word specified
SNVS	Framed/Unframed clear 2Mbit/s NPC invalid for Automatic CRC-4
SNVS	Unframed clear 2Mbit/s NPC invalid for TS0 processing
SNVS	Framed/Unframed clear 2Mbit/s NPC invalid for Transmic 1G, 2G
SNVS	Framed/Unframed clear 2Mbit/s NPC invalid for Firmware Timing
SNVS	Unframed clear 2Mbit/s NPC invalid for Bit 4 used as RAIS/RBER
SNVS	IW not allowed to be specified in Clear 2Mbit/s
SNVS	NPC has been designated as NPCTG
SNVS	NPC has been designated as NPCTP

ED,PRMTR,EQPT,NPC,IW,X,INCL

CHANGE DS3U NPC TYPE

Input Message Format

Nonhierarchical

[I.38271]

```
ED-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:mnxyz\
:[IW-X-pq[,INCL]];
```

Hierarchical

[I.38271]

```
ED-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz\
:[IW-X-pq[,INCL]];
```

Completion Message

Nonhierarchical

[O.38271]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:mnxyz\
:[IW-X-pq[,INCL]] COMPLD
   /* [O.38271] */
   /* NPC Number */
   "[s]ghi"
   "OLD:TYPE-ttuvw"
   "OLD:IW-rs"
   /* IW-X-pq is the hex value of the Insertion Word */
;
```

Hierarchical

[O.38271]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:mnxyz\
:[IW-X-pq[,INCL]] COMPLD
   /* [O.38271] */
   /* NPC Number */
   "uv-g-hi"
   "OLD:TYPE-ttuvw"
   "OLD:IW-rs"
   /* IW-X-pq is the hex value of the Insertion Word */
;
```

Denial Message

Nonhierarchical

[O.38271.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:mnxyz\
:[IW-X-pq[,INCL]] DENY
   mmmm
   /* [O.38271.01] */
   /* <explanation of error condition code> */
   /* IW-X-pq is the hex value of the Insertion Word */
   /* NPC Number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.38271.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::NPC-uv-m-np[&&&-uv-m-kr]:[ww]:mnxyz\
:[IW-X-pq[,INCL]] DENY
   mmmm
   /* [O.38271.01] */
   /* <explanation of error condition code> */
   /* IW-X-pq is the hex value of the Insertion Word */
   /* NPC Number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For DACS II DS3 Units, this command changes a single or range of TE or TA type Network Processing Circuits (NPCs) to the newly specified type without disconnecting and reconnecting provisioned circuits. The NPCs must be out of service.

The "mn" field, as well as the "xyz" field, of the NPC type parameter ("mnxyz") can be changed by this command. This feature is used to change between the different types (TE and TA) of NPCs supported by the DS3 Unit line termination circuit packs.

A range is allowed for the NPCs within one DS3 Unit. The optional insertion word field is used to change the disconnect code (DCC).

The new parameters will take effect when the NPC is restored to service. When the NPC **TYPE** parameters are changed, all programmable alarm thresholds revert to the default values. If values other than defaults are desired, a separate **ED-PRMTR:NPC:TYPE** command must be given for each value. There will be one output completion message for each NPC in the range.

Explanation Of Parameters

Use the optional insertion word (IW X'pq) field to change the unassigned channel code.

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC Number

[t]def
- The 3- or 4-digit nonhierarchical NPC number denoting the end of a range specification.

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160 16A-16H	NPC 161-320 32A-32H	NPC 321-480 48A-48H	NPC 481-640 64A-64H	NPC 641-800 80A-80H	NPC 801-960 96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv-k-qr
- Hierarchical NPC number denoting the end of a range specification

uv-j-yl
- Hierarchical NPC number of the first NPC of the denied range

uv-m-no
- Hierarchical NPC number of the last NPC of the denied range

uv-g-hi
- Hierarchical NPC number within the range of uvmnp and uvkqr

uv - Unit number

m,k,j,m,g
- Module number

np,qr,yl,no,hi
- NPC number within the module

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	**Module**	**NPC**
01-16	**1-6**	**01-28**

mnxyz - NPC-type identifier

mnxyz	*Explanation*
TExyz	DS3U Enhanced NPC
TAxyz	DS3U ANSI NPC

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if

the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

IW - Insertion Word

pq - Hexadecimal value of the growth insertion word (GIW). Specifies the insertion word in the transmit direction on unassigned channels.

An eight-bit code, called the growth insertion word, is transmitted by

this NPC on unassigned DS0 channels. This code is specified by the optional keyword IW and its argument pq. This code was previously called the Disconnect Code (DCC), but that name is properly reserved for the cross-connect insertion word, which is transmitted when the disconnect message with the DDC specified is used.

Although any 2-digit hexadecimal code may be used (see INCL below), the default GIWs are:

pq	*Explanation*
7F	Unassigned Channel Code (UAC), the default value for TE/TA type NPCs provisioned with D4 or ESF framing.
18	Unassigned Multiplex Code (UMC), the default value for TE/TA type NPCs provisioned with T1DM framing. This value should only be provisioned with T1DM framing (DA4yz or TA4yz). The change command does not enforce this restriction.

INCL - Inclusive

As a protection to users, this keyword must be added to provision an NPC with D4 framing and an Insertion Word with bit 2 equal to zero.

NPCs grown in the D4 format (TE1yz/TA1yz) transmit a DS1 yellow alarm by

setting bit 2 to zero in all 24 DS0 channels. If the Insertion Word "pq" is unknowingly provisioned in this manner, the NPC will transmit a D4 yellow alarm signal when it is restored. The D4 yellow alarm is generated by any Insertion Word with the binary value a0cdefgh, where the letters a-h define the eight bits of the binary word. The D4 yellow alarm is not generated by an Insertion Word with a binary value a1cdefgh.

For Clear-DS1 NPCs, the insertion word option is **NOT** available and the message will be denied if this option is entered. The alarm indication signal (AIS) is transmitted in the disconnect or idle state.

[s]ghi,
- The 3- or 4-digit nonhierarchical NPC number within the range of [s]abc and [t]def

[s]jkl
- The 3- or 4-digit nonhierarchical NPC number of the first NPC of a range that is being denied (abc ≤ jkl ≤ mno)

[t]mno
- The 3- or 4-digit nonhierarchical NPC number of the last NPC of a range that is being denied (jkl ≤ mno ≤ def)

ttuvw - Previous value of mnxyz

rs - Previous value of pq

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	Unit type error
SNVS	NPC type error
SNVS	IW is UMUX (18) but NPC not type DE4yz
SNVS	DMI combined with T1DM
SNVS	NPC type option xyz is unassigned
SNVS	NPC has active circuit
SNVS	Can not use 12-th TP when NPCTP is in the T1DM or DMI mode
IDRG	Invalid range for specified NPC type
ENEQ	NPC not equipped
IDNV	IW option is not allowed for new type of Clear-DS1 NPC
ENEQ	MIU is not equipped
SNVS	T1DM or DMI mode and channel 24 is connected
ENEQ	The MXR is not grown
ENEQ	Service MXR is not equipped
SNVS	Mismatch between MXR and NPC types
SNVS	INCL keyword needed when restricted Insertion Word specified
SNVS	NPC has been designated as NPCTG
SNVS	NPC has been designated as NPCTP

ED,PRMTR,EQPT,NPC,RT,DL,TYPE

CHANGE OPTIONS

Input Message Format

Nonhierarchical

[I.38241]

```
ED-PRMTR-EQPT:[<xy>]:{NPC-[s]abc|RT-ffff|DL-ffff|TYPE-mnxyz}:\
[ww]:rr/m[&rr/m...];
```

Hierarchical

[I.38241]

```
ED-PRMTR-EQPT:[<xy>]:{NPC-uv-m-np|RT-ffff|DL-ffff|TYPE-mnxyz}:\
[ww]:rr/m[&rr/m...];
```

Completion Message

Nonhierarchical

[O.38241]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-[s]abc|RT-ffff|DL-ffff|TYPE-mnxyz}\
:[ww]:rr/m[&rr/m...] COMPLD
   /* [O.38241] */
   /* THRESHOLDS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "THRESHOLD:mmm,nnn:p,q:rrrrr:sss:ttt,uuu[:xxxxx:zzzzz]"
   /* OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OPTIONS:e,f:g,h:i:j:k,l[:m:n]"
[  /* OLD OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */]
[  "OLD OPTIONS:s,t:u,v:w:x:y,z[:b:c]"]
[  "TYPE-mnxyz,IW-X-pq"]
[  /* IW-X-pq is the hex value of the insertion word */]
;
```

For ANSI (DA and TA type) NPCs:

[O.38242]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-[s]abc|TYPE-mnxyz}:[ww]:rr/m[&rr/m...] COMPLD
   /* [O.38242] */
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Old Options) */
   "á:ƀ:ć:đ:é:f:ǵ:ħ:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Old Options) */
   "ǰ:ǩ:l:m̀:ǹ:ó:p̀"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Old Options) */
   "á:b̲:ć:đ:é:f:ǵ:ħ:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Old Options) */
   "ǰ:ǩ:l:m̀:ǹ:ó:p̀"
[  "TYPE-mnxyz,IW-X-pq"]
[  /* IW-X-pq is the hex value of the insertion word */]
;
```

Hierarchical

[O.38241]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-uv-m-np|RT-ffff|DS-ffff|TYPE-mnxyz}\
:[ww]:rr/m[&rr/m...] COMPLD
   /* [O.38241] */
   /* THRESHOLDS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "THRESHOLD:mmm,nnn:p,q:rrrrr:sss:ttt,uuu[:xxxxx:zzzzz]"
   /* OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OPTIONS:e,f:g,h:i:j:k,l[:m:n]"
[  /* OLD OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */]
[  "OLD OPTIONS:s,t:u,v:w:x:y,z[:b:c]"]
[  "TYPE-mnxyz,IW-X-pq"]
[  /* IW-X-pq is the hex value of the insertion word */]
;
```

For ANSI (DA and TA type) NPCs:

[O.38242]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-uv-m-np|TYPE-mnxyz}:[ww]:rr/m[&rr/m...] COMPLD
   /* [O.38242] */
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Daily Near-End Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:gggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Old Options) */
   "á:b:ć:d:é:f:ģ:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:11111:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Old Options) */
   "j:k:l:ṁ:ṅ:ó:p"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:CVL:ESL:SESL (Old Options) */
   "á:b:ć:d:é:f:ģ:h:i"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSS:UAS:ESL (Old Options) */
   "j:k:l:ṁ:ṅ:ó:p"
[  "TYPE-mnxyz,IW-X-pq"]
[  /* IW-X-pq is the hex value of the insertion word */]
;
```

Denial Message

Nonhierarchical

[O.38241.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-[s]abc|RT-ffff|DL-ffff|TYPE-mnxyz}\
:[ww]:rr/m[&rr/m...] DENY
   mmmm
   /* [O.38241.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
;
```

Hierarchical

[O.38241.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::{NPC-uv-m-np|RT-ffff|DL-ffff|TYPE-mnxyz}\
:[ww]:rr/m[&rr/m...] DENY
   mmmm
   /* [O.38241.01] */
   /* <explanation of error condition code> */
[  /* ss/n */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command changes facility threshold values for one or more Network Processing Circuits (NPCs) of a particular type or SLC® bank without disconnecting and reconnecting provisioned circuits.

Explanation Of Parameters

Each facility performance parameter of an NPC may have up to three user-selectable threshold values stored in the DACS II data base. The CHG::SETOP (ED-OPT-T1 for MML format) command programs these values in the DACS II data base. Threshold values are provisioned on particular NPCs through the use of the indices rr and m following the options keyword of this command. Variable rr identifies the parameter, and m selects one of the four stored threshold values for that parameter from the DACS II data base. More than one parameter can be changed with a single command by following the first rr/m pair with a list of similarly formed parameter/index pairs for each additional parameter. Unspecified options in this command retain their previous values.

Note that if the option of RT(DL) ffff is specified in the input command, all of the digroups belonging to that RT(DL) will be affected by the command.

For the MML format, the NPC-[s]abc keyword and argument may be omitted in the output response if any of the following are specified on input: TYPE-mnxyz, RT-ffff, or DL-ffff. The CHG function is then performed on all NPCs with the given TYPE, or from the same bank which had the same set of OLD options. The first (lowest numbered) NPC with the given TYPE will determine the class of NPCs affected by the CHG command.

NPC - Network processing circuit

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

The valid numbers are:

If NPC numbers are expressed in three digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are as below:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

RT - Remote terminal

DL - Digital carrier line unit (DCLU)

ffff - Bank identification number (0000 through 9999)

TYPE - Type

mnxyz - NPC type

mnxyz	*Explanation*
DExyz	Enhanced Digroup NPC
DSxyz	SLC® Carrier Digroup NPC
TExyz	DS3U DS1 NPC
DAxyz	FTU DS1 ANSI NPC type
TAxyz	DS3U DS1 ANSI NPC type

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:

DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected.

m - Facility performance parameter threshold index (0 through 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by values of m other than 0 must exist, that is, must have been programmed, prior to being selected. These other thresholds can be set by using the ED-OPT-T1 (I.38201) command. Thresholds of all unspecified parameters will be set to the default value associated with m=0. The options field must not be given without the NPC type field.

Clear-DS1 ANSI NPCs (DAxy9/TAxy9) provide the same set of path and line performance monitoring parameters that are provided by terminated ANSI

NPC types. ANSI NPCs in DS3 Units (TAxyz) do not provide near-end DS1 line performance monitoring parameters.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the following Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the following Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. All of the following Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. The only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

rr	Parameter	Threshold Value Range	Default Threshold Value
41	Daily Near-end Path Coding Violations	000000000 to 134217727	132960†
42	Daily Near-end Path Errored Seconds	00000 to 86400	648
43	Daily Near-end Path Severely Errored Seconds	00000 to 86400	100
44	Daily Near-end Severely Errored Framing Seconds	00000 to 86400	17
45	Daily Near-end Controlled Slip Seconds	00000 to 86400	4
46	Daily Near-end Unavailable Seconds	00000 to 86400	10
47	Daily Near-end Line Coding Violations	000000000 to 134217727	133400
48	Daily Near-end Line Errored Seconds	00000 to 86400	648
49	Daily Near-end Line Severely Errored Seconds	00000 to 86400	100
50	Daily Far-end Path Coding Violations	000000000 to 134217727	132960†
51	Daily Far-end Path Errored Seconds	00000 to 86400	648
52	Daily Far-end Path Severely Errored Seconds	00000 to 86400	100
53	Daily Far-end Severely Errored Framing Seconds	00000 to 86400	17
54	Daily Far-end Controlled Slip Seconds	00000 to 86400	4
55	Daily Far-end Unavailable Seconds	00000 to 86400	10
56	Daily Far-end Line Errored Seconds	00000 to 86400	648
57	15-Minute Near-end Path Coding Violations	0000000 to 2097151	13296‡
58	15-Minute Near-end Path Errored Seconds	000 to 900	65
59	15-Minute Near-end Path Severely Errored Seconds	000 to 900	10
60	15-Minute Near-end Severely Errored Framing Seconds	000 to 900	2
61	15-Minute Near-end Controlled Slip Seconds	000 to 900	1
62	15-Minute Near-end Unavailable Seconds	000 to 900	10

63	15-Minute Near-end Line Coding Violations	0000000 to 2097151	13340
64	15-Minute Near-end Line Errored Seconds	000 to 900	65
65	15-Minute Near-end Line Severely Errored Seconds	000 to 900	10
66	15-Minute Far-end Path Coding Violations	0000000 to 2097151	13296‡
67	15-Minute Far-end Path Errored Seconds	000 to 900	65
68	15-Minute Far-end Path Severely Errored Seconds	000 to 900	10
69	15-Minute Far-end Severely Errored Framing Seconds	000 to 900	2
70	15-Minute Far-end Controlled Slip Seconds	000 to 900	1
71	15-Minute Far-end Unavailable Seconds	000 to 900	10
72	15-Minute Far-end Line Errored Seconds	000 to 900	65

† The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default Daily value is 691.

‡ The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default 15-Minute value is 72.

Note that IW pq as well as the last line of the output message only appears if NPC ... is used in the input message. Also note that the actual data will be printed only for those rrs that are entered on the input message. The rest of the columns will be filled with dashes (----).

For the MML denial message, at least one of the fields [NPC-[s]abc], [RT-ffff], [DL-ffff], or [TYPE-mnxyz] must appear. The [NPC-[s]abc] argument will not appear if the [RT-ffff], [DL-ffff] or the [TYPE-mnxyz] argument is given on input. The [TYPE-mnxyz] argument will not appear if the [NPC-[s]abc] argument is given on input and the NPC is not equipped.

pq - Hexadecimal value of the disconnect code (DCC) or idle code.

This value is inserted in the transmit direction on unassigned channels.

Insertion word is not allowed for Clear-DS1 NPCs; the all ones signal

is transmitted for an idle Clear-DS1 NPC. Thus, information about the

disconnect code will not appear for any message involving a Clear-DS1 type NPC. Although any hexadecimal value may be assigned, the following are some commonly used values:

pq	*Explanation*
7F	UAC (unassigned channel code), the default value
18	UMC (unassigned multiplex code), should only be used with type DE4yz, TE4yz, DA4yz, and TA4yz, for a T1DM formatted facility. The growth command does not enforce this restriction.
FF	Per channel all ones code, needed for not connected channels in SLC carrier and CPI applications.

SLIP - Timing slip
BER - Bit error rate
ERS - Errored seconds
SERS - Severely errored seconds
COFA - Change of frame alignment
SANE - Shelf alarm near end
SAFE - Shelf alarm far end

SLIP

mmm - Slip major alarm threshold (0 through 255)
nnn - Slip minor alarm threshold (0 through 255)
e - Slip major alarm option selection (0 through 3)
s - Slip major alarm option old selection (0 through 3)
f - Slip minor alarm option selection (0 through 3)
t - Slip minor alarm option old selection (0 through 3)

BER (Bit Error Rate)

p - BER major alarm threshold, (1E-p, $3^{\dagger} \leq p \leq 6^{*}$)
q - BER minor alarm threshold, (1E-q, $3^{\dagger} \leq q \leq 6^{*}$)
* 7 on T1DM and Fe framing

† 4 for DE type clear-DS1 or DS type NPCs
g - BER major alarm option selection (0 through 3)
u - BER major alarm option old selection (0 through 3)
h - BER minor alarm option selection (0 through 3)
v - BER minor alarm option old selection (0 through 3)

ERS (Errored Seconds)

rrrrr - ERS threshold (1 through 65535)
i - ERS option selection (0 through 3)
w - ERS option old selection (0 through 3)

SERS (Severely Errored Seconds)

sss - SERS threshold (1 through 255)
j - SERS option selection (0 through 3)
x - SERS option old selection (0 through 3)

COFA (Change of Frame Alignment)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)
k - COFA major alarm option selection (0 through 3)
y - COFA major alarm option old selection (0 through 3)
l - COFA minor alarm option selection (0 through 3)
z - COFA minor alarm option old selection (0 through 3)

SANE (Shelf Alarm Near End)

xxxxx - SANE threshold (0 through 65535)
m - SANE option selection (0 through 3)
b - SANE option old selection (0 through 3)

SAFE (Shelf Alarm Far End)

zzzzz - SAFE threshold (0 through 65535)
n - SAFE option selection (0 through 3)
c - SAFE option old selection (0 through 3)

Note: Major thresholds may not be equal to minor thresholds, except for the BER threshold of SLC® 96 carrier NPCs.

For DE type clear-DS1 NPCs only SLIP and BER parameters are listed.

For TE type clear-DS1 DS3U NPCs only SLIP parameters are listed. Both SANE and SAFE are only applicable to SLC 96 carrier NPCs.

For ANSI NPC types:

CVP - Path coding violations
ESP - Path errored seconds
SESP - Path severely errored seconds
SEFS - Severely errored framing seconds
CSS - Controlled slip seconds
UAS - Unavailable seconds
CVL - Line coding violations
ESL - Line errored seconds
SESL - Line severely errored seconds

CVP (Path Coding Violations)

aaaaaaaaa
- Path Coding Violation Daily NE threshold (0 to 134217727)

jjjjjjjjj
- Path Coding Violation Daily FE threshold (0 to 134217727)

aaaaaaa - Path Coding Violation 15Min NE threshold (0 to 2097151)
jjjjjjj - Path Coding Violation 15Min FE threshold (0 to 2097151)
a - Path Coding Violation Daily NE option selection (0 to 3)
j - Path Coding Violation Daily FE option selection (0 to 3)
a - Path Coding Violation 15Min NE option selection (0 to 3)
j - Path Coding Violation 15Min FE option selection (0 to 3)
å - Path Coding Violation Daily NE option old selection (0 to 3)
ĵ - Path Coding Violation Daily FE option old selection (0 to 3)
å - Path Coding Violation 15Min NE option old selection (0 to 3)
ĵ - Path Coding Violation 15Min FE option old selection (0 to 3)

ESP (Path Errored Seconds)

bbbbb - Path Errored Seconds Daily NE threshold (0 to 86400)
kkkkk - Path Errored Seconds Daily FE threshold (0 to 86400)
b b b - Path Errored Seconds 15Min NE threshold (0 to 900)
k k k - Path Errored Seconds 15Min FE threshold (0 to 900)
b - Path Errored Seconds Daily NE option selection (0 to 3)
k - Path Errored Seconds Daily FE option selection (0 to 3)
b - Path Errored Seconds 15Min NE option selection (0 to 3)
k - Path Errored Seconds 15Min FE option selection (0 to 3)
b̈ - Path Errored Seconds Daily NE option old selection (0 to 3)
k̈ - Path Errored Seconds Daily FE option old selection (0 to 3)
b̈ - Path Errored Seconds 15Min NE option old selection (0 to 3)
k̈ - Path Errored Seconds 15Min FE option old selection (0 to 3)

SESP (Path Severely Errored Seconds)

ccccc - Path Severely Errored Seconds Daily NE threshold (0 to 86400)
11111 - Path Severely Errored Seconds Daily FE threshold (0 to 86400)
c c c - Path Severely Errored Seconds 15Min NE threshold (0 to 900)
l l l - Path Severely Errored Seconds 15Min FE threshold (0 to 900)
c - Path Severely Errored Seconds Daily NE option selection (0 to 3)
1 - Path Severely Errored Seconds Daily FE option selection (0 to 3)
c - Path Severely Errored Seconds 15Min NE option selection (0 to 3)
l - Path Severely Errored Seconds 15Min FE option selection (0 to 3)
c̈ - Path Severely Errored Seconds Daily NE option old selection (0 to 3)
l̈ - Path Severely Errored Seconds Daily FE option old selection (0 to 3)
c̈ - Path Severely Errored Seconds 15Min NE option old selection (0 to 3)
l̈ - Path Severely Errored Seconds 15Min FE option old selection (0 to 3)

SEFS (Severely Errored Framing Seconds)

ddddd - Severely Errored Framing Seconds Daily NE threshold (0 to 86400)
mmmmm - Severely Errored Framing Seconds Daily FE threshold (0 to 86400)
d d d - Severely Errored Framing Seconds 15Min NE threshold (0 to 900)
m m m - Severely Errored Framing Seconds 15Min FE threshold (0 to 900)
d - Severely Errored Framing Seconds Daily NE option selection (0 to 3)
m - Severely Errored Framing Seconds Daily FE option selection (0 to 3)
d - Severely Errored Framing Seconds 15Min NE option selection (0 to 3)
m - Severely Errored Framing Seconds 15Min FE option selection (0 to 3)
d̈ - Severely Errored Framing Seconds Daily NE option old selection (0 to 3)
m̈ - Severely Errored Framing Seconds Daily FE option old selection (0 to 3)
d̈ - Severely Errored Framing Seconds 15Min NE option old selection (0 to 3)
m̈ - Severely Errored Framing Seconds 15Min FE option old selection (0 to 3)

CSS (Controlled Slip Seconds)

eeeee - Controlled Slip Seconds Daily NE threshold (0 to 86400)
nnnnn - Controlled Slip Seconds Daily FE threshold (0 to 86400)
e e e - Controlled Slip Seconds 15Min NE threshold (0 to 900)
n n n - Controlled Slip Seconds 15Min FE threshold (0 to 900)
e - Controlled Slip Seconds Daily NE option selection (0 to 3)
n - Controlled Slip Seconds Daily FE option selection (0 to 3)
e - Controlled Slip Seconds 15Min NE option selection (0 to 3)
n - Controlled Slip Seconds 15Min FE option selection (0 to 3)
ė - Controlled Slip Seconds Daily NE option old selection (0 to 3)
ṅ - Controlled Slip Seconds Daily FE option old selection (0 to 3)
ė - Controlled Slip Seconds 15Min NE option old selection (0 to 3)
ṅ - Controlled Slip Seconds 15Min FE option old selection (0 to 3)

UAS (Unavailable Seconds)

fffff - Unavailable Seconds Daily NE threshold (0 to 86400)
ooooo - Unavailable Seconds Daily FE threshold (0 to 86400)
f f f - Unavailable Seconds 15Min NE threshold (0 to 900)
o o o - Unavailable Seconds 15Min FE threshold (0 to 900)
f - Unavailable Seconds Daily NE option selection (0 to 3)
o - Unavailable Seconds Daily FE option selection (0 to 3)
f - Unavailable Seconds 15Min NE option selection (0 to 3)
o - Unavailable Seconds 15Min FE option selection (0 to 3)
ḟ - Unavailable Seconds Daily NE option old selection (0 to 3)
ȯ - Unavailable Seconds Daily FE option old selection (0 to 3)
ḟ - Unavailable Seconds 15Min NE option old selection (0 to 3)
ȯ - Unavailable Seconds 15Min FE option old selection (0 to 3)

CVL (Line Coding Violations)

ggggggggg
- Line Coding Violation Daily NE threshold (0 to 134217727)
g g g g g g g - Line Coding Violation 15Min NE threshold (0 to 2097151)
g - Line Coding Violation Daily NE option selection (0 to 3)
g - Line Coding Violation 15Min NE option selection (0 to 3)
ġ - Line Coding Violation Daily NE option old selection (0 to 3)
ġ - Line Coding Violation 15Min NE option old selection (0 to 3)

ESL (Line Errored Seconds)

hhhhh - Line Errored Seconds Daily NE threshold (0 to 86400)
ppppp - Line Errored Seconds Daily FE threshold (0 to 86400)
h h h - Line Errored Seconds 15Min NE threshold (0 to 900)
p p p - Line Errored Seconds 15Min FE threshold (0 to 900)
h - Line Errored Seconds Daily NE option selection (0 to 3)
p - Line Errored Seconds Daily FE option selection (0 to 3)
h - Line Errored Seconds 15Min NE option selection (0 to 3)
p - Line Errored Seconds 15Min FE option selection (0 to 3)
ḧ - Line Errored Seconds Daily NE option old selection (0 to 3)
ṗ - Line Errored Seconds Daily FE option old selection (0 to 3)
ḧ - Line Errored Seconds 15Min NE option old selection (0 to 3)
ṗ - Line Errored Seconds 15Min FE option old selection (0 to 3)

SESL (Line Severely Errored Seconds)

iiiii - Line Severely Errored Seconds Daily NE threshold (0 to 86400)
i i i - Line Severely Errored Seconds 15Min NE threshold (0 to 900)
i - Line Severely Errored Seconds Daily NE option selection (0 to 3)
i - Line Severely Errored Seconds 15Min NE option selection (0 to 3)
ï - Line Severely Errored Seconds Daily NE option old selection (0 to 3)
ï - Line Severely Errored Seconds 15Min NE option old selection (0 to 3)

ss/n - First improper values of "rr/m" for which message is denied.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	NPC type error
SNVS	IW is UMUX (18) but NPC not type DE4yz
SNVS	DMI combined with T1DM
SNVS	MajlMin BER threshold is 7, but not in T1DM or Fe mode
IDNV	Bank id number not found
IDNV	Option not programmable for this NPC type

IDNV	The facility parameter not programmable for specified x or z parameter
SNVS	Minor Slip threshold disabled before Major Slip threshold
IDRG	Threshold value is out of range

ED,PRMTR,EQPT,RT,DL

CHANGE BANK NUMBER

Input Message Format

[I.38351]

```
ED-PRMTR-EQPT:[<xy>]::[ww]:{RT|DL}-ffff:{RT|DL}-gggg;
```

Completion Message

[O.38351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:{RT|DL}-ffff:{RT|DL}-gggg COMPLD
;
```

Denial Message

[O.38351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:{RT|DL}-ffff:{RT|DL}-gggg DENY
   mmmm
   /* [message number] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command can be used to change the bank identification number of a remote terminal (RT) or a digital carrier line unit (DCLU).

Explanation Of Parameters

RT - Remote Terminal
DL - Digital Carrier Line Unit (DCLU)
ffff - Old bank identification (0000 through 9999)
gggg - New bank identification (0000 through 9999)
mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
IDNV	Bank id number not found
SAAS	New bank id is an assigned one

ED,PRMTR,EQPT,RT,RTF,SWMN

CHANGE PWR/MISC OPTION OR FPC RT RETROFIT STATUS

Input Message Format

[I.38361]

```
ED-PRMTR-EQPT:[<xy>]:::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x];
```

Completion Message

Nonhierarchical

[O.38361]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x] COMPLD
   /* [O.38361] */
[  /* OLD,NEW */]
[  "ttt,sss"]
;
```

Hierarchical

[O.38361]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x] COMPLD
   /* [O.38361] */
   "DGA-uv-m-np"
[  /* OLD,NEW */]
[  "ttt,sss"]
;
```

Denial Message

Nonhierarchical

[O.38361.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x] DENY
   mmmm
   /* [O.38361.01] */
   /* <explanation of the error condition code> */
   "DGA-[s]aaa"
;
```

Hierarchical

[O.38361.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M ED PRMTR EQPT:::[ww]:RT-ffff:[{sss|RTF}]:[SWMN-x] DENY
   mmmm
   /* [O.38361.01] */
   /* <explanation of the error condition code> */
   "DGA-uv-m-np"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to change the PWR/MISC alarm options associated with a bank identification number without affecting service.

Explanation Of Parameters

RT - Remote Terminal

ffff - Bank identification number (0000 through 9999)

sss - PWR/MISC alarm option

Valid values are listed below

sss	*Explanation*
PMJ	The PWR/MISC alarm from the data link is a power major alarm.
PMN	The PWR/MISC alarm from the data link is a power minor alarm.
MMJ	The PWR/MISC alarm from the data link is a miscellaneous major alarm.
MMN	The PWR/MISC alarm from the data link is a miscellaneous minor alarm.

RTF - SLC® Series 5 Carrier FPC RT Retrofit

SWMN - Protection switch related minor alarm

x - Protection switch related minor alarm handling setting

x	*Explanation*
R	Declare the MN alarm locally and report it to the digital switch
L	Declare the MN alarm locally only

DGA - Digroup A of a SLC® 96 Carrier RT

[s]aaa - The 3- or 4-digit nonhierarchical Digroup A NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np
- Hierarchical Digroup A NPC number

uv - Unit number
m - Module number
np - NPC number

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

ttt - The old PWR/MISC alarm option

mmmm - Error condition code

mmmm	*Explanation*
SAOS	UC is out of service
IDNV	RTF keyword and the operation mode does not match
IDNV	The RT id entered is not a retrofit one
SNVS	DGA is not added
IDNV	Alarm option and bank mode don't match
IDNV	Bank id number not found
IDNV	NDL option is specified for DGA
SAOP	RT's alarm exists
SAPV	option LOCAL already exists
SAPV	option REMOTE already exists
SAPS	can't change option, protection switch is active
SAIN	can't change option, inhibition is active

ED,PRMTR,EQPT,SYNC,MASTER

CONFIGURE SYNCHRONIZER

Input Message Format

[I.35013]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:{MASTER|SLAVED};
```

Completion Message

[O.35013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:{MASTER|SLAVED} COMPLD
;
```

Denial Message

[O.35013.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:{MASTER|SLAVED} DENY
   mmmm
   /* [O.35013.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests configuration of the synchronizer to extract timing from itself (stand-alone or **MASTER** mode) or from external sources (**SLAVED** mode).

The **ED-PRMTR-EQPT** command modifies the Main Controller (MC) data base for the synchronizers, thus allowing appropriate combinations of time bases, timing extractors, and timing distributors to be equipped. This command is also used by the MC to instruct the Digital Phase Locked Loops (DPLLs) to implement the specified architecture. Condition codes for completion indicate architecture states, dependent on the current equipage. Condition codes for denial indicate that the requested architecture is not consistent with the current equipage.

Explanation Of Parameters

SYNC - Synchronizer

MASTER
- Master

The frame will use its own sources for timing.

SLAVED
- Slaved

Timing will be extracted from external sources.

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	SYNC TB is not equipped
SNVS	Sync architecture is same
SAIS	Some TLIs are still equipped
SAIS	CRO is still equipped
SNVS	Timing Extractor type TLIs are present
SAIS	TLI 3 or 4 still equipped
SNVS	SSP with 0 priority present
SNVS	SSP with non 0 priority present
SROF	Sync pack denied command

ED,PRMTR,EQPT,SYNC,STR2,STR3

CONFIGURE SYNCHRONIZER STRATUM

Input Message Format

[I.35012]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:{STR2|STR3|TOLL|LOCAL};
```

Completion Message

[O.35012]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:{STR2|STR3} COMPLD
;
```

Denial Message

[O.35012.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:{STR2|STR3} DENY
   mmmm
   /* [O.35012.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the configuration of the synchronizer at a particular stratum level.

The command can be entered to configure the synchronizer at a lower stratum than the capability of the equipped time bases. The message can also be used to change the operating stratum level of the synchronizer to a higher level if the synchronizer is so equipped.

Explanation Of Parameters

SYNC - Synchronizer

STRATUM
- Stratum

STR2 - Stratum 2 Time Base

STR3 - Stratum 3 Time Base

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	SYNC TB is not equipped
SNVS	Sync stratum is same
SNVS	Stratum not allowed
SROF	Sync pack denied command

ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC

CHANGE PRIORITIES AND/OR TYPE, SYNCHRONIZER OR NPC

Input Message Format

[I.38011]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:TLI-m:SSP-b:texyz;
```

[I.38011]

```
ED-PRMTR-EQPT:[<xy>]:SYNC:[ww]:SRC-i/a,b[&j/c,d[&k/e,f[&l/g,h]]];
```

Completion Message

[O.38011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:TLI-m:SSP-b:texyz COMPLD
;
```

[O.38011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:SRC-i/a,b[&j/c,d[&k/e,f[&l/g,h]]] COMPLD
;
```

Denial Message

[O.38011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:TLI-m:SSP-b:texyz DENY
   mmmm
   /* [O.38011.01] */
   /* <explanation of error condition code> */
;
```

[O.38011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::SYNC:[ww]:SRC-i/a,b[&j/c,d[&k/e,f[&l/g,h]]] DENY
   mmmm
   /* [O.38011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command changes priorities and type parameters of timing extractor type TLIs/SSPs that have been equipped. One of the following two fields must be given: type/synchronizer sync port or the source for priority (SRC). Only one type may be changed at a time; the output message will show both types after the change command is completed, if both are equipped, or it will show a "-" for unequipped SSPs.
Only the type and priority data bases are affected by this command. The SSP must be out of service for the command to complete. The RST-EQPT::SYNC,TLI,[SSP]; command must be given to implement the changes for both side 0 and 1.

Explanation Of Parameters

SYNC - Synchronizer

TLI - Timing link interface

m - Timing link interface number (1 through 4)

SSP - Synchronizer sync port

b - SSP side (0 or 1)

texyz - Timing Extractor or Timing Distributor type

The output message shows the type of SSP for both SSPs on the TLI card If one SSP is not equipped, a "-" will appear for the unequipped SSP.

testu - The TLI type of the other SSP on the same TLI. If not equipped, this parameter will be output as "-----".

te	*Explanation*
TC	Composite Clock Timing Extractor
TE	DS1 Timing Extractor
TP	Primary Block Timing Extractor
TR	Basic System Reference Frequency (BSRF)
TU	Unipolar Clock Timing Extractor
TD	Timing Distributor

TD-type TLI xyz fields

x - Timing distributor identification

x	*Explanation*
1	Composite Clock Timing Distribution
2	Sinusoidal 2.048 MHz Timing Distribution

y,z - Unassigned

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TP-type TLI xyz fields

x - Frame format

x	*Explanation*
1 or 5	Common Channel Signaling
2 or 6	Channel Associated Signaling - Mode 0
3 or 7	Channel Associated Signaling - Mode 1
4 or 8	European Remote Switching Module
0 or 9	Invalid

y - Line format

y	*Explanation*
0 or 2	Alternate Mark Inversion (Bipolar)
1 or 3	High Density Bipolar (HDB3)
4-9	Invalid

z - Channel format

z	*Explanation*
0-9	Unassigned

TC, TR, and TU-type TLI xyz fields

x - Frame format

y - Line format

z - Channel format

Values for x, y, and z are unassigned.

SRC - Source

i - TLI slot number (1 through 4)
a - TLI i SSP 0 priority (1 through 8)
b - TLI i SSP 1 priority (1 through 8)

j - TLI slot number (1 through 4)
c - TLI j SSP 0 priority (1 through 8)
d - TLI j SSP 1 priority (1 through 8)

k - TLI slot number (1 through 4)
e - TLI k SSP 0 priority (1 through 8)
f - TLI k SSP 1 priority (1 through 8)

l - TLI slot number (1 through 4)
g - TLI l SSP 0 priority (1 through 8)
h - TLI l SSP 1 priority (1 through 8)

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	SYNC TB is not equipped
SNVS	X option is illegal
SNVS	Y option is illegal
SNVS	SSP type(options) same
SNVS	Wrong SSP type(Timing Extractor type)
SNVS	Sync architecture different
IDMS	Some priority values required
IDNC	Some priority values not required
SNVS	Priority values are same
SROF	Sync pack denied command
SNVS	New NPC same as existing one
IDNV	NPC parameter only valid with TU type TLI
SNVS	NPC is still provisioned to provide sync timing
SNVS	NPC not designated as sync timing source
SAWS	NPC already allocated as sync timing source
IDNV	Parameter only valid with PB or PC type NPCs
SNVS	Assignment of single priority to multiple SSPs

ED,PRMTR,EQPT,TYPE

CHANGE TYPE, OPTIONS

Input Message Format

[I.38231]

```
ED-PRMTR-EQPT:[<xy>]:TYPE-mnxyz:[ww]:rr/m[&rr/m][...];
```

Completion Message

[O.38231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::TYPE-mnxyz:[ww]:rr/m[&rr/m][...] COMPLD
   /* [O.38231] */
   /* THRESHOLD:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "THRESHOLD:mmm,nnn:p,q:rrrrr:sss:ttt,uuu[:xxxxx:zzzzz]"
   /* OPTIONS:SLIP:BER:ERS:SERS:COFA[:SANE:SAFE] */
   "OPTIONS:e,f:g,h:i:j:k,l[:m:n]"
;
```

For ANSI (DA and TA type) NPCs:

[O.38232]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::TYPE-mnxyz:[ww]:rr/m[&rr/m][...] COMPLD
   /* [O.38232] */
   /*CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL(Daily Near-End Thresholds)*/
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:gggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL
      (15 Minute Near-End Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
;
```

Denial Message

[O.38231.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::TYPE-mnxyz:[ww]:rr/m[&rr/m][...] DENY
   mmmm
   /* [O.38231.01] */
   /* <explanation of error condition code> */
[  /* vv/k */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command changes the threshold values for facility performance parameters on all NPCs of a particular type. The threshold values may be changed without disconnecting and reconnecting provisioned circuits.

One or more alarm or information threshold values may be set for all NPCs to a value previously stored in the DACS II threshold data base.

The values stored in the DACS II threshold data base are selected with the indices (**rr/n**).

Explanation Of Parameters

TYPE - Type

mnxyz - NPC type

mnxyz	*Explanation*
DExyz	FTU DS1 NPC
TExyz	DS3U DS1 NPC
DSxyz	SLC carrier digroup terminating NPC
DAxyz	FTU DS1 ANSI NPC type
TAxyz	DS3U DS1 ANSI NPC type

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if

the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

rr - Facility performance parameter number

Variable rr specifies the parameter whose alarm threshold is being selected

m - Facility performance parameter threshold index (0 to 3)

Variable m is used to select threshold values previously programmed for rr. The default threshold value, the value selected by m=0, for each parameter is shown in the table below under the column heading "Default Threshold Value". Threshold values selected by m=1 through m=3 must exist; that is, must have been programmed prior to being selected. The non-default thresholds can be set by using the CHG::SETOP (I.38201) command.

Clear-DS1 ANSI NPCs (DAxy9/TAxy9) provide the same set of path and line performance monitoring parameters that are provided by terminated ANSI

NPC types. ANSI NPCs in DS3 Units (TAxyz) do not provide near-end DS1 line performance monitoring parameters.

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the following Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the following Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. All of the following Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the following Near-end Path parameters are valid, but the Near-End Line parameters (rr = 47-49, 63-65) are invalid. The only valid Far-end parameter is Unavailable Seconds (rr = 55,71).

rr	Parameter	Threshold Value Range	Default Threshold Value
41	Daily Near-end Path Coding Violations	000000000 to 134217727	132960†
42	Daily Near-end Path Errored Seconds	00000 to 86400	648
43	Daily Near-end Path Severely Errored Seconds	00000 to 86400	100
44	Daily Near-end Severely Errored Framing Seconds	00000 to 86400	17
45	Daily Near-end Controlled Slip Seconds	00000 to 86400	4
46	Daily Near-end Unavailable Seconds	00000 to 86400	10
47	Daily Near-end Line Coding Violations	000000000 to 134217727	133400
48	Daily Near-end Line Errored Seconds	00000 to 86400	648
49	Daily Near-end Line Severely Errored Seconds	00000 to 86400	100
50	Daily Far-end Path Coding Violations	000000000 to 134217727	132960†
51	Daily Far-end Path Errored Seconds	00000 to 86400	648
52	Daily Far-end Path Severely Errored Seconds	00000 to 86400	100
53	Daily Far-end Severely Errored Framing Seconds	00000 to 86400	17
54	Daily Far-end Controlled Slip Seconds	00000 to 86400	4
55	Daily Far-end Unavailable Seconds	00000 to 86400	10
56	Daily Far-end Line Errored Seconds	00000 to 86400	648
57	15-Minute Near-end Path Coding Violations	0000000 to 2097151	13296‡
58	15-Minute Near-end Path Errored Seconds	000 to 900	65
59	15-Minute Near-end Path Severely Errored Seconds	000 to 900	10
60	15-Minute Near-end Severely Errored Framing Seconds	000 to 900	2
61	15-Minute Near-end Controlled Slip Seconds	000 to 900	1
62	15-Minute Near-end Unavailable Seconds	000 to 900	10

63	15-Minute Near-end Line Coding Violations	0000000 to 2097151	13340
64	15-Minute Near-end Line Errored Seconds	000 to 900	65
65	15-Minute Near-end Line Severely Errored Seconds	000 to 900	10
66	15-Minute Far-end Path Coding Violations	0000000 to 2097151	13296‡
67	15-Minute Far-end Path Errored Seconds	000 to 900	65
68	15-Minute Far-end Path Severely Errored Seconds	000 to 900	10
69	15-Minute Far-end Severely Errored Framing Seconds	000 to 900	2
70	15-Minute Far-end Controlled Slip Seconds	000 to 900	1
71	15-Minute Far-end Unavailable Seconds	000 to 900	10
72	15-Minute Far-end Line Errored Seconds	000 to 900	65

† The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default Daily value is 691.

‡ The value shown applies to ESF framing and is a count

of CRC errors. When the DS1 has D4 or T1DM framing, framing errors are counted and the default 15-Minute value is 72.

SLIP - Timing slip
BER - Bit error rate
ERS - Errored seconds
SERS - Severely errored seconds
COFA - Change of frame alignment
SANE - Shelf Alarm Near End
SAFE - Shelf Alarm Far End

SLIP

mmm - Slip major alarm threshold (0 through 255)
nnn - Slip minor alarm threshold (0 through 255)
e - Slip major alarm option selection (0 through 3)
f - Slip minor alarm option selection (0 through 3)

BER (Bit Error Rate)

p - BER major alarm threshold, (1E-p, 3* through 6†)
q - BER minor alarm threshold, (1E-q, 3* through 6†)

* 4 for clear-DS1 FTU NPC or DS type NPC
† 7 on T1DM and Fe framing

g - BER major alarm option selection (0 through 3)
h - BER minor alarm option selection (0 through 3)

ERS (Errored Seconds)

rrrrr - ERS threshold (1 through 65535)
i - ERS option selection (0 through 3)

SERS (Severely Errored Seconds)

sss - SERS threshold (1 through 255)
j - SERS option selection (0 through 3)

COFA (Change of Frame Alignment)

ttt - COFA major alarm threshold (1 through 511)
uuu - COFA minor alarm threshold (1 through 255)
k - COFA major alarm option selection (0 through 3)
l - COFA minor alarm option selection (0 through 3)

SANE (Shelf Alarm Near End)

xxxxx - SANE alarm threshold (00000 through 65535)
m - SANE alarm option selection (0 through 3)

SAFE (Shelf Alarm Far End)

zzzzz - SAFE alarm threshold (00000 through 65535)
n - SAFE alarm option selection (0 through 3)

Note: Major thresholds may not be equal to minor thresholds, except for the BER threshold of SLC® 96 carrier NPCs.

For DE type clear-DS1 NPCs only SLIP and BER parameters are listed.

For TE type clear-DS1 DS3U NPCs only SLIP parameters are listed. Both SANE and SAFE are applicable only to SLC 96 carrier NPCs.

For ANSI NPC types:

CVP - Path Coding Violations
ESP - Path Errored Seconds
SESP - Path Severely Errored Seconds
SEFS - Severely Errored Framing Seconds
CSSP - Path Controlled Slip Seconds
UASP - Path Unavailable Seconds
CVL - Line Coding Violations
ESL - Line Errored Seconds
SESL - Line Severely Errored Seconds

CVP (Path Coding Violations)

aaaaaaaaa
- Path Coding Violation Daily NE threshold (0 to 134217727)

jjjjjjjjj
- Path Coding Violation Daily FE threshold (0 to 134217727)

aaaaaaa - Path Coding Violation 15Min NE threshold (0 to 2097151)
jjjjjjj - Path Coding Violation 15Min FE threshold (0 to 2097151)
a - Path Coding Violation Daily NE option selection (0 to 3)
j - Path Coding Violation Daily FE option selection (0 to 3)
a - Path Coding Violation 15Min NE option selection (0 to 3)
j - Path Coding Violation 15Min FE option selection (0 to 3)

ESP (Path Errored Seconds)

bbbbb - Path Errored Seconds Daily NE threshold (0 to 86400)
kkkkk - Path Errored Seconds Daily FE threshold (0 to 86400)
bbb - Path Errored Seconds 15Min NE threshold (0 to 900)
kkk - Path Errored Seconds 15Min FE threshold (0 to 900)
b - Path Errored Seconds Daily NE option selection (0 to 3)
k - Path Errored Seconds Daily FE option selection (0 to 3)
b - Path Errored Seconds 15Min NE option selection (0 to 3)
k - Path Errored Seconds 15Min FE option selection (0 to 3)

SESP (Path Severely Errored Seconds)

ccccc - Path Severely Errored Seconds Daily NE threshold (0 to 86400)
11111 - Path Severely Errored Seconds Daily FE threshold (0 to 86400)
ccc - Path Severely Errored Seconds 15Min NE threshold (0 to 900)
lll - Path Severely Errored Seconds 15Min FE threshold (0 to 900)
c - Path Severely Errored Seconds Daily NE option selection (0 to 3)
1 - Path Severely Errored Seconds Daily FE option selection (0 to 3)
c - Path Severely Errored Seconds 15Min NE option selection (0 to 3)
l - Path Severely Errored Seconds 15Min FE option selection (0 to 3)

SEFS (Severely Errored Framing Seconds)

ddddd - Severely Errored Framing Seconds Daily NE threshold (0 to 86400)
mmmmm - Severely Errored Framing Seconds Daily FE threshold (0 to 86400)
ddd - Severely Errored Framing Seconds 15Min NE threshold (0 to 900)
mmm - Severely Errored Framing Seconds 15Min FE threshold (0 to 900)
d - Severely Errored Framing Seconds Daily NE option selection (0 to 3)
m - Severely Errored Framing Seconds Daily FE option selection (0 to 3)
d - Severely Errored Framing Seconds 15Min NE option selection (0 to 3)
m - Severely Errored Framing Seconds 15Min FE option selection (0 to 3)

CSSP (Path Controlled Slip Seconds)

eeeee - Path Controlled Slip Seconds Daily NE threshold (0 to 86400)
nnnnn - Path Controlled Slip Seconds Daily FE threshold (0 to 86400)
e e e - Path Controlled Slip Seconds 15Min NE threshold (0 to 900)
n n n - Path Controlled Slip Seconds 15Min FE threshold (0 to 900)
e - Path Controlled Slip Seconds Daily NE option selection (0 to 3)
n - Path Controlled Slip Seconds Daily FE option selection (0 to 3)
e - Path Controlled Slip Seconds 15Min NE option selection (0 to 3)
n - Path Controlled Slip Seconds 15Min FE option selection (0 to 3)

UASP (Path Unavailable Seconds)

fffff - Path Unavailable Seconds Daily NE threshold (0 to 86400)
ooooo - Path Unavailable Seconds Daily FE threshold (0 to 86400)
f f f - Path Unavailable Seconds 15Min NE threshold (0 to 900)
o o o - Path Unavailable Seconds 15Min FE threshold (0 to 900)
f - Path Unavailable Seconds Daily NE option selection (0 to 3)
o - Path Unavailable Seconds Daily FE option selection (0 to 3)
f - Path Unavailable Seconds 15Min NE option selection (0 to 3)
o - Path Unavailable Seconds 15Min FE option selection (0 to 3)

CVL (Line Coding Violations)

ggggggggg
- Line Coding Violation Daily NE threshold (0 to 134217727)
g g g g g g g - Line Coding Violation 15Min NE threshold (0 to 2097151)
g - Line Coding Violation Daily NE option selection (0 to 3)
g - Line Coding Violation 15Min NE option selection (0 to 3)

ESL (Line Errored Seconds)

hhhhh - Line Errored Seconds Daily NE threshold (0 to 86400)
ppppp - Line Errored Seconds Daily FE threshold (0 to 86400)
h h h - Line Errored Seconds 15Min NE threshold (0 to 900)
p p p - Line Errored Seconds 15Min FE threshold (0 to 900)
h - Line Errored Seconds Daily NE option selection (0 to 3)
p - Line Errored Seconds Daily FE option selection (0 to 3)
h - Line Errored Seconds 15Min NE option selection (0 to 3)
p - Line Errored Seconds 15Min FE option selection (0 to 3)

SESL (Line Severely Errored Seconds)

iiiii - Line Severely Errored Seconds Daily NE threshold (0 to 86400)
i i i - Line Severely Errored Seconds 15Min NE threshold (0 to 900)
i - Line Severely Errored Seconds Daily NE option selection (0 to 3)
i - Line Severely Errored Seconds 15Min NE option selection (0 to 3)

For SHORT INTERVAL, DM is calculated hourly and SERS, ERS, US and SLIP are calculated at 15-minute intervals.

THMODE
- Thresholding mode (for PA NPCs only)

hhh - Thresholding mode option

hhh	*Explanation*
INH	Inhibit thresholding
ALW	Allow thresholding

The INH option is used to temporarily inhibit thresholding for all parameters of all NPCs provisioned with TYPE mnxyz whether the thresholding for a specific NPC is already inhibited or not. When it is entered, all thresholds for those NPCs are suspended; therefore, no new threshold crossing messages will be output after the inhibition.

The ALW option is the default option and can be used to turn-off the thresholding inhibition. Note that, this command with the "ALW" option can be used for TYPE mnxyz NPCs whose thresholding capability is inhibited due to the entry of command I.38221

When the "ALW" is entered, the thresholds applied before the inhibition will be re-applied unless the thresholds were changed during the inhibition. Option change requests are permitted while the NPC thresholding is inhibited.

vv/k - Parameter/option involved in denial
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENIE	Option rr/m has not been set up on 2nd database
SNVS	Minor >= major for SLIP opt
SNVS	Minor <= major for BER opt
SNVS	Minor >= major for COFA opt
SNVS	DMI combined with T1DM
SNVS	Maj|Min BER threshold is 7, but not in T1DM or Fe mode
IDNV	BER must not be less than 4 for Clear DS1
IDNV	Option not programmable for this NPC type
ENEQ	Service MXR is not equipped

mmmm	*Explanation*
SNVS	Minor Slip threshold disabled before Major Slip threshold
IDRG	Threshold value is out of range

ED,PRMTR,EQPT,UNIT,FTMI,EQL

CHANGE FTMI EQUALIZATION

Input Message Format

[I.38111]

```
ED-PRMTR-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:EQL-l,r;
```

Completion Message

[O.38111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::UNIT-[q]q:[ww]:FTMI-d:EQL-l,r  COMPLD
   /* [O.38111] */
   "EQL-k,p:NEW STATE EQL-m,s"
;
```

Denial Message

[O.38111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR EQPT::UNIT-[q]q:[ww]:FTMI-d:EQL-l,r  DENY
   mmmm
   /* [O.38111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests changing the equalization of a half or a whole facility terminating module (FTM) and its associated interface, the FTMI.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

d - FTMI number in the DACS II unit (1 through 4)

EQL - Equalization

l - Left half shelf equalization value (first 10 Dual Digroup Circuits)
r - Right half shelf equalization value (second 10 Dual Digroup Circuits)

If either half is not to be used, a dash ("-") should be entered for the appropriate halfs' value. For the right half shelf the dash is not allowed if the FTMI has already been grown.

Equalization option values for 255AS/24 gauge cable

l r	*Explanation*
1	000 to 100 feet
2	100 to 200 feet
3	200 to 300 feet
4	300 to 400 feet
5	400 to 500 feet
-	Not equipped

Equalization option values for 600 series/22 gauge cable

l r	*Explanation*
1	000 to 133 feet
2	133 to 267 feet
3	267 to 400 feet
4	400 to 533 feet
5	533 to 655 feet
-	Not equipped

Equalization option values for 1249/26 gauge cable

l *r*	*Explanation*
1	000 to 090 feet
2	090 to 180 feet
3	180 to 270 feet
4	270 to 360 feet
5	360 to 450 feet
-	Not equipped

If a number is entered for l and/or r, the equalization option of each half will be changed to the value associated with that number whether the option was previously specified or not. If a dash (-) is entered for l or r the existing equalization option used for the corresponding half will continue to be applied; that is, the option will be unchanged. However, the command will be denied if dashes (-) are entered for both l and r.

k,p - Equalization options before change

m,s - Equalization options after change

k and m apply to the left half of shelf, that is, the first 10 DDCs in the shelf

p and s apply to the right half of shelf, that is, the second 10 DDCs in the shelf

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	No equalization for CEPT FTMI

ED,PRMTR,LINK,APPL,ASCS,ASCD

ADD TABS LINK PARAMETERS

Input Message Format

[I.36007]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:APPL-{ASCS|ASCD|PM}[,L2AD-aa]\
[,POLL-ttt];
```

Completion Message

[O.36007]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:APPL-{ASCS|ASCD|PM}[,L2AD-aa]\
[,POLL-ttt] COMPLD
;
```

Denial Message

[O.36007.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:APPL-{ASCS|ASCD|PM}[,L2AD-aa]\
[,POLL-ttt] DENY
   m
   /* [O.36007.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to provision a TABS administrative link.

Explanation Of Parameters

j - Administrative link number (either 3 or 4)

POLL - Polling

ttt - Time in seconds

001 through 255 for ASCS or ASCD applications
000 through 044 for PM applications

APPL - Application of the TABS link

ASCS - Alarm surveillance and control, summary

ASCD - Alarm surveillance and control, detailed

PM - Performance monitoring

L2AD aa
- Layer 2 address (00 through 31)

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command and protocol are inconsistent
IDNV	Invalid poll time
IDMS	Unspecified L2 address
IDNV	Duplicate L2 address

ED,PRMTR,LINK,K,T1,T3,N2,A,B

ADD LINK, X.25, PROTOCOL, DATA LINK, LAYER PARAMETERS

Input Message Format

[I.36003]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:[K-b][,T1-eee][,T3-ggg][,N2-aa]\
[,FRMAD-{A|B}];
```

Completion Message

[O.36003]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:[K-b][,T1-eee][,T3-ggg]\
[,N2-aa][,FRMAD-{A|B}] COMPLD
;
```

Denial Message

[O.36003.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:[K-b][,T1-eee][,T3-ggg][,N2-aa]\
[,FRMAD-{A|B}] DENY
   mmmm
   /* [O.36003.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command allows the user to provision the protocol-specific parameters in the data link layer of an X.25 administrative link.

Explanation Of Parameters

LINK - Link

j - Administrative link number (5 or 6)

FRMAD - Frame address used by each frame in the Data Link Layer of X.25 protocol.

A - Data link layer frame address A. Default is A
B - Data link layer frame address B

K - Maximum number of outstanding I frames

b - Number of frames (1 through 7). Default is 7.

T1 - Acknowledgment timer

ee - Timer setting in seconds (2 through 20). Default is 3 seconds

T3 - Disconnect (or Idle channel) timer

ggg - Timer setting in seconds (4 through 120). Default is 26 seconds

N2 - Maximum number of frame transmissions

aa - Number of frame transmissions (2 through 16) (including original transmission). Default is 7.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SNVS	Command is Frame administrator (DAX) only.

ED,PRMTR,LINK,PTCOL,S,X,T,M

ADD LINK, PROTOCOL, BAUD

Input Message Format

[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-{S|X|T|M}[,BAUD-bb]\
[,ALM-k][,BS-e][,ENQ-q][,XON-x]:[INIT];
```

If the protocol is Snider:
[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-S[,BAUD-bb][,ALM-k]\
[,BS-e][,ENQ-q][,XON-x]:[INIT];
```

If the protocol is X.25:
[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-X[,ALM-k]:[INIT];
```

If the protocol is TABS:
[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-T[,BAUD-bb][,ALM-k]\
:[INIT];
```

If the protocol is Modified Snider:
[I.36001]

```
ED-PRMTR-LINK:[<xy>]:j:[ww]:PTCOL-M[,ALM-k]:[INIT];
```

Completion Message

[O.36001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:PTCOL-{S|X|T|M}[,BAUD-bb]\
[,ALM-k][,BS-e][,ENQ-q][,XON-x]:[INIT] COMPLD
;
```

Denial Message

[O.36001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j:[ww]:PTCOL-{S|X|T|M}[,BAUD-bb]\
[,ALM-k][,BS-e][,ENQ-q][,XON-x]:[INIT] DENY
   mmmm
   /* [O.36001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to provision (add) a Snider, Modified Snider, X.25, or TABS administrative link. Only one modified Snider link may be provisioned.

This command can also be used to initialize or change the performance parameters of the link, including the protocol (PTCOL), link speed (BAUD), alarm class (ALM), backspace (BS), Xon/Xoff flow control (XON), and Enq/Ack flow control (ENQ) provisioning.

At least one parameter must be given.

On input, if a virtual circuit range is specified as zero (0), the corresponding group number specified is ignored by DACS II.

Explanation Of Parameters

LINK - Link

j - Administrative link number (1 through 6)

PTCOL - Protocol

S - SCCSAI (Snider protocol)

X - X.25 Synchronous protocol

T - TABS (Telemetry Asynchronous Block Serial protocol)

M - Modified Snider Protocol (requires baud rate of 1200)

BAUD - Baud

bb - Baud rate

Not provisioned for synchronous X.25 links

bb	*Rate*
03	300
06	600
12	1200
24	2400
48	4800
96	9600

ALM - Alarm

k - Alarm class for link hardware failures

k	*Alarm Class*
1	Minor (default)
2	Major

BS - Backspace

e - Character echoed for backspace or control-h

e	*Character*
0	Backspace is echoed (default)
1	Underscore is echoed

ENQ - Enquire

q - ENQ/ACK Protocol Enable/Disable Control

q	*ENQ/ACK Protocol Provisioning*
0	Disabled
1	Enabled (default)

If the DACS II frame has been set to expect the ENQ/ACK Protocol Enable/Disable Control and the sending terminal is not set up properly to send the ACK in response to ENQ, then after several attempts to receive ACK the DACS II frame will autonomously declare a protocol OOS for ENQ/ACK, remove the link, perform diagnostics and then restore the link. At this point the ENQ/ACK protocol is set to disabled.

XON - XON

x - XON/XOFF Protocol Enable/Disable Control

x	*XON/XOFF Protocol Provisioning*
0	Disabled (default)
1	Enabled

The XON/XOFF Protocol Enable/Disable Control will only take effect when the DACS II frame is in output mode. The effect of XOFF lasts for 60 seconds or until an XON is received. If the frame has data to be output on the given link (that is, from a command executed on that link, or output data from another monitored link), and XOFF's are received in a manner such that at the end of an 60 second OFF interval a new 60 second OFF interval begins, thus preventing the frame from delivering output data, then the frame will declare a software error based on the assumption that a software communications error exists. The link will be autonomously removed, diagnosed, and restored. Following restoral, queued output data will be flushed. The XON protocol will still be in effect after the link is restored.

INIT - Initialize

Initialize the administrative link; all parameters are set to default except those specified in the command.

mmmm - Error condition code

mmmm	*Explanation*
ENRE	Subject entity is equipped
SAIS	Subject entity is in service
SNVS	Command is Frame administrator (DAX) only.
SNVS	Command and protocol are inconsistent
SNVS	Incorrect pack type in slot
IDNV	XON/XOFF flow control is supported only on Snider link
IDNV	ENQ/ACK flow control is supported only on Snider link

ED,PRMTR,LINK,W,P,T20,T22,T23

ADD X.25 LINK PARAMETERS

Input Message Format

[I.36005]

```
ED-PRMTR-LINK:[<xy>]:1[mm]:[ww]:[W-c][,P-ddd][,T20-iii]\
[,T22-jjj][,T23-kkk][,T25-lll][,T26-mmm][,R20-nn][,R22-p]\
[,R23-qq][,R25-r][,DBIT-v][,VC-ppss&-gghh];
```

Completion Message

[O.36005]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j[mm]:[ww]:[,W-c][,P-ddd][,T20-iii]\
[,T22-jjj][,T23-kkk] [,T25-lll][,T26-mmm][,R20-nn]\
[,R22-p][,R23-qq][,R25-r][,DBIT-v][,VC-ppss&-gghh] COMPLD
;
```

Denial Message

[O.36005.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR LINK::j[mm]:[ww]:[,W-c][,P-ddd][,T20-iii]\
[,T22-jjj][,T23-kkk] [,T25-lll][,T26-mmm][,R20-nn]\
[,R22-p][,R23-qq][,R25-r][,DBIT-v][,VC-ppss&-gghh] DENY
   mmmm
   /* [O.36005.01]  */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command allows a user to provision an X.25 administrative link with packet layer parameters.

If a virtual circuit (VC) range is specified as zero (0), the corresponding group number specified in **gghh** is ignored by DACS II.

Parameters T20, R20, DBIT, and VC() are per-link parameters and the remaining parameters are per-VC parameters.

If a 3-digit link+VC number (501, 502, ..) is used and only per-VC parameters are specified, then the command is accepted and the values apply only to the specified VC.

If a 3-digit link+VC number is used and at least one per-link parameter is specified, then the command is denied.

If a 1-digit link number (5 or 6) is used and any per-link and/or per-VC parameter is specified, then the command is accepted and the values apply to all VCs in the link. To ensure proper interface between DACS II and the packet network, packet layer parameters at DACS II and network ends of the X.25 link must be identical.

Explanation Of Parameters

LINK - Link

j[mm] - Administrative link number

- **j** - Physical link number (l is either 5 or 6)
- **mm** - Virtual circuit number (01 through 16)

W - Window
c - Window size (1 through 7). Default window size is 2.

P - Packet
ddd - Packet size. Can be 128, 256, 512 octets. Default is 128 octets.

T20 - Restart request response timer
iii - Timer setting (10 through 180 seconds). Default is 180 seconds.

T20 is valid only on a per link basis and will be denied on an individual virtual circuit.

T22 - Reset request response timer
jjj - Timer setting (10 through 180 seconds). Default is 180 seconds.

T23 - Disconnect (or idle channel) timer
kkk - Timer setting (10 through 180 seconds). Default is 180 seconds.

T25 - Data packet acknowledgement timer
111 - Timer setting (10 through 200 seconds). Default is 200 seconds.

T26 - Interrupt response timer.
mmm - Timer setting (10 through 180 seconds). Default is 180 seconds.

R20 - Restart request retransmission counter
nn - Counter setting (1 through 10). Default is 1.

R20 is valid only on a per link basis and will be denied on an individual virtual circuit.

R22 - Reset request retransmission counter.
p - Counter setting (1 through 3). Default is 1.

R23 - Clear request retransmission counter.
qq - Counter setting (1 through 10). Default is 1.

R25 - Data packet retransmission counter.
r - Counter setting (0 through 3). Default is 0.

VC - Virtual circuit
ppss - Virtual circuit number (00 through 16)

pp - Range of PVCs (implies a PVC range from 00 to pp).
ss - Range of SVCs (implies an SVC range from pp+1 to 16).

The sum of pp and ss must be equal to 16.

gghh - Group number

gg - Group number for all PVCs (00 through 15).
hh - Group number for all SVCs (00 through 15).

VC() is valid only on a per link basis and will be denied on an individual virtual circuit.

DBIT - DBIT

X.25 d-bit

v	*Explanation*
0	Off (unset) (acknowledgement done from local DTE). Default
1	On (set) (acknowledgement done from remote DTE)

DBIT is valid only on a per link basis and will be denied on an individual virtual circuit.

mmmm - Error condition code

mmmm	*Explanation*
SAIS	Subject entity is in service
SNVS	Command and protocol are inconsistent
IDNV	Invalid link number specified

ED,PRMTR,MACRO,MAP

CHANGE MACRO SPACE

Input Message Format

[I.38501]

```
ED-PRMTR-{MACRO|MAP}:[<xy>]::[ww]:sss;
```

Completion Message

[O.38501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR {MACRO|MAP}:::[ww]:sss COMPLD
   /* [O.38501] */
   /* New space, Old space */
   "sss,ttt"
;
```

Denial Message

[O.38501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR {MACRO|MAP}:::[ww]:<user macro space> DENY
   mmmm
   /* [O.38501.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used by the frame administrator to request a change in the amount of memory space allocated to macros or maps for all users of the system.

Explanation Of Parameters

ttt - Old user macro space allocation (000 through 100 percent)

Variable ttt represents the space previously allocated to user macros for the entire DACS II system as a percentage of the system macro space.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.

ED,PRMTR,MAP

CREATE PICTURE ALTERNATE MAP

Input Message Format

[I.19031]

```
ED-PRMTR-MAP:[<xy>]::[ww]:<new map name>,\
<reference map name>;
```

Completion Message

Nonhierarchical

[O.19031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR MAP:::[ww]:<new map name>,<reference map name> \
COMPLD
   /* [O.19031] */
   "COND-kk"
  ["NPC-[s]abc"]
;
```

Hierarchical

[O.19031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR MAP:::[ww]:<new map name>,\
<reference map name> COMPLD
   /* [O.19031] */
   "COND-kk"
  ["NPC-uv-m-np"]
;
```

Denial Message

[O.19031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR MAP:::[ww]:<new map name>,\
<reference map name> DENY
   mmmm
   /* [0.19031] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command takes a **PIC** (picture) of currently-implemented cross-connections and stores them in the **new map name**. **reference map name** is the name of the map that contains the desired list of cross-connections.

one to seven characters long.

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

MAP - Map

new map name
- The new alternate map to be created by this message

"new map name" is a string of capitalized alphanumeric characters. The first character must be an alphabetic character. The maximum length of a map name is seven characters.

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

This number identifies the first NPC that contains either a non-two-way, two-point cross-connection, or a cross-connection with a termination on an NPC not found in the reference alternate map.

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

This number identifies the first NPC that contains either a non-two-way, two-point cross-connection, or a cross-connection with a termination on an NPC not found in reference alternate map.

uv - Unit number
m - Module number
np - NPC number

```
DE type NPC numbers listed by unit, module,
and NPC No.

Unit        Module      NPC
01-16       1-4         01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit        Module      NPC
01-16       1-6         01-28
```

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SNVS	User macro/map space is full
SNVS	System macro/map space is full
SNVS	File is being accessed
SNVS	File already exists
SNVS	Some circuits not activated,cleared or pictured
SNVS	The reference map does not exist
SNVS	No user is logged in on the link/vc

ED,PRMTR,NE,ECLOC,MJU,SRM

CHANGE SUBRATE ERROR CORRECTION LOCATION

Input Message Format

[I.38261]

```
ED-PRMTR-NE:[<xy>]::[ww]:ECLOC:{MJU|SRM};
```

Completion Message

[O.38261]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:ECLOC:{MJU|SRM} COMPLD
   /* [O.38261] */
   "COND-éé"
;
```

Denial Message

[O.38261.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:ECLOC:{MJU|SRM} DENY
   mmmm
   /* [O.38261.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For Subrate, this command changes the error correction location to either the multipoint junction unit (MJU) or Subrate multiplexer unit (SRM) type of a Subrate pack. As a result of this command, all new error correction functions that require Subrate circuit pack resources will be allocated to the pack type specified for subsequent Subrate circuit provisioning commands (**SECH** and **CONN-CRS-TS**).

Explanation Of Parameters

ECLOC - Subrate error correction location

MJU - Multipoint junction unit

SRM - Subrate multiplexer unit

As a result of this command, all new error correction functions that require Subrate circuit pack resources will be allocated to the pack type specified for subsequent Subrate circuit provisioning commands (SECH, SCON, SCNT). Such error correction resources are allocated for channels requiring parity channel error correction and for circuits with subrate error correction that do not connect to a subrate multiplexer or an MJU. This command does not result in reallocation of any existing error correction resources to the new circuit pack type.

COND CC
- Conditional completion code

cc *Explanation*

mmmm - Error condition code

mmmm *Explanation*

ICNV current error corrector pack type specified in command

ED,PRMTR,NE,FRAME,CHAR

GROWTH FRAME

Input Message Format

[I.30101]

```
ED-PRMTR-NE:[<xy>]::[ww]:<uid>[,FRAME-fg]:[CHAR-m];
```

Completion Message

[O.30101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:<uid>[,FRAME-fg]:[CHAR-m] COMPLD
;
```

Denial Message

[O.30101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:<uid>[,FRAME-fg]:[CHAR-m] DENY
   mmmm
   /* [O.30101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command allows the optional frame identifier and unique frame identifier to be set.

Until this command is used, the frame identifier defaults to 00.

Note: If the frame identifier is protected (hard wired), it cannot be changed by this command.

The **CHAR** field determines the number of characters in the frame identifier (2 is the default).
For DACS II Capacity Expansion Frames (CEF), this command also results in the provisioning of virtual NPCs [9]961, [9]962, [9]963, [9]964, [9]965, and [9]966 (99101, 99102, 99103, 99104, 99105, and 99106 in the hierarchical NPC numbering format), default type VI100.

For Non-CEF frames, this command also results in the provisioning of virtual NPCs 961 and 962 (99101 and 99102 in the hierarchical NPC numbering format), default type VI100. This NPC type may be changed if necessary by the **ED-PRMTR-EQPT::NPC,TYPE** command (Message 38211).

Explanation Of Parameters

FRAME - Frame

fg - Frame identifier. (alphanumeric, 01 through ZZ).

The frame identifier is optional. If the disk-stored frame identifier is 00, then this command sets the frame identifier to fg. Until the ED PRMTR NE command is used, the frame identifier defaults to 00.

The frame identifier is used in input and output messages.

CHAR - Character

m - The number of characters in the frame identifier. (2 or 3).

The uid is required. It is also referred to as the target id (tid) when directing a command to a specific frame. It should not be confused with the frame identifier fg.

mmmm - Error condition code

mmmm	*Explanation*
SAPS	Frame ID is protected

ED,PRMTR,NE,HUBID,O

CHANGE HUB IDENTIFICATION

Input Message Format

[I.38251]

```
ED-PRMTR-NE:[<xy>]::[ww]:HUBID-O-ab;
```

Completion Message

[O.38251]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:HUBID-O-ab COMPLD
   /* [O.38251] */
   "COND-cc"
;
```

Denial Message

[O.38251.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR NE:::[ww]:HUBID-O-ab DENY
   mmmm
   /* [O.38251.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For Subrate, this command requests a change of the frame Hub Identification (**HUBID**) number. The **HUBID** must be set, using this change command before any TYPE MJ100 NPCs can be grown in the frame.

Explanation Of Parameters

HUBID - Hub identification

ab - Multipoint junction unit (MJU) hub identification code, octal (00 through 77) subrate MJU use this code in response to in-band test messages.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
37	SAOS	DSPI out-of-service
3E	SWFA	DSPI failed
9D	ICNV	current hub id specified in command

ED,PRMTR,T0,INCL,TERM,RLS,F,T

CHANGE CROSS-CONNECT TERMINATION STATUS

Input Message Format

Nonhierarchical

[I.17001]

```
ED-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv];
```

Hierarchical

[I.17001]

```
ED-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv];
```

Completion Message

Nonhierarchical

[O.17001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv] COMPLD
[  /* [O.17001] */]
[  "NEW-STATE-{TERMs|RNG}[,RDLD][,CUS"]
;
```

Note: On output, if the primary lines in the MML messages exceed 80-characters long, they will be split into two lines.

Hierarchical

[O.17001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv] COMPLD
[  /* [O.17001] */]
[  "NEW-STATE-{TERMs|RNG}[,RDLD][,CUS"]
;
```

Note: On output, if the primary lines in the MML messages exceed 80-characters long, they will be split into two lines.

Denial Message

Nonhierarchical

[O.17001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv] DENY
   mmmm
   /* [O.17001.01] */
   /* <explanation of error condition code> */
   /* <st> */
[  /* mmm,nnn */]
;
```

[O.17001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv] DENY
   mmmm
   /* [O.17001.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

[O.17001.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-[u]rst-vvv] DENY
   mmmm
   /* [O.17001.03] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.17001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv] DENY
   mmmm
   /* [O.17001.01] */
   /* <explanation of error condition code> */
   /* <st> */
[  /* mmm,nnn */]
;
```

[O.17001.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv] DENY
   mmmm
   /* [O.17001.02] */
   /* <explanation of error condition code> */
   /* <d>-<st> */
[  /* mmm,nnn */]
;
```

[O.17001.03]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]:[ww]:\
[INCL]:{TERM|RLS}{F|T|B|L|G|A}:[NOT-ed-h-fg-vvv] DENY
   mmmm
   /* [O.17001.03] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request a change in the termination status of the specified cross-connected circuit or range of circuits which were established by a two-point or multipoint terminated cross-connect command.

If successful, the requested change is echoed ([NOT [u]rst-vvv]{TLA|TLR} {F|T|B|L|G|A}), followed by the new termination state (NEW STATE) of the circuit. If the range option was

given, the new states of the circuits in the range may differ, noted by the RNG string.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

[u]rst
- The 3- or 4-digit nonhierarchical NPC number not affected by this message

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-002	161-162	321-322	481-482	641-642	801-802
021-022	181-182	341-342	501-502	661-662	821-822
041-042	201-202	361-362	521-522	681-682	841-842
061-062	221-222	381-382	541-542	701-702	861-862
081-082	241-242	401-402	561-562	721-722	881-882
101-102	261-262	421-422	581-582	741-742	901-902
121-122	281-282	441-442	601-602	761-762	921-922
141-142	301-302	461-462	621-622	781-782	941-942

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0642   0801-0802   0961-0962   1121-1122
0661-0662   0821-0822   0981-0982   1141-1142
0681-0682   0841-0842   1001-1002   1161-1161
0701-0702   0861-0862   1021-1022   1181-1182
0721-0722   0881-0882   1041-1042   1201-1202
0741-0742   0901-0902   1061-1062   1221-1222
0761-0762   0921-0922   1081-1082   1241-1242
0781-0782   0941-0942   1101-1102   1261-1262

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1282   1441-1442   1601-1602   1761-1762
1301-1302   1461-1462   1621-1622   1781-1782
1321-1322   1481-1482   1641-1642   1801-1802
1341-1342   1501-1502   1661-1662   1821-1822
1361-1362   1521-1522   1681-1682   1841-1842
1381-1382   1541-1542   1701-1702   1861-1862
1401-1402   1561-1562   1721-1722   1881-1882
1421-1422   1581-1582   1741-1742   1901-1902
```

```
Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-1922     2081-2082     2241-2242     2401-2402
1941-1942     2101-2102     2261-2262     2421-2422
1961-1962     2121-2122     2281-2282     2441-2442
1981-1982     2141-2142     2301-2302     2461-2462
2001-2002     2161-2162     2321-2322     2481-2482
2021-2022     2181-2182     2341-2342     2501-2502
2041-2042     2201-2202     2361-2362     2521-2522
2061-2062     2221-2222     2381-2382     2541-2542
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

ed-f-hg
- Hierarchical NPC number not affected by this message

uv,wx,ed
- Unit number

m,k,f
- Module number

np,qr,hg
- NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

```
MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd - FROM channel number
jjj - TO channel number
eee - FROM channel number denoting the end of the range
kkk - TO channel number denoting the end of range
vvv - Channel number not affected by this command.

The valid channel numbers are:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

TERM - Terminate

s - Direction of transmission to be terminated

RLS - Release

s	Explanation
A	Towards the facilities and the bridge (multipoint only)
B	Towards both terminations
F	Towards the FROM termination
G	Towards the bridge (multipoint connection only)
L	Towards the facilities (multipoint connection only)
T	Towards the TO termination

INCL - Inclusive

To change the parameters on a channel or range of channels including one or more channels marked as a Red Circuit, use the INCL keyword. If this option is not used, the command will be denied if one or more of the cross-connected circuits in the range are marked as Red Circuits.

NOT - Not

The NPC is not affected by this command

mmm,nnn

- Channel number involved in the denial. Otherwise, the same as ddd.

RNG - Range

RDLD - Red lined

The disconnection was performed on a red lined circuit. If the disconnection was given for a range, then at least one of the circuits involved was a red lined circuit. This keyword will appear if the INCL keyword was given on input.

CUS - Customer

Indicates the circuit changed was a customer controlled circuit.

d - Direction

d	*Direction*
F	FROM
T	TO
B	BOTH

st - Status

mmmm - Error condition code

mmmm	**st**	*Explanation*
IDRG	INERR	Invalid range for specified FROM NPC type
IDRG	INERR	Invalid range for specified TO NPC type
SWFA	MCOND	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	MCOND	DSPI not equipped, not in service, or failed
SNVS	CONFERR	The NPC of VC BBL leg doesn't match that in the input command
SNVS	CONFERR	The first channel of VC BBL leg doesn't match that in the input command
SNVS	CONFERR	The input BRD leg is not in VC
SNVS	CONFERR	The first channel of VC BRD leg doesn't match that in the input command
IIDT	CHGIE	Invalid change parameter combinations
IIDT	INERR	Illegal BBL BBL combination
IIDT	INERR	Illegal BRD BRD combination
IIDT	INERR	Illegal SYM BRD combination
IIDT	INERR	Illegal BRD SYM combination
IIDT	INERR	Illegal BBL SYM combination
IIDT	INERR	Illegal SYM BBL combination
SNVS	INERR	Cannot perform DMB CHG on input direction F
SNVS	INERR	Cannot perform DMB CHG on input direction T
SNVS	INERR	Cannot perform DMB CHG on input direction B
SNVS	INERR	Cannot perform DMB CHG on input direction L
SNVS	INERR	Cannot perform DMB CHG on input direction G
SNVS	INERR	Cannot perform DMB CHG on input direction A
SNVS	CHGIE	Can't perform DMB CHG because NTR flag set on FROM side

mmmm	st	*Explanation*
SNVS	CHGIE	Can't perform DMB CHG because NTR flag set on TO side
SNVS	INERR	Option NOT leg can not appear with F, T, or B
SNVS	INERR	Option NOT leg is not a FTU leg
SNVS	INERR	Option NOT leg is not in conference
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
ENRE	SCERR	FROM NPC is not provisioned as DGA
ENRE	SCERR	TO NPC is not provisioned as DGA
ENRE	SCERR	Corresponding NPC for FROM virtual channel is not provisioned
ENRE	SCERR	Corresponding NPC for TO virtual channel is not provisioned
IDNV	INERR	Invalid FROM channel number
IDNV	INERR	Invalid TO channel number
IDRG	INERR	Invalid FROM channel number range
IDRG	INERR	Invalid TO channel number range
SNVS	INERR	A loopback is active on the FROM termination
SNVS	INERR	A loopback is active on the TO termination
IDNV	INERR	Unmatched channel range
IDNV	SCERR	Unmatched channel range involving SLC Mode III termination
IDNV	SCERR	RT-DCLU cross-connect with different ids
IDNV	SCERR	RT-DCLU cross-connect with different channel number
IDNV	SCERR	Cross-connect a non Mode I channel to DCLU
IDNV	SCERR	Cross-connect a non SLC channel to DCLU
IDNV	INERR	Invalid channel 000 cross-connection specified
IDNV	INERR	Invalid channel 031 cross-connection specified
SAAS	ROLL	Termination is in process of being rolled
ENEQ	MCOND	ETSI not equipped, not in service, or failed

st	d	*Explanation*
CUS	{FITIB}	Customer-controlled Circuit
FAIL	{FITIB}	Failed
NOMTH	{FITIB}	No Match
OOS	{FITIB}	Out-of-service
RDLD	{FITIB}	Red Lined
ROLL	{FITIB}	Circuit is involved in a roll
TP	{FITIB}	NPC is used for test access
UNPASGN	{FITIB}	Unassigned or Not Properly Assigned
UEQD	{FITIB}	Unequipped
UTST	{FITIB}	Under Test

ED,PRMTR,T0,INCL,TLP,NG,ES

CHANGE CIRCUIT PARAMETERS

Input Message Format

Nonhierarchical

[I.17002]

```
ED-PRMTR-T0:[<xy>]:[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee];
```

Hierarchical

[I.17002]

```
ED-PRMTR-T0:[<xy>]:uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee];
```

Completion Message

Nonhierarchical

[O.17002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd,[t]ghi-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee] COMPLD
[  /* [O.17002] */]
[  "[RDLD][,CUS]"]
[  "NEW-STATE-spp-sqq,NG-ff,ES-hh"]
;
```

Hierarchical

[O.17002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee] COMPLD
[  /* [O.17002] */]
[  "[RDLD][,CUS]"]
[  "NEW-STATE-spp-sqq,NG-ff,ES-hh"]
;
```

Denial Message

Nonhierarchical

[O.17002.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::[s]abc-ddd,[s]ghi-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee] DENY
   mmmm
   /* [O.17002.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.17002.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T0::uv-m-np-ddd,wx-k-qr-jjj:[ww]:[INCL]\
:[TLP-snn-smm,NG-nn,ES-ee] DENY
   mmmm
   /* [O.17002.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests DACS II to change the parameters of a multipoint circuit leg. Termination [s]abcddd must be either a termination on an FTU (facility terminating unit), DS3U or DSPU (digital signal processing unit) NPC. Termination [t]ghijjj must be a

termination on a DSPU NPC.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-002 161-162 321-322 481-482 641-642 801-802
021-022 181-182 341-342 501-502 661-662 821-822
041-042 201-202 361-362 521-522 681-682 841-842
061-062 221-222 381-382 541-542 701-702 861-862
081-082 241-242 401-402 561-562 721-722 881-882
101-102 261-262 421-422 581-582 741-742 901-902
121-122 281-282 441-442 601-602 761-762 921-922
141-142 301-302 461-462 621-622 781-782 941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0642   0801-0802   0961-0962   1121-1122
0661-0662   0821-0822   0981-0982   1141-1142
0681-0682   0841-0842   1001-1002   1161-1161
0701-0702   0861-0862   1021-1022   1181-1182
0721-0722   0881-0882   1041-1042   1201-1202
0741-0742   0901-0902   1061-1062   1221-1222
0761-0762   0921-0922   1081-1082   1241-1242
0781-0782   0941-0942   1101-1102   1261-1262

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1282   1441-1442   1601-1602   1761-1762
1301-1302   1461-1462   1621-1622   1781-1782
1321-1322   1481-1482   1641-1642   1801-1802
1341-1342   1501-1502   1661-1662   1821-1822
1361-1362   1521-1522   1681-1682   1841-1842
1381-1382   1541-1542   1701-1702   1861-1862
1401-1402   1561-1562   1721-1722   1881-1882
1421-1422   1581-1582   1741-1742   1901-1902
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-1922   2081-2082   2241-2242   2401-2402
1941-1942   2101-2102   2261-2262   2421-2422
1961-1962   2121-2122   2281-2282   2441-2442
1981-1982   2141-2142   2301-2302   2461-2462
2001-2002   2161-2162   2321-2322   2481-2482
2021-2022   2181-2182   2341-2342   2501-2502
2041-2042   2201-2202   2361-2362   2521-2522
2061-2062   2221-2222   2381-2382   2541-2542
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical FROM NPC number

wx-k-qr
- Hierarchical TO NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01-02

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit        Module     NPC
01-16       1-6        01-28
```

ddd - FROM channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

jjj - TO channel number

001-085 (MB NPC)

TLP - Transmission level point

Specify the incoming and outgoing gain adjustments relative to the TO multipoint circuit by using the TLP (snn,smm) field. Gain adjustment snn is applied as the signal enters the bridge, while smm is applied as the signal leaves.

snn - Incoming gain adjust parameter
smm - Outgoing gain adjust parameter

s - Sign (+ or -)
nn - Incoming gain adjust value (-90 through +88)
mm - Outgoing gain adjust value (-90 through +88)

These are the parameters requested for the TO termination. Values are given in steps of two and the units are tenths of a db.

Certain situations require replacement of the gain adjust parameter values with "---". In general "---" is used for either snn or smm (but not both) when no change is to be made to that parameter. This feature allows changing only one of the two parameters if desired. Also, if the cross-connection was provisioned with the NTR (no transmit) option, the gain adjustment in the direction for which transmission is shut off MUST be ---. See the table below to see what situations require "---".

FROM	*TO*	*snn*	*smm*
BRD	BBL	---	smm
BBL	BRD	snn	---
LEG	BBL	---	smm
LEG	BRD	snn	---
LEG	SYM	snn	smm
BBL	LEG	Invalid combination	
BBL	SYM	Invalid combination	
BRD	LEG	Invalid combination	
BRD	SYM	Invalid combination	

NG - Noise guard

nn - Requested NG level setting (00, 06, 12, or 18) db

To specify the noise guard level setting, use NG nn. The following default values apply:

For Symmetrical bridges Default: NG = -18 db
For Polling circuits Default: NG = 0 db

ES - Echo suppression

ee - Requested ES level setting (00, 06, 12, or 18) db

To specify the echo suppression level setting, use ES ee. The following default values apply:

For Symmetrical bridges Default: ES = -18 db
For Polling circuits Default: ES = 0 db

At least one of the three parameters (TLP, NG, ES) must be specified.

Since a BBL (backbone leg) has no input to the bridge and the bridge has no output to a BRD (broadcast) leg, transmission values in these directions cannot be changed.

INCL - Inclusive

To change the parameters on a channel or range of channels including one or more channels marked as a red circuit, use the INCL option. If this option is not used, the command will be denied if the cross-connect circuit is marked as such.

spp,sqq
- New gain setting. Otherwise, the same as snn and smm.

ff - New noise guard setting. Otherwise, the same as nn.

hh - New echo suppression setting. Otherwise, the same as ee.

RDLD - Red lined

These keywords indicate the connection is marked as a red circuit.

CUS - Customer

The connection is a Customer-controlled Circuit.

mmmm - Error condition code

mmmm	*Explanation*
IIDT	No RDLD or CUS circuits and INCL keyword used
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	DSPI not equipped, not in service, or failed
IIDT	Illegal LEG LEG combination
IIDT	Illegal BBL BBL combination
IIDT	Illegal BRD BRD combination
IIDT	Illegal SYM BRD combination

mmmm	*Explanation*
IIDT	Illegal BRD SYM combination
IIDT	Illegal BBL SYM combination
IIDT	Illegal SYM BBL combination
SNVS	Delete or change a leg from a conference that has no leg
IIDT	Transmission parameters in command will not change existing settings
SNVS	Trying to change level out on BRD leg
SNVS	Trying to change level in on BBL leg
IIDT	TO side is not a DMB type NPC
IDNV	A subrate circuit pack is specified in the command line
IDNV	CPR circuit pack specified in the command
ENRE	FROM NPC is not provisioned as DGA
ENRE	Corresponding NPC for FROM virtual channel is not provisioned
IDNV	Invalid FROM channel number
SNVS	Trying to change in NTR direction

ED,PRMTR,T1,INCL,TERM,RLS,F,T

CHANGE CIRCUIT PARAMETERS

Input Message Format

Nonhierarchical

[I.17011]

```
ED-PRMTR-T1:[<xy>]:[s]abc,[t]ghi:[ww]:[INCL]:{TERM|RLS}\
{F|T|B|A}:[NOT-[u]rst];
```

Hierarchical

[I.17011]

```
ED-PRMTR-T1:[<xy>]:uv-m-np,wx-k-qr:[ww]:[INCL]:{TERM|RLS}\
{F|T|B|A}:[NOT-ed-h-fg];
```

Completion Message

Nonhierarchical

[O.17011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::[s]abc,[t]ghi:[ww]:[INCL]:{TERM|RLS}{F|T|B|A}\
:[NOT-[u]rst] COMPLD
[  / * [O.17011] */]
[  "[RDLD][,CUS]"]
;
```

Hierarchical

[O.17011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::uv-m-np,wx-k-qr:[ww]:[INCL]:\
{TERM|RLS}{F|T|B|A}:[NOT-ed-h-fg] COMPLD
[  / * [O.17011] */ ]
[  "[RDLD][,CUS]"]
;
```

Denial Message

Nonhierarchical

[O.17011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::[s]abc,[t]ghi:[ww]:[INCL]:{TERM|RLS}{F|T|B|A}\
:[NOT-[u]rst] DENY
   mmmm
   /* [O.17011.01] */
   /* <explanation of error condition code> */
;
```

[O.17011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::[s]abc,[t]ghi:[ww]:[INCL]:{TERM|RLS}{F|T|B|A}\
:[NOT-[u]rst] DENY
   mmmm
   /* [O.17011.02] */
   /* <explanation of error condition code> */
[  /* <d>-<st> */]
;
```

Hierarchical

[O.17011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::uv-m-np,wx-k-qr:[ww]:[INCL]:{TERM|RLS}{F|T|B|A}\
:[NOT-ed-h-fg] DENY
   mmmm
   /* [O.17011.01] */
   /* <explanation of error condition code> */
;
```

[O.17011.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T1::uv-m-np,wx-k-qr:[ww]:[INCL]:{TERM|RLS}{F|T|B|A}\
:[NOT-ed-h-fg] DENY
   mmmm
   /* [O.17011.02] */
   /* <explanation of error condition code> */
[  /* <d>-<st> */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message changes the termination state of a cross-connected non-channelized network processing circuit. This command can affect either a two-way, a one-way or a broadcast non-channelized digital signal cross-connection. This command has the ability to change the termination states of all of the legs of a broadcast circuit. However, an option is provided to exclude one of the legs from being changed. The idle code for non-channelized digital signal cross-connections is the alarm indication signal which is transmitted over a terminated connection.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical non-channelized FROM NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical non-channelized TO NPC number

[u]rst
- The 3- or 4-digit nonhierarchical non-channelized NPC number that is not affected by this command.

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of non-channelized FROM NPC

wx-k-qr
- Hierarchical number of non-channelized TO NPC

ed-h-fg
- Hierarchical number of a leg of a non-channelized digital signal broadcast circuit that is not affected by this command.

uv,wk,ed
- Unit number

m,x,h
- Module number

np,qr,fg
- NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive
Inclusive keyword, required if one or more circuits are marked Customer-controlled (CUS) or Red (RDC)

TERM - Terminate
RLS - Release

The direction in which TERM or RLS is to be applied is specified by the use of F, T, B, A, and NOT as defined below:

F - Towards the FROM NPC
T - Towards the TO NPC
B - In both directions
A - All directions of a broadcast circuit
NOT - In conjunction with the A options, all directions of a broadcast circuit except the one specified

RDLD - Red lined

NPC is a red lined circuit

CUS - Customer

NPC is a Customer-controlled Circuit

d - direction

d	Explanation
F	From
T	To
B	Both
A	All

st - Status of denial
mmmm - Error condition code

mmmm	**st**	*Explanation*
ENEQ	MCOND	NPC is unequipped
IDRG	INERR	Invalid range for specified NPC type
IIDT	MCOND	No RDLD or CUS circuits and INCL keyword used
SAOS	MCOND	NPC out of service or failed
ENEQ	MCOND	UNIT not equipped, not in service, or failed
ENEQ	MCOND	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	MCOND	FTMI not equipped, not in service, or failed
ENEQ	MCOND	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	MCOND	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SNVS	MCOND	Termination is under test
SNVS	MCOND	Termination is under customer control (CUS)
SNVS	MCOND	Termination is protected (RDLD)
SNVS	BCAST	FROM is not a backbone leg
SNVS	BCAST	TO is not a leg of this/any conference
SNVS	BCAST	TO is the backbone leg of a conference
SNVS	BCAST	Conference is NTR: has no switchable return leg
IIDT	CHGIE	Invalid change parameter combinations
SNVS	BCAST	Option NOT leg can not appear with F, T, or B
SNVS	BCAST	Option NOT leg is not in conference
ENEQ	MCOND	Required FLI not equipped, not in service, or failed
ENEQ	MCOND	Required MXR not equipped, not in service, or failed
ENEQ	MCOND	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	MCOND	Required MIU not equipped, not in service, or failed
SAAS	ROLL	Termination is in process of being rolled

st	d	*Explanation*
CUS	{F|T|B|A}	Customer-controlled Circuit
FAIL	{F|T|B|A}	Failed
NOMTH	{F|T|B|A}	No match of NPCs
OOS	{F|T|B|A}	Out-of-service
RDLD	{F|T|B|A}	Red Lined
ROLL	{F|T|B}	Circuit is involved in a roll
UNPASGN	{F|T|B|A}	Unassigned or Not Properly Assigned
UEQD	{F|T|B|A}	Unequipped
UTST	{F|T|B|A}	Under Test

ED,PRMTR,T3,UNIT,DS3,BERM,BERT

CHANGE DS3 PARAMETERS

Input Message Format

[I.38601]

```
ED-PRMTR-T3:[<xy>]:UNIT-[q]q:[ww]:DS3-c[&&-d]:[BERM-s]\
[,BERT-t][,LBO-<b>][,TYPE-mnxyz];
```

Completion Message

[O.38601]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T3::UNIT-[q]q:[ww]:DS3-c[&&-d]:[BERM-s]\
[,BERT-t][,LBO-<b>][,TYPE-mnxyz] COMPLD
   /* [O.38601] */
   "PRMTR:TYPE-mnxyz,BERM-s,BERT-t,LBO-<b>"
   "OLD:TYPE-mnxyz,BERM-s,BERT-t,LBO-<b>"
   /* DS3 Number */
   "a"
;
```

Denial Message

[O.38601.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR T3::UNIT-[q]q:[ww]:DS3-c[&&-d]:[BERM-s]\
[,BERT-t][,LBO-<b>][,TYPE-mnxyz] DENY
   mmmm
   /* [O.38601.01] */
   /* <explanation of error condition code> */
   /* DS3 Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For one or more DS3 facilities, this command requests and reports a change in any of the following parameters:

BERM	Bit error rate calculation method
BERT	Bit error rate threshold for declaring high BER condition.
LBO	The line build-out setting
TYPE	The DS3 facility type and framing format

At least one of the optional parameters must be supplied.

One output message will be generated for each DS3 termination.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

DS3 - Digital signal 3 (44.736 Mb/s rate)

c - DS3 facility number within the unit (1 through 6)

d - DS3 facility number within the unit (1 through 6)

Variable d is used to specify a range of facilities

a - DS3 number within the range of c and d

BERM - Bit error rate calculation method

s - BERM specification

s	*Explanation*
B	Bipolar violations
P	DS3 parity errors

BERT - Bit error rate threshold

For declaring high BER condition

t - BERT specification

t	*Explanation*
3	Corresponds to threshold of 10^{-3}
6	Corresponds to threshold of 10^{-6}

LBO - Line buildout

b - LBO specification

b	*Explanation*
ON	Line build-out is turned on
OFF	Line build-out is turned off

LBO is required as shown in the following table.

734A Cabling to DSX-3	KS-19224,L2 Cabling to DSX-3	LBO
0 to 225 feet	0 to 75 feet	ON
225 to 450 feet	75 to 150 feet	OFF

Note: LBO <b> may be used to change the LBO setting of an in-service, traffic-carrying Multiplexer-Multiplexer Interface Unit (MMFG).

TYPE - Type

mnxyz - The requested DS3 format that will be processed by the MXR

mn - DS3 facility type

mn	*Explanation*
MX	The original Release 4.0 DS3 facility type supported by the Multiplexer (MXR) circuit pack
EX	The enhanced Release 6.0 DS3 facility type supported by the Enhanced Multiplexer (EMXR) circuit pack
	Default is the MX type for backward compatibility

x - DS3 framing format

x	*Format*
1	M13 format.(default)
2	C-bit parity format

y - Not assigned (the only valid value is 0)
z - Not assigned (the only valid value is 0)

mnxyz - old DS3 facility type and DS3 format

s - old BER calculation method

t - old BER threshold

<b> - old Line Build Out

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	Unit type error
IIDT	Invalid change parameter combinations
ENEQ	The MXR is not grown
SROF	MXR is failed
IDNV	Invalid MXR type specified
ENEQ	The pair MXR is not equipped

SAIS The MXR is in service

ED,PRMTR,TS,MJU,TERM,RLS

CHANGE TERMINATE AND LEAVE

Input Message Format

Nonhierarchical

[I.19561]

```
ED-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m;
```

Hierarchical

[I.19561]

```
ED-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m;
```

Completion Message

Nonhierarchical

[O.19561]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m COMPLD
   /* [O.19561] */
   /* NEW STATE */
   "TERMs"
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19561]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m COMPLD
   /* [O.19561] */
   /* NEW STATE */
   "TERMs"
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional TO customer number information in lines 6 and 7 appears only if the customer number is not specified in the input command.

Denial Message

Nonhierarchical

[O.19561.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::[s]abc-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}m DENY
   nnnnn
   /* [O.19561.01] */
   /* <explanation of error condition code> */
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19561.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::uv-m-np-ddd[-ff]:[ww]:MJU-ssss:[BRi]:\
{TERM|RLS}n DENY
   mmmm
   /* [O.19561.01] */
   /* <explanation of error condition code> */
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional TO customer number information in lines 6 and 7 of the MML messages appears only if the ff field is not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command changes the terminate and leave state of the master leg or branch associated with a subrate multipoint circuit. This command defines the termination point in terms of a master leg external facility termination, MJU number, and optional branch number. If the termination point specified is under test or is not cross-connected, the command will be denied.

The specified facility termination must be the external facility termination for the master leg of a multipoint circuit. Note that this is *not* the facility defined as the TO side of the circuit. The TO side is always facing towards an MJU defined by ssss.

If MJU 0001 is specified, the TO side faces towards the control leg of MJU 1 and the FROM side faces towards the master leg external facility termination. If an MJU number other than 0001 is specified and the optional BR field is absent, the TO side faces towards the control leg of the specified MJU, and the FROM side faces upstream towards the branch of a cascaded MJU. If the BR field is specified, the TO side faces upstream towards the branch of MJU ssss and the FROM side faces downstream either towards another MJU or towards an external facility termination. The unassigned multiplexer channel (UMC) code is inserted towards the direction that is terminated.

If the termination point specified is under test or is not cross-connected, the command will be denied. The termination state resulting from the command depends on the state prior to the command as indicated by the following table:

PRIOR STATE	REQUESTED CHANGE	NEW STATE	PRIOR STATE	REQUESTED CHANGE	NEW STATE
R	TLA F	F	R	TLR F	DNY
R	TLA T	T	R	TLR T	DNY
R	TLA B	B	R	TLR B	DNY
F	TLA F	DNY	F	TLR F	R
F	TLA T	B	F	TLR T	DNY
F	TLA B	B	F	TLR B	R
B	TLA F	DNY	B	TLR F	T
B	TLA T	DNY	B	TLR T	F
B	TLA B	DNY	B	TLR B	R
T	TLA T	DNY	T	T	R
T	F	B	T	F	DNY
T	B	B	T	B	R

The customer number (ff) is optional when the master leg customer is in a DS0A channel. This is because there is only one customer in a DS0A channel. If specified for this type of channel, it must appear as 01. If the specified facility is a DS0B, a customer number must

appear.

Explanation Of Parameters

NEW - New

STATE - State

NEW STATE indicates the new termination state of the circuit as a result of the command. The circuit can be left terminated in either or both directions, or left in the released state.

TERM - Terminate
RLS - Release

The TERM or RLS keywords specify that the circuit is to be terminated or released, respectively, in the direction indicated by m.

m - Circuit direction

m specifies the circuit direction affected by the change.

m	*Explanation*
F	Terminate or release the FROM side
T	Terminate or release the TO side
B	Terminate or release BOTH sides

TO - To

MPTM - Multipoint mode

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of the master leg.

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160 016A-016H	0161-0320 032A-032H	0321-0480 048A-048H	0481-0640 064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800 080A-080H	0801-0960 096A-096H	0961-1120 112A-112H	1121-1280 128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440 144A-144H	1441-1600 160A-160H	1601-1760 176A-176H	1761-1920 192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080 208A-208H	2081-2240 224A-224H	2241-2400 240A-240H	2401-2560 256A-256H

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number

The valid values are listed below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number

The valid values are listed below:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

MJU - Multipoint junction unit

ssss - MJU identifier addressed by this command (0001-9999)

BR - Branch

i - Branch number of MJU ssss addressed by this command (1-4)

s - Resulting termination state of the circuit:

s	*Explanation*
R	Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

reason 1
- Coded reason for denial

reason 2
- Explanation of reason 1

Input Errors

reason 1	*reason 2*	
CH NOT EST		THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
CN RATE		CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
CN RATE		CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
INERR		CHANNEL [s]abcddd IS NOT A MULTIPOINT MASTER LEG
INERR		THE SPECIFIED NPC [s]abc IS NOT FACILITY TERMINATING
INERR		NPC xxx IS NOT PROVISIONED AS DIGROUP-A OF AN RT
INERR		TLA CANNOT BE SPECIFIED FOR A LOOPED ACCESS POINT
INERR		MJU ssss DOES NOT EXIST IN THE CIRCUIT
MPTM		CUSTOMER IS NOT SPECIFIED FOR THE DS-0B CHANNEL
NTLR		THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE
PCH		THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
PTLA		THE SPECIFIED ACCESS POINT IS ALREADY IN TLA MODE
NTLA		THE SPECIFIED ACCESS POINT IS ALREADY IN TLR MODE
UASGN		TLA CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
UASGN		TLR CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
UTST		THE SPECIFIED ACCESS POINT IS UNDER TEST
RNGIE		CHANNEL NUMBER ddd OUT OF RANGE FOR NPC [s]abc

Maintenance Conditions

reason 1	*reason 2*
F UEQD	THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
F OOS	THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
F FAIL	THE FROM SIDE NPC [s]abc IS FAILED
MCOND	BOTH CCN SIDES ARE OUT-OF-SERVICE
MCOND	ACTIVE CCN SIDE s IS OUT-OF-SERVICE
MCOND	ACTIVE CCN SIDE s IS FAILED
MCOND	ACTIVE CCN SIDE s IS PESTED
MCOND	NO DSPU IS EQUIPPED
MCOND	NO SRM OR MJU TYPE NPC IS EQUIPPED
MCOND	INACTIVE CCN SIDE IN-SERVICE AND NPC [s]abc ON INACTIVE SIDE IS OOS
MCOND	CCNI s IS OUT-OF-SERVICE
MCOND	CCNI s IS FAILED
MCOND	TSI sft IS NOT EQUIPPED
MCOND	TSI sft IS OUT-OF-SERVICE
MCOND	TSI sft IS FAILED
MCOND	CCB sf IS NOT EQUIPPED
MCOND	CCB sf IS OUT-OF-SERVICE
MCOND	CCB sf IS FAILED
MCOND	CCI s IS OUT-OF-SERVICE
MCOND	CCI s IS FAILED
MCOND	ETSI sqq IS NOT EQUIPPED
MCOND	ETSI sqq IS OUT-OF-SERVICE
MCOND	ETSI sqq IS FAILED
MCOND	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
MCOND	UNIT [q]q IS NOT EQUIPPED
MCOND	UNIT [q]q IS OUT-OF-SERVICE
MCOND	UNIT [q]q IS FAILED
MCOND	UNIT [q]q FTMI d IS NOT EQUIPPED
MCOND	UNIT [q]q FTMI d IS OUT-OF-SERVICE
MCOND	UNIT [q]q FTMI d IS FAILED
MCOND	UNIT [q]q FC sb IS NOT EQUIPPED
MCOND	UNIT [q]q FC sb IS OUT-OF-SERVICE
MCOND	UNIT [q]q FC sb IS FAILED
MCOND	DSPI IN UNIT [q]q IS OUT-OF-SERVICE
MCOND	DSPI IN UNIT [q]q IS FAILED
MCOND	NPC [s]abc SIDE s IS OUT-OF-SERVICE
MCOND	NPC [s]abc SIDE s IS FAILED
T UEQD	THE TO SIDE NPC [s]abc IS NOT EQUIPPED
T OOS	THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
T FAIL	THE TO SIDE NPC [s]abc IS FAILED
NA	REQUIRED DACS UNIT COULD NOT BE ACCESSED

mmmm Explanation
Reason

ENEQ Equipage, not equipped

UNIT [q]q MXR c NOT EQUIPPED

SNIS Status, not in-service

UNIT [q]q FLI k IS OUT-OF-SERVICE
UNIT q[q] FMT s IS OUT-OF-SERVICE
UNIT q[q] MXR c IS OUT-OF-SERVICE
UNIT q[q] MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed

UNIT [q]q FLI k IS FAILED
UNIT [q]q FMT s IS FAILED
UNIT [q]q MXR c IS FAILED
UNIT [q]q MIU c IS FAILED

ED,PRMTR,TS,TERM,RLS

CHANGE SUBRATE TERMINATE AND LEAVE

Input Message Format

Nonhierarchical

[I.19551]

```
ED-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:{TERM|RLS}m;
```

Hierarchical

[I.19551]

```
ED-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:{TERM|RLS}m;
```

Completion Message

Nonhierarchical

[O.19551]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::[s]abc-ddd[-ff]:[ww]:{TERM|RLS}m COMPLD
   /* [O.19551] */
   /* NEW STATE */
   "TERMs"
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19551]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::uv-m-np-ddd[-ff]:[ww]:{TERM|RLS}m COMPLD
   /* [O.19551] */
   /* NEW STATE */
   "TERMs"
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional TO customer number information in lines 6 and 7 of the MML messages above only appears if the ff field is not specified in the input command.

Denial Message

Nonhierarchical

[O.19551.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::[s]abc-ddd[-ff]:[ww]:{TERM|RLS}m DENY
   mmmm
   /* [O.19551.01] */
   /* <explanation of error condition code> */
[  /* TO customer number */]
[  "01"]
;
```

Hierarchical

[O.19551.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ED PRMTR TS::uv-m-np-ddd[-ff]:[ww]:{TERM|RLS}m DENY
   mmmm
   /* [O.19551.01] */
   /* <explanation of error condition code> */
[  /* TO customer number */]
[  "01"]
;
```

Note: The optional TO customer number information in lines 6 and 7 of the MML messages above only appears if the ff field is not specified in the input command.

Autonomous Message

Not applicable.

Explanation Of Message

This command changes the terminate and leave state of the cross-connection associated with a subrate two-point or multipoint circuit. This command defines the termination point in terms of an external facility termination (that is, a digroup, channel, and customer number). If the termination point specified is under test or is not cross-connected, the command will be denied.

Explanation Of Parameters

TERM - Terminate and leave activate

RLS - Terminate and leave release

The requested termination state change is indicated by the TERM or RLS where TERM activates and RLS releases the terminate and leave state. The unassigned multiplex channel (UMC) codes is inserted towards the direction that is terminated.

m - Circuit direction

m	*Explanation*
F	FROM. Terminate or release the FROM side
T	TO. Terminate or release the TO side
B	BOTH. Terminate or release BOTH sides

The TO direction is defined as facing towards the external facility termination indicated by the NPC, channel, and customer number. (The TO and FROM directions are the same sides that are connected to the even and odd test port channels, respectively, in the corresponding STST test access command.)

If the termination point specified is under test or is not cross-connected, the command will be denied. The termination state resulting from the command depends on the state prior to the command as indicated by the following table:

PRIOR STATE	REQUESTED CHANGE	NEW STATE	PRIOR STATE	REQUESTED CHANGE	NEW STATE
R	TLA F	F	R	TLR F	DNY
R	TLA T	T	R	TLR T	DNY
R	TLA B	B	R	TLR B	DNY
F	TLA F	DNY	F	TLR F	R
F	TLA T	B	F	TLR T	DNY
F	TLA B	B	F	TLR B	R
B	TLA F	DNY	B	TLR F	T
B	TLA T	DNY	B	TLR T	F
B	TLA B	DNY	B	TLR B	R
T	TLA T	DNY	T	T	R
T	F	B	T	F	DNY
T	B	B	T	B	R

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of TO external facility termination

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

The external facility termination given by the NPC, channel, and customer number can be one end of a two-point circuit, or the master leg or branch of a multipoint circuit.

The customer number (ff) is optional when the customer is in a DS0A channel.

This is because there is only one customer in a DS0A channel. If ff is specified for this type of channel, it must appear as 01.

If the specified facility is a DS0B, a customer number must appear. The CHG command cannot be used to change the

terminate and leave status of the entire DS0B channel (i.e., all customers

within the DS0B at once). Also, the CHG command cannot be used to change the terminate and leave status of an external facility termination that is looped on itself.

NEW STATE indicates the new termination state of the circuit as a result of the command. The circuit can be left terminated in either or both directions, or left in the released state.

s - Resulting termination state of the circuit:

s	*Explanation*
R	Neither side is terminated
F	FROM side is terminated
T	TO side is terminated
B	BOTH sides are terminated

reason 1
- Coded reason for denial

reason 2
- Explanation of reason 1

Reason 1 summarizes the denial reason with a single keyword while reason 2 gives a more detailed explanation.

mmmm reason1	*Explanation reason2*
ENEQ	Equipage, not equipped
F UEQD	THE FROM SIDE NPC [s]abc IS NOT EQUIPPED
T UEQD	THE TO SIDE NPC [s]abc IS NOT EQUIPPED
MCOND	TSI sft IS NOT EQUIPPED
MCOND	CCB sf IS NOT EQUIPPED
MCOND	ETSI sqq IS NOT EQUIPPED
MCOND	UNIT [q]q IS NOT EQUIPPED
MCOND	UNIT [q]q FTMI d IS NOT EQUIPPED
MCOND	UNIT [q]q FC sb IS NOT EQUIPPED
MCOND	NPC [s]abc IS NOT EQUIPPED
MCOND	UNIT [q]q MXR c NOT EQUIPPED
MCOND	NO DSPU IS EQUIPPED
MCOND	NO SRM OR MJU TYPE NPC IS EQUIPPED
IDRG	Input, data out of range
RNGIE	CHANNEL NUMBER ddd IS OUT OF RANGE FOR NPC [s]abc
CN RATE	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B CHANNEL [s]abcddd
CN RATE	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A CHANNEL [s]abcddd
IDNV	Input, data not valid
PCH	THE SPECIFIED ACCESS POINT IS A PARITY CHANNEL
INERR	THE TO SIDE NPC [s]abc IS NOT FACILITY TERMINATING TYPE
MCOND	UNIT [q]q IS NOT FACILITY TERMINATING TYPE
INERR	TLA CANNOT BE SPECIFIED FOR A LOOPED CHANNEL
INERR	TLA CANNOT BE SPECIFIED FOR DS0B CHANNEL
UASGN	TLA CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
UASGN	TLR CANNOT BE SPECIFIED FOR AN UNMAPPED CIRCUIT
NA	REQUIRED DACS UNIT COULD NOT BE ACCESSED
SNIS	Status, not in service
MCOND	BOTH CCN SIDES ARE OUT-OF-SERVICE
MCOND	ACTIVE CCN SIDE s IS OUT-OF -SERVICE
F OOS	THE FROM SIDE NPC [s]abc IS OUT-OF-SERVICE
T OOS	THE TO SIDE NPC [s]abc IS OUT-OF-SERVICE
MCOND	CCNI s IS OUT-OF-SERVICE
MCOND	TSI sft IS OUT-OF-SERVICE

MCOND CCB sf IS OUT-OF-SERVICE
MCOND CCI s IS OUT-OF-SERVICE
MCOND ETSI sqq IS OUT-OF-SERVICE
MCOND UNIT [q]q IS OUT-OF-SERVICE
MCOND UNIT [q]q FTMI d IS OUT-OF-SERVICE
MCOND UNIT [q]q FC sb IS OUT-OF-SERVICE

MCOND DSPI IN UNIT [q]q IS OUT-OF-SERVICE
MCOND NPC [s]abc SIDE s IS OUT-OF-SERVICE
MCOND UNIT [q]q FLI k IS OUT-OF-SERVICE
MCOND UNIT [q]q FMT s IS OUT-OF-SERVICE
MCOND UNIT [q]q MXR c IS OUT-OF-SERVICE
MCOND UNIT [q]q MIU c IS OUT-OF-SERVICE

SROF Status, requested operation failed

MCOND ACTIVE CCN SIDE s IS FAILED
MCOND ACTIVE CCN SIDE s IS PESTED
F FAIL THE FROM SIDE NPC [s]abc IS FAILED
T FAIL THE TO SIDE NPC [s]abc IS FAILED
MCOND CCNI s IS FAILED
MCOND TSI sft IS FAILED
MCOND CCB sf IS FAILED
MCOND CCI s IS FAILED
MCOND ETSI sqq IS FAILED
MCOND UNIT [q]q IS FAILED
MCOND UNIT [q]q FTMI d IS FAILED
MCOND UNIT [q]q FC sb IS FAILED

MCOND DSPI IN UNIT [q]q IS FAILED
MCOND NPC [s]abc SIDE s IS FAILED
MCOND UNIT [q]q FLI k IS FAILED
MCOND UNIT [q]q FMT s IS FAILED
MCOND UNIT [q]q MXR c IS FAILED
MCOND UNIT [q]q MIU c IS FAILED

SNVS Status, not in valid state

UTST THE SPECIFIED ACCESS POINT IS UNDER TEST
CH NOT EST THE SPECIFIED ACCESS POINT IS NOT ESTABLISHED TO SR FEATURE
NTLA THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE
PTLA THE SPECIFIED TEST ACCESS POINT IS ALREADY IN TLA MODE

EMTC,STARTUP,STF,ATP

EXPANDED MAINTENANCE STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01282]

```
EMTC STARTUP {STF|ATP}
```

Explanation Of Message

This message reports that the expanded maintenance circuit has initialized itself and has performed self-diagnostics. The results of these diagnostics are reported. For all tests passed, no action is required.

Explanation Of Parameters

EMTC - Expanded maintenance circuit

STF - Some tests failed

ATP - All tests passed

ENT,EQPT,SYNC,FPLL

CONFIGURE SYNCHRONIZER

Input Message Format

[I.35011]

```
ENT-EQPT:[<xy>]:SYNC-a:[ww]:FPLL;
```

Completion Message

[O.35011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ENT EQPT::SYNC-a:[ww]:FPLL  COMPLD
;
```

Denial Message

[O.35011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  ENT EQPT::SYNC-a:[ww]:FPLL  DENY
   mmmm
   /* [O.35011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the fast start of the phase-locked loop in a synchronizer.

Explanation Of Parameters

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

FPLL - Fast start phase-locked loop

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SNVS	Sync mode is same
SROF	Sync pack denied command

EXC,MACRO

EXECUTE MACRO

Input Message Format

[I.39301]

```
EXC-MACRO:[<xy>]::[ww]:<macro name>:[<p1>[&<p2>[&<p3>\
[&...[&<p10>]]]]];
```

Completion Message

[O.39301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MACRO:::[ww]:<macro name>:\
[<p1>[&<p2>[&<p3>[&...[&<p10>]]]]] COMPLD
;
```

[O.39302]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MACRO:::[ww]:<macro name>:\
[<p1>[&<p2>[&<p3>[&.....[&<p10>]]]]] COMPLD
   /* [O.39302] */
   "STOP"
;
```

[O.39303]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MACRO:::[ww] IN_PROGRESS
;
```

Denial Message

[O.39301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MACRO:::[ww]:<macro name>:\
[<p1>[&<p2>[&<p3>[&...[&<p10>]]]]] DENY
   mmmm
   /* [O.39301.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the execution of macro **<name>**. The optional fields **p1**, **p2**, etc., specify parameters used in the macro.

To list the contents of a macro, use the **RTRV-MACRO-COM** command, Message I.54131.

The **NULL** keyword may be used as a parameter.

Explanation Of Parameters

p1,
p2,
p3,
...,
p10 - Macro parameter values (1 to 7 uppercase alphanumeric characters)

Within a macro a parameter is referred to by #nn. The # sign indicates a parameter reference follows and the nn indicates the position in the command line from which the parameter value will be taken. That is, if the parameter reference #03 is contained in a line within a macro then the third parameter on the EXC-MACRO command line will be substituted for each appearance of the parameter reference #03.

A maximum of 10 parameters can be specified.

macro name
- Macro name (seven characters maximum length)

The name of a collection of DACS II commands executed as a group.

A macro name is a string of capitalized alphanumeric characters. There are two type of macros; public and private. A private macros is created by a user in space allocated to the user by the system administrator. Only the user that created it can execute or read (LIST) a private macro. A public macro is created by the system administrator and is executable and readable by all users. A public macro name must start with the letter "P". A private macro name must not start with the letter "P".

STOP - Indicates that macro execution is stopped
mmmm - Error condition code

mmmm	*Explanation*
SNVS	File is being accessed
SNVS	File doesn't exist/can't be accessed
SNVS	Incorrect language/addressing mode
SNVS	Incorrect number of parameters
SNVS	No user is logged in on the link/vc

EXC,MAP,CLR,INCL

ACTIVATE ALTERNATE MAPS

Input Message Format

[I.39201]

```
EXC-MAP:[xy]::[ww]:<map name>:[CLR][,INCL];
```

Completion Message

Nonhierarchical

[O.39201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww]:<map name>:[CLR][,INCL] COMPLD
   /* [O.39201] */
   "COND-cc"
   "NPC [s]abc"
;
```

Hierarchical

[O.39201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww]:<map name>:[CLR][,INCL] COMPLD
   /* [O.39201] */
   "COND-cc"
   "NPC uv-m-np"
;
```

Denial Message

Nonhierarchical

[O.39201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww]:<map name>:[CLR][,INCL] DENY
   mmmm
   /* [O.39201.02] */
   /* <explanation of error condition code> */
   /* Component that failed */
   "CONN-CRS-TO::[s]jkl-ddd[&&-eee],[t]ghi-jjj[&&-kkk]\
:[<tc>:[RDLD,CUS,INCL]:[AIS]"
;
```

Note: If an individual cross-connection fails within the map, DACS II will indicate it with the above message.

Hierarchical

[O.39201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww]:<map name>:[CLR][,INCL] DENY
   mmmm
   /* [O.39201.02] */
   /* <explanation of error condition code> */
   /* Component that failed */
   "CONN-CRS-TO::ed-h-fg-ddd[&&-eee],wx-k-qr-jjj[&&-kkk]\
:[<tc>:[RDLD,CUS,INCL]:[AIS]"
;
```

Note: If an individual cross-connection fails within the map, DACS II will indicate it with the above message.

Common

[O.39201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww]:<map name>:[CLR][,INCL] DENY
   mmmm
   /* [O.39201.01] */
   /* <explanation of error condition code> */
;
```

[O.55703]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  EXC MAP:::[ww] IN_PROGRESS
;
```

Note: As the alternate map is being executed, DACS II will generate the above IN PROGRESS message every 20 seconds.

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the activation of an alternate map.

DACS II will not generate individual completion messages for each successful cross-connection; however, it will generate individual denial messages. Moreover, the individual denial messages will only be output to the link/user where the alternate map command was entered, independent of the output screening level.

Explanation Of Parameters

map name
- Map name (1 to 7 uppercase alphanumeric characters)

Name of an already existing alternate map.

CLR - Clear

Clear all cross-connections on all NPCs included in the map before activating the alternate map.

INCL - Inclusive

When an alternate map is activated, existing circuits that are marked CUS or RDLD will be overwritten only if the INCL keyword has been specified. Otherwise, a denial will be issued as is currently done for channels under test, etc.

NPC - Network processing circuit

[s]abc
- The first 3- or 4-digit nonhierarchical NPC number of NPC containing a non-two-way, two-point cross-connect.

[s]jkl,[t]ghi
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- First hierarchical NPC number of NPC containing a non-two-way, two-point cross-connect.

ed-h-fg
- Hierarchical NPC number

wx-k-qr
- Hierarchical NPC number

uv,wx,ed
- Unit number

m,k,h - Module number

np,qr,fg
- NPC number within the module

The valid values are listed below:

DE type NPC numbers listed by unit, module, and NPC No.

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd,jjj
- Channel number, the first channel of a range

eee,kkk
- Channel number, the last channel of a range

001 through 024

tc - Trunk conditioning

AIS - Alarm Indication Signal (All 1's)

cc mmmm - Error condition code

cc	mmmm	*Explanation*
00	NCON	No conditions
62	SNVS	File is being accessed
64	SNVS	File doesn't exist/can't be accessed
70	SNVS	Some circuits not activated,cleared or pictured
71	SNVS	The reference map does not exist
72	SNVS	The map is not valid
73	SNVS	Both sides of CCN are OOS
74	SNVS	At least one UC is OOS or At least one UC is failed
75	SNVS	At least one UC is not the correct type
D5	SNVS	No user is logged in on the link/vc
01	IDRG	Invalid range for specified NPC type
02	IIFM	Invalid NPC type for AIS insertion
06	IDRG	Invalid range for specified FROM NPC type
07	IDRG	Invalid range for specified TO NPC type
10	SAOS	NPC out of service or failed
11	ENEQ	NPC not equipped
12	SWFA	Active CCN side not IS or failed or pested or hardware OOS
13	ENEQ	UNIT not equipped, not in service, or failed
14	ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
15	ENEQ	FTMI not equipped, not in service, or failed
16	ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
17	ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
21	IIDT	Trunk conditioning is invalid
30	SAAS	Termination is already assigned
32	SNVS	Termination is under test
33	SNVS	Termination is a test port
35	SNVS	Termination is protected (RDLD)
36	ENIE	Termination is not connected as indicated
40	SROF	CCN denied request
1A	ENEQ	Required FLI not equipped, not in service, or failed
1B	ENEQ	Required MXR not equipped, not in service, or failed
1C	ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
1D	ENEQ	Required MIU not equipped, not in service, or failed
A6	SNVS	Deny SLC for Alternate maps
A7	SNVS	Deny non-channelized NPCs for Alternate Maps
E8	IDNV	SC invalid for cross-connection specified
E9	IDNV	MUX or TRB invalid for cross-connection specified
EA	IDNV	AIS invalid for cross-connection specified
EB	IDNV	NAM invalid for cross-connection specified

cc	mmmm	*Explanation*
EC	IDNV	Invalid channel 000 cross-connection specified
ED	IDNV	Invalid channel 031 cross-connection specified
85	IDNV	Using the 24th channel of a T1DM NPC
FF	SAAS	Termination is in process of being rolled
B0	SROF	Unit 1 denied request
B1	SROF	Unit 2 denied request
B2	SROF	Unit 3 denied request
B3	SROF	Unit 4 denied request
B4	SROF	Unit 5 denied request
B5	SROF	Unit 6 denied request

IN,PROGRESS

GENERIC IN PROGRESS MESSAGE

Input Message Format

Not applicable.

Completion Message

[O.55703]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  <verb>[ <modifier>][ <modifier>]:::[ww] IN_PROGRESS
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This output message indicates that the requested action (verb) is in progress.

Explanation Of Parameters

Not applicable.

INH,LPBK,T1,DGA,DGB,DGC,DGD

TWO-WAY TEST ACCESS LINE LOOPBACK

Input Message Format

[I.26111]

```
INH-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
{TO|FROM}:{RT|DL}-ffff;
```

Completion Message

[O.26111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M INH LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
{TO|FROM}:{RT|DL}-ffff COMPLD
;
```

Denial Message

[O.26111.01]

```
   <xy> yy-mm-dd hh:mm:ss
M INH LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
{TO|FROM}:{RT|DL}-ffff DENY
    mmmm
    /* [O.26111] */
    /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This MML message will enable the user to inhibit a line loopback activation. The equivalent

PDS message is numbered 26101.

Explanation Of Parameters

LLB - Line loopback

RT - Remote Terminal

DL - Digital Carrier Line interface Unit (DCLU)

DGA - Digroup A of the bank

DGB - Digroup B of the bank

DGC - Digroup C of the bank

DGD - Digroup D of the bank

DGP - Digroup P of the bank

ffff - Bank identification number (0000 - 9999)
mmmm - Error condition code

mmmm	*Explanation*
IDNV	Bank id number not found
IDNV	Digroup name and bank id don't match
IDNV	Operation mode and digroup name don't match
SAIN	Loop back inhibited for digroup
SNVS	Autonomous loopback is active on DGA
SNVS	LLB not initiated
SNVS	NPC has active circuit

INH,PMREPT,T1,NPC,ALL

INHIBIT DS1 PERFORMANCE MONITORING REPORT

Input Message Format

Nonhierarchical

[I.51161]

```
INH-PMREPT-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

Hierarchical

[I.51161]

```
INH-PMREPT-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

Completion Message

Nonhierarchical

[O.51161]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH PMREPT T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] COMPLD
;
```

Hierarchical

[O.51161]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH PMREPT T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] COMPLD
;
```

Denial Message

Nonhierarchical

[O.51161.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH PMREPT T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] DENY
   mmmm
   /* [O.51161.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.51161.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH PMREPT T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] DENY
   mmmm
   /* [O.51161.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message inhibits DACS II scheduled performance monitoring report output for DA and TA type NPCs. The user may inhibit performance monitoring report output for a single, range or all NPCs on the frame.

This command will handle NPC addressing in the input command as follows: If only a single NPC is addressed in the input command, then either a completion or denial response will be generated for the addressed NPC. DACS II will always deny invalid commands to specifically addressed NPCs.

If a range of NPCs is addressed and the feature applies to one or more NPCs within the range, DACS II will inhibit outputting the scheduled reports for the NPCs in the range that support this feature, but skip the NPCs which do not support this feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports this feature, DACS II will generate a completion response for the entire range of NPCs; individual denial responses will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range support the requested feature,

DACS II will generate a range denial response.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical starting NPC number
[t]def - The 3- or 4-digit nonhierarchical ending NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical starting NPC number

wx-k-qr
- Hierarchical ending NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC type error
ICNV	PM scheduling report is already inhibited for this entity
IDRG	Command did not execute for any entity specified in the command

INH,SW,EQPT,UNIT,MMFG,PROTN

INHIBIT SWITCH MMFG

Input Message Format

[I.35311]

```
INH-SW-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG};
```

Completion Message

[O.35311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH SW EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG} COMPLD
   /* [O.35311] */
   /* MMFG-number */
   "a"
;
```

Denial Message

[O.35311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INH SW EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:{PROTN|WKG} DENY
   mmmm
   /* [O.35311.01] */
   /* <explanation of error condition code> */
   /* MMFG-number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the inhibition of automatic protection switching from multiplexer-multiple interface unit functional group (MMFG) c on a DS3 unit to MMFG P or the automatic switchback from MMFG P to service MMFG c (when MMFG c becomes in-service). Only automatic switches due to failure will be affected by this message.

If **PRTN** is specified and MMFG P is already protecting the MMFG c's facility, the command will be denied.

If **WKG** is specified and MMFG c is not under protection, the command will be denied.

This inhibition will be removed if a switch occurs from the "selected" MMFG.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-multiplexer interface unit functional group

c,d - The number of the MMFG within the unit (1 - 6)

PROTN - Protection

The command requests the inhibition of automatic protection switching to the protection MMFG

WKG - Working

The command requests the inhibition of automatic switching to the service MMFG. A range of MMFGs is not acceptable if this keyword is specified; the command will be denied.

a - The number of the service MMFG within the range c and d

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	Service MXR is not equipped
SAPS	The Service MMFG is already under protection
SAWS	The Service MMFG is not under protection
SAIN	The switch is already inhibited

INH,SW,T1,NPC,RT,FRC,INCL

SWITCH::

Input Message Format

Nonhierarchical

[I.39421]

```
INH-SW-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL];
```

Hierarchical

[I.39421]

```
INH-SW-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL];
```

Completion Message

Nonhierarchical

[O.39421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M INH SW T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL] COMPLD
;
```

Hierarchical

[O.39421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M INH SW T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.39421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M INH SW T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL] DENY
   mmmm
   /* [O.39421.01] */
   /* <explanation of the error condition code> */
;
```

Hierarchical

[O.39421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M INH SW T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[FRC]:[INCL] DENY
   mmmm
   /* [O.39421.01] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

For SLC®-carrier, this command allows inhibition of protection switching on a digroup.

The **INCL** keyword must always be used for digroup A.

If the network processing circuit (NPC) option is used on input, the optional remote terminal (RT) or digital carrier line unit (DL) will appear. If the digroup (DGx) option is to be used, it must be accompanied by the RT or DL option. The **FRC** keyword must be entered to force an existing protection to be inhibited.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number within the unit
np - NPC number within the module
The allowable numbers are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

xxx - Digroup designation

xxx	*Explanation*
DGA	Digroup A
DGB	Digroup B
DGC	Digroup C
DGD	Digroup D
ALL	All Digroups (DGA, DGB, DGC and DGD)

RT - Remote terminal
ffff - Bank identification number (0000 to 9999 inclusive)
INCL - Inclusive
FRC - Force

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
SROF	NPC Failed or Out of Service
IDNV	NPC is a DGP
IDNV	NPC type is not DS type
IDNV	Bank id number not found
SNVS	NPC is not added
IDNV	Digroup name and bank id don't match
SAIN	Protection switching is already inhibited
SNVS	Active CCN side is out of service
SNVS	Boot in progress, can't service request
SNVS	Line Loop Back is active
IDNV	Invalid switch request for DCLU

INIT,LOG,ERR,HWER,SWER

UTILITY CLEAR HARDWARE/SOFTWARE ERROR RECOVERY LOG FILE

Input Message Format

[I.56061]

```
INIT-LOG:[<xy>]::[ww]:ERR:{HWER|SWER};
```

Completion Message

[O.56061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT LOG:[<xy>]::[ww]:ERR:{HWER|SWER} COMPLD
;
```

Denial Message

[O.56061.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT LOG:[<xy>]::[ww]:ERR:{HWER|SWER} DENY
   mmmm
   /* [O.56061.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message clears the DACS II error rate (ERR) recovery log. The log is a file that contains the history of the recovery events.

Explanation Of Parameters

HWER - Hardware error recovery log file

SWER - Software error recovery log file

mmmm - Error condition code

mmmm	*Explanation*
SAOS	File has already been cleared

INIT,REG,ALL

UTILITY CLEAR

Input Message Format

[I.56011]

```
INIT-REG:[<xy>]:::[ww]:<parameter>:ALL;
```

Completion Message

[O.56011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG:::[ww]:<parameter>:ALL  COMPLD
;
```

Denial Message

[O.56011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG:::[ww]:<parameter>:ALL  DENY
   mmmm
   /* [O.56011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a clear of the counters or state on a specified facility performance parameter for all in-service network processing circuits (NPCs) which have the specified parameter.

DACS II will silently skip NPCs which can not be cleared.

Explanation Of Parameters

CLR - Clear

parameter
- Facility performance monitoring parameter

parameter Explanation

BER	Bit error rate
BPV	Bipolar violation
COFA	Change of frame alignment
CRC	Cyclic redundancy code
ER	Error rate (same as BER for D4 framing)
ERS	Errored seconds
FRER	Framing error
OOF	Out of frame
SERS	Severely errored seconds
SLIP	Slip count
SAFE	SAFE count
SANE	SANE count

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
ENEQ	NPC is unequipped
SNVS	FTMI is in service but failed
SNVS	Unit type error
SNVS	NPC type error
SROF	NPC Failed or Out of Service
SROF	IU/TI type NPC
IDNV	Bank id number not found
SNVS	No SAFE alarm for DGP
IDNV	The parameter specified does not match with the NPC type

INIT,REG,NPC

CLEAR FACILITY PERFORMANCE PARAMETERS

Input Message Format

Nonhierarchical

[I.56051]

```
INIT-REG:[<xy>]:NPC-[s]abc:[ww];
```

Hierarchical

[I.56051]

```
INIT-REG:[<xy>]:NPC-uv-m-np:[ww];
```

Completion Message

Nonhierarchical

[O.56051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::NPC-[s]abc:[ww] COMPLD
;
```

Hierarchical

[O.56051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::NPC-uv-m-np:[ww] COMPLD
;
```

Denial Message

Nonhierarchical

[O.56051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::NPC-[s]abc:[ww]  DENY
   mmmm
   /* [O.56051.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.56051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::NPC-uv-m-np:[ww]  DENY
   mmmm
   /* [O.56051.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the facility performance parameters be cleared of the values or state for one network processing circuit (NPC).

This command does not clear the parameters on a digital interface unit (DIU) NPC.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

PARAMS

- Parameters

For domestic NPCs, the parameters which will be cleared with this command are:

Parameter	*Explanation*
BER	Bit Error Rate
BPV	Bipolar Violation
COFA	Change Of Frame Alignment
CRC	Cyclic Redundancy Code
ER	Error Rate (same as BER for D4 framing)
ERS	Errored Seconds
FRER	Framing Error
OOF	Out Of Frame
SERS	Severely Errored Seconds
SLIP	Slip count
SAFE	Shelf Alarm Far End count
SANE	Shelf Alarm Near End count

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	FTMI is in service but failed
SAOS	IU/TI type NPC failed
SROF	NPC Failed or Out of Service
SROF	IU/TI type NPC
SNVS	The associated MXR is In-Service but pested

INIT,REG,NPC,RT,DL

UTILITY CLEAR

Input Message Format

Nonhierarchical

[I.56001]

```
INIT-REG:[<xy>]:[NPC-[s]abc[&&-[t]def]]:[ww]:<parameter>\
:[{RT|DL}-ffff];
```

Hierarchical

[I.56001]

```
INIT-REG:[<xy>]:[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:<parameter>\
:[{RT|DL}-ffff];
```

Completion Message

Nonhierarchical

[O.56001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::[NPC-[s]abc[&&-[t]def]]:[ww]:<parameter>:[{RT|DL}-ffff]  COMPLD
   /* [O.56001] */
[  /* Mode of operation */]
[  "[g]g"]
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REQ::[NPC-[s]abc[&&-[t]def]]:[ww]:<parameter> COMPLD
;
```

Hierarchical

[O.56001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:<parameter>\
:[{RT|DL}-ffff]  COMPLD
   /* [O.56001] */
[  /* Mode of operation */]
[  "[g]g"]
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REQ::[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:<parameter> COMPLD
;
```

Denial Message

Nonhierarchical

[O.56001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::[NPC-[s]abc[&&-[t]def]]:[ww]:<parameter>\
:[{RT|DL}- ffff]  DENY
   mmmm
   /* [O.56001.01] */
   /* <explanation of error condition code> */
[  /* {UEQD|BADNPC} */]
   /* NPC Number */
   "[s]abc"
;
```

Hierarchical

[O.56001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG::[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:<parameter>\
:[{RT|DL}-ffff]  DENY
   mmmm
   /* [O.56001.01] */
   /* <explanation of error condition code> */
[  /* {UEQD|BADNPC} */]
   /* NPC Number */
   "uv-m-np"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a given facility performance parameter be cleared of the count or state for a single network processing circuit (NPC) or a range of circuits in a facility terminating unit (FTU) or a DS3 unit.

Note that if the remote terminal (RT) or the digital carrier line unit (DL) option is specified during input, the specified parameter clears the count on all digroups in that bank which have the specified parameter.

Explanation Of Parameters

CLR - Clear

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, the first NPC number of a range

[t]def
- The 3- or 4-digit nonhierarchical NPC number, the last NPC number of a range

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number, the first NPC number of a range

wx-k-qr
- Hierarchical NPC number, the last NPC number of a range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number

The allowable values are presented below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

parameter
- One chosen from the list below:

Parameter	Explanation
BER	Bit Error Rate
BPV	Bipolar Violation
COFA	Change Of Frame Alignment
CRC	Cyclic Redundancy Code
CRC-4	Check Block Error Events
ER	Error Rate (same as BER for D4 framing)
ERS	Errored Seconds
FRER	Framing Error
LOFA	Loss of Frame Alignment Events
OOF	Out Of Frame
SAFE	Shelf Alarm Far End count
SANE	Shelf Alarm Near End count
SERS	Severely Errored Seconds
SLIP	Slip count

Note: Only the BER and SLIP parameters are allowed for Clear-DS1 NPCs. SERS, ERS, and SLIP are only individually clearable for domestic NPCs. For CEPT NPCs they will be cleared by the PM parameter.

RT - Remote terminal (SLC® carrier system)

DL - Digital carrier line unit (SLC carrier system)

ffff - Bank identification number (0000 through 9999) (SLC carrier system)

[g]g - Mode of operation

[g]g	*Explanation*
1	SLC 96 Carrier Mode 1
3	SLC 96 Carrier Mode 3
C	SLC Series 5 Carrier (Feature Package C)

UEQD - Unequipped

BADNPC

- Bad NPC

The selected parameter is not valid for this NPC.

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	FTMI is in service but failed
SNVS	Unit type error
SNVS	NPC type error
IDNV	Invalid CEPT NPC
SROF	NPC Failed or Out of Service
SROF	IU/TI type NPC
IDNV	Bank id number not found
SNVS	No SAFE alarm for DGP
IDNV	The specified parameter is not applicable to operation mode of the RT
IDNV	The parameter specified does not match with the NPC type

INIT,REG,PWR,BMTRALM

CLEAR POWER SUPPLY OR BACKUP FAILURE

Input Message Format

[I.56052]

```
INIT-REG:[<xy>]:{PWR-pp|BMTRALM}:[ww];
```

Completion Message

[O.56052]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG:[<xy>]:{PWR-pp|BMTRALM}:[ww] COMPLD
;
```

Denial Message

[O.56052.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG:[<xy>]:{PWR-pp|BMTRALM}:[ww]  DENY
   mmmm
   /* [O.56052.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message clears alarms caused by a power supply or backup memory transfer (BMTR) failure.

Explanation Of Parameters

CLR - Clear

Only one type of failure alarm (power supply or backup memory transfer) can be cleared at a time. The command will be denied if BMTRALM is entered when no active backup memory transfer tape alarm exists.

PWR - Power

pp - Power supply identifier

pp	*Explanation*
00	All power supplies
01	Unit Controller (UC) 1
02	UC 2
03	UC 3
04	UC 4
05	UC 5
06	UC 6
07	Synchronizer (SYNC) 0
08	SYNC 1
09	Cross-connect network (CCN)/Expanded cross-connect network (ECCN) 0
10	CCN/ECCN 1
11	UC 7
12	UC 8
13	UC 9
14	UC 10
15	UC 11
16	UC 12
17	UC 13
18	UC 14
19	UC 15
20	UC 16

BMTRALM

- Back-up Memory Transfer Alarm

mmmm - Error condition code

mmmm	*Explanation*
SNOS	Subject PWR to be cleared is not failed
SNOS	Subject BMTRALM to be cleared is not failed

INIT,REG,T1,NPC,ALL

UTILITY CLEAR DA/TA/PA NPC PARAMETERS

Input Message Format

Nonhierarchical

[I.56071]

```
INIT-REG-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,[aaaaa] \
,[locn],[dddd],[tttt];
```

Hierarchical

[I.56071]

```
INIT-REG-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,[aaaaa] \
,[locn],[dddd],[tttt];
```

Completion Message

Nonhierarchical

[O.56071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,[aaaaa], \
[locn],[dddd],[tttt] COMPLD
;
```

Hierarchical

[O.56071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,[aaaaa], \
[locn],[dddd],[tttt] COMPLD
;
```

Denial Message

Nonhierarchical

[O.56071.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,[aaaaa], \
[locn],[dddd],[tttt] DENY
   mmmm
   /* [O.56071.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.56071.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT REG T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,[aaaaa],\
[locn],[dddd],[tttt] DENY
   mmmm
   /* [O.56071.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message clears the facility performance monitoring parameter counts of DA and TA type NPCs.

This command will handle NPC addressing in the input command as follows: If only a single NPC is addressed in the input command, then either a completion or denial response will be generated for the addressed NPC. DACS II will always deny invalid commands to specifically addressed NPCs.

If a range of NPCs is addressed or the ALL NPC keyword is used and the feature applies to one or more NPCs within the range, DACS II will perform the operation on the NPCs in the range that support the requested feature, but skip the NPCs which do not support the requested feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports the requested feature, DACS II will generate a completion response for the entire range of NPCs; individual denial responses will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range support the requested feature, DACS II will generate a range denial response.
NPC - Network processing circuit

If an NPC range is specified in the input command, the following floating window rules apply:

1. Unequipped NPCs within the requested range will be skipped.
2. If a CEPT gap is within the requested range, the NPCs in the gap will be skipped.
3. If an endpoint of the requested range is in a CEPT gap, then the command will be denied."

Explanation Of Parameters

NPC - Network processing circuit

ALL - All

This keyword is a valid option for NPCs rather than specifying a single or range of NPCs. It is used to clear a single parameter on all ANSI NPCs. If the ALL NPC option is selected, the input command must specify only a single facility parameter. An input command with the ALL NPC key word and any facility parameter groupings will be denied.

[s]abc - The 3- or 4-digit nonhierarchical NPC number
[t]def - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

wx-k-qr
- Hierarchical NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

parameter

- The type of monitored parameter accumulation registers which are to be reset. If only a single NPC is specified in the input command, all types of its parameter accumulators may be reset (possibly restricted by the choices of other input parameters) by selecting the value ALLPAR in the <parameter> field. If more than one NPC is specified in the input command, then ALLPAR, ALLL, and ALLP are not valid values for <parameter>.

The values ALLL and ALLP may be selected only if MONDAT and MONTIM are set to a value of HIST to clear a set of historical registers. They are used to clear all historical 15-minute and daily line parameters and path parameters, respectively, as a group. The AI parameter must not be entered on the input command line. (The value ALLPAR may also be selected if the MONDAT and MONTIM parameters are programmed to clear a set of historical registers. It is used to clear the group of all historical line and path parameters.)

parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds
ALLPAR	All parameters listed above
ALLL	All line parameters listed above
ALLP	All path parameters listed above

AI - Accumulation interval

aaaaa - The accumulation time period for the specified parameter.

This parameter must be specified in the input command line unless MONDAT and MONTIM are programmed to reset a group of historical performance parameters. When a group of historical parameters is reset, both the 15-minute and daily accumulators are reset.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

LOCN - Location

locn - The facility location which corresponds to the set of performance monitoring registers which are to be reset. If this optional parameter is not present in the input command, it defaults to a value of NEND.

locn	*Explanation*
NEND	Near-end
FEND	Far-end
ALL	Near-end and Far-end

MONDAT

- Monitored Date

dddd - The date of the beginning of the performance monitoring period to reset (specified in the AI parameter) as MMDD, where MM is the month (01-12) and DD is the day (01-31) of the month. If this optional input parameter is not present in the command, it defaults to a value of CURD, the current date.

The value HIST is an option for input commands. The value HIST provides a group reset of near-end and/or far-end historical 15-minute and daily accumulators on a per-line and per-path basis. If the value HIST is selected for MONDAT, it must also be selected for MONTIM. The only valid options for <parameter> in this case are {ALLPARIALLLIALLP} and the valid options for LOCN are {NENDIFENDIALL}. The AI parameter must not be entered on the input command line.

dddd	*Explanation*
{01-12}{01-31}	Month of Year/Day of Month Format
HIST	All historical accumulators
CURD	Current Date

MONTIM

- Monitored Time

tttt - The beginning time of day of the performance monitoring period to reset (specified in the AI parameter) as HHMM, where HH is the hour (00-23) and MM is the minute {00,15,30,45} of the hour. If this optional input parameter is not present in the command, it defaults to a value of CURT, the current time.

The value HIST is an option for input commands. The value HIST provides a group reset of near-end and/or far-end historical 15-minute and daily accumulators on a per-line and per-path basis. If the value HIST is selected for MONTIM, it must also be selected for MONDAT. The only valid options for <parameter> in this case are {ALLPARIALLLIALLP} and the valid options for LOCN are {NENDIFENDIALL}. The AI parameter must not be entered on the input command line.

This parameter must not appear in input commands which specify daily accumulation intervals (AI = DAILY).

tttt	*Explanation*
{00-23}{00,15,30,45}	Hour of Day/Minute of Hour
HIST	All historical accumulators
CURT	Current Time

uv-m-np

- Hierarchical NPC number

wx-k-qr

- Hierarchical NPC number

uv,wx - Unit number

m,k

- Module number

np,qr - NPC number within the module

The valid values are:

mmmm - Error condition code

mmmm	*Explanation*
IPNV	NPC out of service
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
ENEQ	NPC is unequipped
SNVS	FTMI is in service but failed
SNVS	NPC type error

mnemonic	*Explanation*
IPNV	The MONDAT and MONTIM parameters can not both be specified
SNVS	The associated MXR is In-Service but pested
IPNV	The parameter specified does not match with the NPC type
IDRG	Command did not execute for any of the entities specified in the range
IPNV	Historical data can not be specified
IPNV	Monitored Date field is not allowed
IPNV	Only DAILY for accumulation interval is allowed
IPNV	Only 15MIN for accumulation interval is allowed
SNVS	FTMI is PESTED
IPNV	No PM data available
IPNV	Monitored Time field is not allowed
IPNV	Accumulation Interval field is missing
IPNV	Only historical data can be specified
IPNV	Accumulation Interval field is not allowed
IPNV	Interval is not valid/not available

INIT,SYS,FRAME

CONFIGURE FRAME

Input Message Format

[I.35021]

```
INIT-SYS:[<xy>]:FRAME:[ww];
```

Completion Message

[O.35021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT SYS::FRAME:[ww] COMPLD
;
```

Denial Message

[O.35021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  INIT SYS::FRAME:[ww] DENY
   mmmm
   /* [O.35021.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

The purpose of this command is to initialize or change the frame configuration. After this command is successfully completed, DACS II will autonomously update the location information for the packs in the frame.
WARNING: A manual backup from RAM to disk must be invoked prior to changing a unit type with this command.
Entering this message will cause DACS II to present the user with self-explanatory menus.

These menus allow the user to select the total number of bays and units to be equipped and to specify the bay and unit type for each of them. With the user specified information, DACS II will then determine the physical location of each circuit pack in the frame. The completion message will be output when the user exits from the menu mode. Beginning in Release 5.1, two versions of this message exist; one for the DACS II Capacity Expansion Frame (CEF) and a second for the Non-CEF frame.

This command can only be entered under the following conditions:

- It is entered from link 1
- The frame is in the maintenance condition
- The user is a superuser

Explanation Of Parameters

mmmm - Error condition code

mmmm	*Explanation*
SWFA	DB disk error OP-CL-RD-WR-SK
SROF	Can't lock or unlock ram database
SNIS	Unit(s) OOS, and/or additional backup required
SNVS	Unable to verify Configuration file since MP DB not loaded
SNVS	Can't mount or unmount disk
SNVS	User quit the menu
SNVS	Backup required before executing this command

LGN,USER

LOG ON TO DACS II

Input Message Format

[I.39001]

```
LGN-USER:[<xy>]::[ww]:<user id>[,<user password>];
```

If the user is on a Snider administrative link, the message is entered as follows:

[I.39001]

```
LGN-USER:[<xy>]::[ww]:<user id>;
```

Then DACS II will prompt the following:

PASSWD: (user enters the user password)

Completion Message

[O.39001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LGN USER:::[ww]:<user id> COMPLD
   /* [O.39001] */
   /* WARNING MESSAGE */
   /* THIS SYSTEM IS RESTRICTED TO [AT&T ]AUTHORIZED USERS FOR
   LEGITIMATE BUSINESS PURPOSES AND IS SUBJECT TO AUDIT.
   THE ACTUAL OR ATTEMPTED UNAUTHORIZED ACCESS, USE, OR MODIFICATION
   OF COMPUTER SYSTEMS IS A VIOLATION OF FEDERAL AND STATE LAWS. */
;
```

Denial Message

[O.39001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LGN USER:::[ww]:<user id> DENY
   mmmm
   /* [O.39001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

Note: Before logging on to DACS II for the first time, it is suggested that the user thoroughly read the documentation for this message.

This command allows a user or frame administrator to identify himself/herself to DACS II by an identification code, the **user id**, on any link.

DACS II checks the user id and password against entries previously stored in the data base. If the user is not authorized, DACS II will deny the input command.

A user can log on to DACS II from more than one link.

If on a Snider administrative link, the command must be entered as follows:

```
LGN-USER:[xy]::[ww]:<user id>;
```

The DACS II system will respond with the following dialogue:

PASSWORD: The user enters a password. Note that the password characters are not echoed by DACS II.

If on an X.25 administrative link, the command must be entered as follows:

```
LGN-USER:[xy]::[ww]:<user id>,<user password>;
```

Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

user id

- User identifier

The user login identification (two to eight alphabetic characters)

PASSWD

- Password

user password

- User password (at least six alphanumeric characters)

mmmm - Error condition code

mmmm	*Explanation*
SNVS	User does not exist
SNVS	A user is already logged in on the link/vc
SNVS	Incorrect or missing password

LGT,TERM,USER,INCL

LOG OFF USER OR LINK

Input Message Format

[I.39101]

```
LGT-{TERM|USER}:[<xy>]::[ww]:{1[mm][,INCL]|<user id>};
```

Completion Message

[O.39101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LGT {TERM|USER}:::[ww]:{1[mm][,INCL]|<user id>} COMPLD
;
```

Denial Message

[O.39101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LGT {TERM|USER}:::[ww]:{1[mm][,INCL]|<user id>} DENY
   mmmm
   /* [O.39101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

This message will be received only on the link affected.
[O.39101]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT LGT TERM
   /* [O.39101] */
   "1[mm]"
```

This message will be received only on the link of the user being logged out.

[O.39101]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT LGT USER
   /* [O.39101] */
   "<user id>"
```

Explanation Of Message

This command requests DACS II to log off a user or a link. A user is specified by his or her **<user id>**; a link, by its physical link number. The virtual circuit number is optional. The INCL keyword is also optional. The virtual circuit number and INCL are mutually exclusive. The INCL keyword must be specified to log off all virtual circuits of an X.25 link (5 or 6).

The DACS II frame administrator can use the **<user id>** option from any link to log off any user on another link. If the user is logged in on more than one link and is not the frame administrator, DACS II will log the user off every link. An autonomous message will appear on the user's link if the frame administrator logs a user out.
Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

USER - User

user id
- User identifier (two to eight alphabetic characters)

User login identification

TERM - Terminal (link)

j[mm] - Administrative link number

j - Physical link number (1 through 6)
mm - Virtual circuit number (01 through 16)

The virtual circuit number must be entered when logging off a single virtual circuit of an X.25 link.

INCL - Inclusive

Include virtual circuits of links 5 and 6. The INCL keyword can only be entered with X.25 links 5 and 6, and no virtual circuit number is allowed when this keyword is used. That is, "mm" and "INCL" are mutually exclusive. In addition, the INCL keyword is also mutually exclusive with the "<user id>". When the INCL keyword is entered, it means that the logoff applies to all the virtual circuits of X.25 link (5 or 6).

COND - Condition
nnnnn - Error condition code

nnnnn	*Explanation*
SNVS	User does not exist
SNVS	No user is logged in on the link/vc
SNVS	Cannot execute privileged command
SNVS	User is not logged in
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified
IDNV	Invalid keyword(s) combination specified

LINE

QUERY LINE NUMBER

Input Message Format

[I.19071]

```
LINE[:[<xy>]::[ww]:];
```

Completion Message

[O.19071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LINE:::[ww] COMPLD
   /* [O.19071] */
   /* Line <line pointer>,Total <line total> */
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command retrieves the current line number and the total number of lines within the

macro while in a macro session.

Explanation Of Parameters

LINE - Line

line pointer
- Current line number

TOTAL - Total

line total
- Total number of lines within the macro

LIST,END

LIST MACRO CONTENTS

Input Message Format

[I.19061]

```
LIST[:[<xy>]:{<starting line>|END}[-{<ending line>|END}]:\
[ww]:];
```

Completion Message

If the macro contains no component command,

[O.19061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LIST::[{<starting line>|END}[-{<ending line>|END}]]:\
[ww] COMPLD
   /* [O.19061] */
   /* NONE */
;
```

If the macro contains one or more component commands,

[O.19062]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LIST::[{<starting line>|END}[-{<ending line>|END}]]:\
[ww] COMPLD
   /* [O.19062] */
   /* 00001 <first 65 characters of 1st component command \
text> */
   /*   <remaining characters of 1st component command text>\
 */
                    .
                    .
                    .
   /* mmmmm <first 65 characters of mth component command \
text> */
   /*   <remaining characters of mth component command text>\
 */
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LIST::[{<starting line>|END}[-{<ending line>|END}]]:[ww] \
COMPLD
   /* [O.19062] */
   /* nnnnn <first 65 characters of nth component command text>\
*/
   /*   <remaining characters of nth component command text>\
 */
                    .
                    .
                    .
   /* ppppp <first 65 characters of pth component command text>\
*/
   /*   <remaining characters of pth component command text>\
 */
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LIST::[{<starting line>|END}[-{<ending line>|END}]]:[ww] \
COMPLD
   /* [O.19062] */
   /* qqqqq <first 65 characters of qth component command text>\
*/
   /*   <remaining characters of qth component command text>\
 */
                    .
                    .
                    .
   /* zzzzz <first 65 characters of zth component command text>\
*/
   /*   <remaining characters of zth component command text>\
 */
;
```

Denial Message

[O.19061.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  LIST::[{<starting line>|END}[-{<ending line>|END}]]:\
[ww] COMPLD
   mmmm
   /* [O.19061.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to list the contents of a macro. If neither a range of line numbers nor

END is specified then the line pointed to by the line pointer (the current line) is listed.

Explanation Of Parameters

starting line
- Beginning line number of a line range (1, 2, ..., n)

Starting line indicates the line number of the first line of a range of lines within a macro that are to be listed.

ending line
- Ending line number of a line range (2, 3, ..., n+1)

Ending line indicates the line number of the last line of a range of lines within a macro that are to be deleted.

END - End

Line number of the line at the end of the macro.

00001,
mmmmm,
nnnnn,
ppppp,
qqqqq,
zzzzz - Component command line numbers (00001 through 99999)
mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid line number
SNVS	No edit session active

MOVE,END

MOVE MACRO LINES

Input Message Format

[I.19091]

```
MOVE:[<xy>]:{<starting line>|END}[-{<ending line>|END}],\
{<destination line>|END}:[ww]:;
```

Completion Message

[O.19091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  MOVE::{<starting line>|END}[-{<ending line>|END}],\
{<destination line>|END}:[ww] COMPLD
   /* [O.19091] */
;
```

Denial Message

[O.19091.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  MOVE::{<starting line>|END}[-{<ending line>|END}],\
{<destination line>|END}:[ww] DENY
   mmmm
   /* [O.19091.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to move one or more lines and place them after a specified line in the macro while in a macro session.

If only one line is specified, the **starting line** or **END**, then only that line is moved to **destination line**.

Explanation Of Parameters

starting line
- Beginning line number of a line number range (1, 2, ..., n)

Starting line indicates the first line of the group of lines to be moved.

ending line
- Ending line number of a line number range (2, 3, ..., n+1)

Ending line indicates the end line of the group of lines to be moved.

END - End

END is a special line number that marks the position of the last line in the macro. If END is specified in place of ending line then the lines from starting line through END will be moved to destination line. If END is specified as destination line then the line range specified in the command will be moved, as a unit, to the line following END. The line number associated with END will change to the new line number of the last line moved.

destination line
- Destination line number for the move (0, 1, 2, ..., n)

The first line of the lines to be moved will be placed on the line following destination line.

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid line number

MP,STARTUP,STF,ATP

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01221]

```
MP STARTUP {STF|ATP}
```

Explanation Of Message

This message indicates that The main processor has initialized itself, established local area network communications between itself and the communications interface or the enhanced communications interface and has performed self-diagnostics. The results of these

diagnostics are reported as some tests failed or all tests passed.

Explanation Of Parameters

MP - Main processor

STARTUP
- Startup

Indicates initialization

STF - Some tests failed

ATP - All tests passed

MTC,STF,ATP

MAINTENANCE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01281]

```
MTC {STF|ATP}
```

Explanation Of Message

This message indicates that the maintenance controller has initialized itself and has performed self-diagnostics. The results of these diagnostics are reported as some tests failed or as all tests passed passed.

Explanation Of Parameters

MTC - Maintenance circuit

STF - Some tests failed

ATP - All tests passed

OPR,ACO,ALL

ALARM CUTOFF

Input Message Format

[I.51111]

```
OPR-ACO-ALL:[<xy>]::[ww];
```

Completion Message

[O.51111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR ACO ALL:::[ww] COMPLD
   /* [O.51111] */
   /* ACO STATUS */
   " {ACTIVE|INACT} "
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests an alarm cutoff, silencing any audible frame alarm.

Explanation Of Parameters

ACO - Alarm cutoff

INACT - Inactive alarm

OPR,LPBK,T0

LOOPED TEST ACCESS

Input Message Format

[I.29001]

```
OPR-LPBK-T0:[<xy>]::[ww]:kk:<tc>;
```

Completion Message

[O.29001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T0:::[ww]:kk: <tc>  COMPLD
;
```

Denial Message

[O.29001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T0:::[ww]:kk: <tc>  DENY
   mmmm
   /* [O.29001.01] */
   /* <st> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests that both test port channels on a given test port be placed in the looped mode.

Trunk conditioning *may be specified* to loop a static test port **kk**. If specified it will overide the specification given when the test port was equipped. If not specified it will default to the specification given when the test port was equipped.

Trunk conditioning *must be specified* to loop a dynamic test port **kk** since tc is dynamically set when any test access message makes the test port active. If trunk conditioning is omitted, the request will be denied.

DISC::TACC,TO will undo this command.
The test port is mapped to predesignated channels of a network processing circuit for test ports (NPCTP) during the provisioning of that test port. All domestic non-SLC NPC types can be provisioned as NPCTP. For the mapping between the test ports and the channels of the test NPCs, see the GRTH::TP message.

Explanation Of Parameters

LPD - Looped

TP - Test port

kk - Test port number (01 through 96)

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification. For example, TRSP,IW X'pq (input form).

The following signaling options are allowed:

signaling	*Explanation*
TC-ijkl,mnop	2-way,4-state signaling in binary. For ESF type framing format, software will expand 4-state to 16-state by duplicating the format on the remaining frames on a superframe.
TC-efghijkl,mnopqrst	2-way,16-state in binary. Only valid for ESF framing format.
TC-X-ab,X-cd	2-way,16-state in hexadecimal
TRSP	Transparent, no signaling

The following insertion words options are allowed:

insertion word	*Explanation*
IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted to the downstream direction of a failure on either line.
TRB	Standard trouble code, equal to IW-X-E4.
MUX	MUX out of sync code, equal to IW-X-A1. (only valid with signaling option TRSP)

The following trunk conditioning usage applies:

- If trunk conditioning is omitted from this message and was omitted from CRTE-EQPT::TP,
  the message will be denied.
- If trunk conditioning is omitted from this message but was provided in CRTE-EQPT::TP,
  the trunk conditioning value provided in CRTE-EQPT::TP,
  is applied.
- **If trunk conditioning is provided in this message, it overrides the value,** (if provided), in CRTE-EQPT::TP.

st - Status

st	Explanation
ASGN	Termination assigned
BADCCN	CCN OOS or failed
BADFC	FC OOS or failed
BADFLI	FLI OOS or failed
BADFMT	FMT (Formatter) OOS or failed
BADFTMI	FTMI OOS or failed
BADMIU	MIU OOS or failed
BADMXR	MXR OOS or failed
BADTSI	TSI OOS or failed
BADUNIT	UNIT OOS or failed
FAIL	Test port Group NPC failed
MCOND	An entity in the network is OOS or failed
NA	DACS CCN or UNIT involved cannot perform the cross-connect
NO TC	<tc> not provided
NOT IDLE	Test port is not idle
OOS	Test port Group NPC out of service
SG COND 02	Trunk conditioning not given for dynamic test port
UEQD	The test port Group NPC is unequipped

OPR,LPBK,T0,TG

NX64Kbit/s LOOPED TEST ACCESS

Input Message Format

[I.29021]

```
OPR-LPBK-T0:[xy]::[ww]:TG-mmm:[<tc>];
```

Completion Message

[O.29021]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T0:::[ww]:TG-mmm:[<tc>] COMPLD
   /* [O.29021] */
   "TG-width:NN,<tc>"
;
```

Denial Message

[O.29021.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T0:::[ww]:TG-mmm:[<tc>] DENY
   mmmm
   /* [O.29021.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to place both bundles of a test-access group (TG) in the looped

mode. If the TG is not provisioned or currently assigned the command will be denied.

Explanation Of Parameters

TG - Test (access) group

mmm - TG number (001 through 400)

tc - Trunk conditioning

If the static tc was not furnished in the growth TG command, it must be dynamically specified in this command or the test access will be denied. A dynamic tc will override any static tc. The effective tc will be used, and will be output.

mmmm - Four-character error condition code.

NN - TG width (1 through 24)

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Active CCN side not IS or failed or pested or hardware OOS
SWFA	SYNC summary is set on CCI circuit pack
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	ETSI not equipped, not in service, or failed
ENEQ	test group unequipped
IDNV	Invalid TC specification
SNIS	NPC not in service or failed
IDNV	Inconsistent Signaling on CEPT NPCTGs
SNVS	invalid test access mode
IDNV	TG East/West type inconsistent with each other or circuit

OPR,LPBK,T1

FACILITY LOOPBACK ACTIVATE

Input Message Format

Nonhierarchical

[I.26141]

```
OPR-LPBK-T1:[<xy>]:[s]abc:[ww]:loop:locn;
```

Hierarchical

[I.26141]

```
OPR-LPBK-T1:[<xy>]:uv-m-np:[ww]:loop:locn;
```

Completion Message

Nonhierarchical

[O.26141]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::[s]abc:[ww]:loop:locn COMPLD
;
```

Hierarchical

[O.26141]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::uv-m-np:[ww]:loop:locn COMPLD
;
```

Denial Message

Nonhierarchical

[O.26141.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::[s]abc:[ww]:loop:locn DENY
   mmmm
   /* [O.26141.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.26141.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::uv-m-np:[ww]:loop:locn DENY
   mmmm
   /* [O.26141.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

ANSI (American National Standards Institute) T1.403 is a DS1 interface specification, which among other things, specifies the use of the 4kb/s ESF data link for network maintenance. The data link is used to communicate between network elements which transport the DS1 facility.

This command is used to initiate near-end (at the DACS II) and far-end (at the terminal on the other end of the DS1 facility) loopbacks for ESF formatted facilities as defined by ANSI T1.403.

DACS II will execute a near-end payload loopback by transmitting the received information bits of each frame back onto the DS1 facility. The framing bit position is regenerated by DACS II during a payload loopback.

DACS II will also send payload, line, and network loopback commands on the ESF data link to far-end equipment, ordering the equipment on the other end of the DS1 facility to execute

the respective loopbacks.

Explanation Of Parameters

LPBK - Loopback

loop - Loopback Type

loop	*Explanation*
LINE	- Line
PYLD	- Payload
NTWK	- Network

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

LOCN - Location

locn - Loopback Location

locn	*Explanation*
NEND	Near-end
FEND	Far-end

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	NPC type error
ENEQ	The MXR is not grown
SAOS	MXR is out of service
IPNV	Invalid parameter combination
SNVS	Another signal already active prevents this signal from being sent
SAOP	This signal is already being sent
SNVS	No signals active
IPNV	NPC is non-channelized
IPNV	NPC number out of range

OPR,LPBK,T1,DGA,DGB,DGC,DGD

TWO-WAY TEST ACCESS LINE LOOPBACK

Input Message Format

[I.26121]

```
OPR-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff;
```

Completion Message

[O.26121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M OPR LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff COMPLD
;
```

Denial Message

[O.26121.01]

```
   <xy> yy-mm-dd hh:mm:ss
M OPR LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff DENY
    mmmm
    /* [O.26121.01] */
    /* <explanation of the error condition code> */
;
```

Autonomous Message

[O.26121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT OPR LPBK T1
   /* [O.26121] */
   "{DGA|DGB|DGC|DGD|DGP},LLB,RT-ffff"
;
```

[O.26121.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT OPR LPBK T1
   mmmm
   /* [O.26121.01] */
   /* <explanation of the error condition code> */
   "{DGA|DGB|DGC|DGD|DGP},LLB,RT-ffff"
;
```

Explanation Of Message

This MML message allows the user to enable a line loopback test on the system.

Explanation Of Parameters

DG(A,B,C,D,P)
- Digroup (A,B,C,D,P)

LLB - Line LoopBack

RT - Remote Terminal

ffff - Bank identification number (0000 to 9999)

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Bank id number not found
IDNV	Digroup name and bank id don't match
IDNV	Operation mode and digroup name don't match
SAIN	Loop back inhibited for digroup
SNVS	Autonomous loopback is active on DGA
SNVS	LLB not initiated
SNVS	NPC has active circuit

OPR,LPBK,T1,LPBKT,INCL

NON-CHANNELIZED LOOP TEST ACCESS FACILITY

Input Message Format

Nonhierarchical

[I.20301]

```
OPR-LPBK-T1:[<xy>]:[s]abc:[ww]:LPBKT:[INCL];
```

Hierarchical

[I.20301]

```
OPR-LPBK-T1:[<xy>]:uv-m-np:[ww]:LPBKT:[INCL];
```

Completion Message

Nonhierarchical

[O.20301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::[s]abc:[ww]:LPBKT:[INCL] COMPLD
;
```

Hierarchical

[O.20301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::uv-m-np:[ww]:LPBKT:[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.20301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::[s]abc:[ww]:LPBKT:[INCL] DENY
   mmmm
   /* [O.20301.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.20301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR LPBK T1::uv-m-np:[ww]:LPBKT:[INCL] DENY
   mmmm
   /* [O.20301.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message terminally loops back a non-channelized Facility Access Digroup (FAD) or test network processing circuit (NPC).

Terminal looping is defined as looping of a terminated signal; it is done in the cross-connect network.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical FAD NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical NPC number of FAD

uv - Unit number
m - Module number
np - NPC number within the module
The values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

LPBKT - Looped back

Test NPC terminal loopback

INCL - Inclusive

May be entered for customer-controlled NPC, is not required

CUS - Customer

NPC is marked as Customer-controlled

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ERLC	Customer control or red circuit exists
SAOS	NPC out of service or failed
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed

mnemo	*Explanation*
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
SAAS	Termination is already assigned
SNVS	Termination is under test
SNVS	Termination is under customer control (CUS)
SNVS	Termination is protected (RDLD)
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
SROF	NPC Failed or Out of Service
SNVS	NPC invalid type
SNVS	NPC is a Facility Access Digroup
IIDT	Invalid test mode for a one-way test session
SNVS	Test session already exists
SAAS	Termination is in process of being rolled

OPR,TSIG,T1

FACILITY TEST SIGNAL ACTIVATE

Input Message Format

Nonhierarchical

[I.28101]

```
OPR-TSIG-T1:[<xy>]:[s]abc:[ww]:test;
```

Hierarchical

[I.28101]

```
OPR-TSIG-T1:[<xy>]:uv-m-np:[ww]:test;
```

Completion Message

Nonhierarchical

[O.28101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR TSIG T1::[s]abc:[ww]:test COMPLD
;
```

Hierarchical

[O.28101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR TSIG T1::uv-m-np:[ww]:test COMPLD
;
```

Denial Message

Nonhierarchical

[O.28101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR TSIG T1::[s]abc:[ww]:test DENY
   mmmm
   /* [O.28101.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.28101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  OPR TSIG T1::uv-m-np:[ww]:test DENY
   mmmm
   /* [O.28101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to initiate facility test signals on DACS II DA and TA DS1 facility types. The test signals support network maintenance activities.

For the Yellow Test, High Density Test, Low Density Test, and Quasi-Random Test Signals, once the test signal activation command is received and executed, the test signal remains on the line until it is deactivated by a subsequent user command.

The In-Band Loop-back Activate and In-Band Loop-back Deactivate Signals are temporary test signals. These test signals are activated by a command, transmitted for a duration of 5-8 seconds, and then automatically deactivated. When these are deactivated, the facility returns to its previous state, transmitting either normal data or any previously active test signal.

DACS II always applies downstream trunk conditioning before the NPC begins transmitting the requested test signal.

For DA and TA type DS1 facilities using the ESF format, DACS II will also transmit a Loopback Retention signal on the ESF-DL. Transmission of this signal does not cause DACS II to apply downstream trunk conditioning because the Loopback Retention signal affects only the contents of the ESF-DL.

This signal is defined in ANSI (American National Standards Institute) T1.403 as a Bit Oriented Message which is reserved for network use. ANSI T1.403 is a DS1 interface specification, which among other things, specifies the use of the 4kb/s ESF data link for network maintenance. The data link is used to communicate between network elements which transport the DS1 facility.

NOTE:
Test signals overwrite, by design, any cross-connect signal on the line regardless of which was initiated first; the cross-connect or the test signal.

Explanation Of Parameters

TSIG - Test signal

test - Test signal type

test	*Explanation*
YELT	Yellow Test Signal
HDTS	High Density Test Signal
LDTS	Low Density Test Signal
QRTS	Quasi-Random Test Signal
ILBA	In-Band Loopback Activate Signal
ILBD	In-Band Loopback Deactivate Signal
LRET	Loopback Retention Signal

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640


Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280


Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920


Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	NPC type error
ENEQ	The MXR is not grown
SAOS	MXR is out of service
IPNV	Invalid parameter combination
SNVS	Another signal already active prevents this signal from being sent
SAOP	This signal is already being sent
SNVS	No signals active
IPNV	NPC is non-channelized
IPNV	NPC number out of range

REPT,ALM,EQPT,AR01,MISC,NPC

ALARM IDLD

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65021] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "[s]abc:IDLD,{CGA|LOS}[,k]"
;
```

Hierarchical

[O.65021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65021] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "uv-m-np:IDLD,{CGA|LOS}[,k]"
;
```

Explanation Of Message

This autonomous message indicates that the carrier group alarm (CGA) on a facility terminated on a particular network processing circuit has been cleared.

Explanation Of Parameters

MISC - Miscellaneous

ALM - Alarm

IDLD - Idled

CGA - Carrier group alarm

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

LOS - Loss of signal

If NPC numbers are expressed in three digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

k - Type of CGA alarm

k	*Explanation*
A	AIS - Alarm Indication Signal; also known as All Ones Signal or Blue Signal
B	Both - Yellow and Red (Note: B is valid only for SLC® Series 5 NPCs)
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
R	Red
Y	Yellow

REPT,ALM,EQPT,AR01,MISC,NPC,MJ

AR01 MISCELLANEOUS ALARM, CGA, PBA OR LOS

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65011]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65011] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "[s]abc:{MJ|MN|INFO},{CGA|LOS}[,k]"
;
```

Hierarchical

[O.65011]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65011] */
   "AR01,MISC ALM"
   /* NPC Number:state of alarm,condition type[,type of alarm] */
   "uv-m-np:{MJ|MN|INFO},{CGA|LOS}[,k]"
;
```

Explanation Of Message

This autonomous message reports a DACS II Carrier Group Alarm (CGA) or Loss of Signal (LOS) on a facility terminated on a particular Network Processing Circuit. Once a CGA Red/LOS has been detected, DACS II inserts downstream trunk conditioning and transmits a yellow signal in the upstream direction.

Explanation Of Parameters

pa - Priority of action

pa	*Explanation*
A	Autonomous
*	Minor alarm
**	Major alarm
*C	Critical alarm

MISC - Miscellaneous

ALM - Alarm

CGA - Carrier group alarm

LOS - Loss of signal

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

DE, DS and DA type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

state - Alarm status

state	*Explanation*
MJ	Major
MN	Minor
INFO	Information
A	AIS - Alarm Indication Signal; also known as All Ones Signal or Blue Signal
B	Both - Yellow and Red (Note: B is valid only for SLC® Series 5 NPCs)
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
R	Red
Y	Yellow

REPT,ALM,EQPT,BMTR,TAPE,MN

ALARM BACKUP MEMORY TRANSFER

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65056]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* O.65056 */
   /* Failed function:Failed entity:state */
   "BMTR:TAPE:{MN|IDLD}"
;
```

Explanation Of Message

This message reports the failure of transferring the data base from disk to tape. The failure causes a minor alarm to be generated. This alarm is cleared by a subsequent successful data base transfer from disk to tape.

Explanation Of Parameters

pa - Priority of Action

pa	*Explanation*
*	Minor alarm
A	Autonomous report

ALM - Alarm

MN - Minor alarm

IDLD - Alarm idled

TAPE - Tape

BMTR - Backup memory transfer

REPT,ALM,EQPT,BOOT,FAILED,BAD

BOOT FAILED

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65053]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT ALM EQPT
   /* [O.65053] */
   "BOOT FAILED:BAD BOOT DEVICE"
;
```

Explanation Of Message

This automonous output message reports that a system boot has failed while entering the RST-EQPT::MC command (Message 34001).

REPT,ALM,EQPT,CCN,MJ,IDLD,OOS

ALARM CROSS-CONNECT NETWORK

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65054]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT ALM EQPT
   /* [O.65054] */
   /* CCN side:alarm state:status */
   "s:{MJ|IDLD}:OOS"
;
```

Explanation Of Message

This message reports an alarm on a cross-connect network (CCN) side if the CCN duplexed entities are in an unprotected state. A major alarm will be generated when a CCN side is out-of-service (OOS) and pested for two or more consecutive minutes.

Explanation Of Parameters

ALM - Alarm

MJ - Major

This indicates a major alarm.

IDLD - Idled

This indicates an alarm has be Idled.

CCN - Cross-connect network

s - Cross-connect Network side number (0 or 1)

OOS - Out-of-service

REPT - Report

EQPT - Equipment

REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS

ALARM ECCN

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65055]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65055] */
   /* ECCN side:alarm state:status */
   "s:{MJ|IDLD}:OOS"
;
```

Explanation Of Message

This message reports an alarm on side 0 or 1 of the expanded cross-connect network side. The reported alarm notifies the craft when the ECCN duplexed entities are in an unprotected state. A major alarm is generated when an ECCN side is out-of-service and pested for two or more consecutive minutes.

Explanation Of Parameters

pa - Priority of Action

pa	Explanation
A	Autonomous report
**	Major condition
*C	Critical condition

ALM - Alarm

MJ - Major

This indicates a Major alarm.

IDLD - Idled

This indicates the alarm has been idled.

ECCN - Expanded cross-connect network

s - Side number (0 or 1)

OOS - Out-of-service

REPT,ALM,EQPT,NPC,IDLD

ALARM IDLED, DE, DS, OR TE NPCs

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65041]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65041] */
   /* NPC Number:state of alarm,facility performance parameter */
   "[s]abc:IDLD,<parameter>"
;
```

Hierarchical

[O.65041]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65041] */
   /* NPC Number:state of alarm,facility performance parameter */
   "uv-m-np:IDLD,<parameter>"
;
```

Explanation Of Message

This autonomous output message reports that a major or minor alarm has been cleared for a given parameter on a facility that terminates on a particular network processing circuit (NPC).

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number

uv	- Unit number
m	- Module number
np	- NPC number within the module Values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

IDLD - Idled

parameter
- Facility performance parameter

Parameter	Programmable Threshold Range	Default Threshold
Bit Error Rate (BER) Major	1E-6* to 1E-3†	1E-3†
Bit Error Rate (BER) Minor	1E-6* to 1E-3†	1E-6

* For T1DM and Fe framing, the lower limit of the programmable threshold range is 1E-7.

† For DE-type Clear DS1 NPC and DS-type NPC, the range and default value is 1E-4.

REPT,ALM,EQPT,NPC,MJ,MN,INFO

ALARM, DE, DS OR TE NPCs

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65031]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65031] */
   /* NPC Number:<state of alarm>,<facility performance parameter> */
   "[s]abc:{MJ|MN|INFO},<parameter>"
;
```

Hierarchical

[O.65031]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65031] */
   /* NPC Number:<state of alarm>,<facility performance parameter> */
   "uv-m-np:{MJ|MN|INFO},<parameter>"
;
```

Explanation Of Message

This automonous message reports a major or minor alarm state for a facility performance parameter that is terminated on a DE, DS, or TE type network processing circuit.

Explanation Of Parameters

pa - Priority of Action

pa	*Explanation*
A	Autonomous
*	Minor alarm, nonservice affecting
**	Major alarm, service affecting
*C	Critical alarm, service affecting

ALM - Alarm

MJ	- Major
MN	- Minor
INFO	- Informational

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

parameter

- Facility performance parameter:

For DE type NPCs, parameters with values rr = 1 through 8 are valid.

For DS type NPCs, parameters with values rr = 1 through 10 are valid.
For TE type NPCs, parameters with values rr = 1 through 8 are valid.

For Clear-DS1 DE type NPCs, parameters with values rr = 1 through 4 are valid.

For Clear-DS1 TE type NPCs, parameters with values rr = 1 through 2 are valid.

rr	Parameter	Threshold Value Range	Default Threshold Value
01	Slip major	000 to 255	255
02	Slip minor	000 to 255	4
03	Bit Error Rate major	1E-3* to 1E-6†	1E-3*
04	Bit Error Rate minor	1E-3* to 1E-6†	1E-6
05	Errored Seconds‡	00001 to 65535	864
06	Severely Errored Seconds‡	001 to 255	225
07	Change of Frame Alignment major	001 to 511	511
08	Change of Frame Alignment minor	001 to 255	17
09	Shelf Alarm Near End(SANE)§	00001 to 65535	00000
10	Shelf Alarm Far End(SAFE)§	00001 to 65535	00000

* 4 for clear-DS1 NPCs or DS type NPCs (default)

† 7 on DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

‡ Only applicable to DE or TE type NPCs using T1DM (x = 4) or ESF (x = 2 or 3) framing

§ Applicable only to DS type NPCs

Note 1: Major thresholds must be greater than minor thresholds.

Note 2: For Bit Error Rates, enter only the power of 10 (DACS assumes its sign is negative). For example, for a BER of 10^{-3} (.001), enter 3.

Note 3: Slip major and Slip minor threshold crossing alarms may be disabled by programming threshold values of zero for the respective parameters.

REPT,ALM,EQPT,RESET,DATE,TOD

ALARM RESET

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65051]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65051] */
   "ALM,RESET,{DATE|TOD|DATE,TOD}"
   /* :<Date of the year>,<Time of day> */
   ":yr-mo-da,hr-mn-sc"
;
```

Explanation Of Message

This autonomous output message reports that the date and/or time have been reset because of a DACS II frame reset or because Message I.34001 (RST MC) has been entered.

Explanation Of Parameters

DATE - Date

TOD - Time of day

yr - Year number (four digits)
mo - Month number
da - Day of month number

hr - Hour of day
mn - Minute of hour
sc - Second of minute

REPT,ALM,EQPT,SC,ALARM,NPC,RT

SLC® ALARM

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65131]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM EQPT
   /* [O.65131] */
   "SC,ALARM"
   /* Bank id,digroup name-NPC:state,location[,reason]\
[,Type of alarm] */
   "{RT|DL}-ffff,{DGA|DGB|DGC|DGD|DGP}-[s]abc:{MJ|MN|\
IDLD},{CLF|NE|FE}[,{CGA|DLF|INH|MRV|MSW|PSW}][,k]"
;
```

Hierarchical

[O.65131]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM
   /* [O.65131] */
   "SC,ALARM"
   /* Bank id,digroup name-NPC:state,location[,reason]\
[,Type of alarm] */
    "{RT|DL}-ffff;{DGA|DGB|DGC|DGD|DGP}-uv-m-np:{MJ|MN|\
IDLD},{CLF|NE|FE}[,{CGA|DLF|INH|MRV|MSW|PSW}][,k]"
;
```

Explanation Of Message

This autonomous output message reports a SLC® carrier interface related alarm. The message provides the affected bank, the alarm-causing digroup, the associated network processing circuit (NPC) number, and the state and location of the alarm.

Explanation Of Parameters

The permissible output parameters are somewhat different if the CGA option is present in this message. These are noted below.

pa - Priority of action

pa	*Explanation*
A	Autonomous (Only without CGA)
*	Minor alarm, non-service-affecting (no CGA declaration)
**	Major alarm, service-affecting, 1 to 5 NPCs including AIS state. (With or without CGA)
*C	Critical alarm, service-affecting, more than 5 NPCs. (With or without CGA)

SC - SLC® carrier

ALARM - Alarm

MJ - Major

MN - Minor

IDLD - Idled

CGA - Carrier group alarm
DLF - Data link failure
INH - Inhibition (Protection switch)
MRV - Manually Removed
MSW - Manual (protection) switch
PSW - Autonomous protection switch

RT - Remote terminal

DL - Digital carrier line unit (DCLU)

ffff - Bank identification number (0000 through 9999)

DGA - SLC Carrier Digroup A
DGB - SLC Carrier Digroup B
DGC - SLC Carrier Digroup C
DGD - SLC Carrier Digroup D
DGP - SLC Carrier Digroup P

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

The valid numbers are:

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280


Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920


Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number

The values are listed below

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit       Module     NPC
01-16      1-4        01-40
```

k - Alarm type

k	*Explanation*
Y	Yellow
R	Red
B	Both yellow and red

CLF - Carrier loop failure (with or without CGA)
NE - Near end (the DACS II end) (with or without CGA)
FE - Far end

REPT,ALM,EQPT,SC,ALARM,RT,COMP

SLC® CARRIER ALARM

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65171]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65171] */
   "SC,ALARM"
   /* bank id:alarm type,alarm state[,reasons] */
   "RT-ffff:COMP,<state>[,INDX][,LBRV][,AB][,CD][,P][,ALP]"
;
```

Explanation Of Message

This output message reports the existence of a minor alarm between a SLC® Series 5 carrier feature package C (FPC) remote terminal (RT) and the DACS II frame. Also reported is any incompatible provisioning between the two ends. The message keywords indicate the reason for the incompatibility.

Explanation Of Parameters

ALM - Alarm

COMP - Compatibility

state - Alarm state

MN - Minor
IDLD - Idled

RT - Remote Terminal

ffff - RT bank id number

reasons
- Reasons for the alarm

INDX - Index

The release generic index value does not match.

LBRV - Low bit rate voice

The low bit rate voice byte value does not match.

AB - A and B

Digroups A and B provisioning information does not match.

CD - C and D

Digroups C and D provisioning information does not match.

P - Protection

Digroup P provisioning information does not match.

ALP - Alpha

The ALPHA byte value does not match.

REPT,ALM,EQPT,SC,DPLX,ALARM

SLC® ALARM DUPLEX

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65151]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65151] */
   "SC,DPLX ALARM"
   /* Affected equipment:<state>,<location> */
   "{SYNC-a|CCB-sf|CCNI-s|CCI-s|TSI-sft|ETSI-sqq|FC-sb-UNIT-[q]q|\
FMT-s-UNIT-[q]q|NPC-[s]abc-SIDE-s}:
{CR|IDLD},NE"
;
```

Hierarchical

[O.65151]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT
   /* [O.65151] */
   "SC,DPLX ALARM"
   /* Affected equipment:<state>,<location> */
   "{SYNC-a|CCB-sf|CCNI-s|CCI-s|TSI-sft|ETSI-sqq|FC-sb-UNIT-[q]q|\
FMT-s-UNIT-[q]q|NPC-uv-m-np-SIDE-s}:
{CR|IDLD},NE"
;
```

Explanation Of Message

This autonomous output message reports the existence of an alarm and duplex failure on the frame.
Duplex means failures that affect both sides of the system.
The entity printed in the message is the most recently failed side.

Explanation Of Parameters

SC - SLC®

DPLX - Duplex

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

UNIT - Unit

[q]q - Unit number (1 through 16)

CCB - Cross-connect buffer

CCNI - Cross-connect network interface

SIDE - Side

s - Side number (0 or 1)

f - CCB number (1 through 6)

TSI - Time slot interchange

t - TSI number (1 through 6)

CCI - Clock and control interface

ETSI - Expanded time slot interchanger

s - Side number (0 or 1)

FC - Format converter

b - Module Number (1, 2, 3, or 4)

FMT - Formatter

NPC - Network processing circuit

[s]abc

- The 3- or 4-digit nonhierarchical DSPU NPC number

The valid numbers are:

If NPC numbers are expressed in three digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641        0801        0961        1121
0661        0821        0981        1141
0681        0841        1001        1161
0701        0861        1021        1181
0721        0881        1041        1201
0741        0901        1061        1221
0761        0921        1081        1241
0781        0941        1101        1261


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281        1441        1601        1761
1301        1461        1621        1781
1321        1481        1641        1801
1341        1501        1661        1821
1361        1521        1681        1841
1381        1541        1701        1861
1401        1561        1721        1881
1421        1581        1741        1901
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-np

- Hierarchical DSPU NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

MB, SR, and MJ type numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01

CR - Critical alarm

IDLD - Idled alarm

NE - Near end

IDLD - Idled

REPT,ALM,SC,ALARM,MC,UC,FTMI

SLC® CARRIER ALARM

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65161]

```
   <xy> yy-mm-dd hh:mm:ss
A ff REPT ALM
   /* [O.65161] */
   "SC,ALARM"
   /* Affected equipment:<state>,<location> */
   "{MC|UC [q]q|FTMI [q]qb|DSPI [q]q}:<state>,NE"
;
```

Explanation Of Message

This autonomous output message reports an alarm and a possible service-affecting failure. The failures could be the main controller, facility terminating module interface (FTMI), or the digital signal processing interface (DSPI) circuit pack.

Explanation Of Parameters

MC - Main controller

UC - Unit controller

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

[q]qb - FTMI identifier

- **[q]q** - Unit number (see above)
- **b** - FTMI number (1 through 4)

DSPI - Digital signal processing interface

[q]q - Unit number (see above)

state - Alarm state

- **MJ** - Major
- **MN** - Minor
- **IDLD** - Idled

NE - Near End

REPT,ALM,SC,ALARM,RT,DL,FE

SLC® CARRIER ALARM

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65141]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM
   /* [O.65141] */
   "SC,ALARM"
   /* Bank id:[alarm type,]state[,location] */
   "{RT|DL}-ffff:[<alarm type>,]<state>[,FE]"
;
```

Explanation Of Message

This output message reports the existence of a power (PWR) or miscellaneous (MISC) alarm (state and location) at the far end.

Explanation Of Parameters

Bank id
- Bank identification

RT - Remote Terminal

DL - Digital Carrier Line Unit (DCLU)

ffff - Bank id number (0000 to 9999)

alarm type
- The type of SLC Carrier failure or alarm

type	Explanation
PWR	Power failure alarm
MISC	Miscellaneous alarm (SLC 96 Carrier only)
MISC1	Miscellaneous alarm (SLC Series 5 Carrier FPC only)
MISC2	Miscellaneous alarm (SLC Series 5 Carrier FPC only)
RGF	Ringing Generator Failure (SLC Series 5 Carrier FPC only)
EEPROM	EEPROM alarm (SLC Series 5 Carrier FPC only)
COMP	Compatibility alarm (SLC Series 5 Carrier FPC only)

state - Alarm state

state	*Explanation*
MJ	Major alarm
MN	Minor alarm
IDLD	Idled

pa - Priority of action

pa	*Explanation*
*	Minor alarm, not service-affecting
**	Major alarm, service-affecting, 1 to 5 NPCs including AIS state

FE - Far End

REPT,ALM,T3,IDLD,UNIT,DS3

ALARM IDLED DS3U

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.66011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM T3
   /* [O.66011] */
   /* Facility| : |Alarm State| :IDLD */
   "UNIT-[q]q-DS3-c:<state>:IDLD"
;
```

Explanation Of Message

This autonomous output message reports that a failure detected on an incoming DS3 facility has been cleared.

Explanation Of Parameters

ALM - Alarm

UNIT - Unit

[q]q - Unit number (1 through 16)

DS3 - Digital signal 3

c - DS3 number (1 through 6)

state - Alarm state

state	*Explanation*
LOS	Loss of signal
BER	Bit error rate
OOF	Out of frame
AIS	Alarm indication signal
IDLE	Idle signal

IDLD - Idled

REPT,ALM,T3,UNIT,DS3

ALARM DS3U

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.66001]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT ALM T3
   /* [O.66001] */
   /* Facility:Alarm State */
   "UNIT-[q]q-DS3-c:<state>"
;
```

Explanation Of Message

This autonomous message reports a failure detected on an incoming DS3 facility. It also reports an increase in the severity of the situation that caused the alarm (see the alarm states shown in the Explanation of Parameters below).

Explanation Of Parameters

pa - Priority of action

pa	*Explanation*
*C	Critical
A	Information (AIS or IDLE)

UNIT - Unit

[q]q - Unit number (1 through 16)

DS3 - Digital signal 3

c - DS3 number (1 through 6)

state - Alarm state (listed according to severity)

state	*Explanation*
LOS	Loss of signal
BER	(High) Bit error rate
OOF	Out of frame
AIS	Alarm indication signal
IDLE	Idle signal

REPT,ALMDET,EQPT,ANALYSIS

ERROR RECOVERY ESR ANALYSIS REPORT

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01391]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALMDET EQPT
   /* [O.01391] */
   "ANALYSIS,REPORT,EVENT-eeee,ESR,ERR"
   "<action>,<circuit identifier>"
   "<action>,<circuit identifier>"
   "<action>,<circuit identifier>"
;
```

Explanation Of Message

This message outputs a list of circuit packs associated with a series of alarm messages identified by the EVENT number. One of the circuit packs listed may be at fault. The most likely faulty pack is at the top of the list. Only the first circuit pack on the list will be removed. This message will not be output if a single circuit pack is implicated.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

ANALYSIS
- Analysis

REPORT
- Report

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

action
- Identifies autonomous action attempted on the circuit pack. Available actions are

action	*Explanation*
RMV	Request was made to remove circuit pack from service and run a diagnostic
---	Pack is listed for information only

circuit identifier
- Circuit pack type and identification.

The available circuit identifiers are listed below:

circuit identifier

SYNC-s
SYNC-s,TLI-m
CCNI-s
CCB-sf
TSI-sft
CCI-s
ETSI-sqq
BTS-s
UC-[q]q
UNIT-[q]q,UBX
UNIT-[q]q,FC-sb
UNIT-[q]q,FTMI-b

UNIT-[q]q,DSPI
UNIT-[q]q,MXR-n,DEV-devc
UNIT-[q]q,MIU-l
UNIT-[q]q,FLI-d
UNIT-[q]q,FMT-k
UNIT-[q]q,MMFG-y
NPC [s]abc[&&-[t]def][,SIDE-s]
NPC uv-m-np[&&&-wx-k-qr][,SIDE-s]

REPT,ALMDET,EQPT,ERR,HARDWARE

ERROR RECOVERY HARDWARE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01392]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALMDET EQPT
   /* [O.01392] */
   /* <explanation of error condition code */
   "ERR-HARDWARE"
   /* Transaction Number:DP:TSARGS */
   "TN-X-dddd,<dp>,<tsargs>"
   /* Entity:Event */
   "<entity>,xxxx"
   /* Action:Source:Process */
   "<action>,<source>,<proc> <load>"
;
```

Explanation Of Message

This message is printed out when applications software attempted some operation on a circuit, but that operation failed. The type of failure is indicated in the condition code. The applications software may have requested some autonomous action on the circuit and that action will be reflected with an autonomous request for removal and/or diagnostics. Additional information can be gathered by querying the error recovery log file, but this will require technical assistance for interpretation.

Explanation Of Parameters

ERR - Error recovery

TN - Transaction

x - Hexadecimal format

dddd - Transaction number (hexadecimal)

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

COND - Condition

EVENT - Event

xxxx - Event number

SOURCE
- Source

source
- Source filename

DACS II internal software filename (up to 12 characters)

DP - Decision point

dp - Decision point value

Number associated with a particular location in the software file specified in the "source" field. Value is 0- to 8-digit positive decimal number.

ACTION
- Action

action
- Action to be taken

(CBaction	*Explanation*
REPORT	Report only, no action
REMOVE	Remove processor from service

PROC - Process

proc - Process value

TSARGS
- Trouble shooting arguments

count - The number of trouble shooting arguments following

tsargs
- List of "count" trouble shooting arguments

load - Load number

The load number is a ten digit number of the following form:

abcdefghij

ab	software generic number
cd	software point issue number
ef	software release number
gh	year
ij	load number

entity
- DACS II entity involved

entity

SYNC-s
SYNC-s,TLI-m
CCNI-s
CCB-sf
TSI-sft
CCI-s
ETSI-sqq
BTS-s
UC-[q]q
UNIT-[q]q,UBX
UNIT-[q]q,FC-sb
UNIT-[q]q,FTMI-b

UNIT-[q]q,DSPI
UNIT-[q]q,MXR-n,DEV-devc
UNIT-[q]q,MIU-l
UNIT-[q]q,FLI-d
UNIT-[q]q,FMT-k
UNIT-[q]q,MMFG-y
NPC [s]abc[&&-[t]def][,SIDE-s]
NPC uv-m-np[&&&-wx-k-qr][,SIDE-s]

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Hardware database mismatch
SWFA	Hardware Failure
SWFA	Hardware Boot Failed
SWFA	Can't access link
SWFA	Transmit Time-out
SWFA	Receiver Time-out
SWFA	softerr failure which forces link removal
SWFA	Unit could not be reset
SWFA	Unit failed sanity check
SWFA	failure to insert TCC
SWFA	failure to remove TCC
SWFA	failed to switch CCN sides
SWFA	NPC's facility queue overflow condition
SWFA	Duplex entity failed diagnostics
SWFA	Lost Clear-To-Send signal on X.25 links
SWFA	Frame Audit reboot DDC failure
SWFA	Packet layer parameters are mismatched between DACS II and the network
SWFA	Failed to write XPC register
SWFA	Transmit time-out because Clear To Send lost
SWFA	R20 counter reaches limit
SWFA	T3 timer expires

mmmm	*Explanation*
SWFA	Too many interrupts or illegal interrupt from XPC

REPT,AUD,EQPT,MP,CI,DISK,TAPE

FRAME AUDITS MAIN CONTROLLER

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.82004]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT AUD EQPT
   /* [O.82004] */
   /* Entities:{MP|CI|DISK|TAPE|BX|EBX|SSC|MTC|EMTC} */
   "MC:<tt>"
;
```

Explanation Of Message

This autonomous output message from frame audits indicates that a diagnostic test was run

on the main controller (MC) but failed.

Explanation Of Parameters

MC - Main controller

DGN - Diagnose

tt - Entity identifier

tt	*Explanation*
BX	Bus Extender RAM
CI	Communications Interface
DISK	Disk
EBX	Expanded Bus Extender RAM
EMTC	Expanded Maintenance Circuit
MP	Main Processor
MTC	Maintenance Circuit
SSC	Secondary Storage Controller
TAPE	Tape

REPT,DGNDET,EQPT

FRAME AUDITS

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.82002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82002] */
   /* Test number:Data in the incorrect state */
   "ttt:[d9,d8,d7,d6,]d5,d4,d3,d2,d1,d0"
;
```

Explanation Of Message

This autonomously-generated message indicates that test number **ttt** was run and that this frame audit found data in the incorrect state. The message also indicates that this

frame audit has completed.

Explanation Of Parameters

ttt - Test Number

d5-d0 - Hexadecimal data bytes

ttt *Explanation*

002 FTU FTMI status flags are inconsistent

The FTMI equipage flag in the MP data base does not match the equipage flag in the UC data base.

d0 FTMI flag from MP data base
d1 FTMI flag from UC data base
d2 Not used
d3 Not used
d4 FTMI number
d5 UNIT number

003 FTU FC status flags are inconsistent

The FC equipage flag in the MP data base does not match the equipage flag in the UC data base.

d0 FC flag from MP data base
d1 FC flag from UC data base
d2 Not used
d3 FC side
d4 FTMI number
d5 UNIT number

004 FTU FTMI left side equalization values are inconsistent

The FTMI left side equalization values in the MP data base do not match those in the UC data base.

d0 Second byte of the equalization value from MP data base
d1 First byte of the equalization value from MP data base
d2 Second byte of the equalization value from UC data base
d3 First byte of the equalization value from UC data base
d4 FTMI number
d5 UNIT number

005 FTU FTMI right side equalization values are inconsistent

The FTMI right side equalization values in the MP data base do not match those in the UC data base.

d0 Second byte of the equalization value from MP data base
d1 First byte of the equalization value from MP data base
d2 Second byte of the equalization value from UC data base
d3 First byte of the equalization value from UC data base
d4 FTMI number
d5 UNIT number

006 FTU FTMI mode flags are inconsistent

The mode of the FTMI in the MP data base does not match the mode of the FTMI in the UC data base.

d0 FTMI mode from MP data base
d1 FTMI mode from UC data base
d2 Not used
d3 Not used
d4 FTMI number
d5 UNIT number

007 Unit flags are inconsistent

The UNIT equipage flag in the MP data base does not match the UNIT equipage flag in the unit data base.

d0 UNIT flag from MP data base
d1 UNIT flag from UC data base
d2 Not used
d3 Not used
d4 Not used
d5 UNIT number

008 Unit Cross-Connect side status flag is inconsistent

The Cross-Connect side status flag in the MP data base does not match the CCN/ECCN side status flag in the unit data base.

d0 Cross-Connect side flag from MP data base
d1 Cross-Connect side flag from UNIT data base
d2 Not used
d3 Not used
d4 Cross-Connect side
d5 UNIT number

009 NPC transmit pseudo framing word values are inconsistent

The transmit pseudo framing word of the NPC in the MP data base does not match that in the unit data base.

d0 The transmit pseudo framing word of the NPC from the MP data base
d1 The transmit pseudo framing word of the NPC from the unit data base
d2 Not used
d3 Not used
d4 NPC number
d5 Unit number

00A NPC receive pseudo framing word values are inconsistent

The receive pseudo framing word of the NPC in the MP data base does not match that in the unit data base.

d0 The receive pseudo framing word of the NPC from the MP data base
d1 The receive pseudo framing word of the NPC from the unit data base
d2 Not used
d3 Not used
d4 NPC number
d5 Unit number

00B NPC non frame word setting values are inconsistent

The non frame word setting of the NPC in the MP data base does not match that in the unit data base.

d0 Fourth byte of the non frame word setting of the NPC from the MP data base
d1 Third byte of the non frame word setting of the NPC from the MP data base
d2 Fourth byte of the non frame word setting of the NPC from the unit data base
d3 Third byte of the non frame word setting of the NPC from the unit data base
d4 NPC number
d5 Unit number

00C NPC transmit and receive pseudo framing word values are inconsistent

The transmit pseudo framing word of an NPC does not match with the receive pseudo framing word in the MP data base when one of them is set to the non-framing word.

d0 The transmit pseudo framing word of the NPC from the MP data base
d1 The receive pseudo framing word of the NPC from the MP data base
d2 Not used
d3 Not used
d4 NPC number
d5 Unit number

00D NPC Transmit Pseudo Framing Word is out of range

The Transmit Pseudo Framing Word is out of range in the MP data base

d0 The Transmit Pseudo Framing Word of NPC from MP data base
d1 Not used
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

00E NPC Receive Pseudo Framing Word is out of range

The Receive Pseudo Framing Word is out of range in the MP data base

d0 The Receive Pseudo Framing Word of NPC from MP data base
d1 Not used
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

00F NPC AIS Alarm data are inconsistent

The AIS Alarm data of the NPC in the MP data base does not match that in the unit data base

d0 The AIS Alarm data of NPC from MP data base
d1 The AIS Alarm data of NPC from unit data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

011 FTU NPC flags are inconsistent

The FTU (or DSPU) NPC equipage flag in the MP data base does not match

the FTU (or DSPU) NPC equipage flag in the Unit data base.

d0 NPC flag from MP data base
d1 NPC flag from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

012 FTU NPC insertion words are inconsistent

The FTU NPC insertion word in the MP data base does not match the FTU NPC insertion word in the UC data base.

d0 NPC insertion word from MP data base
d1 NPC insertion word from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

013 FTU NPC types are inconsistent

The type of the FTU NPC in the MP data base does not match the type of the FTU NPC in the UC data base.

d0 NPC type from MP data base
d1 NPC type from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

014 FTU NPC X option values are inconsistent

The X option of the FTU NPC in the MP data base does not match that in the UC data base.

d0 Second byte of the X option of NPC from MP data base
d1 First byte of the X option of NPC from MP data base
d2 Second byte of the X option of NPC from UC data base
d3 First byte of the X option of NPC from UC data base
d4 NPC number
d5 UNIT number

015 FTU NPC Y option values are inconsistent

The Y option of the FTU NPC in the MP data base does not match that in the UC data base.

d0 Second byte of the Y option of NPC from MP data base
d1 First byte of the Y option of NPC from MP data base
d2 Second byte of the Y option of NPC from UC data base
d3 First byte of the Y option of NPC from UC data base
d4 NPC number
d5 UNIT number

016 FTU NPC Z option values are inconsistent

The Z option of the FTU NPC in the MP data base does not match that in the UC data base.

d0 Second byte of the Z option of NPC from MP data base
d1 First byte of the Z option of NPC from MP data base
d2 Second byte of the Z option of NPC from UC data base
d3 First byte of the Z option of NPC from UC data base
d4 NPC number
d5 UNIT number

017 FTU NPC threshold values are inconsistent

The threshold value of the FTU NPC in the MP data base does not match that in the UC data base.

d0 Second byte of the threshold value of NPC from MP data base
d1 First byte of the threshold value of NPC from MP data base
d2 Second byte of the threshold value of NPC from UC data base
d3 First byte of the threshold value of NPC from UC data base
d4 NPC number
d5 UNIT number

018 FTU NPC Signaling field is inconsistent

The FTU NPC SIG field in the MP data base does not match the FTU NPC SIG field in the UC data base.

d0 NPC SIG field from MP data base
d1 NPC SIG field from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

019 FTU NPC TS0 bit value is inconsistent

The FTU NPC TS0 bits in the MP data base do not match the FTU NPC TS0 bits in the UC data base.

d0 NPC TS0 bits from MP data base
d1 NPC TS0 bits from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

01A FTU NPC loopback field is inconsistent

The FTU NPC LPBK field in the MP data base does not match the FTU NPC LPBK field in the UC data base.

d0 NPC LPBK field from MP data base
d1 NPC LPBK field from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

01B FTU NPC TS0M bit value is inconsistent

The FTU NPC TS0M bits in the MP data base do not match the FTU NPC TS0M bits in the UC data base.

d0 NPC TS0M bits from MP data base
d1 NPC TS0M bits from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

01C FTU syncmode value is inconsistent

The FTU syncmode in the MP data base does not match the FTU syncmode in the UC data base.

d0 syncmode from MP data base
d1 syncmode from UC data base
d2 Not used
d3 Not used
d4 Not used
d5 UNIT number

01D CPR channel modify activated information is inconsistent

The CPR channel modify activated information stored in UC data base does not match that stored in the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 FTU NPC number
d5 UNIT number

01E NPC Insertion AIS values are inconsistent

The Insertion AIS of the NPC in the MP data base does not match that in the unit data base

d0 The AIS Insertion of NPC from MP data base
d1 The AIS Insertion of NPC from MP data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

01F NPC alarm disable flag values are inconsistent

The alarm disable flag of the NPC in the MP data base does not match that in the unit data base

d0 Second byte of the alarm disable flag of NPC from MP data base
d1 First byte of the alarm disable flag of NPC from MP data base
d2 Second byte of the alarm disable flag of NPC from unit data base
d3 First byte of the alarm disable flag of NPC from unit data base
d4 NPC number
d5 UNIT number

021 CCN side entity flags are inconsistent

The equipage flag of the CCN side entity in the MP data base does not match that in the CCN data base.

d0 CCN side flag from MP data base
d1 CCN side flag from CCN data base
d2 Not used
d3 Not used
d4 Not used
d5 CCN side

022 CCN CCNI entity flags are inconsistent

The equipage flag of the CCN CCNI entity in the MP data base does not match that in the CCN data base.

d0 CCNI flag from MP data base
d1 CCNI flag from CCN data base
d2 Not used
d3 Not used
d4 Not used
d5 CCN side

023 CCN CCB entity flags are inconsistent

The equipage flag of the CCN CCB entity in the MP data base does not match that in the CCN data base.

d0 CCB flag from MP data base
d1 CCB flag from CCN data base
d2 Not used
d3 Not used
d4 CCB number
d5 CCN side

024 CCN TSI entity flags are inconsistent

The equipage flag of the CCN TSI entity in the MP data base does not match that in the CCN data base.

d0 CCN TSI flag from MP data base
d1 CCN TSI flag from CCN data base
d2 Not used
d3 CCB number - TO side
d4 CCB number - FROM side
d5 CCN side

025 CCN active side flags are inconsistent

The CCN active side reported by the MP data base does not match the CCN active side reported by the CCN data base.

d0 CCN active side flag MP data base
d1 CCN active side from CCN data base
d2 Not used
d3 Not used
d4 Not used
d5 Not used

026 ECCN side entity flags are inconsistent

The equipage flag of the ECCN side entity in the MP data base does not match that in the ECCN data base.

d0 ECCN side flag from MP data base
d1 ECCN side flag from ECCN data base
d2 Not used
d3 Not used
d4 Not used
d5 ECCN side

027 ECCN CCI entity flags are inconsistent

The equipage flag of the ECCN CCI entity in the MP data base does not match that in the ECCN data base.

d0 CCI flag from MP data base
d1 CCI flag from ECCN data base
d2 Not used
d3 Not used
d4 Not used
d5 ECCN side

028 ECCN ETSI entity flags are inconsistent

The equipage flag of the ECCN ETSI entity in the MP data base does not match that in the ECCN data base.

d0 ECCN ETSI flag from MP data base
d1 ECCN ETSI flag from ECCN data base
d2 Not used
d3 Not used
d4 ETSI number
d5 ECCN side

029 ECCN active side flags are inconsistent

The ECCN active side reported by the MP data base does not match the ECCN active side reported by the ECCN data base.

d0 ECCN active side flag MP data base
d1 ECCN active side from ECCN data base
d2 Not used
d3 Not used
d4 Not used
d5 Not used

02A NPC Transmit Pseudo Framing Words are inconsistent

The Transmit Pseudo Framing Word of the NPC in the MP data base does not match that in the unit data base

d0 The Transmit Pseudo Framing word of NPC from MP data base
d1 The Transmit Pseudo Framing word of NPC from unit data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

02B NPC Receive Pseudo Framing Word values are inconsistent

The Receive Pseudo Framing Word of the NPC in the MP data base does not match that in the unit data base

d0 The Receive Pseudo Framing Word of NPC from MP data base
d1 The Receive Pseudo Framing Word of NPC from unit data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

02C NPC Non Frame Word Setting values are inconsistent

The Non Frame Word Setting of the NPC in the MP data base does not match that in the unit data base

d0 Fourth byte of the Non Frame Word Setting of NPC from MP data base
d1 Third byte of the Non Frame Word Setting of NPC from MP data base
d2 Fourth byte of the Non Frame Word Setting of NPC from unit data base
d3 Third byte of the Non Frame Word Setting of NPC from unit data base
d4 NPC number
d5 UNIT number

02D NPC Transmit and Receive Pseudo Framing word values are inconsistent

The Transmit Pseudo Framing Word of a NPC does not match the Receive Pseudo Framing Word in the MP data base when one of them is set to the Non-Framing Word

d0 The Transmit Pseudo Framing Word of NPC from MP data base
d1 The Receive Pseudo Framing Word of NPC from MP data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

032 DSPI entity flags are inconsistent

The equipage flag of the DSPI entity in the MP data base does not

match that in the DSPU data base.

d0 DSPI flag from MP data base

d1 DSPI flag from UD data base
d2 Not used
d3 Not used
d4 Not used
d5 Unit number

033 HUB-ID value in data bases is inconsistent

The HUB-ID is inconsistent between the MP data base and the UD data base.

d0 HUB-ID value from MP data base
d1 HUB-ID value from UD data base
d2 Not used
d3 Not used
d4 Not used
d5 Unit number

034 NPC connected to a time slot is inconsistent

The NPC connected to a time slot in the MP data base does not match with the UD data base.

d0 The connected NPC number from MP data base
d1 The connected NPC number from UD data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

035 Function block for a time slot is inconsistent

The function block connected to a time slot in the MP data base does not match with the UD data base.

d0 The connected function block number from MP data base
d1 The connected function block number from UD data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

036 SRM customer number or MJU branch number is inconsistent

The SRM customer number or MJU branch number in the MP data base does not match with the UD data base.

d0 The SRM customer number or MJU branch number from MP data base
d1 The SRM customer number or MJU branch number from UD data base
d2 Not used
d3 The SRM number or the MJU number
d4 The NPC number
d5 Unit number

037 Time slot rate is inconsistent

The time slot rate in the MP data base does not match with that of the UD data base.

d0 The time slot rate from MP data base
d1 The time slot rate from UD data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

038 Time slot functional usage is inconsistent

The functional usage in the MP data base does not match with that of the UD data base.

d0 the functional usage from MP data base
d1 the functional usage from UD data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

039 SRDC unexpected errors

An unexpected error was encountered during Subrate Circuit audits.

d0 The Unit where the error is found
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 Not used

03B DS3 FLI LBO data base inconsistent

FLI/Line Build Out in the MP data base is not consistent with that of the Unit data base

d0 MP lbo
d1 UA lbo
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

03C DS3 MXR data base flag inconsistent

MXR data base flag in the MP data base is not consistent with that of the Unit data base

d0 MP data base flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

03D DS3 MXR data base type inconsistent

MXR type in the MP data base is not consistent with that of the Unit data base

d0 MP data base type
d1 UA data base type
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

03E DS3 MXR data base xoption inconsistent

MXR 'x' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base xoption
d1 UA data base xoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

03F DS3 MXR data base yoption inconsistent

MXR 'y' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base yoption
d1 UA data base yoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

040 DS3 MXR data base zoption inconsistent

MXR 'z' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base zoption
d1 UA data base zoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

041 DS3 MXR data base BER threshold inconsistent

MXR 'BER' threshold in the MP data base is not consistent with that of the Unit data base

d0 MP data base ber threshold
d1 UA data base ber threshold
d2 Not used
d3 Not used
d4 Unit Number
d5 MXR Number

042 DS3 MXR data base BER type inconsistent

MXR 'BER' type in the MP data base is not consistent with that of the Unit data base

d0 MP data base ber type
d1 UA data base ber type
d2 Not used
d3 Not used
d4 Unit Number
d5 MXR Number

043 DS3 MIU data base flag inconsistent

MIU data base flag in the MP data base is not consistent with that of the Unit data base

d0 MP data base flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

044 DS3 MIU data base type inconsistent

MIU data base type in the MP data base is not consistent with that of the Unit data base

d0 MP data base type
d1 UA data base type
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

045 DS3 MIU data base xoption inconsistent

MIU 'x' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base xoption
d1 UA data base xoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

046 DS3 MIU data base yoption inconsistent

MIU 'y' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base yoption
d1 UA data base yoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

047 DS3 MIU data base zoption inconsistent

MIU 'z' option in the MP data base is not consistent with that of the Unit data base

d0 MP data base zoption
d1 UA data base zoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

048 MMFG data base inhibit flag inconsistent

MMFG inhibit status in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

049 MMFG data base protected status inconsistent

MMFG protected status in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

04A MMFG data base protected index inconsistent

MMFG protected index in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base index
d1 UA data base index
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

04B MMFG data base protected mode inconsistent

MMFG protected mode in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base mode
d1 UA data base mode
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

04C MMFG data base service status of MXR P inconsistent

MXR-P service status in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

04D MMFG data base service status of MIU P inconsistent

MIU-P service status in the MP data base is not consistent with that of the Unit data base

d0 Protection switch data base status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

050 Time slot partner is inconsistent

The time slot's partner time slot in the MP data base does not match with that of the UC data base.

d0 The partner time slot from MP data base
d1 The partner time slot from UC data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

052 Time slot TLA state is inconsistent

The time slot's TLA state in the MP data base does not match with that of the UC data base.

d0 The TLA state from MP data base
d1 The TLA state from UC data base
d2 Not used
d3 The time slot number
d4 The NPC number
d5 Unit number

055 RTs external number is inconsistent

An RTs external number in the MP data base does not match with that of the UC data base.

d0 Left byte of the RT external number in MP data base
d1 Right byte of the RT external number in MP data base
d2 Left byte of the RT external number in UC data base
d3 Right byte of the RT external number in UC data base
d4 Not used
d5 The Unit of the RT

056 RTs digroup NPC number is inconsistent

An RTs digroup NPC number in the MP data base does not match with that of the UC data base (d3=2); An RTs digroup NPC number does not match with the associated DCLUs both in the MP data base (d3=1)

d0 The RT digroup NPC number in MP data base
d1 The RT digroup NPC number in UC data base
d2 Index of the digroup (1,2,3,4,5 for DGA,DGB,DGC,DGD,DGP respectively)
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

057 RTs index of protected digroup is inconsistent

An RTs index of protected digroup in the MP data base does not match with that of the UC data base

d0 The RT index of protected digroup in MP data base
d1 The RT index of protected digroup in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

058 RTs Zoption is inconsistent

An RTs Zoption in the MP data base does not match with that of the UC data base

d0 The RT Zoption in MP data base
d1 The RT Zoption in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

059 RTs inhibit state is inconsistent

An RTs inhibit state in the MP data base does not match with that of the UC data base

d0 The RT inhibit state in MP data base
d1 The RT inhibit state in UC data base
d2 Index of the digroup
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

05A SLC® carrier unexpected errors

An unexpected error is encountered during SLC carrier RT audits.

d0 The Unit where the error is found
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 Not used

05B This entity is expected to be inservice and equipped

This entity (indicated in d0) is expected to be inservice and equipped.

d0 1-frame; 2-Unit; 3-channel; 4-time slot;
d1 The time slot number if applicable
d2 the channel number if applicable
d3 The NPC number if applicable
d4 Unit number if applicable
d5 Not used

05C Data base is inconsistent with the configuration file

Data in the MP data base do not agree with those in the configuration file.

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 Not used

060 RTs loopback state is inconsistent

An RTs loopback state in the MP data base does not match with that of the UC data base

d0 The RT loopback state in MP data base
d1 The RT loopback state in UC data base
d2 Index of the digroup
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

061 RTs protection status is inconsistent

An RTs protection status in the MP data base does not match with that of the UC data base

d0 The RT protection status in MP data base
d1 The RT protection status in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

062 RTs data link status is inconsistent

An RTs data link status in the MP data base does not match with that of the UC data base

d0 The RT data link in MP data base
d1 The RT data link in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

063 RTs alarm class is inconsistent

An RTs alarm class in the MP data base does not match with that of the UC data base

d0 The RT alarm class in MP data base
d1 The RT alarm class in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

064 RTs SLC carrier mode is inconsistent

An RTs SLC carrier mode in the MP data base does not match with that of the UC data base

d0 The RT SLC carrier mode in MP data base
d1 The RT SLC carrier mode in UC data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

065 Can not find an RT internal number for the associate DCLU of an RT.

Given an RT with SLC 96 carrier mode I or SLC series 5 carrier feature package B, it may have a DCLU with the external number being 10000 greater. But that external number cannot be retrieved from the MP data base.

d0 Right byte of the DCLUs external number in MP data base
d1 Left byte of the DCLUs external number in MP data base
d2 Right byte of the RTs external number in MP data base
d3 Left byte of the RTs external number in MP data base
d4 The RT internal number
d5 The Unit of the RT

066 Cannot find the associate DCLU of an RT.

Given an RT with SLC 96 carrier mode I or SLC series 5 carrier feature package B, it may have a DCLU with the external number being 10000 greater. But such DCLU is not found from the RT list in the MP data base.

d0 Right byte of the DCLUs external number
d1 Left byte of the DCLUs external number
d2 Not used
d3 Not used
d4 The DCLU internal number
d5 The Unit of the RT

069 Invalid internal MJU number or internal NPC number

An NPC indicates there is an MJU allocated to it, after the MJU query returns a different internal MJU number or that MJU is marked to allocate to another NPC.

d0 the MJU number
d1 The NPC number
d2 the UNIT number
d3 the MJU internal number from the query
d4 the internal NPC number from the query
d5 Not used

070 Inconsistent mapping between a facility channel and a time slot.

A channel is connected to a time slot but the time slot does not connect the channel in the MP data base.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 The time slot
d4 The time slot NPC
d5 The time slot Unit

071 Inconsistent time slot mapping between a facility channel and a MVEC.

An MVEC is expected to connect to a facility channel but the MP data base shows the channel does not connect to the MVEC.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 the MVEC time slot
d4 the MVEC NPC
d5 MVEC Unit

072 Inconsistent time slot mapping a channel to a PCHEC.

A PCHEC is expected to connect to a facility channel but the MP data base shows the channel does not connect to the PCHEC.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 the PCHEC time slot
d4 the PCHEC NPC
d5 the PCHEC Unit

073 Inconsistent time slot mapping a channel to a PCHECs parity leg.

A PCHEC parity leg is expected to connect to a facility channel but the MP data base shows the channel does not connect to the leg.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 the PCHEC time slot
d4 the PCHEC NPC
d5 the PCHEC Unit

074 Inconsistent time slot mapping a channel to a PCHECs data leg

A PCHEC data leg is expected to connect to a facility channel but the MP data base shows the channel does not connect to the leg.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 the PCHEC time slot
d4 the PCHEC NPC
d5 the PCHEC Unit

076 Invalid time slot assignment to an MJU's master leg.

An MJU's master leg is expected to connect a time slot but the MP data base shows that the time slot does not connect to the master leg.

d0 the MJU number
d1 The NPC number
d2 the UNIT number
d3 the MJU master leg index
d4 Not used
d5 Not used

077 Invalid time slot assignment to an MJU's branch leg.

An MJU's branch leg is expected to connect a time slot but the MP data base shows that the time slot does not connect to the branch leg.

d0 the MJU number
d1 The NPC number
d2 the UNIT number
d3 the MJU branch leg
d4 Not used
d5 Not used

078 Inconsistent time slot mapping a channel to a PCHECs customer leg.

A PCHEC customer leg is expected to connect to a facility channel but the MP data base shows the channel does not connect to the leg.

d0 the channel number
d1 The NPC number
d2 the UNIT number
d3 the PCHEC time slot
d4 the PCHEC NPC
d5 the PCHEC Unit

079 Cascaded MJUs do not have same rate.

An MJU is cascaded with MJU b, their rate must be the same.

d0 the MJU b number
d1 The NPC number of MJU b
d2 the UNIT number of MJU b
d3 the MJU a number
d4 The NPC number of MJU a
d5 the UNIT number of MJU a

080 SRM rate is invalid

An SRM rate is invalid.

d0 The SRM number
d1 The NPC number of SRM
d2 the UNIT number of SRM
d3 Not used
d4 Not used
d5 Not used

081 Invalid time slot assignment to an SRMs leg.

An SRMs branch leg is expected to connect a time slot but the MP data base shows that the time slot does not connect to the branch leg.

d0 The SRM number
d1 The NPC number
d2 the UNIT number
d3 Index of SRM leg
d4 Not used
d5 Not used

084 A DS0A channel does not connect to an EC.

A DS0A channel is expected to connect to an error corrector through a time slot but the MP data base shows that the time slot does not connect to an error corrector.

d0 the DS0A channel number
d1 The NPC number of the channel
d2 the UNIT number of the channel
d3 The ECs time slot
d4 The ECs NPC number
d5 The ECs Unit number

086 RTs external number is inconsistent with DCLU

An RTs external number in the MP data base does not match with that of the DCLU in the MP data base.

d0 Left byte of the RT external number in MP data base
d1 Right byte of the RT external number in MP data base
d2 Left byte of the DCLU external number in MP data base
d3 Right byte of the DCLU external number in MP data base
d4 Not used
d5 The Unit of the RT

089 RTs Zoption is inconsistent with DCLU Zoption

An RTs Zoption in the MP data base does not match with that of the DCLU in the MP data base

d0 The RT Zoption in MP data base
d1 The DCLU Zoption in MP data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

090 RTs inhibit state is inconsistent with DCLU

An RTs inhibit state in the MP data base does not match with that of the DCLU in the MP data base

d0 The RT inhibit state in MP data base
d1 The DCLU inhibit state in MP data base
d2 Index of the digroup
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

091 RTs loopback state is inconsistent with DCLU

An RTs loopback state in the MP data base does not match with that of the DCLU in the MP data base

d0 The RT loopback state in MP data base
d1 The DCLU loopback state in MP data base
d2 Index of the digroup
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

093 RTs data link status is inconsistent with DCLU

An RTs data link status in the MP data base does not match with that of the DCLU in the MP data base

d0 The RT data link in MP data base
d1 The DCLU data link in MP data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

095 RTs SLC carrier mode is inconsistent with DCLU

An RTs SLC carrier mode in the MP data base does not match with that of the DCLU in the MP data base

d0 The RT SLC carrier mode in MP data base
d1 The DCLU SLC carrier mode in MP data base
d2 Not used
d3 Not used
d4 The RT internal number
d5 The Unit of the RT

102 MP two-way two-point connection types are inconsistent

The two-way two-point connection types in the MP data base do not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

103 MP two-way two-point connection data are inconsistent

The two-way two-point connection data in the MP data base do not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

104 UC two-way two-point connection data are inconsistent

The two-way two-point connection channel data in the UC data base do not match that from MP data base.

d0 TCC audit result - equal 1 if inconsistency detected
d1 Flag audit result - equal 1 if inconsistency detected
d2 Connected NPC audit result - equal 1 if inconsistency detected
d3 Channel number
d4 NPC number
d5 UNIT number

105 CCN two-way two-point connection map error detected

The two-way two-point connection TSI map in the CCN does not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

106 ECCN two-way two-point connection map error detected

The two-way two-point connection ETSI map in the ECCN does not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

112 MP one-way two-point connection types are inconsistent

The one-way two-point connection types in the MP data base do not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

113 MP one-way two-point connection data are inconsistent

The one-way two-point connection data in the MP data base does not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

114 UC one-way two-point connection data are inconsistent

The one-way two-point connection channel data in the UC data base do not match that MP data base.

d0 TCC audit result - equal 1 if inconsistency detected
d1 Flag audit result - equal 1 if inconsistency detected
d2 Connected NPC audit result - equal 1 if inconsistency detected
d3 Channel number
d4 NPC number
d5 UNIT number

115 CCN one-way two-point connection map error detected

The one-way two-point connection TSI map in the CCN does not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

116 CCN unmapped connection error detected

The TSI map shows that there is a connection map to an NPC and channel in CCN data base while the NPC and channel are marked as unmapped in MP data base.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 Unit number of the TO side
d3 Not used
d4 Not used
d5 Not used

121 UC virtual conference leg channel alternate message store (AMS) value is inconsistent

The virtual conference leg channel AMS data in the UC data base does not match the TCC value in the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

122 UC virtual conference leg channel connected NPC is inconsistent

The connected NPC of the virtual conference leg channel in the UC data base does not match the BBL NPC number from the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

123 UC virtual conference leg channel flag is inconsistent

The virtual conference leg channel flag in the UC data base does not match the flag from the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

125 CCN virtual conference leg channel connection map error detected

The two-point connection TSI map in the CCN does not match between the BBL channel and the leg channel.

d0 Channel number of the BRD leg
d1 NPC number of the BRD leg
d2 UNIT number of the BRD leg
d3 Channel number of the BBL leg
d4 NPC number of the BBL leg
d5 UNIT number of the BBL leg

126 ECCN virtual conference leg channel connection map error detected

The two-point connection ETSI map in the ECCN does not match between the BBL channel and the leg channel.

d0 Channel number of the BRD leg
d1 NPC number of the BRD leg
d2 UNIT number of the BRD leg
d3 Channel number of the BBL leg
d4 NPC number of the BBL leg
d5 UNIT number of the BBL leg

127 ECCN one-way two-point connection map error detected

The one-way two-point connection ETSI map in the ECCN does not match between two sides.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

128 ECCN unmapped connection error detected

The ETSI map shows that there is a connection map to an NPC and channel in ECCN data base while they are marked as unmapped in MP data base.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 Unit number of the TO side
d3 Not used
d4 Not used
d5 Not used

131 UC BCON leg channel alternate message store (AMS) value is inconsistent

The BCON leg channel AMS data in the UC data base does not match the TCC value from the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

132 UC BCON leg channel connected NPC is inconsistent

The connected NPC of the BCON leg channel in the UC data base does not match the BBL NPC number from the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

133 UC BCON leg channel flag is inconsistent

The BCON leg channel flag in the UC data base does not match the flag from the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 NPC number
d5 UNIT number

135 CCN BCON leg channel connection map error detected

The two-point connection TSI map in the CCN does not match between the BBL channel and the leg channel.

d0 Channel number of the BRD leg
d1 NPC number of the BRD leg
d2 UNIT number of the BRD leg
d3 Channel number of the BBL leg
d4 NPC number of the BBL leg
d5 UNIT number of the BBL leg

136 ECCN BCON leg channel connection map error detected

The two-point connection ETSI map in the ECCN does not match between the BBL channel and the leg channel.

d0 Channel number of the BRD leg
d1 NPC number of the BRD leg
d2 UNIT number of the BRD leg
d3 Channel number of the BBL leg
d4 NPC number of the BBL leg
d5 UNIT number of the BBL leg

150 UC DMB conference leg channel connected NPC is inconsistent

The connected NPC of the DMB conference leg channel in the UC data base does not match that from MP data base.

d0 Channel flag in the UC data base
d1 Connected NPC number
d2 Connected Unit number
d3 Channel number
d4 NPC number
d5 UNIT number

151 UC DMB conference leg channel alternate message store (AMS) value is inconsistent

The DMB conference leg channel AMS data in the UC data base does not match the TCC value from the MP data base.

d0 Channel flag in the UC data base
d1 Connected NPC number
d2 Connected Unit number
d3 Channel number
d4 NPC number
d5 UNIT number

152 UC DMB conference leg channel flag is inconsistent

The DMB conference leg channel flag in the UC data base does not match the flag from the MP data base.

d0 Channel flag in the UC data base
d1 Connected NPC number
d2 Connected Unit number
d3 Channel number
d4 NPC number
d5 UNIT number

154 CCN one-way DMB conference connection map error detected

The one-way DMB conference connection TSI map in the CCN does not match between two legs.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

155 CCN two-way DMB conference connection map error detected

The two-way DMB conference connection TSI map in the CCN does not match between two legs.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

156 ECCN one-way DMB conference connection map error detected

The one-way DMB conference connection ETSI map in the ECCN does not match between two legs.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

157 ECCN two-way DMB conference connection map error detected

The two-way DMB conference connection ETSI map in the ECCN does not match between two legs.

d0 Channel number of the TO side
d1 NPC number of the TO side
d2 UNIT number of the TO side
d3 Channel number of the FROM side
d4 NPC number of the FROM side
d5 UNIT number of the FROM side

160 UD DMB conference leg is inconsistent

The DMB conference number of the leg channel in the UD data base does not match the number from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg stored in the UD data base
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

161 UD DMB conference leg channel connected NPC is inconsistent

The connected NPC of the DMB conference leg channel in the UD data base does not match the NPC number from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

162 UD DMB conference leg connected conference is inconsistent

The connected conference number of the DMB conference leg channel in the UD data base does not match the number from the MP data base.

d0 Connected NPC number of the leg from UD data base
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

163 UD DMB conference leg type is inconsistent

The type of the DMB conference leg channel in the UD data base does not match the type from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

164 UD DMB channel tlpin value is inconsistent

The value of transmit level into bridge of the DMB conference leg channel from UD data base does not match that from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

165 UD DMB channel tlpout value is inconsistent

The value of transmit level out of bridge of the DMB conference leg channel from UD data base does not match that from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

166 UD DMB channel noise guard value is inconsistent

The value of noise guard of the DMB conference leg channel from UD data base does not match that from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

167 UD DMB channel echo suppression value is inconsistent

The value of echo suppression of the DMB conference leg channel from UD data base does not match that from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

168 UD DMB channel NTR state is inconsistent

The current NTR state of the DMB conference leg from UD data base does not match that from the MP data base.

d0 Connected NPC number of the leg
d1 Connected UC Unit number of the leg
d2 Conference number of the leg
d3 Channel number of the leg
d4 DMB NPC number of the leg
d5 UNIT number

171 DSPU CPR channel modify activated/monitor enabled information is inconsistent

The CPR channel modify activated/monitor enabled information stored in UD data base does not match that stored in the MP data base.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 CPR NPC number
d5 UNIT number

172 DSPU CPR channel modify activated/monitor enabled information is inconsistent

The CPR channel modify activated/monitor enabled information stored in UD data base does not match that stored in the CPR hardware.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 CPR NPC number
d5 UNIT number

173 DSPU CPR liaison C-Bit modify pattern information is inconsistent

The CPR liaison C-Bit modify pattern information stored in UD data base does not match that stored in the CPR hardware.

d0 Not used
d1 Not used
d2 Not used
d3 Channel number
d4 CPR NPC number
d5 UNIT number

174 DSPU CPR pack type is inconsistent

The CPR pack type stored in UD data base does not match with the CPR pack.

d0 Type on UDDB
d1 CPR pack type
d2 Not used
d3 Channel number
d4 CPR NPC number
d5 UNIT number

205 FTU FTMI hardware not in service

The FTU FTMI hardware status is not in service but the equipage flag in the UC data base is in service.

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 FTMI number
d5 UNIT number

207 FTU FC hardware not in service

The FTU FC hardware status is not in service but the equipage flag in the UC data base is in service.

d0 Not used
d1 Not used
d2 Not used
d3 FC side
d4 FTMI number
d5 UNIT number

208 NPC hardware not in service

The Unit NPC hardware status is not in service but the equipage flag in the UC data base is in service.

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

209 UC NPC type not match with hardware

The Unit NPC type in the UC data base does not match with that indicated in the hardware.

d0 NPC type in hardware
d1 NPC type in data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

210 FTU FC hardware mode is inconsistent

The FTU FC hardware mode status does not match the FC mode stored in the UC data base.

d0 Not used
d1 FC hardware mode
d2 FC mode in the UC data base
d3 FC side
d4 FTMI number
d5 UNIT number

211 FTU or DS3U NPC channel alternate message store (AMS) value is inconsistent

The FTU NPC channel AMS value stored in the UC data base does not match the AMS value from the DDC hardware.

d0 Not used
d1 Not used
d2 Side
d3 Channel number
d4 NPC number
d5 UNIT number

215 DPC NPC TS0M value is inconsistent

The TS0M value stored in UC data base does not match that stored in the DPC hardware.

d0 NPC TS0M bits from DPC hardware
d1 NPC TS0M bits from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

216 DPC NPC loopback value is inconsistent

The LPBK value stored in UC data base does not match that stored in the DPC hardware.

d0 NPC LPBK bits from DPC hardware
d1 NPC LPBK bits from UC data base
d2 Not used
d3 Not used
d4 NPC number
d5 UNIT number

217 FTU and DS3U NPC pgfbits in the channel are inconsistent

The pgfbits in the data base do not match the pgfbits stored in the transceiver loopback parity channel hardware. The F and G bits determine the signaling type (16-state, 4-state or transparent). This comparison is only done on domestic NPCs on the RECEIVE side.

d0 Data base F and G bits
d1 Transceiver Hardware F and G bits
d2 CHANNEL side : (Receive side)
d3 CHANNEL number
d4 NPC number
d5 UNIT number

218 FTU NPC Channel AIS flag is inconsistent.

The AIS flag set in the DDC Digital Signal Interface (DSI) hardware register does not match with the associated flag saved in the UC data base.

d0 AIS flag in the DSI register
d1 AIS flag in the UC data base
d2 Not used
d3 Channel side
d4 NPC number
d5 Unit number

220 FTU and DS3U NPC COFAMAJ threshold value is inconsistent

The Change Of Frame Alignment Major value of the FTU NPC threshold value stored in the FTU Unit data base does not match that stored in the DDC hardware.

d0 Second byte of the cofamaj value from DDC hardware
d1 First byte of the cofamaj value from DDC hardware
d2 Second byte of the cofamaj value from UC data base
d3 First byte of the cofamaj value from UC data base
d4 NPC number
d5 UNIT number

221 FTU and DS3U NPC COFAMIN threshold value is inconsistent

The Change Of Frame Alignment Minor value of the FTU NPC NPC threshold value stored in the FTU data base does not match that stored in the DDC hardware.

d0 Second byte of the cofamin value from DDC hardware
d1 First byte of the cofamin value from DDC hardware
d2 Second byte of the cofamin value from UC data base
d3 First byte of the cofamin value from UC data base
d4 NPC number
d5 UNIT number

222 FTU NPC SLIPMAJ threshold value is inconsistent

The Slip Major value stored in the UC data base does not match that stored in the DDC hardware

d0 Second byte of the slipmaj value from DDC hardware
d1 First byte of the slipmaj value from DDC hardware
d2 Second byte of the slipmaj value from UC data base
d3 First byte of the slipmaj value from UC data base
d4 NPC number
d5 UNIT number

223 FTU and DS3U NPC SLIPMIN threshold value is inconsistent

The Slip Minor threshold value stored in the UC data base does not match that stored in the DDC hardware

d0 Second byte of the slipmin value from DDC hardware
d1 First byte of the slipmin value from DDC hardware
d2 Second byte of the slipmin value from UC data base
d3 First byte of the slipmin value from UC data base
d4 NPC number
d5 UNIT number

224 FTU and DS3U NPC SES threshold value is inconsistent

The Severe Errored Seconds value stored in the UC data base does not match that stored in the DDC hardware.

d0 Second byte of the ses value from DDC hardware
d1 First byte of the ses value from DDC hardware
d2 Second byte of the ses value from UC data base
d3 First byte of the ses value from UC data base
d4 NPC number
d5 UNIT number

225 FTU and DS3U NPC ES threshold value is inconsistent

The Errored Seconds value stored in the UC data base does not match that stored in the DDC hardware.

d0 Second byte of the es value from DDC hardware
d1 First byte of the es value from DDC hardware
d2 Second byte of the es value from UC data base
d3 First byte of the es value from UC data base
d4 NPC number
d5 UNIT number

226 FTU and DS3U NPC BERMAJ threshold value is inconsistent

The Bit Error Rate Major value stored in the UC data base does not match that stored in the DDC hardware.

d0 Second byte of the bermaj value from DDC hardware
d1 First byte of the bermaj value from DDC hardware
d2 Second byte of the bermaj value from UC data base
d3 First byte of the bermaj value from UC data base
d4 NPC number
d5 UNIT number

227 FTU and DS3U NPC BERMIN threshold value is inconsistent

The Bit Error Rate Minor value stored in the UC data base does not match that stored in the DDC hardware.

d0 Second byte of the bermin value from DDC hardware
d1 First byte of the bermin value from DDC hardware
d2 Second byte of the bermin value from UC data base
d3 First byte of the bermin value from UC data base
d4 NPC number
d5 UNIT number

228 NPC (DIU/DPC) Error Seconds 15 min. threshold value is inconsistent

The Error Seconds 15 min. (ERS15) threshold value stored in UC data base does not match that stored in the NPC hardware.

d0 Second byte of the ERS15 value of the NPC from hardware
d1 First byte of the ERS15 value of the NPC from hardware
d2 Second byte of the ERS15 value of the NPC from UC data base
d3 First byte of the ERS15 value of the NPC from UC data base
d4 NPC number
d5 Unit number

229 DIU NPC Bursty Error Seconds 15 Min threshold value is inconsistent

The Bursty Error Seconds 15 min. threshold value of a DIU NPC stored in the UC data base does not match with that in the hardware.

d0 Second byte of the BERS15 value of the NPC from hardware
d1 First byte of the BERS15 value of the NPC from hardware
d2 Second byte of the BERS15 value of the NPC from UC data base
d3 First byte of the BERS15 value of the NPC from UC data base
d4 DIU NPC number
d5 Unit number

230 NPC (DIU/DPC) Severely Error Seconds 15 min. threshold value is inconsistent

The Severely Error Seconds 15 min. (SERS15) threshold value stored in the UC data base does not match with that in the hardware.

d0 Second byte of the SERS15 value of the NPC from hardware
d1 First byte of the SERS15 value of the NPC from hardware
d2 Second byte of the SERS15 value of the NPC from UC data base
d3 First byte of the SERS15 value of the NPC from UC data base
d4 NPC number
d5 Unit number

231 NPC (DIU/DPC) Unavailable Seconds 15 min. threshold value is inconsistent

The Unavailable Seconds 15 min. (US15) threshold value of an NPC stored in the UC data base does not match with that in the hardware.

d0 Second byte of the US15 value of the NPC from hardware
d1 First byte of the US15 value of the NPC from hardware
d2 Second byte of the US15 value of the NPC from UC data base
d3 First byte of the US15 value of the NPC from UC data base
d4 NPC number
d5 Unit number

232 NPC (DIU/DPC) Slips 15 min. threshold value is inconsistent

The Slips Error Seconds 15 min. (SLP15) threshold value stored in the UC data base does not match with that in the hardware.

d0 Second byte of the SLP15 value of the NPC from hardware
d1 First byte of the SLP15 value of the NPC from hardware
d2 Second byte of the SLP15 value of the NPC from UC data base
d3 First byte of the SLP15 value of the NPC from UC data base
d4 NPC number
d5 Unit number

233 NPC (DIU/DPC) Error Seconds 24 hr. threshold value is inconsistent

The Error Seconds 24 hr. (ESR24) threshold value stored in UC data base does not match that stored in the hardware.

d0 Second byte of the ERS24 value of the NPC from hardware
d1 First byte of the ERS24 value of the NPC from hardware
d2 Second byte of the ERS24 value of the NPC from UC data base
d3 First byte of the ERS24 value of the NPC from UC data base
d4 NPC number
d5 Unit number

234 DIU NPC Bursty Error Seconds 24 Min threshold value is inconsistent

The Bursty Error Seconds 24 min. threshold value of a DIU NPC stored in the UC data base does not match with that in the hardware.

d0 Second byte of the BERS24 value of the NPC from hardware
d1 First byte of the BERS24 value of the NPC from hardware
d2 Second byte of the BERS24 value of the NPC from UC data base
d3 First byte of the BERS24 value of the NPC from UC data base
d4 DIU NPC number
d5 Unit number

235 NPC (DIU/DPC) Severely Error Seconds 24 hr. threshold value is inconsistent

The Severely Error Seconds 24 hr. (SERS24) threshold value stored in the UC data base does not match with that in the hardware.

d0 Second byte of the SERS24 value of the NPC from hardware
d1 First byte of the SERS24 value of the NPC from hardware
d2 Second byte of the SERS24 value of the NPC from UC data base
d3 First byte of the SERS24 value of the NPC from UC data base
d4 NPC number
d5 Unit number

236 NPC (DIU/DPC) Unavailable Seconds 24 hr. threshold value is inconsistent

The Unavailable Seconds 24 hr. (US24) threshold value stored in the UC data base does not match with that in the hardware.

d0 Second byte of the US24 value of the NPC from hardware
d1 First byte of the US24 value of the NPC from hardware
d2 Second byte of the US24 value of the NPC from UC data base
d3 First byte of the US24 value of the NPC from UC data base
d4 NPC number
d5 Unit number

237 NPC (DIU/DPC) Slips Error Seconds 24 hr. threshold value is inconsistent

The Slips Error Seconds 24 hr. (SLP24) threshold value stored in the UC data base does not match with that in the hardware.

d0 Second byte of the SLP24 value of the NPC from hardware
d1 First byte of the SLP24 value of the NPC from hardware
d2 Second byte of the SLP24 value of the NPC from UC data base
d3 First byte of the SLP24 value of the NPC from UC data base
d4 NPC number
d5 Unit number

238 DPC NPC Degraded Minute 1 hr (DM) threshold value is inconsistent

The Degraded Minute 1 hr. threshold value stored in UC data base does not match that stored in the DPC hardware.

d0 Second byte of the DM value from DPC hardware
d1 First byte of the DM value from DPC hardware
d2 Second byte of the DM value from UC data base
d3 First byte of the DM value from UC data base
d4 NPC number
d5 UNIT number

239 DPC NPC Degraded Minute 24 hr (DM24) threshold value is inconsistent

The Degraded Minute 24 hr. threshold value stored in UC data base does not match that stored in the DPC hardware.

d0 Second byte of the DM24 value from DPC hardware
d1 First byte of the DM24 value from DPC hardware
d2 Second byte of the DM24 value from UC data base
d3 First byte of the DM24 value from UC data base
d4 NPC number
d5 UNIT number

240 SLC carrier NPC SANE threshold value is inconsistent

The SLC carrier NPC SANE threshold value stored in the UC data base does not match with that stored in the DDC hardware

d0 Second byte of the sane threshold value from DDC hardware
d1 First byte of the sane threshold value from DDC hardware
d2 Second byte of the sane threshold value from UC data base
d3 First byte of the sane threshold value from UC data base
d4 NPC number
d5 UNIT number

241 SLC carrier NPC SAFE threshold value is inconsistent

The SLC carrier NPC SAFE threshold value stored in the UC data base does not match with that stored in the DDC hardware

d0 Second byte of the SAFE threshold value from DDC hardware
d1 First byte of the SAFE threshold value from DDC hardware
d2 Second byte of the SAFE threshold value from UC data base
d3 First byte of the SAFE threshold value from UC data base
d4 NPC number
d5 UNIT number

242 SLC carrier NPC SELF alarm threshold value is inconsistent

The SLC carrier NPC SELF alarm threshold value stored in the UC data base does not match with that stored in the DDC hardware

d0 Second byte of the SELF alarm threshold value from DDC hardware
d1 First byte of the SELF alarm threshold value from DDC hardware
d2 Second byte of the SELF alarm threshold value from UC data base
d3 First byte of the SELF alarm threshold value from UC data base
d4 NPC number
d5 UNIT number

250 HUB-ID value in hardware is inconsistent

The HUB-ID is inconsistent between the MP data base and the hardware.

d0 HUB-ID value from MP data base
d1 HUB-ID value from the hardware
d2 Not used
d3 Not used
d4 NPC number
d5 Unit number

251 The time slot hardware image or control memory is inconsistent

The EC Hardware Image/Control Memory is inconsistent between MP data base and the hardware.

d0 The EC image value from MP data base
d1 The EC image value from the hardware
d2 SRM hardware data
d3 The time slot number
d4 The NPC number of the time slot
d5 The Unit number of the time slot

253 DS3 FLI LOG hardware inconsistent

d0 UA hardware
d1 UA lbo
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

254 DS3 MXR hardware flag inconsistent

d0 UA hardware flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

255 DS3 MXR hardware type inconsistent

d0 UA hardware type
d1 UA data base type
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

256 DS3 MXR hardware xoption inconsistent

d0 UA hardware xoption
d1 UA data base xoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

257 DS3 MXR hardware yoption inconsistent

d0 UA hardware yoption
d1 UA data base yoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

258 DS3 MXR hardware zoption inconsistent

d0 UA hardware zoption
d1 UA data base zoption
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

259 DS3 MXR hardware BER threshold inconsistent

d0 UA hardware BER threshold
d1 UA data base BER threshold
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

25A DS3 MXR hardware BER type inconsistent

d0 UA hardware BER type
d1 UA data base BER type
d2 Not used
d3 Not used
d4 MXR Number
d5 Unit Number

25B DS3 MIU hardware flag inconsistent

d0 UA hardware flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

25C DS3 MIU hardware type inconsistent

d0 UA hardware type
d1 UA data base type
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

25D DS3 MIU hardware xoption inconsistent

d0 UA hardware xoption
d1 UA data base xoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

25E DS3 MIU hardware yoption inconsistent

d0 UA hardware yoption
d1 UA data base yoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

25F DS3 MIU hardware zoption inconsistent

d0 UA hardware zoption
d1 UA data base zoption
d2 Not used
d3 Not used
d4 MIU Number
d5 Unit Number

260 MMFG data base inhibit flag inconsistent

d0 UA hardware flag
d1 UA data base flag
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

261 MMFG data base protected status inconsistent

d0 UA hardware status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

262 MMFG data base protected index inconsistent

d0 UA hardware index
d1 UA data base index
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

263 MMFG data base protected mode inconsistent

d0 UA hardware mode
d1 UA data base mode
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

264 MMFG data base service status of MXR P inconsistent

d0 UA hardware status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

265 MMFG data base service status of MIU P inconsistent

d0 UA hardware status
d1 UA data base status
d2 Not used
d3 Not used
d4 Not used
d5 Unit Number

266 Invalid value of Receive Framer Mode A register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

267 Invalid value of Receive Framer Mode B register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

268 Invalid value of Receive Framer Exercise register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

269 Invalid value of Receive Synchronizer Mode A register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26A Invalid value of Receive Synchronizer Mode B register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26B Invalid value of Receive Exercise Mode register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26C Invalid value of Transmit Exercise Mode register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26D Invalid value of Transmit Framing Mode register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26E Invalid value of Transmit Signaling Mode register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

26F Invalid value of Transmit System Mode register

d0 Not used
d1 Not used
d2 Expected value
d3 Actual value read back from the hardware
d4 NPC number
d5 Unit Number

270 NPC Daily Near-end Path Coding Violations threshold values are inconsistent

The Daily Near-end Path Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

271 NPC Daily Near-end Path Errored Seconds threshold values are inconsistent

The Daily Near-end Path Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

272 NPC Daily Near-end Path Severely Errored Seconds threshold values are inconsistent

The Daily Near-end Path Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

273 NPC Daily Near-end Severely Errored Framing Seconds threshold values are inconsistent

The Daily Near-end Severely Errored Framing Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

274 NPC Daily Near-end Controlled Slip Seconds threshold values are inconsistent

The Daily Near-end Controlled Slip Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

275 NPC Daily Near-end Unavailable Seconds threshold values are inconsistent

The Daily Near-end Unavailable Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

276 NPC Daily Near-end Line Coding Violations threshold values are inconsistent

The Daily Near-end Line Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

277 NPC Daily Near-end Line Errored Seconds threshold values are inconsistent

The Daily Near-end Line Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

278 NPC Daily Near-end Line Severely Errored Seconds threshold are inconsistent

The Daily Near-end Line Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

279 NPC Daily Far-end Path Coding Violations threshold values are inconsistent

The Daily Far-end Path Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27A NPC Daily Far-end Path Errored Seconds threshold values are inconsistent

The Daily Far-end Path Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27B NPC Daily Far-end Path Severely Errored Seconds threshold values are inconsistent

The Daily Far-end Path Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27C NPC Daily Far-end Severely Errored Framing Seconds threshold values are inconsistent

The Daily Far-end Severely Errored Framing Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27D NPC Daily Far-end Controlled Slip Seconds threshold values are inconsistent

The Daily Far-end Controlled Slip Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27E NPC Daily Far-end Unavailable Seconds threshold values are inconsistent

The Daily Far-end Unavailable Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

27F NPC Daily Far-end Line Errored Seconds threshold values are inconsistent

The Daily Far-end Line Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

280 NPC 15-Minute Near-end Path Coding Violations threshold values are inconsistent

The 15-Minute Near-end Path Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

281 NPC 15-Minute Near-end Path Errored Seconds threshold values are inconsistent

The 15-Minute Near-end Path Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

282 NPC 15-Minute Near-end Path Severely Errored Seconds threshold values are inconsistent

The 15-Minute Near-end Path Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

283 NPC 15-Minute Near-end Severely Errored Framing Seconds threshold values are inconsistent

The 15-Minute Near-end Severely Errored Framing Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

284 NPC 15-Minute Near-end Controlled Slip Seconds threshold values are inconsistent

The 15-Minute Near-end Controlled Slip Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

285 NPC 15-Minute Near-end Unavailable Seconds threshold values are inconsistent

The 15-Minute Near-end Unavailable Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

286 NPC 15-Minute Near-end Line Coding Violations threshold values are inconsistent

The 15-Minute Near-end Line Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

287 NPC 15-Minute Near-end Line Errored Seconds threshold values are inconsistent

The 15-Minute Near-end Line Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

288 NPC 15-Minute Near-end Line Severely Errored Seconds threshold values are inconsistent

The 15-Minute Near-end Line Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

289 NPC 15-Minute Far-end Path Coding Violations threshold values are inconsistent

The 15-Minute Far-end Path Coding Violations of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28A NPC 15-Minute Far-end Path Errored Seconds threshold values are inconsistent

The 15-Minute Far-end Path Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28B NPC 15-Minute Far-end Path Severely Errored Seconds threshold values are inconsistent

The 15-Minute Far-end Path Severely Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28C NPC 15-Minute Far-end Severely Errored Framing Seconds threshold values are inconsistent

The 15-Minute Far-end Severely Errored Framing Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28D NPC 15-Minute Far-end Controlled Slip Seconds threshold values are inconsistent

The 15-Minute Far-end Controlled Slip Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28E NPC 15-Minute Far-end Unavailable Seconds threshold values are inconsistent

The 15-Minute Far-end Unavailable Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

28F NPC 15-Minute Far-end Line Errored Seconds threshold values are inconsistent

The 15-Minute Far-end Line Errored Seconds of the ANSI NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long ANSI threshold value in the hardware
d1 Long ANSI threshold value in the hardware
d2 Long ANSI threshold value in the hardware
d3 Long ANSI threshold value in the hardware
d4 Long ANSI threshold value in the data base
d5 Long ANSI threshold value in the data base
d6 Long ANSI threshold value in the data base
d7 Long ANSI threshold value in the data base
d8 NPC number
d9 UNIT number

290 NPC Daily CRC Block Error Count threshold values are inconsistent

The Daily CRC Block Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

291 NPC Daily Framing Error Count threshold values are inconsistent

The Daily Framing Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

292 NPC Daily Out of Frame Seconds threshold values are inconsistent

The Daily Out of Frame Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

293 NPC Errored Seconds threshold values are inconsistent

The Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

294 NPC Daily Severely Errored Seconds threshold values are inconsistent

The Daily Severely Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

295 NPC Daily Controlled Slip Seconds threshold values are inconsistent

The Daily Controlled Slip Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

296 NPC Daily Code Violation Count threshold values are inconsistent

The Daily Code Violation Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

297 NPC Daily Unavailable Seconds threshold values are inconsistent

The Daily Unavailable Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

298 NPC Daily Unavailable Time Count threshold values are inconsistent

The Daily Unavailable Time Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

299 NPC Daily Multiframe Alignment Error Count threshold values are inconsistent

The Daily Multiframe Alignment Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29A NPC Daily Far End Block Error Count threshold values are inconsistent

The Daily Far End Block Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29B NPC Daily Far End Errored Seconds threshold values are inconsistent

The Daily Far End Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29C NPC Daily Far End Severely Errored Seconds threshold values are inconsistent

The Daily Far End Severely Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29D NPC Daily Far End Unavailable Seconds threshold values are inconsistent

The Daily Far End Unavailable Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29E NPC 15-Minute CRC Block Error Count threshold values are inconsistent

The 15-Minute CRC Block Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

29F NPC 15-Minute Framing Error Count threshold values are inconsistent

The 15-Minute Framing Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A0 NPC 15-Minute Out of Frame Seconds threshold values are inconsistent

The 15-Minute Out of Frame Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A1 NPC 15-Minute Errored Seconds threshold values are inconsistent

The 15-Minute Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A2 NPC 15-Minute Severely Errored Seconds threshold values are inconsistent

The 15-Minute Severely Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A3 NPC 15-Minute Controlled Slip Seconds threshold values are inconsistent

The 15-Minute Controlled Slip Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A4 NPC 15-Minute Code Violation Count threshold values are inconsistent

The 15-Minute Code Violation Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A5 NPC 15-Minute Unavailable Seconds threshold values are inconsistent

The 15-Minute Unavailable Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A6 NPC 15-Minute Unavailable Time Count threshold values are inconsistent

The 15-Minute Unavailable Time Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A7 NPC 15-Minute Multiframe Alignment Error Count threshold values are inconsistent

The 15-Minute Multiframe Alignment Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A8 NPC 15-Minute Far End Block Error Count threshold values are inconsistent

The 15-Minute Far End Block Error Count of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2A9 NPC 15-Minute Far End Errored Seconds threshold values are inconsistent

The 15-Minute Far End Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2AA NPC 15-Minute Far End Severely Errored Seconds threshold values are inconsistent

The 15-Minute Far End Severely Errored Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2AB NPC 15-Minute Far End Unavailable Seconds threshold values are inconsistent

The 15-Minute Far End Unavailable Seconds of the enhanced-30-channel NPC threshold value stored in the unit data base does not match that stored in the hardware

d0 Long enhanced-30-channel threshold value in the hardware
d1 Long enhanced-30-channel threshold value in the hardware
d2 Long enhanced-30-channel threshold value in the hardware
d3 Long enhanced-30-channel threshold value in the hardware
d4 Long enhanced-30-channel threshold value in the data base
d5 Long enhanced-30-channel threshold value in the data base
d6 Long enhanced-30-channel threshold value in the data base
d7 Long enhanced-30-channel threshold value in the data base
d8 NPC number
d9 UNIT number

2B1 NPC Transmit or Receive Pseudo Framing Word values are inconsistent

The Transmit or Receive Pseudo Framing Word of the NPC mismatch between unit data base and the hardware

d0 The Receive Pseudo Framing Word of NPC from hardware
d1 The Receive Pseudo Framing Word of NPC from unit data base
d2 The Transmit Pseudo Framing Word of NPC from hardware
d3 The Transmit Pseudo Framing Word of NPC from unit data base
d4 NPC number
d5 UNIT number

2B2 NPC Non Framing Setting values are inconsistent

The Non Framing Setting value the NPC mismatch between unit data base and the hardware

d0 Fourth byte the Non Framing Setting of NPC from hardware
d1 Third byte of the Non Framing Setting of NPC from hardware
d2 Fourth byte of the Non Framing Setting of NPC from unit data base
d3 Third byte of the Non Framing Setting of NPC from unit data base
d4 NPC number
d5 UNIT number

301 CCN sides is unpested (INS) in DB but pested in hardware (BXREG).

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 CCN side

302 TSI entity is unpested (INS) in DB but pested in hardware (CCNI EMR).

d0 Not used
d1 Not used
d2 Not used
d3 To UNIT
d4 From UNIT
d5 CCNI side

303 CCB entity is unpested (INS) in DB but pested in hardware (CCNI EMR).

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 CCB number
d5 CCN side

305 SYNC entity is in-service in DB but cannot communicate with MP.

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 SYNC side

306 TLI entity is in-service in DB but out-of-service in SYNC data.

d0 Syncdata.arch
d1 TLI data base flags
d2 TLI hardware status
d3 Number of times data mismatch verified
d4 TLI number
d5 SYNC side

307 TLR entity is in-service in DB but out-of-service in SYNC data.

d0 Not used
d1 Not used
d2 Not used
d3 TLR number
d4 TLI number
d5 SYNC side

308 CI links is in-service in DB but out of service in CI hardware data

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 link number

310 TLR entity priority is different b/t DB and SYNC data (TE and TP)

d0 Not used
d1 SYNC hardware TLR priority
d2 Data base priority
d3 TLR number
d4 TLI number
d5 SYNC side

311 TLR entity x and y value is different b/t DB and SYNC data

d0 SYNC hardware y value
d1 Data base y value
d2 SYNC hardware x value
d3 Data base x value
d4 [AB] A = TLI number; B = TLR number;
d5 SYNC side

312 SYNC entity architect or stratum value is different b/t DB and SYNC.

d0 SYNC hardware stratum value
- 0 - domestic stratum 3
- 1 - CEPT local exchange
- 2 - CEPT toll exchange
- 3 - domestic stratum 2

d1 Data base stratum value
- 0 - no type defined
- 1 - stratum 2 sync
- 2 - stratum 3 sync
- 3 - CEPT local
- 4 - CEPT toll

d2 SYNC hardware architect value
- 0 - slaved in master-slave system
- 1 - master in master-slave system
- 2 - mutual synchronization system

d3 Data base architect value
- 0 - no type defined
- 1 - master in master-slave system
- 2 - slaved in master-slave system
- 3 - mutual synchronization system

d4 Not used

d5 SYNC side

313 SYNC entity mode is different b/t DB and SYNC data

d0 Not used

d1 Not used

d2 SYNC hardware mode value
- 0 - normal
- 1 - fast
- 2 - holdover

d3 Data base sync mode value
- 1 - normal
- 2 - fast
- 3 - holdover

d4 Not used

d5 SYNC side

314 SYNC timing source or active link is different b/t DB and hardware

d0 SYNC hardware active link
This field is only valid when the source is timing link and the architecture field is slave in the master-slave system
0 - TLI #1, Link #0
1 - TLI #1, Link #1
2 - TLI #2, Link #0
3 - TLI #2, Link #1
4 - TLI #3, Link #0
5 - TLI #3, Link #1
6 - TLI #4, Link #0
7 - TLI #4, Link #1

d1 Data base sync active link
This field is only valid when the source is timing link and the architecture field is slave in the master-slave system
0 - TLI #1, Link #0
1 - TLI #1, Link #1
2 - TLI #2, Link #0
3 - TLI #2, Link #1
4 - TLI #3, Link #0
5 - TLI #3, Link #1
6 - TLI #4, Link #0
7 - TLI #4, Link #1

d2 SYNC hardware timing source
0 - holdover
1 - timing link
2 - cross couples
3 - CRO

d3 Data base sync timing source
1 - holdover
2 - timing link
3 - cross couples
4 - CRO

d4 Not used

d5 SYNC side

315 SYNC TLI type is different b/t DB and SYNC hardware

d0 Not used

d1 Data base TLIs x option if TLI type is TDTYPE

d2 SYNC hardware type

d3 Data base TLI type

d4 TLI number

d5 SYNC side

316 ECCN sides is unpested (INS) in DB but pested in hardware (BXREG).

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 Not used
d5 ECCN side

317 ETSI entity is unpested (INS) in DB but pested in hardware(CCI EMR).

d0 Not used
d1 Not used
d2 Not used
d3 Not used
d4 ETSI number
d5 ECCN side

320 Receive sync upper address different b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

321 Receive sync lower address different b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

322 Receive sync data b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

323 PIF data differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Not used
d4 MXR number
d5 Unit number

324 Receive frame mode A differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

325 Receive frame mode B differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

326 Receive sync mode A differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

327 Receive sync mode B differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

328 Transmit framing mode differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

329 Transmit signaling mode differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

32A Transmit system mode differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 NPC
d4 MXR number
d5 Unit number

32B Even NPC receive ams 0 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

32C Even NPC receive ams 1 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

32D Even NPC receive ams 2 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

32E Even NPC transmit ams 0 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

32F Even NPC transmit ams 1 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

330 Even NPC transmit ams 2 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

331 Odd NPC receive ams 0 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

332 Odd NPC receive ams 1 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

333 Odd NPC receive ams 2 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

334 Odd NPC transmit ams 0 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

335 Odd NPC transmit ams 1 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

336 Odd NPC transmit ams 2 value differs b/t UA DB and PS DB

d0 Not used
d1 UA value
d2 PS value
d3 Channel
d4 NPC number
d5 Unit number

REPT,DGNDET,EQPT

FRAME AUDITS

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.82003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82003] */
   /* Test number:Data in the incorrect state */
   "<ttt>:d8,d7,d6,d5,d4,d3,d2,d1"
;
```

Explanation Of Message

This completed, autonomously-generated action message from frame audits indicates that the data in MC RAM did not match the data in the DISK. A similar message may be used

for MC/UC mismatches.

Explanation Of Parameters

ttt - Entity name

ttt	*Explanation*
MP	Main processor
CI	Communications interface
U1-U16	Unit controller (1 through 16)

d8 - Data base file number on disk

d7 - Invalid page number divided by 100 (d7 / 100)

d6 - Invalid page number modulo by 100 (d6 % 100)

If RAM page checksum is invalid, d5 = d4 = d3 = d2 = d1 = FF.

If DACS II cannot get the disk data base file, d7 = d5 = FF.

REPT,DGNDET,EQPT,DEV

FRAME AUDITS DIAGNOSTICS

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.82001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT DGNDET EQPT
   /* [O.82001] */
   /* <Diagnosed name:Element of entity diagnosed,Return \
code diagnostic> */
   "<ttt>:<eee>[-DEV-<devc>],d0"
;
```

Explanation Of Message

This autonomously-generated action message from frame audits indicates that an in-service diagnostic was run on the entity **ttt** for the element **eee** and the diagnostic test is

complete.

Explanation Of Parameters

ttt - Diagnosed entity name

eee - Element of diagnosed entity

ttt	*eee*	*Explanation*
CRO		Clock reference oscillator
	0smc	s - Side number (0 or 1) m - TLI number (1 through 4) c - TLR number (1 or 2)
DSPI		Digital signal processor interface
	0qqr	qq - Unit number (01 through 16) r - DSPI number (3 through 6)
FTMI		Facility terminating module interface
	0qqb	qq - Unit number (01 throuth 16) b - FTMI in the FTU (1 through 4)
NPC		Network processing circuit
	sabc	NPC number (0001 through 2560) (Does not include NPCs equipped in DS3 Units)
SYNC		Synchronizer
	000s	s - Side number (0 or 1)
TLI		Timing link interface
	00sm	s - Side number (0 or 1) m - TLI number (1 through 4)

TSI		Time slot interchanger
	0sft	s - Side number (0 or 1) f - CCB number (1 through 6). FROM Unit t - TSI number (1 through 6). TO Unit
ETSI		Expanded time slot interchanger
	0sqq	s - Side number (0 or 1) qq - Unit number (01 through 16)
UFC		Format Converter
	0qqb	qq - Unit number (01 through 16) b - Format Converter number (1 through 4)
UNIT		Unit
	00qq	qq - Unit number (01 through 16)
FMT		Formatter
	0qqs	qq - Unit number (01 through 16) s - Side number (0 or 1)
FLI		Facility line interface
	0qqk	qq - Unit number (01 through 16) k - Identifier (k = S or P)
MIU		Multiple interface unit
	0qqc	qq - Unit number (01 through 16) c - MIU number (1 through 6,P)
CCI		Clock and control interface
	000s	s - Side number (0 or 1)

DEV - Device

devc - Device identifier

This optional field will be shown only if the entity is MXR.

devc	*Explanation*
DS3	General devices
M13	M12 and M13 devices
PIF	Processor Interface
HSC	High-level Serial Communication Controller
CCxx	Channel Controller (xx = 1 through 14)
TXyy	Transceiver devices (yy = 1 through 28)

d0 - Return code from the diagnostic:

d0	*Explanation*
FC	Failed diagnostic

REPT,EVT,EQPT

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01337]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01337] */
   /* Error Recovery Messages to Log Discarded */
;
```

Explanation Of Message

This autonomous message reports that due to large numbers of error reports being passed through the system, not all transient error events were transferred to the disk. Logging will resume automatically when activity decreases to a manageable level.

REPT,EVT,EQPT,CCB,TN,X,EVENT

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01351]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01351] */
   /* <explanation of error condition code> */
   "CCB-sf:TN-X-dddd,EVENT-eeee,[ESR],ERR"
   "<error analysis data bytes>"
;
```

Explanation Of Message

This message indicates that error recovery was called to handle an error occurring in the

cross-connect buffer.

Explanation Of Parameters

ERR - Error recovery

ESR - Error Source Register

The ESR keyword is not output if the register contents cannot be read.

CCB - Cross-connect Buffer

s - Cross-connect side (0 or 1)

f - Unit (1 through 6)

TN - Transaction

dddd - Transaction number

EVENT - Event

eeee - Event number

error analysis data bytes
- Data used to analyze the cause of an error.
Eight bytes are output. These bytes are labeled "byte 0", "byte 1", etc, below.

byte 0
- ESR0 (Error Source Register 0) in the CCB

byte 1
- ESR1 (Error Source Register 1) in the CCB

byte 2
- ESR2 (Error Source Register 2) in the CCB

byte 3
- CCNI ESR0

byte 4
- CCNI ESR1

byte 5
- CCNI ESR2

byte 6
- CCNI ESR3

byte 7
- CCNI ESR4

mmmm - Error condition code

mmmm	*Explanation*
SWFA	CCB packid error, wrong pack, can't read pack
SWFA	CCB sync pulse error
SWFA	CCB clock error
SWFA	CCB input port alarm error
SWFA	CCB zero bit is stuck at 1
SWFA	Corresponding CCNI bit is stuck

REPT,EVT,EQPT,CCI,TN,X,EVENT

ERROR RECOVERY CCI

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01354]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01354] */
   /* <explanation of error condition code> */
   "CCI-s:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "wd01,wd02,wd03,wd04,wd05,wd06"
   "wd07,wd08,wd09,wd10,wd11,wd12"
;
```

Explanation Of Message

This message indicates that DACS II detected an alarm occurring in the clock and control interface.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

CCI - Clock control interface

s - Cross-connect side number (0 or 1)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the content of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the content of the DACS II error recovery log file which contains the data of this error recovery event.

wd01,
wd02,
...,
wd12 - Word 1 through 12

0 to 12 words of hexadecimal raw error data for internal use. Each word is four hexadecimal digits.

wdxx	*Explanation*
wd01	System Status Register
wd02	Clock Control Interface (CCI) Status Register
wd03	CCI Extended Time Slot Interchange (ETSI) ESR0 Register
wd04	CCI ETSI ESR1 Register
wd05	CCI ETSI ESR2 Register
wd06	CCI ETSI ESR3 Register
wd07	CCI Status Bus Register
wd08	CCI Exercise Register
wd09	CCI System Mask Register
wd10	CCI Mask Register
wd11	CCI ETSI Mask Register
wd12	Not used (= 0000)

mmmm - Error condition code

mmmm	*Explanation*
SWFA	CCI pack is not present
SWFA	Can't communicate to CCI pack(incorrect version number)
SWFA	CCI pack's summary is set but has no errors
SWFA	CCIERR bit is stuck in system status reg
SWFA	TSIERR bit is stuck in system status reg
SWFA	PUERR bit is stuck in system status reg
SWFA	Bus Terminator pack is not present
SWFA	The 32 MHz clock is out of lock
SWFA	CCI 240 sync is misaligned with frame sync
SWFA	CCI loss of 240 Frame Sync
SWFA	CCI loss of 8 KHz Frame Sync
SWFA	CCI detected Address Parity error
SWFA	CCI detected low byte data parity error
SWFA	CCI detected high byte data parity error
SWFA	CCI -5.2 power supply has failed
SWFA	CCI detected Bus Status Parity error
SWFA	CCI Peripheral Unit Alarm
SWFA	SYNC summary is set on CCI circuit pack

REPT,EVT,EQPT,CCNI,TN,X,EVENT

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01352]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01352] */
   /* <explanation of error condition code> */
   "CCNI-s:TN-X-dddd,EVENT-eeee,ESR,ERR"
   "<reg0>,<reg1>,<reg2>,<reg3>,<reg4>"
   "<emr0>,<emr1>,<emr2>,<emr3>,<emr4>"
;
```

Explanation Of Message

This message indicates that DACS II detected an alarm occurring in the cross-connect

network interface).

Explanation Of Parameters

ERR - Error recovery

ESR - Error Status Register.

The ESR keyword is not output if the register contents cannot be read.

CCNI - Cross-connect network interface

s - Cross-connect side (0 or 1)

TN - Transaction

dddd - Transaction number

EVENT - Event

eeee - Event number

regn - Device register n (n = 0 through 4)

A bit set to "1" in these registers indicates the alarming circuit pack or a parity error.

CCNI s Error Source Register Bit Definitions

reg0 - Error Source Register 0

Bit	Condition
15	Time Slot Interchange (TSI) 43 is alarming
14	TSI 33 is alarming
13	TSI 23 is alarming
12	TSI 13 is alarming
11	TSI 62 is alarming
10	TSI 52 is alarming
09	TSI 42 is alarming
08	TSI 32 is alarming
07	TSI 22 is alarming
06	TSI 12 is alarming
05	TSI 61 is alarming
04	TSI 51 is alarming
03	TSI 41 is alarming
02	TSI 31 is alarming
01	TSI 21 is alarming
00	TSI 11 is alarming

reg1 - Error Source Register 1

Bit	Condition
15	TSI 26 is alarming
14	TSI 16 is alarming
13	TSI 65 is alarming
12	TSI 55 is alarming
11	TSI 45 is alarming
10	TSI 35 is alarming
09	TSI 25 is alarming
08	TSI 15 is alarming
07	TSI 64 is alarming
06	TSI 54 is alarming
05	TSI 44 is alarming
04	TSI 34 is alarming
03	TSI 24 is alarming
02	TSI 14 is alarming
01	TSI 63 is alarming
00	TSI 53 is alarming

reg2 - Error Source Register 2

Bit	Condition
15	Facility Terminating Module (FTM) 4 of Unit 3 is alarming
14	FTM 3 of Unit 3 is alarming
13	FTM 2 of Unit 3 is alarming
12	FTM 1 of Unit 3 is alarming
11	FTM 4 of Unit 2 is alarming
10	FTM 3 of Unit 2 is alarming
09	FTM 2 of Unit 2 is alarming
08	FTM 1 of Unit 2 is alarming
07	FTM 4 of Unit 1 is alarming
06	FTM 3 of Unit 1 is alarming
05	FTM 2 of Unit 1 is alarming
04	FTM 1 of Unit 1 is alarming
03	TSI 66 is alarming
02	TSI 56 is alarming
01	TSI 46 is alarming
00	TSI 36 is alarming

reg3 - Error Source Register 3

Bit	Condition
15	Cross-Connect Buffer (CCB) 4 is alarming
14	CCB 3 is alarming
13	CCB 2 is alarming
12	CCB 1 is alarming
11	FTM 4 of Unit 6 is alarming
10	FTM 3 of Unit 6 is alarming
09	FTM 2 of Unit 6 is alarming
08	FTM 1 of Unit 6 is alarming
07	FTM 4 of Unit 5 is alarming
06	FTM 3 of Unit 5 is alarming
05	FTM 2 of Unit 5 is alarming
04	FTM 1 of Unit 5 is alarming
03	FTM 4 of Unit 4 is alarming
02	FTM 3 of Unit 4 is alarming
01	FTM 2 of Unit 4 is alarming
00	FTM 1 of Unit 4 is alarming

reg4 - Error Source Register 4

Bit	Condition
15-08	Not used
07	Cross-Connect Network Interface (CCNI) autonomous switch enable error
06	CCNI high byte data parity error
05	CCNI low byte data parity error
04	CCNI address bus parity error
03	Synchronizer (SYNC) is alarming
02	Cross-Connect Buffer (CCB) 6 is alarming
01	CCB 5 is alarming

emrn - Error Mask Register n

A bit set to "1" in these registers indicates the alarming circuit pack or a parity error.

CCNI s Error Mask Register Bit Definitions

emr0 - Error Mask Register 0

Bit	Condition
15	Errors from Time Slot Interchange (TSI) 43 are masked
14	Errors from TSI 33 are masked
13	Errors from TSI 23 are masked
12	Errors from TSI 13 are masked
11	Errors from TSI 62 are masked
10	Errors from TSI 52 are masked
09	Errors from TSI 42 are masked
08	Errors from TSI 32 are masked
07	Errors from TSI 22 are masked
06	Errors from TSI 12 are masked
05	Errors from TSI 61 are masked
04	Errors from TSI 51 are masked
03	Errors from TSI 41 are masked
02	Errors from TSI 31 are masked
01	Errors from TSI 21 are masked
00	Errors from TSI 11 are masked

emr1 - Error Mask Register 1

Bit	Condition
15	Errors from TSI 26 are masked
14	Errors from TSI 16 are masked
13	Errors from TSI 65 are masked
12	Errors from TSI 55 are masked
11	Errors from TSI 45 are masked
10	Errors from TSI 35 are masked
09	Errors from TSI 25 are masked
08	Errors from TSI 15 are masked
07	Errors from TSI 64 are masked
06	Errors from TSI 54 are masked
05	Errors from TSI 44 are masked
04	Errors from TSI 34 are masked
03	Errors from TSI 24 are masked
02	Errors from TSI 14 are masked
01	Errors from TSI 63 are masked
00	Errors from TSI 53 are masked

emr2 - Error Mask Register 2

Bit	Condition
15	Errors from Facility Terminating Module (FTM) 4 of Unit 3 are masked
14	Errors from FTM 3 of Unit 3 are masked
13	Errors from FTM 2 of Unit 3 are masked
12	Errors from FTM 1 of Unit 3 are masked
11	Errors from FTM 4 of Unit 2 are masked
10	Errors from FTM 3 of Unit 2 are masked
09	Errors from FTM 2 of Unit 2 are masked
08	Errors from FTM 1 of Unit 2 are masked
07	Errors from FTM 4 of Unit 1 are masked
06	Errors from FTM 3 of Unit 1 are masked
05	Errors from FTM 2 of Unit 1 are masked
04	Errors from FTM 1 of Unit 1 are masked
03	Errors from TSI 66 are masked
02	Errors from TSI 56 are masked
01	Errors from TSI 46 are masked
00	Errors from TSI 36 are masked

emr3 - Error Mask Register 3

Bit	Condition
15	Errors from Cross-Connect Buffer (CCB) 04 are masked
14	Errors from CCB 03 are masked
13	Errors from CCB 02 are masked
12	Errors from CCB 01 are masked
11	Errors from FTM 4 of Unit 6 are masked
10	Errors from FTM 3 of Unit 6 are masked
09	Errors from FTM 2 of Unit 6 are masked
08	Errors from FTM 1 of Unit 6 are masked
07	Errors from FTM 4 of Unit 5 are masked
06	Errors from FTM 3 of Unit 5 are masked
05	Errors from FTM 2 of Unit 5 are masked
04	Errors from FTM 1 of Unit 5 are masked
03	Errors from FTM 4 of Unit 4 are masked
02	Errors from FTM 3 of Unit 4 are masked
01	Errors from FTM 2 of Unit 4 are masked
00	Errors from FTM 1 of Unit 4 are masked

emr4 - Error Mask Register 4

Bit	Condition
15-08	Not used
07	Address parity errors are masked (ASEM)
06	Parity error in the BSR register is masked
05	High data byte parity error is masked
04	Low data byte parity error is masked
03	Address parity error (ADEM) is masked
02	Synchronizer error summary bit is masked
01	Errors from Cross-Connect Buffer (CCB) 6 are masked
00	Errors from CCB 5 are masked

mmmm - Error condition code

mmmm	*Explanation*
SWFA	CCNI access error (cannot access pack)
SWFA	High data byte bus parity error
SWFA	Low data byte bus parity error
SWFA	Address bus parity error
SWFA	Autonomous switch enable error
SWFA	Bus status register parity error
SWFA	CCNI stuck register bit, summary set, no other alarms

REPT,EVT,EQPT,CMD,ERR,ABT,TN,X

INPUT DENIAL

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01121] */
   "CMD:ERR,ABT[,TN-X-abcd]"
   /* <first 70 characters of input message> */
   /* <remaining text of input message> */
;
```

Explanation Of Message

This message is output by DACS II when a task indicated by the transaction number has

been autonomously aborted.

Explanation Of Parameters

ERR - Error recovery

CMD - Command

ABT - Abort

TN - Transaction

abcd - Transaction number

REPT,EVT,EQPT,ERR,SOFTWARE,MC

ERROR RECOVERY SOFTWARE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01362]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01362] */
   "ERR-{SOFTWARE|MC}"
   "TN-X-dddd"
   /* Error Type */
   "<error type>"
   /* Source */
   "<source>"
   /* DP,RC */
   "<dp>,<rc>"
   /* Entity,Recovery Action */
   "<entity>,<action>"
   /* Mailbox ID,Process */
   "<mid>,<proc>"
   /* Trouble Shooting Arguments */
   "<tsargs>"
;
```

Explanation Of Message

This output message reports that an error was detected by the software in the indicated processor. The report also gives the error type, the source of the error, and the action taken.

The action taken should be sufficient to recover from the problem, in which case no craft action is necessary. Or the action taken was to isolate the problem and prevent system inconsistencies. In this case, manual action will be required to restore the appropriate entities.

Note: All new or unknown occurrences of this error should be reported to the development organizations immediately.

The word "SOFTWARE", in the message text, is replaced by "MC" when the error type is "DISK" or "TAPE".

Explanation Of Parameters

ERR - Error recovery

The TN number can be specified in RTRV-LOG:::ERR to retrieve the content of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

error type
- Type of error

error type	*Explanation*
CHECKSUM	Text or data checksum error
COMMUNICATION	Difficulty talking to remove processes of processors
CPUDGN	CPU diagnostic failed
DATA BASE	Error in data base access
DBCHECKSUM	Data base checksum error
DISK	Trouble accessing disk
EXCESSIVE INT	Too many error recovery calls
HARDWARE	External hardware failure
JOURNAL	Trouble sending journal to disk
PROGRAM	Program error, bad internal data passed
RAMTEST	Internal RAM test failed
RECOVERY	Internal recovery error
REMOTE PROGRAM	Program error encountered on other processor local process report
TAPE	Trouble accessing tape
VMACHINE	Operating system or interface problem

source
- Internal DACS II software filename (12 characters)

DP - Decision point

dp - Decision point value (0- to 8-digit positive decimal number)

Number associated with a specific point in the file specified in the source field.

RC - Return code

rc - Return code value (0- to 8-digit positive or negative number)

Number returned by an internal function.

ACTION
- Action

action
- Action to be taken

action	*Explanation*
RSCOLDBT	Super Cold Boot
REPORT	Report only, no action
HWBOOT	Hardware boot (boot of processor with existing data base)
WMBOOT	Warm boot (boot of processor with disk data base)
CDBOOT	Cold boot (boot of processor programs and data base)
REMOVE	Remove processor from service
MCOND	Put frame into MCOND
PARK	Stop processor immediately

entity
- Entity identifier

entity	*Explanation*
MP	Action on Main Processor
CI	Action on Communication Interface
MC	Action on MC
UNIT [q]q	Action on specific unit (1 through 16)
FRAME	Frame wide action

mid - Mailbox identifier

proc - Process value

REPT,EVT,EQPT,ETSI,TN,X,EVENT

ERROR RECOVERY ETSI

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01355]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01355] */
   /* <explanation of error condition code> */
   "ETSI-sqq:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "wd01,wd02,wd03,wd04,wd05,wd06"
   "wd07,wd08,wd09,wd10,wd11,wd12"
;
```

Explanation Of Message

This message reports an alarm on a extended time slot interchanger.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

ETSI - Expanded time slot interchanger (ETSI)

s - Cross-connect side (0 or 1)

qq - Unit number (01 through 16)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

wd01,
wd02,
...,
wd12 - Word 1 through 12

0 to 12 words of four-digit hexadecimal raw error data for internal use.

- **wd01** - Circuit Pack Summary Register
- **wd02** - Receive MDX Status Register
- **wd03** - Transmit MDX Status Register
- **wd04** - Control RAM Status Register
- **wd05** - Control RAM Port Alarm Register
- **wd06** - Control RAM Data RAM Alarm Register
- **wd07** - Receive MDX Mask Register
- **wd08** - Transmit MDX Mask Register
- **wd09** - CCI ETSI Error Source Register 0
- **wd10** - CCI ETSI Error Source Register 1
- **wd11** - CCI ETSI Error Source Register 2
- **wd12** - CCI ETSI Error Source Register 3

mmmm - Error condition code

mmmm	*Explanation*
SWFA	ETSI pack is not present
SWFA	Can't communicate to ETSI pack (incorrect version number
SWFA	ETSI pack's summary is set on CCI but has no errors
SWFA	ETSI loss of 32.768 MHz clock
SWFA	ETSI loss of 240 frame sync
SWFA	ETSI Rcv MDX summary stuck bit
SWFA	ETSI control RAM summary stuck bit
SWFA	ETSI TX MDX summary stuck bit
SWFA	ETSI loss of Vdd (3.3v) power
SWFA	Peripheral unit port alarm (RCV MDX)
SWFA	Receive MDX data source time slot parity error
SWFA	Receive MDX sync error
SWFA	Receive MDX address parity error
SWFA	Receive MDX write data parity error
SWFA	Receive MDX can't be accessed (incorrect chip Id
SWFA	Transmit MDX data parity error
SWFA	Transmit MDX data source time slot parity error
SWFA	Transmit MDX sync error
SWFA	Transmit MDX address parity error
SWFA	Transmit MDX write data parity error
SWFA	Transmit MDX can't be accessed (incorrect chip Id
SWFA	Control RAM parity error
SWFA	Control RAM sync alarm
SWFA	Control RAM port alarm
SWFA	Control RAM BIST flag is set
SWFA	Data RAM BIST flag is set
SWFA	Control RAM address parity error
SWFA	Control RAM write data parity error
SWFA	Control RAM device can't be accessed (incorrect chip Id)
SWFA	Control RAM circuit pack parity
SWFA	Control RAM device is in reset state
SWFA	Control RAM port alarm summary is stuck
SWFA	ETSI TRD3ST exercise bit is set
SWFA	ETSI ready high error on CCI
SWFA	ETSI ready time-out error on CCI(ETSI can't be accessed)
SWFA	Control RAM stuck bit error

REPT,EVT,EQPT,LINK,TN,X,ERR

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01321]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01321] */
   "LINK-a:TN-X-dddd,ERR"
   "STATUS:a0,a1,a2"
;
```

Explanation Of Message

This message reports that error recovery was called to handle an error occurring in an administrative link.

Explanation Of Parameters

ERR - Error recovery

LINK - Link

a - Link number (1 through 6)

TN - Transaction

dddd - Transaction number

STATUS
- Status

a0,
a1,
a2 - Status data

The following status data is for asynchronous links.

a0 - Message code

a0	*Explanation*
00	Link has gone protocol in-service
01	Link has gone protocol out-of-service

a1 - Link mode status

a1	*Explanation*
00	Idle
01	Input message in progress
02	Output message in progress

a2 - Link interrupt register (hexadecimal)

Bit numbering 76543210

Bit	*Explanation*
7	Received break
6	Parity error
5	Framing error
4	Overrun error
3	Transmitter empty
2	Transmitter ready
1	Receiver full
0	Receiver Ready

If bits 4, 5, and 6 are all set (equal to 1) simultaneously it indicates a transmission error.

The following status data is for synchronous links.

a0	*Explanation*
00	Session established on virtual circuit
01	Session closed on virtual circuit

a1	*Explanation*
00	always set to 00

a2 - Virtual circuit number (hexadecimal)

a2	*Virtual circuit number*
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
0A	10
0B	11
0C	12
0D	13
0E	14
0F	15
10	16

REPT,EVT,EQPT,MC,MCOND

UTILITIES

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.58011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.58011] */
   "MC:MCOND"
;
```

Explanation Of Message

This autonomous message reports that the Main Controller is in maintenance condition

during the boot process.

Explanation Of Parameters

MC - Main controller

MCOND - Maintenance condition

REPT,EVT,EQPT,MC,MP,CI,SSC,TN

ERROR RECOVERY ERROR SOURCE REGISTER
MAIN CONTROLLER

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01312]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01312] */
   "MC:[{MP|CI|SSC}],TN-X-dddd,[ESR],ERR"
;
```

Explanation Of Message

This message is a main controller error recovery output message. In addition to providing information for main controller error recovery, this message may also provide information for the following:

Main Processor
Communications Interface
Secondary Storage Controller

Explanation Of Parameters

MC - Main controller

MP - Main processor

CI - Communications interface

SSC - Secondary storage controller

ESR - Error source register

The ESR is not output if the register content cannot be read.

ERR - Error recovery

TN - Transaction

dddd - Transaction number

REPT,EVT,EQPT,MC,MP,TN,X,EVENT

ERROR RECOVERY MC

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[MP],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[CI],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[{BX|EBX}],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff"
;
```

[O.01311]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01311] */
   [/* <explanation of error condition code> */]
   "MC:[{MTC|EMTC}],TN-X-dddd[,EVENT-eeee][,ESR],ERR"
   "abab,bbbb,cccc,dddd,eeee,ffff,gggg,hhhh,iiii,jjjj"
;
```

Explanation Of Message

This message is a main controller error recovery output message reporting circuit pack alarms. It also provides information for the:

Main Processor
Communications Interface
Extended Communications Interface
Secondary Storage Controller
Bus Extender or Expanded Bus Extender Pack for MP
Maintenance Pack or Expanded Maintenance Pack

Explanation Of Parameters

MC - Main controller

MP - Main processor

CI - Communications interface

BX - Bus extender pack for MP

MTC - Maintenance pack

EBX - Expanded bus extender pack for MP

EMTC - Expanded maintenance pack

ESR - Error source register

This keyword is not output if the register content cannot be read.

ERR - Error recovery

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

abab, bbbb, ..., jjjj
- Raw data

0 to 10 words of hexadecimal raw error data for internal use. The number of words output is dependent upon the error event. Each word consists of four hexadecimal digits.

ERR ESR MC MP data words:

abab bbbb cccc dddd eeee ffff

abab - CPU Interrupt Holding Register contents
bbbb - CPU Interrupt Mask Register contents
cccc - Version
dddd - Type
eeee - CPU RAM checksum word 1
ffff - CPU RAM checksum word 2

ERR ESR MC {BX|EBX} data words:

abab bbbb cccc dddd eeee ffff

abab - CPU Interrupt Holding Register contents
bbbb - CPU Interrupt Mask Register contents
cccc - BX/EBX Interrupt Holding Register contents
dddd - BX/EBX Interrupt Mask Register contents
eeee - BX/EBX type
ffff - BX/EBX version

ERR ESR MC {MTC|EMTC} data words:

abab bbbb cccc dddd eeee ffff gggg hhhh iiii jjjj

abab - CPU Interrupt Holding Register contents
bbbb - MTC/EMTC Error Source Register 0 contents
cccc - MTC/EMTC Error Source Register 1 contents
dddd - MTC/EMTC Error Source Register 2 contents
eeee - MTC/EMTC Error Source Register 3 contents
ffff - MTC/EMTC Error Mask Register 0 contents
gggg - MTC/EMTC Error Mask Register 1 contents
hhhh - MTC/EMTC Error Mask Register 2 contents
iiii - MTC/EMTC Error Mask Register 3 contents
jjjj - MTC/EMTC Interrupt Control/Sanity Register contents
mmmm - Error condition code

mmmm	*Explanation*
SROF	BX Access Error
SWFA	BX Ram Parity Over Low Byte
SWFA	BX Ram Parity Over High Byte
SWFA	Fan Bank Zero Error Flag
SWFA	D5 Spare Bit Error
SWFA	Fan Bank One Error Flag
SWFA	D7 Spare Bit Error
SROF	BX stuck summary bit
SWFA	Unknown interrupt from BX
SWFA	Error from side 0 bus extension
SWFA	Error from side 1 bus extension
SWFA	Unknown interrupt from MTC
SWFA	MTC stuck summary bit
SWFA	Unused bits on MTC pack
SWFA	Error due to unused bit
SWFA	Error due unknown reasons
SWFA	Power Failure
SWFA	Sanity Time-out
SROF	BX stuck CCNI summary bit
SWFA	CPU RAM Parity error

REPT,EVT,EQPT,MC,RESET,DACSII

MAIN CONTROLLER RESET RELEASE DACS II ISSUE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01261]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   [mmmm]
   /* [O.01261] */
   [/* <explanation of error condition code> */]
   /* MC:RESET-COMPLD,DACSII:Release,Issue,FPKG number */
   "MC:RESET-COMPLD,DACSII:gg.pp,r,kkttuuvv"
;
```

Explanation Of Message

This message is used to report that the reset procedure has succesfully completed.

Explanation Of Parameters

MC - Main controller

RESET - Reset

RELEASE
- Release

ISSUE - Issue

gg.pp - DACS II software release number

r - software issue number of the release

kkttuuvv
- Feature package identification (Hex)

kkttuuvv	Feature
00000001	DS1
00000002	CEPT
00000004	Subrate
00000008	Direct SLC® 96 and Series 5 Carrier Interface
00000010	DS3 Terminations
00000020	Enhanced CEPT
00000040	Switched Teleconferencing
00000080	CEF
00000100	Enhanced DS1 Performance Monitoring
00000200	Roll
00000400	AT&T Security Warning Message
00000800	NX64KBIT Test Access
00001000	Clear 2MB/S Interface
00002000	TS0 to Non-TS0 Cross-connection

In general a feature package identification code is a combination of several individual feature package numbers. To determine the individual features that make up a feature package it is necessary to decode the feature package identification code. This code is an eight digit hexadecimal number. Each hexadecimal number represents a four-bit binary number. Within this binary number each feature is associated with one particular bit. Consequently to determine the feature list from a feature package identification code it is necessary to convert each hexadecimal digit to its binary equivalent and look up the features in the list above. For example the feature package identification code 00000007 can be converted to the following binary number working from left to right one hex digit at a time.

0000 0000 0000 0000 0000 0000 0000 0111

This number contains eight binary numbers each representing one of the hexadecimal numbers in the feature package identification code 00000007. The rightmost digit of the code contains three features since there are three bits set to one. This would be decoded as follows using the table of features above.

	hexadecimal	binary	Feature
	0000	0	Feature unavailable
	0001	1	DS1
	0010	2	CEPT
	0100	4	Subrate
Total	0111	7	(DS1 + CEPT + Subrate)

mmmm - Error condition code

mmmm	*Explanation*
SROF	Failed to boot CONF file
SROF	Failed to boot DB
SROF	Failed to boot journal
SROF	Failed to boot unit
SNVS	Tape error, boot from disk
SNVS	Disk error, boot from tape
SROF	Failed to boot CI
SROF	General boot failure (vanilla flavor)
ENEQ	DSPI not equipped, not in service, or failed
SNVS	Software Identification Block is not readable
SNVS	Software Identification Block failed comparison
SNVS	Release number mismatch
SNVS	Point number mismatch

mmmm	*Explanation*
SNVS	PDI Version number mismatch
SNVS	MP database not consistent with Configuration file
SNVS	Database is empty
SNVS	G4 to G4.1 retrofit failed
SNVS	Can't mount or unmount tape
SNVS	Can't mount or unmount disk

REPT,EVT,EQPT,NPC,SIDE,TN,X

ERROR RECOVERY DSPU NPC

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.01371]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01371] */
   /* <explanation of error condition code> */
   "NPC-[s]abc[&&-[t]def]:SIDE-s,TN-X-dddd,EVENT-eeee[,ESR],\
ERR"
   "<error analysis data bytes>"
;
```

Hierarchical

[O.01371]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01371] */
   /* <explanation of error condition code> */
   "NPC-uv-m-np[&&&-uv-m-qr]:SIDE-s,TN-X-dddd,EVENT-eeee\
[,ESR],ERR"
   "<error analysis data bytes>"
;
```

Explanation Of Message

This message indicates an alarm was detected in a digital signal processing circuit; for example, the digital multipoint bridge.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register content can not be read.

NPC - Network Processing Circuit

[s]abc

- The 3- or 4-digit nonhierarchical odd DSPU NPC number

[t]def

- The 3- or 4-digit nonhierarchical even DMB NPC number ([t]def = [s]abc + 1)

If NPC numbers are expressed in three digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

uv-m-np

- Hierarchical odd DSPU NPC numbers

uv-m-qr

- Hierarchical even DMB NPC numbers

uv - Unit number
m - Module number
np,qr - NPC number within the module (qr = np + 1)

The values are listed below:

```
SR and MJ NPC numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01-02
```

SIDE - Side

s - Side number (0 or 1)

TN - Transaction

dddd - Transaction number.

The TN number can be specified in message I.55011 (in PDS, UTL::QRY, ERR or in MML, RTRV-LOG:::ERR) to retrieve the content of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

error analysis data bytes
- Troubleshooting data (four-digit hexadecimal)

There can be from 0 through 10 data bytes output depending upon the circuit pack and error condition. The fields are labeled aaaa, bbbb, cccc, dddd, eeee, ffff, gggg, hhhh, iiii, and jjjj below for explanation purposes.

For the Digital Multipoint Bridge (DMB),
C-Bit Processor (CPR),
Multipoint Junction Unit (MJU), and
Subrate Multiplexer (SRM)

aaaa	DMB Interrupt Register content
bbbb	DMB Interrupt Mask Register content

For the DMB only

cccc	cme 0 reply - word 2
dddd	cme 0 reply - word 1
eeee	cme 1 reply - word 2
ffff	cme 1 reply - word 1
gggg	conf 0 reply - word 2
hhhh	conf 0 reply - word 1
iiii	conf 1 reply - word 2
jjjj	conf 1 reply - word 1

mmmm - Error condition code

mmmm	*Explanation*
SROF	DMB access error (e.g. pack not there)
SWFA	DMB serial access error (pack not there)
SWFA	DMB parallel access error
SWFA	DMB bits stuck in exercise register
SWFA	DMB data processing error
SWFA	Multiple data parity error, CCB problem
SWFA	DMB clock error
SWFA	Multiple clock errors, CCB/SYNC problem
SWFA	DMB FIFO error
SWFA	Possible power failure on side
SWFA	DMB control memory error 0 (used for trans)
SWFA	DMB control memory error 1 (used for trans)
SWFA	Control Memory 0 control ram parity error
SWFA	Control Memory 1 control ram parity error
SWFA	Control Memory 0 control interface error
SWFA	Control Memory 1 control interface error
SWFA	Control Memory 0 loss of sync error
SWFA	Control Memory 1 loss of sync error
SWFA	Control Memory 0 DMB input data parity error

mmmm	*Explanation*
SWFA	Control Memory 1 DMB input data parity error
SWFA	DMB conference error 0 (used for trans)
SWFA	DMB conference error 1 (used for trans)
SWFA	Conference 0 control interface error
SWFA	Conference 1 control interface error
SWFA	Conference 0 control ram parity error
SWFA	Conference 1 control ram parity error
SWFA	Conference 0 DMB input data parity error
SWFA	Conference 1 DMB input data parity error
SWFA	Conference 0 DMB device (chip) error
SWFA	Conference 1 DMB device (chip) error
SWFA	Bad Ram Data in DMB device (bits alarms)
SWFA	Bad Ram Data in DMB device (bits alarms)
SROF	CPR serial access error
SWFA	CPR clock error
SWFA	CPR processor interface failure
SWFA	CPR input data interface error
SWFA	CPR D-Bit interface parity error
SWFA	CPR control memory or state machine failure
SWFA	CPR FIFO FRDY/FFULL stuck bit
SROF	MJU serial access error
SWFA	MJU clock error
SWFA	MJU processor interface failure
SWFA	MJU input data interface failure
SWFA	MJU error correction circuitry failure
SWFA	MJU control memory failure
SWFA	MJU output block failure
SWFA	MJU sampling circuitry failure
SWFA	MJU control memory or state machine failure
SROF	SRM serial access error
SWFA	SRM clock error
SWFA	SRM processor interface failure
SWFA	SRM input data interface failure
SWFA	SRM error correction block failure
SWFA	SRM control memory failure
SWFA	SRM multiplexor block failure
SWFA	SRM output block failure
SWFA	Illegal/unknown condition code
SROF	Invalid FPA state

REPT,EVT,EQPT,NPC,TN,X,EVENT

ERROR RECOVERY FTU NPC

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.01372]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01372] */
   /* <explanation of error condition code> */
   "NPC-[s]abc[&&-[t]def]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data bytes>"
;
```

Hierarchical

[O.01372]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01372] */
   /* <explanation of error condition code> */
   "NPC-uv-mn-p[&&&-wx-k-qr]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data bytes>"
;
```

Explanation Of Message

This message indicates that an alarm was detected in a facility terminating unit Network Processing Circuit. The specific alarm type is identified by the error condition code.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register content cannot be read.

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number denoting beginning of range specification

[t]def
- The 3- or 4-digit nonhierarchical NPC number denoting end of range specification

If NPC numbers are expressed in three digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	**Unit**	**Unit**	**Unit**
1	**2**	**3**	**4**
NPC	**NPC**	**NPC**	**NPC**
0001-0160	**0161-0320**	**0321-0480**	**0481-0640**
Unit	**Unit**	**Unit**	**Unit**
5	**6**	**7**	**8**
NPC	**NPC**	**NPC**	**NPC**
0641-0800	**0801-0960**	**0961-1120**	**1121-1280**
Unit	**Unit**	**Unit**	**Unit**
9	**10**	**11**	**12**
NPC	**NPC**	**NPC**	**NPC**
1281-1440	**1441-1600**	**1601-1760**	**1761-1920**
Unit	**Unit**	**Unit**	**Unit**
13	**14**	**15**	**16**
NPC	**NPC**	**NPC**	**NPC**
1921-2080	**2081-2240**	**2241-2400**	**2401-2560**

uv-m-np
- Hierarchical NPC number for beginning of range

wx-k-qr
- Hierarchical NPC number for end of range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

TN - Transaction

dddd - Transaction number

The TN number can be specified in message I.55011 (in PDS, UTL::QRY,ERR or in MML, RTRV-LOG:::ERR) to retrieve the content of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The EVENT number can be specified in message I.55011 (in PDS, UTL::QRY, ERR or in MML, RTRV-LOG:::ERR) to retrieve the content of the DACS II error recovery log file which contains the data of this error recovery event.

error analysis data bytes
- Troubleshooting data

Six bytes of 4-digit hexadecimal troubleshooting data, labeled for explanatory purposes below, as aaaa, bbbb, cccc, dddd, eeee, and ffff.

aaaa - Dual digroup card (DDC) ESR0 and ESR1

The first two digits (left to right) report ESR0 and the second two digits report ESR1

bbbb - Unused
cccc - DDC hardware and channel controller
dddd - DDC transceiver A Tferr & Rserr register
eeee - DDC transceiver B Tferr & Rserr register
ffff - DDC Transceiver transmit slip

mmmm - Error condition code

mmmm	*Explanation*
SWFA	DPC ROM error
SWFA	DPC loss of timing
SWFA	OOS RAM test ran while IS
SWFA	NPC bus error
SROF	NPC can not be accessed
SROF	NPC is alarming on FC
SWFA	Facility Processor Sanity Error
SWFA	SYNC Error
SWFA	Channel controller loss of clock
SWFA	Channel controller frame sync error
SWFA	CC configuration register error
SWFA	CC instruction ram error
SWFA	CC parity error
SWFA	CC transmit data error
SWFA	CC receiver data error
SWFA	CC exercise error
SWFA	CC summary bit error
SWFA	Hard RAM error
SWFA	Hard ROM check error
SWFA	Hard Error stuck bit
SWFA	Transceiver A stuck bit
SWFA	Transceiver A transmit slip
SWFA	Transceiver A Error
SWFA	Transceiver B stuck bit
SWFA	Transceiver B transmit slip
SWFA	Transceiver B Error
SWFA	Circuit ID Error
SWFA	Facility errors
SWFA	NPC address parity error
SWFA	Illegal/unknown condition code
SROF	Invalid DDC pack id

REPT,EVT,EQPT,PWR,TN,X,ERR

ERROR RECOVERY POWER

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01301]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01301] */
   "PWR:TN-X-dddd,ERR"
   "aaaa bbbb cccc dddd"
;
```

Explanation Of Message

This message indicates that error recovery was called by DACS II because of a power failure on the frame.

This message also indicates which power supply failed. The 4-digit hexadecimal "fields" of the error status register indicate the failed power source(s). These hexadecimal values

must be decoded into their individual bits. A bit set to indicates an errored power source.

Explanation Of Parameters

PWR - Power

ERR - Error recovery

aaaa - EMTC ESR0

aaaa is a four-digit hexadecimal number representing the sixteen bits of ESR0. Each bit of this register contains the status of an individual power source. A power source has failed if the bit corresponding to it is set to 1.

bit #	Explanation
15-14	Unused
13	MC 1, 484GA power converter in MC
12	MC 0, SM565 power converter in MC
11	CCN/ECCN 1 PWR failure
10	CCN/ECCN 0 PWR failure
9	SYNC 1 PWR failure
8	SYNC 0 PWR failure
7	Unit 7 PWR failure Unused if non-Capacity Expansion Frame (CEF)
6	Unused
5	Unit 6 PWR failure
4	Unit 5 PWR failure
3	Unit 4 PWR failure
2	Unit 3 PWR failure
1	Unit 2 PWR failure
0	Unit 1 PWR failure

bbbb - EMTC ESR1

bbbb is similar to aaaa above but represents the sixteen bits of ESR1.

bit #	Explanation
15-14	Unused
13	MC 1 PWR failure
12	MC 0 PWR failure
11-00	Unused

cccc - EMTC ESR2 (Reserved for future use)

dddd - EMTC ESR3 (Unused if non-CEF)

dddd is similar to aaaa above but represents the sixteen bits of ESR3.

bit #	Explanation
15-9	Unused
8	Unit 16 PWR failure
7	Unit 15 PWR failure
6	Unit 14 PWR failure
5	Unit 13 PWR failure
4	Unit 12 PWR failure
3	Unit 11 PWR failure
2	Unit 10 PWR failure
1	Unit 9 PWR failure
0	Unit 8 PWR failure

TN - Transaction

dddd - Transaction number

The TN number can be specified by the RTRV-LOG:::ERR message to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

REPT,EVT,EQPT,RESET,DATE,TOD

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01393]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.01393] */
   ":RESET,{DATE|TOD|DATE,TOD}"
   /* :<Date of the year>,<Time of day> */
   ":yr-mo-da,hr-mn-sc"
;
```

Explanation Of Message

This autonomously generated message is used to inform the craft that the system clock has been recovered automatically by the frame. The field can either be date of the year, time of day, or both.
The date and time will default to 12/31/9999 and 00-00-00, respectively.

Explanation Of Parameters

RESET - Reset

TOD - Time of day

DATE - Date

yr-mo-da
- date DACS II is reset to

yr	- 4- digit calendar year
mo	- month (01 through 12)
da	- day (01 through 31)

hr-mn-sc
- time DACS II is reset to

hr	- hour (00 through 23)
mn	- minute (00 through 59)
sc	- second (00 through 59)

REPT,EVT,EQPT,SYNC,MODE,FAST

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01366]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01366] */
   /* <explanation of error condition code> */
   "SYNC-a,MODE-{FAST|HOLDOVER|NORMAL|MATE}[TLI-m,SSP-c],\
   TN-X-dddd,ERR"
   "<synchronizer status data bytes>"
;
```

Explanation Of Message

This message reports that the active sync has switched to a new operating mode. Additional autonomous actions may be reported (that is, side switch) based on the state of

the mate synchronizer.

Explanation Of Parameters

ERR - Error recovery

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

MODE - Mode

New synchronizer operating mode

FAST - Fast

Synchronizer is in fast phase locked loop mode

HOLDOVER
- Holdover

Synchronizer is in holdover mode, or has a timing source but has not locked to it

NORMAL
- Normal

Synchronizer is normal (locked to indicated reference)

MATE - Mate

Synchronizer is receiving timing from the mate synchronizer (that is, the synchronizer is locked to cross couple)

CRO - Clock reference oscillator

CRO synchronizer is receiving timing from a CRO

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Sychronizer sync port

c - SSP on TLI (0 or 1)

TN - Transaction

dddd - Transaction number

synchronizer status data bytes
- Synchronizer status information (hexadecimal)

Up to five bytes of synchronizer status data. The actual number of bytes output depends upon cccc. The bits of each byte are labeled abcdefgh in that order. The output will appear in the following order:

byte 1, byte 2, byte 3, byte 4, and byte 5.

byte 1

bit	*Explanation*
a	MC is down flag
b	SYNC is down flag
c	Mate SYNC is out-of-service
d	Time Base is down

Timing link service status. A bit set to 1 indicates in-service.

bit	*Explanation*
e	TLI1
f	TLI2
g	TLI3
h	TLI4

byte 2 - Timing link (SSP) in-service status

A bit set to 1 indicates the indicated entity is in-service

bit	*Explanation*
a	SSP 0 on TLI 1
b	SSP 1 on TLI 1
c	SSP 0 on TLI 2
d	SSP 1 on TLI 2
e	SSP 0 on TLI 3
f	SSP 1 on TLI 3
g	SSP 0 on TLI 4
h	SSP 1 on TLI 4

byte 3

bit	*Explanation*
a	SYNC restart flag
b	Hardware summary, error on DPLL
c	PLL summary, any major cross-couple error
d	Cross-couple summary, any major cross-couple error
e	CRO summary error, any major CRO error
fgh	Not used

byte 4

bit	*Explanation*
ab	Synchronizer architecture
00	Slave in master slave configuration
01	Master in master slave configuration
10	Mutual synchronization system
cde	Operational stratum field
000	Domestic stratum 3
011	Domestic stratum 2
fg	PLL locking mode field
00	Normal
01	Fast
10	Holdover
h	Hit timing holdover field

byte 5

bit	*Explanation*
ab	Active timing link source field
00	Holdover
01	Timing Link
10	Cross couple
11	CRO
cde	Active link field
000	TLI 1, SSP 0
001	TLI 1, SSP 1
010	TLI 2, SSP 0
011	TLI 2, SSP 1
100	TLI 3, SSP 0
101	TLI 3, SSP 1
110	TLI 4, SSP 0
111	TLI 4, SSP 1
fgh	Not used

mmmm - Error condition code

mmmm	*Explanation*
SROF	Unknown what sync switched to
SAWS	SYNC switched to NORMAL mode
SAWS	SYNC switched to HOLDOVER
SAWS	SYNC switched to FAST mode
SAWS	SYNC switched TLIs/SSPs
SAWS	SYNC switched to cross couple

REPT,EVT,EQPT,SYNC,TLI,SSP,NPC

ERROR RECOVERY, SYNCHRONIZER

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.01335]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01335] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b[,NPC-abc],TN-X-dddd,ERR"
   /* ALARM CLEAR */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

Hierarchical

[O.01335]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01335] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b[,NPC-uv-m-np],TN-X-dddd,ERR"
   /* ALARM CLEAR */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

Explanation Of Message

This message reports the results of the error recovery process on the synchronizer with the alarms cleared.

Explanation Of Parameters

ERR - Error recovery

SYNC - Synchronizer

a - SYNC number (0 or 1)

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Synchronizer sync port

b - SSP number (0 or 1)

NPC - Network processing circuit

abc - Nonhierarchical NPC number

uv-m-np
- Hierarchical NPC number

  uv - Unit number
  m - Module number
  np - NPC number within the module

TN - Transaction

dddd - Transaction number

ALM - Alarm

LOS - Loss of signal

LEN - Loss of energy

EXJ - Excessive jitter

PHS - Phase step

OOF - Out of frame

MAJ - Major framing error rate

MIN - Minor framing error rate

CLR - Clear

byte 1,
byte 2,
...,
byte 5

- Synchronizer status bytes

Synchronizer status data in binary form. The number of data bytes ranges from 1 to 5, depending upon the synchronizer error type. These bytes are a coded form of the information shown in "explanation of error condition code". Each byte has eight bits labeled abcdefgh.

If Main Processor to Synchronizer communication has failed, Error Recovery may not get the correct status data from the Synchronizer. All bits in "synchronizer status data bytes" will then be set to 1 by default.

byte 1

bit	Explanation
a	Timing link equipped by MC
b	Timing link declared out-of-service
c	Timing link out-of-service due to error
d	Associated Timing Extractor TLI error
efgh	Not used

byte 2

- Priority weighting of link, a number from 1 through 8

byte 3

bit	Explanation
abc	Framing format (valid only for TXB1 or TXB2 TLIs)
TXB1	
000	D4
001	ESF
010	DDS
TXB2	
000	CCS
001	ERSM
010	CAS0
011	CAS1
de	Line format (valid only for TXB1 or TXB2 TLIs)
TXB1	
00	Bipolar
01	B8ZS
TXB2	
10	AMI
AA	HDB3
fgh	Frequency (TXUC TLI)
000	512 kHz
001	1.000 MHz
010	1.544 MHz
011	2.048 MHz
100	5.000 MHz

byte 4

bit	Explanation
a	Carrier failure alarm/loss of signal (TXB1, TXB2, and TXCC)
b	Timing signal loss of energy
c	Autobaud failure
d	Frequency offset flag
e	Excessive jitter
f	Phase step
gh	Not used

byte 5

bit	Explanation
a	Out of frame
b	Major framing error rate
c	Major framing error rate
defgh	Not used

mmmm - Error condition code

mmmm	*Explanation*
SARL	TL error cleared

REPT,EVT,EQPT,SYNC,TLI,SSP,TN

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.01333]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01333] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,ERR"
   /* ALARM SET */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

Hierarchical

[O.01333]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01333] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,ERR"
   /* ALARM SET */
   "[LOS][,LEN][,EXJ][,PHS][,OOF][,MAJ][,MIN]"
   /* SYNCHRONIZER STATUS DATA BYTES */
   "<byte 1>,<byte 2>,<byte 3>,<byte 4>,<byte 5>"
;
```

Explanation Of Message

This message reports the results of the error recovery process on the synchronizer with the alarms set.

The errors can be of the following types:

Loss of signal

Loss of energy

Excessive jitter

Phase step

Out of frame

Major framing error rate

Minor framing error rate

Explanation Of Parameters

ERR - Error recovery

SYNC - Synchronizer

a - SYNC number (0 or 1)

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Synchronizer sync port

b - SSP number (0 or 1)

uv-m-np
- Hierarchical NPC number in MML format

uv - Unit number
m - Module number
np - NPC number within the module

TN - Transaction

dddd - Transaction number

ALM - Alarm

LOS - Loss of signal

LEN - Loss of energy

EXJ - Excessive jitter

PHS - Phase step

OOF - Out of frame

MAJ - Major

Major framing error rate

MIN - Minor

Minor framing error rate

SET - Set

byte 1,
byte 2,
...,
byte 5
- Synchronizer status data bytes

The letters a through h used below are the names given to the individual bits in a synchronizer status data byte. The eight bits in each byte are labeled abcdefgh in left to right order.

byte 1

bit	Explanation
a	Timing link equipped by MC
b	Timing link declared out-of-service
c	Timing link out-of-service due to error
d	Associated Timing Extractor TLI error
efgh	Not used

byte 2

- Priority weighting of link, a number from 1 through 8

byte 3

bit	Explanation
abc	Framing format (valid only for TXB1 or TXB2 TLIs)
000	D4 (TXB1)
001	ESF (TXB1)
010	DDS (TXB1)
000	CCS (TXB2)
001	ERSM (TXB2)
010	CAS0 (TXB2)
011	CAS1 (TXB2)
de	Line format (valid only for TXB1 or TXB2 TLIs)
00	Bipolar (TXB1)
01	B8ZS (TXB1)
10	AMI (TXB2)
AA	HDB3 (TXB2)
fgh	Frequency (TXUC TLI)
000	512 kHz
001	1.000 MHz
010	1.544 MHz
011	2.048 MHz
100	5.000 MHz

byte 4

bit	Explanation
a	Carrier failure alarm/loss of signal (TXB1, TXB2, and TXCC)
b	Timing signal loss of energy
c	Autobaud failure
d	Frequency offset flag
e	Excessive jitter
f	Phase step
gh	Not used

byte 5

bit	Explanation
a	Out of frame
b	Major framing error rate
c	Major framing error rate
defgh	Not used

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Timing Extractor type TLI has hardware problem

REPT,EVT,EQPT,SYNC,TLI,SSP,TN

ERROR RECOVERY SYNC TLI SSP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.01341]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01341] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<synchronizer status data bytes>"
;
```

Hierarchical

[O.01341]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01341] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,SSP-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<synchronizer status data bytes>"
;
```

Explanation Of Message

This message indicates that error recovery was called to handle an error that occurred in the synchronizer timing link interface sync port. The message also indicates the nature of the error.

If the port on which the error has occurred receives clock information from a dual primary card, then a network processing circuit has been added.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

SYNC - Synchronizer

a - SYNC number (0 or 1)

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Synchronizer sync port

b - SSP number (0 or 1)

uv-m-np
- Hierarchical NPC number

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The EVENT number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data of this error recovery event.

synchronizer status data bytes
- Synchronizer status data in binary form

From 0 to 5 bytes may be output, depending upon the synchronizer error condition. In the explanations below the bytes are named "byte 1", "byte 2, and so on. The eight bits of each byte are labeled abcdefgh and are explained below. These bytes appear in numeric order with "byte 1" first.

Note that if communications between the MP and the SYNC have failed, Error Recovery may not get the correct status data from the SYNC. All bits in "synchronizer status data bytes" will then be set to 1 by default.

byte 1

bit	*Explanation*
a	Timing link equipped by MC
b	Timing link declared out-of-service
c	Timing link out-of-service due to error
d	Associated Timing Extractor TLI error
efgh	Not used

byte 2
- Priority weighting of link, a number from 1 to 8

byte 3

bits	*Explanation*
abc	Framing format (valid only for TXB1 or TXB2 TLIs)
TXB1	
000	D4
001	ESF
010	DDS
TXB2	
000	CCS
001	ERSM
010	CAS0
011	CAS1
de	Line format (valid only for TXB1 or TXB2 TLIs)
TXB1	
00	Bipolar
01	B8ZS
TXB2	
10	AMI
11	HDB3
fgh	Frequency (TXUC TLI)
000	512 kHz
001	1.000 MHz
010	1.544 MHz
011	2.048 MHz
100	5.000 MHz

byte 4

bit	*Explanation*
a	Carrier failure alarm/loss of signal (TXB1, TXB2, and TXCC)
b	Timing signal loss of energy
c	Autobaud failure
d	Frequency offset flag
e	Excessive jitter
f	Phase step
gh	Not used

byte 5

bit	*Explanation*
a	Out of frame
b	Major framing error rate
c	Minor framing error rate
defgh	Not used

mmmm - Error condition code

mmmm	*Explanation*
SWFA	TL error reported, unknown
SWFA	Timing Extractor type TLI has hardware problem
SWFA	Timing Extractor type TLI has autobaud failure
SARL	TLI error cleared

REPT,EVT,EQPT,SYNC,TLI,TN,X

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01342]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01342] */
   /* <explanation of error condition code> */
   "SYNC-a:TLI-m,TN-X-dddd,EVENT-eeee,[ESR],ERR"
   "<synchronizer status data bytes>"
;
```

Explanation Of Message

This message indicates that error recovery was called to handle an error that occurred in a synchronizer timing link interface, and also the nature of the error.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

TLI - Timing link interface

m - TLI number (1 through 4)

TN - Transaction

dddd - Transaction number

EVENT - Event

eeee - Event number

synchronizer status data bytes
- Synchronizer status data in binary form

Three bytes of synchronizer status data are output. These bytes are named "byte1", "byte2", and "byte3" in the explanations below. They would appear on output as "byte1 byte2 byte3" in place of "synchronizer status data bytes". The eight bits in each byte are labeled abcdefgh in left to right order. These bits are set to "1" for the listed conditions:

byte1 - Overall status and configuration

bit	Condition
abcd	TLI type
0000	TXB1, 1.544 Mb/s DS1 **Extractor**
0001	TXB2, 2.048 Mb/s Primary Block **(120 OHM) Extractor**
0010	TXCC, Composite Clock **Extractor**
0011	TXUC, High Level Unipolar Clock **Extractor**
0100	TXRF, Basic System Reference Frequency
0101	TDCC, 64 kb/s Composite Clock Distributor
0110	TDS2, 2.048 MHz Sine Distributor
0111	**TXCP, CEPT 2.048 MHz Sine (120 Ohm) Extractor**
e	TLI is grown
f	TLI out-of-service
g	TLI hardware error
h	Unused bit

byte2 - Hardware status and diagnostic results

bit	Condition
a	Hardware energy detector on the time base strobe signal has failed
b	Loss of time base strobe signal coming from the DPLL
c	Hardware energy detector on the CRO signal has failed
d	Loss of reference clock signal coming from the CRO

Note: These bits have meaning only for TDCC and TDS2 TLIs and when the SYNC is a master timing source.

e	Side 0
f	Side 1

Note: These bits have meaning only for TE TLIs.

For TXB1 or TXB2 TLIs:
Framer chip on side 0 (e) and/or side 1 (f) has failed.

For TXCC TLIs:
Out-of-lock detector on side 0 (e) and/or side 1 (f) has failed.

g, h	Unused bits

byte3 - Hardware status and diagnostic results for timing distributor type TLI only

bit	*Condition*
a	Clock alignment detector failed diagnostic
b	Clock generator energy detector failed diagnostic
c	30 ms sync pulse energy detector failed diagnostic
d	Signal generating prom parity error detector failed diagnostic
e	Output clock alignment error
f	Loss of energy on the output clock generator ripple carry, indicating the distributed clock signals have died
g	Loss of energy on the 30 ms sync pulse coming from the DPLL board
h	Signal generating prom parity error detected

mmmm - Error condition code

mmmm	*Explanation*
SWFA	TLI error, link went down before status read
SWFA	TLI hardware error
SWFA	CRO error, unknown due to link, SYNC error
SWFA	CRO loss of energy detected SYNC error
SWFA	CRO loss of energy CRO error
SWFA	CRO frequency offset
SAOS	CRO declared OOS

REPT,EVT,EQPT,SYNC,TN,X,EVENT

ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01331]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01331] */
   /* <explanation of error condition code> */
   "SYNC-a:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<byte1> <byte2> <byte3> <byte4> <byte5>"
;
```

Explanation Of Message

This message indicates that error recovery was called to handle an error that occurred in the specified synchronizer. The message also indicates the nature of the error.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

TN - Transaction

dddd - Transaction number

EVENT - Event

eeee - Event number

byte1,
byte2,
...,
byte5 - Synchronizer status data bytes

Synchronizer status data in binary form. The number of data bytes ranges from 1 to 5, depending upon the synchronizer error type. Each byte has eight bits labeled abcdefgh in left to right order.

These bytes are a coded form of the information shown in "explanation of error condition code".

If main processor to synchronizer communication has failed, Error Recovery may not get the correct status data from the Synchronizer. All bits in "synchronizer status data bytes" will then be set to 1 by default.

byte1 - Synchronizer status data

bit	Explanation
a	MC is down flag
b	SYNC is down flag
c	Mate SYNC is OOS
d	Time Base is down
efgh	Timing link inservice status

byte2 - Timing link (SSP) inservice status

byte3 - Synchronizer status data

bit	Explanation
a	SYNC restart flag
b	Hardware summary, error on DPLL
c	PLL summary, any major cross-couple error
d	Cross-couple summary, any major cross-couple error
e	Clock Reference Oscillator summary error, any major CRO error
fgh	unused

byte4 - Synchronizer status data

bit	Explanation
ab	Synchronizer architecture

ab	Explanation
00	Slave in master-slave configuration
01	Master in master-slave configuration

bit	Explanation
cde	Operational stratum field

cde	Explanation
000	Domestic stratum 3
011	Domestic stratum 2

bit	Explanation
fg	PLL locking mode field

fg	Explanation
00	Normal
01	Fast
10	Holdover

bit	Explanation
h	Hit timing holdover field

byte5 - Synchronizer status data

bit	Explanation
ab	Active timing link source field

ab	Explanation
00	Holdover
01	Timing link
10	Cross-couple
11	CRO

cde	Active link field

cde	Explanation
000	TLI(Timing link interface) 1, SSP0(Synchronizer sync port 0)
001	TLI 1, SSP1
010	TLI 2, SSP0
011	TLI 2, SSP1
100	TLI 3, SSP0
101	TLI 3, SSP1
110	TLI 4, SSP0
111	TLI 4, SSP1

fgh	unused

mmmm - Error condition code

mmmm	*Explanation*
SROF	CCNI summary bit set; no more info
SWFA	Sync says its down
SWFA	Sync says its time base is down
SAOP	SYNC autonomously restarted itself
SWFA	MP-SYNC communications failure
SWFA	Unknown DPLL error
SWFA	ROM checksum error
SWFA	RAM data error, RAM address line stuck
SWFA	Phase/frequency output latch error
SWFA	Loss of energy on output of frequency synth.
SWFA	Loss of energy on output of phase shifter
SWFA	Loss of energy on generated SYNC pulse
SWFA	Loss of energy on time base strobe signal
SWFA	Interrupt controller error
SWFA	Interrupt holding register error
SWFA	Uart error
SWFA	Control data readable output latch error
SWFA	Unknown time base error

mmmm	*Explanation*
SWFA	Time base loss of energy detector
SROF	TB i/o err. cant read TB packid or oven monitor
SROF	Time base frequency drift
SROF	Both syncs time base oven is cold
SROF	Time base oven is cold
SWFA	Unknown PLL error,link went down before reading status
SWFA	PLL end of range
SWFA	PLL excessive phase error (125 uSec out of phase)
SWFA	PLL real time violations
SWFA	PLL fast start time out
SWFA	PLL end of range implicating TL
SWFA	Unknown mate error, link went down before read status
SAOS	Mate out of service
SWFA	Mate sync hardware error
SWFA	Cross couple loss of energy
SWFA	Cross couple loss of energy
SAOS	Mate link down
SWFA	Cross couple real time violation
SWFA	Cross couple fast lock range
SWFA	Cross couple frequency offset error
SWFA	Cross couple out of lock

REPT,EVT,EQPT,TABS

TABS COMPLETE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.55705]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.55705] */
   "TABS:COMPLD"
;
```

Explanation Of Message

This autonomous message indicates a remote TABS (Telemetry Asynchronous Block Serial) protocol request has completed on DACS II.

Explanation Of Parameters

TABS - Telemetry asynchronous block serial

REPT,EVT,EQPT,TABS,IN,PROGRESS

TELEMETRY ASYNCHRONOUS BLOCK SERIAL IN PROGRESS

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.55704]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   /* [O.55704] */
   "TABS:IN_PROGRESS"
;
```

Explanation Of Message

This autonomous output message indicates that a remote request using a telemetry asynchronous block serial protocol has been submitted to the DACS II frame and is in progress.

Explanation Of Parameters

TABS - Telemetry asynchronous block serial

REPT,EVT,EQPT,TSI,TN,X,EVENT

ERROR RECOVERY TIME SLOT INTERCHANGE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01353]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01353] */
   /* <explanation of error condition code> */
   "TSI-sft:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This error recovery message indicates that an error is occurring in the time slot interchange. This message reports an alarm on a timeme slot interchange circuit pack. The error type is

contained in the error condition code.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents can not be read.

TSI - Time slot interchanger

s - Cross-connect side (0 or 1)

f - FROM unit (1 through 6)

t - TO unit (1 through 6)

TN - Transaction

dddd - Transaction number

EVENT - Event

eeee - Event number

error analysis data

- The error analysis data consists of from 2 to 10 four-digit hexadecimal fields labeled regn below. The number of fields reported depends upon the error condition. The data is used for internal troubleshooting purposes only.

For pack id errors and TSI stuck bit errors the data include the pack id and the TSI number.

regn - Device register n (n ranges from 2 through 10)

For the TSI identified by sft:

There are 16 TSI devices in a TSI circuit pack.

Each bit set in the summary status register indicates an alarming device on TSI sft.

For each alarming TSI device, the device status register is dumped in device fields <reg1> through <reg2>, one device per register. Up to four devices can dump their status register, per message. If less than four devices are alarming, the fields will have a 0000 value.

Register Bit Definitions

reg1 - TSI summary status register

bit	Definition
15	Error on TSI sft device 15
14	Error on TSI sft device 14
13	Error on TSI sft device 13
12	Error on TSI sft device 12
11	Error on TSI sft device 11
10	Error on TSI sft device 10
09	Error on TSI sft device 09
08	Error on TSI sft device 08
07	Error on TSI sft device 07
06	Error on TSI sft device 06
05	Error on TSI sft device 05
04	Error on TSI sft device 04
03	Error on TSI sft device 03
02	Error on TSI sft device 02
01	Error on TSI sft device 01
00	Error on TSI sft device 00

reg2,
reg3,
reg4,
reg5 - TSI device summary status registers 2 through 5

For up to four TSI devices indicated by reg2 through reg5, each device will be represented by a summary status register indicating the following information:

bit(s)	Definition
15	Not used
14	Not used
13	Odd parity over data bits 12 through 00
12	TSI memory diagnostic in progress
11-08	4-bit TSI ID
07	Exercise in progress
06	Not used
05	Memory error overflow
04	Failure of memory diagnostic
03	Loss of 8 MHz clock
02	Output data error
01	Control RAM parity error
00	Microprocessor bus error

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Pack id error, can't read pack
SWFA	TSI stuck bit, summary bit set, no devices alarming
SWFA	TSI device error
SWFA	TSI device id error, cannot read device
SWFA	Illegal exercise bits set
SWFA	Bus address error
SWFA	Device clock error
SWFA	Device control ram parity error
SWFA	Output data parity error (from an FTM)
SWFA	Corresponding CCNI bit is stuck

REPT,EVT,EQPT,UNIT,DSPI,TN,X

ERROR RECOVERY UNIT DSPI

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01365]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01365] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:DSPI,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This autonomous message reports that DACS II detected an alarm on the specified unit's digital signal processing interface.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register content cannot be read.

UNIT - Unit

[q]q - Unit number (1 through 16)

DSPI - Digital signal processing interface

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data
- Troubleshooting data (four-digit hexadecimal)

Six words of troubleshooting data. For purposes of explanation they are here labeled and appear in the the following manner:

aaaa bbbb cccc dddd eeee ffff

Name	Explanation
aaaa	CPU Interrupt Holding Register contents
bbbb	CPU Interrupt Mask Register contents
cccc	DSPI Interrupt Capturing Register 0 contents
dddd	DSPI Interrupt Capturing Register 0 contents
eeee	DSPI Interrupt Capturing Register 1 contents
ffff	DSPI Interrupt Capturing Register 1 contents

mmmm - Error condition code

mmmm	*Explanation*
SWFA	DSPI access error (e.g. pack not there)
SWFA	DSPI bus data parity error
SWFA	DSPI bus address parity error
SWFA	Source of error is unknown
SWFA	Source of error was not found
SWFA	Stuck bit in register
SWFA	Illegal/unknown condition code

REPT,EVT,EQPT,UNIT,FC,TN,X

ERROR RECOVERY UNIT FC

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01364]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01364] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:FC-sb,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This autonomous message reports that DACS II has detected an alarm on a given facility terminating unit's format converter.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

s - FC side (0 or 1)

b - FC No. (1 through 4)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data
- troubleshooting data (four-digit hexadecimal)

Six words of troubleshooting data. For purposes of explanation they are here labeled and appear in the the following manner:

aaaa bbbb cccc dddd eeee ffff

Name	*Explanation*
aaaa	Board Level ESR0 & ESR1 content
bbbb	Board Level EMR0 & EMR1 content
cccc	RF Device ESR0 & EMR0 content
dddd	RF Device ESR1 & EMR1 content
eeee	RF Device ESR2 & EMR2 content
ffff	RF Device & TF Device Status Register content

mmmm - Error condition code

mmmm	*Explanation*
SROF	FC can't be accessed
SWFA	Timer Error
SWFA	Circuit ID Error
SWFA	Transmit Formatter Error
SWFA	Receiver Formatter Error
SWFA	Sanity Timer Interrupt
SWFA	RF bus error
SWFA	Illegal/unknown condition code

REPT,EVT,EQPT,UNIT,FLI,TN,X

ERROR RECOVERY FLI

Input Message Format

Not applicable.

Completion Message

[O.01401]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01401] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-FLI-k:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message reports that a failure was detected in a facility line interface of a DS3 unit.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility Line Interface

k - Side identifier of the FLI

k	*Explanation*
S	Service side
P	Protection side

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data
- Troubleshooting data.

The error analysis data consists of three two-byte hexadecimal numbers. For explanatory purposes only these numbers are labeled below as a1b1, c1c2, and f1f2. Each byte of a number consists of two hexadecimal characters.

byte	Explanation
a1	Circuit pack identifier
b1	Hardware Firmware version
c1	Communications Interface (CI) esr 1
c2	CI esr 2
f1	FLI esr 1
f2	FLI esr 2

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Firmware error
SWFA	Too many transmit data underruns
SWFA	Invalid acknowledgement from MXR
SWFA	No acknowledgement from MXR
SWFA	RAM data error
SWFA	Invalid code checksum
SWFA	FDL HSCC register error
SWFA	MXR HSCC register error
SWFA	EPROM checksum error
SWFA	Timer 1 error
SWFA	Timer 2 error
SWFA	DUART error
SROF	MIU access error
SWFA	FLI register bit stuck
SWFA	FLI lock and key alarm
SROF	FLI access error
SWFA	FLI communication link error
SWFA	FLI loss of clock
SWFA	FLI loss of signal
SWFA	FLI circuit id error
SWFA	FLI frame sync or internal error
SWFA	FLI address bus parity error
SWFA	Source of error was not found
SWFA	MIU communication link error

REPT,EVT,EQPT,UNIT,FMT,TN,X

ERROR RECOVERY FMT

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01402]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01402] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-FMT-s:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This message indicates that a failure was detected in a formatter of a DS3 unit.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

FMT - Formatter

s - Side identifier of the FMT (0 or 1)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data

- Twelve words of troubleshooting data each consisting of four hexadecimal characters (two hexadecimal bytes). The form and ordering of these words, as they would appear in the output message, is shown below labeled for explanatory purposes.

abm1 e0e1 r0r1 r2r3 r4s0 s1s2 s3s4 t0t1 t2t3 t4u0 u1u2 u3u4

a	Circuit pack
b	Firmware version
m1	Maintenance esr
e0	CI esr 0
e1	CI esr 1
r0	FMT 0RF esr 0
r1	FMT 1RF esr 0
r2	FMT 2RF esr 0
r3	FMT 3RF esr 0
r4	FMT 4RF esr 0
s0	FMT 0RF esr 1
s1	FMT 1RF esr 1
s2	FMT 2RF esr 1
s3	FMT 3RF esr 1
s4	FMT 4RF esr 1
t0	FMT 0RF esr 2
t1	FMT 1RF esr 2
t2	FMT 2RF esr 2
t3	FMT 3RF esr 2
t4	FMT 4RF esr 2
u0	FMT 0TF status
u1	FMT 1TF status
u2	FMT 2TF status
u3	FMT 3TF status
u4	FMT 4TF status

mmmm - Error condition code

mmmm	*Explanation*
SWFA	FMT TF control bus error
SWFA	FMT multiple TF network data error
SWFA	FMT single TF network data error
SWFA	FMT TF device or clock receiver error
SWFA	FMT multiple TF clock error
SWFA	FMT single TF sync error
SWFA	FMT multiple TF sync error
SWFA	Source of error is unknown
SWFA	FMT communication link error
SROF	FMT access error
SWFA	FMT timing error
SWFA	FMT link id error

mmmm	*Explanation*
SWFA	FMT bus timeout
SWFA	FMT serial address parity error
SWFA	FMT 0-4TF timing error
SWFA	FMT 0-4TF timing error
SWFA	FMT error summary 1 stuck bit
SWFA	FMT timing error, RF data parity
SWFA	FMT error summary 2 stuck bit
SWFA	FMT lock override, active select or kill parity
SWFA	FMT FIFO or control PROM error
SWFA	FMT RF control bus error
SWFA	FMT RF port and monitor alarms
SWFA	FMT RF port alarm; no monitor alarms

REPT,EVT,EQPT,UNIT,FTMI,TN,X

ERROR RECOVERY UNIT FTMI

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01363]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01363] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:FTMI-b,TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This autonomous message indicates that DACS II has detected an alarm on the unit's facility terminating module interface. The error type is indicated by the error condition code.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility Terminating Module Interface

b - FTMI No. (1 through 4)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

ERR - Error recovery

error analysis data
- Seven words of 4-digit hexadecimal data.

The words are labeled as follows:
aaaa bbbb cccc dddd eeee ffff gggg

aaaa - Board level register contents
bbbb - CIA device ESR contents
cccc - CIB device ESR contents
dddd - CIC device ESR contents
eeee - CIA device EMR contents
ffff - CIB device EMR contents
gggg - CIC device EMR contents

mmmm - Error condition code

mmmm	*Explanation*
SWFA	Bus Error Alarm
SWFA	CIA Device Error
SWFA	CIB Device Error
SWFA	CIC Device Error
SROF	Pack can't be accessed
SWFA	Loss of timing alarm
SWFA	Chip ID Comparison
SWFA	Data Strobe Signal
SWFA	Address Parity Error
SWFA	FC Stuck Bit on FTMI
SWFA	DDC Stuck Bit on FTMI
SWFA	FTMI lost clock
SWFA	Illegal/unknown condition code

REPT,EVT,EQPT,UNIT,MIU,TN,X

ERROR RECOVERY MIU

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01404]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01404] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-MIU-c:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This message reports that a failure was detected in a multiple interface unit of a DS3 unit.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c - the number identifier of the MIU (P 1 through 6)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data

- Two and one half words of troubleshooting data. The First two words consist of four hexadecimal digits each (two hexadecimal bytes). The half word is only two hexadecimal digits. The form and order of these words in the message text is shown below where, for explanatory purposes only, the words have been labeled.

e1e2 f1s1 c1

byte	Explanation
e1	MIU error code
e2	MIU ESR register
f1	Firmware version
s1	Software version
c1	Circuit pack

mmmm - Error condition code

mmmm	*Explanation*
SWFA	CEC bit on PRISM not cleared
SWFA	Firmware error
SWFA	Transmit underrun threshold exceeded
SWFA	Bad EMXR Acknowledgement
SWFA	Timeout while waiting for msg from EMXR
SWFA	RAM data error
SWFA	Invalid code checksum
SWFA	Error in PRISM register
SWFA	Error in HSCC register
SWFA	EPROM checksum error
SWFA	Timer 1 error
SWFA	Timer 2 error
SWFA	DUART error
SROF	MIU access error
SWFA	MIU communication link error
SWFA	MIU got reset
SWFA	Timeout for Yellow Inhibit/Enable Request
SWFA	Queue overflow error

REPT,EVT,EQPT,UNIT,MXR,DEV,TN

ERROR RECOVERY MXR

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01403]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01403] */
   /* <explanation of error condition code> */
   "UNIT-[q]q-MXR-c[-DEV-<devc>]:TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This message indicates a failure was detected in a multiplexer of a DS3 Unit.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MXR - Multiplexer

c - MXR number (P, 1 through 6)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

DEV - Device

devc - Device identifier

The devices for the KCR1-MXR circuit pack introduced in Release 4.0 are:

devc	*Explanation*
DS3	General devices
M12x	M12 devices (x = 1 through 7)
M23	M23 device
PIF	Processor Interface
HSC	High-level Serial Communication Controller
CCxx	Channel Controller (xx = 1 through 14)
TXyy	Transceiver devices (yy = 1 through 28)

The devices for the KCR5-EMXR circuit pack introduced in Release 6.0 are:

devc	*Explanation*
DS3	General devices
M12x	M12 devices (x = 1 through 7)
M23	M23 device
URT	Dual Universal Asynchronous Receiver and Transmitter
HSCy	High-level Serial Communication Controller (y = 1 through 2)
TMR	Timer device
CCxx	Channel Controller (xx = 1 through 14)
TXyy	Transceiver devices (yy = 1 through 28)

error analysis data

- For the KCR1-MXR circuit pack introduced in Release 4.0, this data may be output with 0 to 10 fields depending upon the error condition. Each field contains a four-digit hexadecimal number representing troubleshooting data. For identification purposes these fields are labeled as shown below and would appear in the order shown within the message.

m1s1 m2s2 m3s3 h1h2 x1x2 x3x4 y1y2 z1z2 [d1d2 d3d4]

m1	MXR mask register 1
s1	MXR error source register 1
m2	MXR mask register 2
s2	MXR error source register 2
m3	MXR mask register 3
s3	MXR error source register 3
h1	Hardware error summary 1
h2	Hardware error summary 2
x1	Transceiver device register 1
x2	Transceiver device register 2
x3	Transceiver device register 3
x4	Transceiver device register 4
y1	M13 device ID register
y2	Channel controller ESR register
z1	Circuit ID & version
z2	Not used
d1	Byte 1 of devc data
d2	Byte 2 of devc data (not used for device CC)
d3	Byte 3 of devc data (not used for device CC)
d4	Byte 4 of devc data (not used for devices CC and TX)

- For the KCR5-EMXR circuit pack introduced in Release 6.0, this data may be output with 0 to ?? fields depending upon the error condition. Each field contains a four-digit hexadecimal number representing troubleshooting data. For identification purposes these fields are labeled as shown below and would appear in the order shown within the message.

Data Fields

d1	Description
d2	Description
.	.
.	.
.	.
dn	Description

mmmm - Error condition code

mmmm	*Explanation*
SWFA	MXR DS3 loss of signal
SWFA	MXR unknown error
SWFA	MXR M23 summary stuck error
SWFA	MXR communication link error
SWFA	MXR channel controller transmit data error
SWFA	MXR channel controller receiver data error
SWFA	MXR channel controller exercise error
SWFA	MXR channel controller stuck bit error
SWFA	MXR transceiver framer error
SWFA	MXR transceiver receive sync error
SWFA	MXR transceiver transmitter error
SWFA	MXR M23 device error
SWFA	MXR M12 device error
SWFA	MXR M12 summary stuck error
SWFA	Illegal/unknown condition code
SWFA	MXR ROM error
SWFA	MXR LCA error
SWFA	MXR queue overflow
SWFA	MXR channel controller loss of clock
SWFA	MXR channel controller frame sync error
SWFA	MXR channel controller configuration register error
SWFA	MXR channel controller instruction ram error
SWFA	MXR channel controller parity error
SROF	MXR access error (can't access pack)
SWFA	MXR hard error stuck bit
SWFA	MXR facility error stuck bit
SWFA	MXR pack is in reset state
SWFA	MXR PIF Bus Parity Error
SWFA	MXR loss of clock from unselected FLI
SWFA	MXR 45MHz is not phase locked to system clock
SWFA	MXR firmware error
SWFA	MXR HSCC device error
SWFA	MXR PIF I/O device error
SWFA	MXR M13 summary stuck bit error
SWFA	MXR transceiver summary stuck bit error
SWFA	MXR program error
SWFA	MXR RAM error
SWFA	EMXR Timer error
SWFA	EMXR DUART error

REPT,EVT,EQPT,UNIT,UC,MC,CI,MP

OVERLOAD

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01381]

```
A  ff REPT EVT EQPT
   /* [O.01381] */
   "{UNIT-[q]q,UC|MC[,{CI|MP}]},OVERLOAD"
   "TN-X-dddd"
   /* PROCESSOR DATA */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d3031> <d3233> <d34353637>"
   /* PROGRAM TEXT */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* MEMORY DATA */"
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* READY QUEUE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   /* PAUSE QUEUE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<D09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   /* LOCAL STACK DATA */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   /* STACK TRACE */
   "<d01> <d02> <d03> <d04>     <d05> <d06> <d07> <d08>"
   "<d09> <d10> <d11> <d12>     <d13> <d14> <d15> <d16>"
   "<d17> <d18> <d19> <d20>     <d21> <d22> <d23> <d24>"
   "<d25> <d26> <d27> <d28>     <d29> <d30> <d31> <d32>"
   ;
```

Explanation Of Message

This troubleshooting message is used only by the DACS II developers and occurs when the indicated CPU processor has reported an internal error from which recovery is not possible. The error may be in the CPU hardware or related software. The resulting troubleshooting data can be useful in isolating software problems.

Explanation Of Parameters

OVERLOAD
- Overload

** - Major Alarm

MP - Main processor

CI - Communications interface

UC - Unit controller

UNIT - Unit

[q]q - Unit number (1 through 16)

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

The following interpretations are listed in alphabetical order by the capitalized names

LOCAL STACK DATA interpretation

dxx	*Explanation*
01	user stack pointer (A7)
02-32	dump of stack data (in reverse order)

MEMORY DATA interpretation

dxxx	*Explanation*
01	Address of bad memory segment
02	Number of attached memory segments
03	Memory size
04-08	Not used
09-32	Memory dump

This displays the memory attached to the process at the time of the OVERLOAD. If the memory address and memory dump section contain zeros, this indicates that there was no memory corruption. Otherwise, if corruption was detected, the address of the bad segment along with a memory dump of that segment will be displayed.

PAUSE QUEUE interpretation

d01-d16
- process name (ASCII)

This displays the processes that were in the pause queue at the time of the OVERLOAD.

PROCESSOR DATA interpretation

This displays all relevant data about the processor at the time of the OVERLOAD. Note that pcb stands for process control block.

dxx	Explanation
01	process name
02	stack pc
03	pcb address
04	pack id
05	exception vector
06	status register
07	special status word
08	fault address
09	usp
10	fp
11	A5
12	A4
13	A3
14	A2
15	A1
16	A0
17	D7
18	D6
19	D5
20	D4
21	D3
22	D2
23	D1
24	D0
25	pcb memory segs
26	pcb ssp
27	pcb pc
28	pcb return addr
29	pcb usp
30	pcb events
31	pcb tslice
32	pcb sr
33	pcb signals
34	pcb prior
35	pcb mode
36	pcb dflag
37	pcb status

PROGRAM TEXT interpretation

d01-d32

- disassembled listing of program text (ASCII)

This displays the disassembled listing of the program text. The display contains up to 254 ASCII characters starting at the value of the program counter (pc) at the time the OVERLOAD occurred.

READY QUEUE interpretation

d01-d16

- process name (ASCII)

This displays the processes that were in the ready-to-run queue at the time of the OVERLOAD.

STACK TRACE interpretation

dxx	*Explanation*
01	previous stack 1 (A6)
02	program counter
03-08	stack dump
09	previous stack 2 (A6)
10	program counter
11-16	stack dump
17	previous stack 3 (A6)
18	program counter
19-24	stack dump
25	previous stack 4 (A6)
26	program counter
27-32	stack dump

This message dumps the previous four function calls prior to the function where the OVERLOAD occurred.

REPT,EVT,EQPT,UNIT,UC,UBX,TN,X

ERROR RECOVERY UNIT

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01361]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT
   mmmm
   /* [O.01361] */
   /* <explanation of error condition code> */
   "UNIT-[q]q:{UC|UBX},TN-X-dddd,EVENT-eeee[,ESR],ERR"
   "<error analysis data>"
;
```

Explanation Of Message

This message reports that DACS II detected an alarm on a given units' unit controller or unit

bus extender.

Explanation Of Parameters

ERR - Error recovery

ESR - Error source register

The ESR keyword is not output if the register contents cannot be read.

UNIT - Unit

[q]q - Unit number (1 through 16)

UC - Unit controller

UBX - Unit bus extender

TN - Transaction

dddd - Transaction number

The TN number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the past history of all error recovery events related to this output report.

EVENT - Event

eeee - Event number

The event number can be specified in RTRV-LOG:::ERR to retrieve the contents of the DACS II error recovery log file which contains the data for this error recovery event.

error analysis data
- 2 to 8 words, depending on the unit type, of four hexadecimal digits each containing troubleshooting data.

For a DS3U the words are labeled as follows:

ire0, ire1, ire2, cies, irm0, irm1, irm2, cima

ire0 - Error source register 0
ire1 - Error source register 1
ire2 - Error source register 2
cies - Communications interface error source register
irm0 - MASK register 0
irm1 - MASK register 1
irm2 - MASK register 2
cima - Communications interface MASK register

For an FTU the words are labeled as follows:

aabb eeff

aa - CPU interrupt mask register contents
bb - CPU interrupt holding register contents
ee - UBX interrupt mask register contents
ff - UBX interrupt holding register contents

For a DSPU the words are labeled as follows:

aaaa bbbb cccc dddd eeee ffff

aaaa - CPU interrupt holding register contents
bbbb - CPU interrupt mask register contents

cccc - DSPI interrupt capturing register 0 contents

dddd - DSPI interrupt mask register 0 contents

eeee - DSPI interrupt capturing register 1 contents

ffff - DSPI interrupt mask register 1 contents

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SWFA	CPU internal bus error
SWFA	CPU parallel bus parity error
SWFA	CPU serial bus parity error
SWFA	Sanity Time-out
SWFA	CPU RAM Parity error
SWFA	Source of error is unknown
SWFA	Source of error was not found
SWFA	Stuck bit in register
SWFA	Bad UBX pack
SWFA	Illegal/unknown condition code

REPT,EVT,T1,NPC,CONDTYPE

REPORT NPC THRESHOLD CROSSING

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.65061]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT T1
   /* [O.65061] */
   /* NPC Number:CONDTYPE,CONDEFF,LOCN,COUNT,THLEV,AI */
   "[s]abc:T-<parameter>,TC,locn,ccccccccc,lllllllll,aaaaa"
```

Hierarchical

[O.65061]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT T1
   /* [O.65061] */
   /* NPC Number:CONDTYPE,CONDEFF,LOCN,COUNT,THLEV,AI */
   "uvmnp:T-<parameter>,TC,locn,ccccccccc,lllllllll,aaaaa"
```

Explanation Of Message

This autonomous output message reports a facility performance monitoring parameter threshold crossing event for the specified DA or TA type NPC. For DA and TA type NPCs, this is a non-alarmed event. Threshold crossing alert messges can be generated for both 15-minute and daily parameter accumulation intervals.

Explanation Of Parameters

AI - Accumulation Interval

aaaaa - The accumulation time period for the specified parameter

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

CONDTYPE

- Condition Type

T-parameter
- Threshold crossing parameter

T
- Threshold

parameter
- The type of monitored parameter for which a threshold crossing is reported.

For DA or TA type NPC

parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds

CONDEFF
- Condition Effect

TC - Transient condition

LOCN - Location

locn - The location being performance monitored

locn	*Explanation*
NEND	Near-end
FEND	Far-end

COUNT - Count

ccccccccc
- The count accumulated for the monitored parameter (000000001 through 134217728)

THLEV - Threshold Level

111111111

- The programmed threshold level of the monitored parameter (000000001 through 134217728)

Values of threshold levels within the ranges above may cause threshold crossing alert messages

REPT,INVID,SFW,SOFTWARE,ID

INVALID SOFTWARE IDENTIFICATION BLOCK

Input Message Format

Not applicable.

Completion Message

[O.01291]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT INVID SFW
   /* [O.01291] */
   /* SOFTWARE ID BLOCK CHECK FAILED */
   "COND-cc"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message indicates that either a software identification block check failed or that a mismatch exists in the generic number, point issue, or release number.

Explanation Of Parameters

INVID - Invalid

SFW - Software

ID - Identification

BLOCK - Block

COND - Condition
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
20	SNVS	Software Identification Block is not readable
21	SNVS	Software Identification Block failed comparison
22	SNVS	Release number mismatch
23	SNVS	Point number mismatch
24	SNVS	PDI Version number mismatch
A5	SNVS	FPI on tape does not match one on disk

REPT,OPR,ACO,ALL

ALARM CUTOFF ACTIVE

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.65071]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT OPR ACO ALL
   /* [O.65071] */
   /* ACO State */
   "state"
;
```

Explanation Of Message

This output message automatically reports the activation (depressing) of the alarm cutoff (ACO) switch. Activation of this switch silences the audible alarms. The ACO switch will be inactivated when all alarms are retired or when a new alarm appears on the frame. For example, if there is a minor alarm on the frame before the CGA major alarm is induced, when the CGA major alarm is retired by an ACO action, the minor alarm will remain. In this case, there will be a second ACO ACTIVE message.

Explanation Of Parameters

ACO - Alarm cutoff

OPR - Operate

state - Alarm cutoff status

state	*Explanation*
ACTIVE	Alarm cutoff is active
INACTIVE	Alarm cutoff is not active

REPT,PM,T1,NPC,PARAM,COUNT

REPORT DS1 PERFORMANCE MONITORING

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

[O.61011.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011.01] */
   "ABORT"
;
```

Autonomous Message

Nonhierarchical

[O.61011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "[s]abc:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "[v]ghi:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
>
                        .
                        .
                        .
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "[u]jkl:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "   .    :pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
   "[t]def:pppp,cccccccc,v,locn,aaaaa,mmdd,hhmm"
;
```

Hierarchical

[O.61011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "uv-m-np:pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "ed-h-fg:pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
>
                        .
                        .
                        .
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT PM T1
   /* [O.61011] */
   /* NPC Number:PARAM,COUNT,VLDTY,LOCN,AI,MONDAT,MONTIM */
   "op-j-st:pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "    .    :pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
   "wx-k-qr:pppp,cccccccccc,v,locn,aaaaa,mmdd,hhmm"
;
```

Explanation Of Message

This message is automatically generated by DACS II as the result of a user scheduling automatic DACS II performance reports for DA and TA type NPCs. The autonomous report format specifies the NPC along with all of the data necessary to identify the specific performance parameters and accumulation time periods that are being reported. The

actual parameter counts are reported along with their historical validity indicators.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical starting NPC number
[v]ghi - The 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]def)
[u]jkl - The 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]def)
[t]def - The 3- or 4-digit nonhierarchical ending NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920


Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640
016A-016H     032A-032H     048A-048H     064A-064H

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
080A-080H     096A-096H     112A-112H     128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical starting NPC number

ed-h-fg - Hierarchical NPC number (uv-m-np through wx-k-qr)
op-j-st - Hierarchical NPC number (uv-m-np through wx-k-qr)

wx-k-qr
- Hierarchical ending NPC number

uv,ed,op,wx
- Unit number

m,h,j,k
- Module number

np,fg,st,qr
- NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

PARAM - Parameter

pppp - Parameter name

The type of monitored parameter whose value is reported.

pppp	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds

COUNT - Count

cccccccccc

- The accumulated count of a monitored parameter.
(000000000 through 134217728)

This parameter is meaningless if the VLDTY parameter indicates that data is not available for the interval.

VLDTY - Validity

v - Validity indicator

Indicates the validity of historical monitoring information. This parameter indicates whether the information for the specified accumulation interval was accumulated over the entire interval or some portion of it.

v	*Explanation*
A	Adjusted, data was manually initialized
C	Complete, data was accumulated over the entire interval
L	Long, data was accumulated longer than the interval period
P	Partial, data was accumulated over only part of the interval

LOCN - Location

locn - The location being performance monitored

locn	*Explanation*
NEND	Near-end
FEND	Far-end

AI - Accumulation interval

aaaaa - Accumulation interval specification

The accumulation or performance monitoring period for the specified parameter.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

MONDAT

- Monitored date

mmdd - Beginning date of the performance monitoring period

The date on which the performance monitoring period begins. This period is specified in the AI parameter.

mm - Month of year (01 through 12)
dd - Day of the month (01 through 31)

MONTIM

- Monitored time

hhmm - Time at which performance monitoring begins

When outputting current or historical data, this parameter indicates the beginning time of day of the historical accumulation interval specified in the AI parameter.

hh - Hour of day (00 through 23)
mm - Minute of hour (00 through 59)

ABORT - Abort

The automomous ABORT message is generated when the buffer is overfilled with scheduled PM reports.

REPT,RECOVY,EQPT,COND,RTRV,IN

UTILITY QUERY, ERROR RECOVERY

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.55021]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff  REPT RECOVY EQPT
   /* [O.55021] */
   /* Entity:Recovery type */
   "<entity>:<action>"
   "COND-cc"
;
```

[O.55022]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RECOVY EQPT
   /* [O.55022] */
   "RTRV:RECOVY:IN_PROGRESS"
;
```

[O.55021.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RECOVY EQPT
   mmmm
   /* [O.55021.01] */
   /* <explanation of error condition code> */
   /* Entity:Recovery type */
   "<entity>:<action>"
;
```

Explanation Of Message

This message reports that an autonomous error recovery action has been taken to an entity. An in-progress message will be output every 20 seconds until the action is completed or denied.

Explanation Of Parameters

RECOVY

- Internal recovery error

entity

- DACS II entity involved

entity	*Explanation*
MC	Action on Main Controller
MP	Action on Main Processor
CI	Action on Communication Interface
DISK	Action on DISK unit
TAPE	Action on TAPE unit
UNIT [q]q	Action on specific unit (1 through 16)
FRAME	Frame wide action

action

- Action that the error recovery takes to the entity

action	*Explanation*
REMOVE	Remove processor from service
HWBOOT	Hardware boot (boot of processor with existing data base)
WMBOOT	Warm boot (boot of processor with disk data base)
CDBOOT	Cold boot (boot of processor programs and data base)
MCOND	Put frame into maintenance condition

cc mmmm - Error condition code

cc	mmmm	*Explanation*
00	NCON	No conditions
04	SAOS	Subject entity is out of service
0B	SROF	BOOT on subject entity failed
46	SROF	Failed to boot CONF file
47	SROF	Failed to boot DB
48	SROF	Failed to boot journal
49	SROF	Failed to boot unit
4C	SROF	Failed to boot CI
51	SROF	General boot failure (vanilla flavor)
18	ENEQ	DSPI not equipped, not in service, or failed
4D	SNVS	MP database not consistent with Configuration file
52	SNVS	Database is empty
3F	SNVS	G4 to G4.1 retrofit failed
92	SNVS	Can't mount or unmount disk
FA	SRFA	SSC software out of date
2B	ENEQ	Database corrupt

RESET,STOPPED

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01251]

```
RESET STOPPED
```

Explanation Of Message

This autonomous message indicates that the reset procedure has not successfully completed.

RLS,LPBK,T1

FACILITY LOOPBACK RELEASE

Input Message Format

Nonhierarchical

[I.26151]

```
RLS-LPBK-T1:[<xy>]:[s]abc:[ww]:loop:locn;
```

Hierarchical

[I.26151]

```
RLS-LPBK-T1:[<xy>]:uv-m-np:[ww]:loop:locn;
```

Completion Message

Nonhierarchical

[O.26151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS LPBK T1::[s]abc:[ww]:loop:locn COMPLD
;
```

Hierarchical

[O.26151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS LPBK T1::uv-m-np:[ww]:loop:locn COMPLD
;
```

Denial Message

Nonhierarchical

[O.26151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS LPBK T1::[s]abc:[ww]:loop:locn DENY
   mmmm
   /* [O.26151.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.26151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS LPBK T1::uv-m-np:[ww]:loop:locn DENY
   mmmm
   /* [O.26151.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

ANSI (American National Standards Institute) T1.403 is a DS1 interface specification, which among other things, specifies the use of the 4kb/s ESF data link for network maintenance. The data link is used to communicate between network elements which transport the DS1 facility.

This command is used to deactivate near-end (at the DACS II) and far-end (at the terminal on the other end of the DS1 facility) loopbacks on ESF formatted facilities as defined by ANSI T1.403.

This command can be used to deactivate a DACS II near-end payload loopback or to cause DACS II to transmit payload, line, or network loopback deactivate commands on the ESF data link to far-end equipment, ordering the equipment on the other end of the DS1 facility

to deactivate the respective loopbacks.

Explanation Of Parameters

LPBK - Loopback

loop - Loopback type

loop *Explanation*

LINE - Line
PYLD - Payload
NTWK - Network

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

LOCN - Location

locn - Loopback Location

locn	*Explanation*
NEND	Near-end
FEND	Far-end

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	NPC type error
ENEQ	The MXR is not grown
SAOS	MXR is out of service
IPNV	Invalid parameter combination
SNVS	Another signal already active prevents this signal from being sent
SAOP	This signal is already being sent
SNVS	No signals active
IPNV	NPC is non-channelized
IPNV	NPC number out of range

RLS,LPBK,T1,DGA,DGB,DGC,DGD

TWO-WAY TEST ACCESS LINE LOOPBACK

Input Message Format

[I.26131]

```
RLS-LPBK-T1:[<xy>]:{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff;
```

Completion Message

[O.26131]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff COMPLD
;
```

Denial Message

[O.26131.01]

```
   <xy> yy-mm-dd hh:mm:ss
M  RLS LPBK T1::{DGA|DGB|DGC|DGD|DGP}:[ww]:LLB:\
RT-ffff DENY
    mmmm
    /* [O.26131.01] */
    /* <explanation of the error condition code> */
;
```

Autonomous Message

[O.26131]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RLS LPBK T1
   /* [O.26131] */
   "{DGA|DGB|DGC|DGD|DGP},LLB,RT-ffff"
;
```

[O.26131.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RLS LPBK T1
   mmmm
   /* [O.26131.01] */
   /* <explanation of the error condition code> */
   "{DGA|DGB|DGC|DGD|DGP},LLB,RT-ffff"
;
```

Explanation Of Message

This MML message allows the user to release an activated line loopback on a digroup. The equivalent functionality is provided in message [I.26101].

Explanation Of Parameters

RLS - Release

LPBK - Loopback

DG(A,B,C,D,P)
- Digroup (A,B,C,D,P)

LLB - Line LoopBack

RT - Remote Terminal

ffff - Bank identification number (0000 to 9999)

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Bank id number not found
IDNV	Digroup name and bank id don't match
IDNV	Operation mode and digroup name don't match
SAIN	Loop back inhibited for digroup
SNVS	Autonomous loopback is active on DGA

SNVS LLB not initiated
SNVS NPC has active circuit

RLS,TSIG,T1

FACILITY TEST SIGNAL DEACTIVATE

Input Message Format

Nonhierarchical

[I.28201]

```
RLS-TSIG-T1:[<xy>]:[s]abc:[ww]:test;
```

Hierarchical

[I.28201]

```
RLS-TSIG-T1:[<xy>]:uv-m-np:[ww]:test;
```

Completion Message

Nonhierarchical

[O.28201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS TSIG T1::[s]abc:[ww]:test COMPLD
;
```

Hierarchical

[O.28201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS TSIG T1::uv-m-np:[ww]:test COMPLD
;
```

Denial Message

Nonhierarchical

[O.28201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS TSIG T1::[s]abc:[ww]:test DENY
   mmmm
   /* [O.28201.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.28201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RLS TSIG T1::uv-m-np:[ww]:test DENY
   mmmm
   /* [O.28201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to deactivate facility test signals and ANSI data link bit-oriented messages on DACS II DA and TA DS1 facility types. The test signals support network maintenance activities.

This command is required to deactivate any Yellow Test, High Density Test, Low Density Test, or Quasi-Random Test Signal previously applied to a facility because once these test signals are activated, they remain on the line until they are deactivated by this command.

Although this command also deactivates any currently active In-Band Loop-back Activate or In-Band Loop-back Deactivate Signal, these signals are temporary test signals which are transmitted for a duration of 5-8 seconds and then automatically deactivated by DACS II.

Deactivating a test signal also causes DACS II to remove any downstream trunk conditioning that was applied because the test signal was activated.

This command is also used to deactivate all data link test signals on DA or TA type DS1 facilities using the ESF format. Data link test signals include the Yellow Test signal (ESF mode), the Loopback Retention signal, and the ANSI far-end loopback activate/deactivate

sequences which are initiated using the "Operate Loopback" command (26141). Data link test signals are defined in ANSI (American National Standards Institute) T1.403 as Bit Oriented Messages. ANSI T1.403 is a DS1 interface specification, which among other things, specifies the use of the 4kb/s ESF data link for network maintenance. The data link is used to communicate between network elements which transport the DS1 facility.

Explanation Of Parameters

TSIG - Test signal

test - Test signal type

test	*Explanation*
ALLP	- All Payload Test Signals, including High Density Test Signal, Low Density Test Signal, Quasi-Random Test Signal, In-Band Loopback Activate Signal, In-Band Loopback Deactivate Signal, and Yellow Test Signal in D4/T1DM mode
ALLD	- All Data Link Test Signals, including Yellow Test Signal in ESF mode, Loopback Retention Signal, and ANSI Bit-Oriented Far-End Loopback Activate/Deactivate Sequences.
ALL	- All Test Signals in both the payload and data link.

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

```
TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
NSNV	SPC type error
ENEQ	The MXR is not grown
SAOS	MXR is out of service
IPNV	Invalid parameter combination
SNVS	Another signal already active prevents this signal from being sent
SAOP	This signal is already being sent
SNVS	No signals active
IPNV	NPC is non-channelized
IPNV	NPC number out of range

RMV,CNFGRN,EQPT,UNIT,CCN,TSIS

REMOVE

Input Message Format

[I.33231]

```
RMV-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:CCN-s,TSIS:\
[(a[,b[,c[,d[,e[,f]]]]])];
```

Completion Message

[O.33231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV CNFGRN EQPT::UNIT-q:[ww]:CCN-s,TSIS:\
[(a[,b[,c[,d[,e[,f]]]]])] COMPLD
   /* [O.33231] */
   "COND-00"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
;
```

Denial Message

[O.33231.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV CNFGRN EQPT::UNIT-q:[ww]:CCN-s,TSIS:\
[a[,b[,c[,d[,e[,f]]]]]] DENY
   mmmm
   /* [O.33231.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to a noncapacity expansion frame (NCEF).

This message allows removal of all time slot interchanges (TSI) that connect the specified unit to the indicated units, one of which may be the specified unit in cross-connect network side 0 or 1 through use of the optional field. If the field is omitted, then all TSIs connected to the specified unit are removed.

Note that if the TSI on the other CCN side has already been removed, this command will be executed only if no circuits are cross-connected through the TSI. The reason for allowing removal on both sides is to degrow the UNIT or change its connectivity.

Explanation Of Parameters

e - Number of lines in the message segment

TSIS - Time slot interchanges

CCN - Cross-connect network

s - Side number (0 or 1).

UNIT - Unit

q - Unit number containing TSIs (1 through 6).

CONN - Connect

a,b,c,d,e,f
- Unit number to which UNIT q can be connected (1 through 6).

sft - TSI identifier

- **s** - Side number (0 or 1)
- **f** - CCB (Cross-Connect Buffer) number (1 through 6)
- **t** - TSI number (1 through 6).

r - Status code

r	*Explanation*
C	COMPL
D	DNY

For r = D

nn	*Explanation*
02	Subject entity is not equipped
04	Subject entity is out of service

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	CCNI is out of service
SAOS	Mate CCN side is out of service
SNAS	Connectivity contains unequipped units

RMV,EQPT,CCB

REMOVE

Input Message Format

[I.33202]

```
RMV-EQPT:[<xy>]:CCB-sf:[ww];
```

Completion Message

[O.33202]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCB-sf:[ww]  COMPLD
   /* [O.33202] */
   "COND-00"
;
```

Denial Message

[O.33202.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCB-sf:[ww]  DENY
   mmmm
   /* [O.33202.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33202]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33202] */
   /* entity,state of the entity */
   "CCB-sf:c"
;
```

[O.33202.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33202.01] */
   /* entity,state of the entity */
   "CCB-sf:c"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command applies only to the noncapacity expansion frame (NCEF).

It requests the removal of the cross-connect buffer from service.

Explanation Of Parameters

CCB - Cross-connect buffer

sf - CCB identification

- **s** - Side No. (0 or 1).
- **f** - CCB No. (1 through 6).

COND - Condition

cc **mmmm** - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
18	SAOS	CCNI is out of service
19	SAOS	Mate CCN side is out of service

RMV,EQPT,CCI

REMOVE CLOCK CONTROL INTERFACE

Input Message Format

[I.33251]

```
RMV-EQPT:[<xy>]:CCI-s:[ww];
```

Completion Message

[O.33251]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCI-s:[ww]  COMPLD
   /* [O.33251] */
   "COND-00"
;
```

Denial Message

[O.33251.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCI-s:[ww]  DENY
   mmmm
   /* [O.33251.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33251]

```
    <xy> yy-mm-dd hh:mm:ss
**  ff REPT RMV EQPT
    /* [O.33251] */
    /* entity,state of the entity */
    "CCI-s:OOS"
;
```

[O.33251.01]

```
    <xy> yy-mm-dd hh:mm:ss
**  ff REPT RMV EQPT
    /* [O.33251.01] */
    /* entity,state of the entity */
    "CCI-s:OOS"
    "DENY:COND-cc"
;
```

Explanation Of Message

This command is applicable only to the capacity expansion frame (CEF).

It requests that the clock and control interface (CCI) in side s be removed from service. DACS II will deny the command if the mate expanded cross-connect network (ECCN) side is in the out-of-service (OOS) condition.
When a CCI pack is removed from service, its two corresponding bus terminator (BT) packs are also removed.

Explanation Of Parameters

CCI - Clock and control interface

s - Side No. (0 or 1)

OOS - Out-of-service

ćć - Completion condition code (hexadecimal)

To interpret values of ćć see cc below.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
04	SAOS	Subject entity is out of service
19	SAOS	Mate CCN side is out of service

RMV,EQPT,CCN,TSIS

REMOVE

Input Message Format

[I.33241]

```
RMV-EQPT:[<xy>]:CCN-s,TSIS:[ww];
```

Completion Message

[O.33241]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCN-s,TSIS:[ww] COMPLD
   /* [O.33241] */
   "COND-éé"
   "TOTAL:tt"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
;
```

Denial Message

[O.33241.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
RMV EQPT::CCN-s,TSIS:[ww] DENY
   mmmm
   /* [O.33241.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to a noncapacity expansion frame (NCEF).

It requests the removal of all in-service time slot interchanges in the cross-connect network side.

This message will be denied if the cross-connect network side specified is the active side and any time slot interchange on the inactive side is out of service. The exception to this is if there are no cross-connected circuits in the system.

Explanation Of Parameters

TSIS - Time slot interchanges

CCN - Cross-connect network

s - CCN side (0 or 1)

ALL - All

TOTAL - Total

f - Cross-connect buffer number (1 through 6)

t - TSI number (1 through 6)

tt - Number of TSIs currently in service (01 through 72)

r - Status of the removal request for the particular TSI

r	*Explanation*
C	COMPL
D	DNY

nn - Hexadecimal condition code for the particular TSI

See cc below to interpret values of nn.

COND - Condition

ċċ - Completion condition code

See cc below to interpret values of ċċ.

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAOS	CCNI is out of service
SAOS	Mate CCN side is out of service

RMV,EQPT,CCNI

REMOVE CROSS-CONNECT NETWORK INTERFACE

Input Message Format

[I.33201]

```
RMV-EQPT:[<xy>]:CCNI-s:[ww];
```

Completion Message

[O.33201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCNI-s:[ww] COMPLD
   /* [O.33201] */
   "COND-cc"
;
```

Denial Message

[O.33201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::CCNI-s:[ww] DENY
   mmmm
   /* [O.33201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
A  ff REPT RMV EQPT
   /* [O.33201] */
   /* entity,state of the entity */
   "MC:c"
;
```

[O.33201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
A  ff REPT RMV EQPT
   /* [O.33001.01] */
   /* entity,state of the entity */
   "MC:c"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command applies only to the noncapacity expansion frame (NCEF).

It requests the removal of the cross-connect network interface from service.

Explanation Of Parameters

CCNI - Cross-connect network interface

s - CCNI number (0 or 1)

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
04	SAOS	Subject entity is out of service
19	SAOS	Mate CCN side is out of service

RMV,EQPT,DISK,TAPE

REMOVE DISK OR TAPE

Input Message Format

[I.33211]

```
RMV-EQPT:[<xy>]:{DISK|TAPE}:[ww];
```

Completion Message

[O.33211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::{DISK|TAPE}:[ww] COMPLD
   /* [O.33211] */
   "COND-cc"
;
```

Denial Message

[O.33211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::{DISK|TAPE}:[ww] DENY
   mmmm
   /* [O.33211.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message removes the DISK or TAPE from service.

Entering the RMV-EQPT::TAPE command will first park the tape. Parking the tape will do a retension which takes 2 to 3 minutes. After the retension, power will be removed from the tape drive.

Explanation Of Parameters

cc **mmmm** - Error condition code

cc	mmmm	*Explanation*
03	SAIS	Subject entity is in service
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
8B	SNVS	DISK not in service or not ready

RMV,EQPT,ETSI

REMOVE ETSI

Input Message Format

[I.33261]

```
RMV-EQPT:[<xy>]:ETSI-sqq:[ww];
```

Completion Message

[O.33261]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::ETSI-sqq:[ww]  COMPLD
   /* [O.33261] */
   "COND-00"
;
```

Denial Message

[O.33261.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::ETSI-sqq:[ww] DENY
   mmmm
   /* [O.33261.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33261]

```
    <xy> yy-mm-dd hh:mm:ss
**  ff REPT RMV EQPT
    /* [O.33261] */
    /* entity,state of the entity */
    "ETSI-sqq:OOS"
;
```

[O.33261.01]

```
    <xy> yy-mm-dd hh:mm:ss
**  ff REPT RMV EQPT
    /* [O.33261.01] */
    /* entity,state of the entity */
    "ETSI-sqq:OOS"
    "DENY:COND-cc"
;
```

Explanation Of Message

This command applies only to the capacity expansion frame (CEF).

It requests the removal of an expanded time slot interchanger (ETSI) from service. DACS II will deny this command if the mate expanded cross-connect network (ECCN) side is out-of-service (OOS).

Explanation Of Parameters

ETSI - Expanded time slot interchanger

s - Side (0 or 1).

qq - Unit number (01 through 16)

OOS - Out-of-service

COND - Condition
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
19	SAOS	Mate CCN side is out of service
CE	SAOS	CCI is out of service

RMV,EQPT,ETSIS,ECCN

REMOVE ETSIS ALL

Input Message Format

[I.33271]

```
RMV-EQPT:[<xy>]:ETSIS,ECCN-s:[ww];
```

Completion Message

[O.33271]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::ETSIS,ECCN-s:[ww] COMPLD
   /* [O.33271] */
   "COND-00"
   "TOTAL:kk"
   "s01,r,nn:s02,r,nn:s03,r,nn:s04,r,nn:s05,r,nn:s06,r,nn:\
s07,r,nn:s08,r,nn"
   "s09,r,nn:s10,r,nn:s11,r,nn:s12,r,nn:s13,r,nn:s14,r,nn:\
s15,r,nn:s16,r,nn"
;
```

Denial Message

[O.33271.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
RMV EQPT::ETSIS,ECCN-s:[ww] DENY
   mmmm
   /* [O.33271.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command applies only to the capacity expansion frame (CEF).

It requests the removal of all in-service expanded time slot interchangers (ETSIs) in side "s" of the expanded cross-connect network (ECCN). This message is denied if ECCN side "s" is the active side and the mate ECCN side is out-of-service (OOS).

Explanation Of Parameters

ETSIS - Expanded time slot interchangers

ECCN - Expanded cross-connect network

s - Side number (0 or 1)

kk - Total number of ETSIs equipped in side s (01 through 16).

r - Indication of the completion or denial of the removal for each individual ETSI pack.

r	*Explanation*
C	Completed
D	Denied
-	ETSI not equipped

nn - Hexadecimal condition code for the particular ETSI.

For r = C

nn	*Explanation*
00	No condition

For r = D

nn	*Explanation*
04	Subject entity is out of service

"nn" will be shown as "--" if "r" is "-". **mmmm** - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAOS	Mate CCN side is out of service
SAOS	CCI is out of service

RMV,EQPT,LINK

REMOVE LINK

Input Message Format

[I.33011]

```
RMV-EQPT:[<xy>]:LINK-j:[ww];
```

Completion Message

[O.33011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::LINK-j:[ww] COMPLD
   /* [O.33011] */
   "COND-cc"
;
```

Denial Message

[O.33011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::LINK-j:[ww] DENY
   mmmm
   /* [O.33011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
pa ff REPT RMV EQPT
   /* [O.33011] */
   "LINK-j:COND-cc"
;
```

Explanation Of Message

This message requests the removal of the administrative link from service.

Explanation Of Parameters

LINK - Link

j - Administrative link number (1 through 6)

pa - Priority of action.

pa	*Explanation*
**	Major alarm
*^	Minor alarm (A "^" represents a blank space.)
M^	Manual response

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
04	SAOS	Subject entity is out of service
08	SNVS	Cannot remove own link
09	SNVS	Last link in service
D0	SNVS	Command is Frame administrator (DAX) only.
FC	IDNV	Superuser logged on
FD	IDNV	Command not allowed

RMV,EQPT,MC

REMOVE MAIN CONTROLLER

Input Message Format

[I.33001]

```
RMV-EQPT:[<xy>]:MC:[ww];
```

Completion Message

[O.33001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::MC:[ww] COMPLD
   /* [O.33001] */
   "COND-00"
;
```

Denial Message

[O.33001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::MC:[ww] DENY
   mmmm
   /* [O.33001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33001]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33001] */
   /* entity,state of the entity */
   "MC:c"
;
```

[O.33001.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33001.01] */
   /* entity,state of the entity */
   "MC:c"
   "DENY:COND-cc"
;
```

Explanation Of Message

This message removes the main controller from service. The MC must be in service for this command to be accepted. Diagnostic and restore messages can still be run on the MC.

Explanation Of Parameters

MC - Main controller

pa - Priority of action

pa	*Explanation*
**	Major
A	Autonomous

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
04	SAOS	Subject entity is out of service

RMV,EQPT,NPC,SIDE,INCL

REMOVE NPC

Input Message Format

Nonhierarchical

[I.33351]

```
RMV-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s]\
:[INCL];
```

Hierarchical

[I.33351]

```
RMV-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s]\
:[INCL];
```

Completion Message

Nonhierarchical

[O.33351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s]:[INCL] \
COMPLD
   /* [O.33351] */
   "TYPE-mnpqr,COND-kk"
   /* NPC number */
   "[s]ghi"
;
```

Hierarchical

[O.33351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s]:[INCL] \
COMPLD
   /* [O.33351] */
   "TYPE-mnpqr,COND-kk"
   /* NPC number */
   "uv-g-hi"
;
```

Denial Message

Nonhierarchical

[O.33351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s]:[INCL] DENY
   mmmm
   /* [O.33351.01] */
   /* <explanation of error condition code> */
   /* NPC number */
   "[s]jkl[-[t]mno]"
;
```

Hierarchical

[O.33351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s]:[INCL] \
DENY
   mmmm
   /* [O.33351.01] */
   /* <explanation of error condition code> */
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Nonhierarchical

[O.33351]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33351] */
   /* NPC number[,side],type:state */
   "NPC-[s]ghi[,SIDE-s],TYPE-mnxyz:OOS"
;
```

[O.33351.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33351.01] */
   /* NPC number[,side],type:state */
   "NPC-[s]jkl[,SIDE-s],TYPE-mnxyz:OOS"
   "DENY:COND-cc"
;
```

Hierarchical

[O.33351]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33351] */
   /* NPC number[,side],type:state */
   "NPC-uv-g-hi[,SIDE-s],TYPE-mnxyz:OOS"
;
```

[O.33351.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33351.01] */
   /* NPC number[,side],type:state */
   "NPC-uv-j-kl[,SIDE-s],TYPE-mnxyz:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command removes a single Network Processing Circuit (NPC) or a range of NPCs within a unit from service.
The NPCs can belong to a Facility Terminating Unit, a DS3 Unit or a Digital Signal Processing Unit.
A range of NPCs cannot be specified for Digital Signal Processing Unit NPCs.

When a range of NPCs is being removed, execution of this command may be aborted by entering **ABT-CMD**.
The INCL keyword is required for removal of one or more cross-connected Network Processing Circuits with customer or red circuit marking.

Subrate Note: INCL is also required for subrate Network Processing Circuits with established channels (i.e., channels connected by the SECH command).

One output message is printed for each Network Processing Circuit requested and successfully removed.

This command results in the removal of all NPCs in the circuit pack on only one of the duplicated sides.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of the range.

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of the range.

The allowable values are presented below:

If NPC numbers are expressed in three digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

If NPC numbers are expressed in three digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960
16A-16H	32A-32H	48A-48H	64A-64H	80A-80H	96A-96H

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-p
- Hierarchical NPC number, denoting the beginning of the range

uv-k-qr
- Hierarchical NPC number, denoting the end of the range.

uv - Unit number
m,k - Module number
np,qr - NPC number within the module

The allowable values are:

DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

If NPC numbers are expressed in three digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

MB, SR, and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4
NPC	NPC	NPC	NPC
0001	0161	0321	0481
0021	0181	0341	0501
0041	0201	0361	0521
0061	0221	0381	0541
0081	0241	0401	0561
0101	0261	0421	0581
0121	0281	0441	0601
0141	0301	0461	0621

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

SIDE - Side

s - Side of duplicated DSPU circuit to be removed (0 or 1)

TYPE - Type

INCL - Inclusive

INCL is required for removal of one or more cross-connected NPCs with CUS (customer) or RDLD (red lined) marking.

It is also required for Subrate NPCs with established channels (that is, channels connected by the SECH command)

For Subrate circuit packs, there is only one NPC per circuit pack.

pa - Priority of action

pa	*Explanation*
*C	Critical
**	Major

[s]ghi
- The 3- or 4-digit nonhierarchical number of an NPC that is successfully being removed. ([s]abc through [t]def)

[s]jkl
- The 3- or 4-digit nonhierarchical number of an NPC whose removal is denied. If used in a range, it denotes the first NPC of the range. ([s]abc through [t]mno)

[t]mno
- The 3- or 4-digit nonhierarchical number of an NPC whose removal is denied, denoting the last NPC of a range. ([s]jkl through [t]def)

uv-g-hi
- Hierarchical number of an NPC that is successfully being removed.

uv-j-kl
- Hierarchical number of an NPC whose removal is denied. If used in a range, it denotes the first NPC of the range.

uv-m-no
- Hierarchical number of an NPC whose removal is denied, denoting the last NPC of a range. (uvjkl through uvkqr)

uv - Unit number

m,g,k,j
- Module number

np,qr,hi,kl,no
- NPC number within the module

mnxyz - NPC-type identifier

mn	Explanation
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC
TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC
MB	Digital multipoint bridge NPC
MJ	Multipoint junction unit NPC
SR	Subrate multiplexer unit NPC

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if

the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

MB-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

SR- and MJ-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

OOS - Out of service

COND - Condition

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
13	ENEQ	FTMI is not equipped
14	SAOS	FTMI is out of service
15	ENEQ	NPC is unequipped
19	SAOS	Mate CCN side is out of service
1E	ERLC	Customer control or red circuit exists
1F	SNVS	FTMI is in service but failed
37	SAOS	DSPI out-of-service
3E	SWFA	DSPI failed
5C	SNVS	NPC providing timing to inservice SSP
86	ERLC	Attempt to remove DGA w/o INCL keyword or prior prot. sw. request
8E	ERLC	DGA protected; use INCL to remove, or unswitch protection
9B	IDMS	INCL must be specified for SRDC ckts
F2	SNVS	Invalid NPC number specified
FD	IDRG	NPC range crosses unit boundary
A0	SAOS	The selected MXR associated with the NPC is Out-Of-Service
A1	SNVS	The selected MXR associated with the NPC is In-Service but failed

cc	mmmm	*Explanation*
A3	SNVS	The selected MIU associated with the NPC is In-Service but failed
B7	SNVS	The associated MXR is In-Service but pested
69	SNVS	Use of this NPC is RESERVED for SLC 96 MD 1

RMV,EQPT,SYNC

REMOVE SYNCHRONIZER

Input Message Format

[I.33101]

```
RMV-EQPT:[<xy>]:SYNC-a:[ww];
```

Completion Message

[O.33101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::SYNC-a:[ww] COMPLD
   /* [O.33101] */
   "COND-00"
;
```

Denial Message

[O.33101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::SYNC-a:[ww] DENY
   mmmm
   /* [O.33101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33101]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33101] */
   /* entity, state of the entity */
   "SYNC-a,OOS"
;
```

[O.33101.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33101] */
   /* entity, state of the entity */
   "SYNC-a[,OOS]"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command is used to remove the synchronizer from service. This includes the timing extractor circuit, the phase-locked loop, the clock generator circuit, and the service and reply circuit.

If the mate synchronizer is not available for switchover, this message will be denied.

Explanation Of Parameters

SYNC - Snycronizer

a - Synchronizer side (0 or 1)

pa - Priority of action.

pa	*Explanation*
**	Major
M	Manual
*C	Critical

COND - Condition

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
19	SAOS	Mate CCN side is out of service
1A	SAOS	Mate SYNC is out of service
31	SROF	Failed to switch SYNC side
AB	SNVS	Bad sync mode

RMV,EQPT,SYNC,TLI,SSP

REMOVE SYNCHRONIZER'S TLI OR SSP

Input Message Format

[I.33121]

```
RMV-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

Completion Message

[O.33121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::SYNC-a:[ww]:TLI-m:[SSP-b]  COMPLD
   /* [O.33121] */
   "COND-00"
[  "b"]
;
```

Denial Message

[O.33121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::SYNC-a:[ww]:TLI-m:[SSP-b]  DENY
   mmmm
   /* [O.33121.01] */
   /* <explanation of error condition code> */
[  /* b */]
;
```

Autonomous Message

[O.33121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33121] */
   /* entity, state of the entity */
   "SYNC-a-TLI-m,OOS"
;
```

[O.33121.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33121.01] */
   /* entity, state of the entity */
   "SYNC-a-TLI-m[,OOS]"
   "DENY:COND-cc"
;
```

Explanation Of Message

This message requests the removal of the synchronizer's timing link interface from service.

If the timing link interface was configured as a timing extractor, synchronizer sync Port 0 or 1 must also be specified.

Explanation Of Parameters

SYNC - Synchronizer

a - SYNC number (0 or 1)

TLI - Timing Link Interface

m - TLI number (1 through 4)

OOS - Out-of-service

SSP - Synchronizer Sync Port

b,c - SSP number of TLI-m (0 or 1)

Only a single SSP, "b", can be specified in the input command. Two SSPs, "b" and "c", can appear in an automonous removal message.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
33	SNVS	Wrong TLI type
BE	SNVS	Hardware mismatch or not present

RMV,EQPT,TLI,CRO

REMOVE SYNCHRONIZER TIME BASE AS A CLOCK REFERENCE OSCILLATOR

Input Message Format

[I.33111]

```
RMV-EQPT:[<xy>]:TLI-3:[ww]:CRO;
```

Completion Message

[O.33111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::TLI-3:[ww]:CRO  COMPLD
   /* [O.33111] */
   "COND-00"
;
```

Denial Message

[O.33111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::TLI-3:[ww]:CRO  DENY
   mmmm
   /* [O.33111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33111]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33111] */
   /* entity, state of the entity */
   "TLI-3-CRO,OOS"
;
```

[O.33111.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33111.01] */
   /* entity, state of the entity */
   "TLI-3-CRO[,OOS]"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command requests the removal of the synchronizer time base as a clock reference oscillator.

Explanation Of Parameters

TLI - Timing link interface

m - TLI number (1 through 4)

CRO - Clock Reference Oscillator

COND - Condition

OOS - Out of service

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
33	SNVS	Wrong TLI type
A9	SAOS	Both syncs are out-of-service

RMV,EQPT,TSI

REMOVE TIME SLOT INTERCHANGE

Input Message Format

[I.33221]

```
RMV-EQPT:[<xy>]:TSI-sft:[ww];
```

Completion Message

[O.33221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::TSI-sft:[ww]  COMPLD
   /* [O.33221] */
   "COND-cc"
;
```

Denial Message

[O.33221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::TSI-sft:[ww]  DENY
   mmmm
   /* [O.33221.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33221]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33221] */
   /* entity,state of the entity */
   "TSI-sft:c"
;
```

[O.33221.01]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RMV EQPT
   /* [O.33221.01] */
   /* entity,state of the entity */
   "TSI-sft:c"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command applies only to a noncapacity expansion frame (NCEF).

It requests the removal of the time slot interchange (TSI) from service.

If the TSI on the other side has already been removed this command will be denied unless there are no provisioned circuits for this TSI.

Explanation Of Parameters

TSI - Time slot interchange

s - Side number (0 or 1)

f - Cross-connect buffer (CCB) number (1 through 6)

t - TSI number (1 through 6)

pa - Priority of action

pa	*Explanation*
**	Major
M	Manual

COND - Condition

cc mmmm - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
19	SAOS	Mate CCN side is out of service

RMV,EQPT,UNIT,FC

REMOVE UNIT FORMAT CONVERTER

Input Message Format

[I.33331]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb;
```

Completion Message

[O.33331]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FC-sb  COMPLD
   /* [O.33331] */
   "COND-éé"
;
```

Denial Message

[O.33331.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FC-sb  DENY
   mmmm
   /* [O.33331.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33331]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33331] */
   /* entity,state of the entity */
   "UNIT-[q]q-FC-sb:OOS"
;
```

[O.33331.01]

```
   <xy> yy-mm-dd hh:mm:ss
*C ff REPT RMV EQPT
   /* [O.33331.01] */
   /* entity,state of the entity */
   "UNIT-[q]q-FC-sb:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This message requests removal of the unit format converter from service.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

s - Side number (0 or 1)

b - FC number (1 through 4)

pa - Priority of action

pa	Explanation	
**	Major	
	*C	Critical
	A	Autonomous

COND - Condition

cc - Completion condition code

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
13	ENEQ	FTMI is not equipped
14	SAOS	FTMI is out of service
19	SAOS	Mate CCN side is out of service
1F	SNVS	FTMI is in service but failed

RMV,EQPT,UNIT,FLI

REMOVE FACILITY LINE INTERFACE

Input Message Format

[I.33401]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k;
```

Completion Message

[O.33401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FLI-k COMPLD
;
```

Denial Message

[O.33401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FLI-k DENY
   mmmm
   /* [O.33401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33401]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT RMV EQPT
   /* [O.33401] */
   /* Entity:State of Entity */
   "UNIT-[q]q-FLI-k:OOS"
;
```

[O.33401.01]

```
   <xy> yy-mm-dd hh:mm:ss
*C ff REPT RMV EQPT
   /* [O.33401.01] */
   /* Entity:State of the entity */
   "UNIT-[q]q-FLI-k:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command requests and reports the removal of one facility line interface (FLI) in a DS3 unit. The removal can by caused by either a manual request or autonomously by error recovery.

A request for removal of a FLI will cause a protection switch. A request to remove an unprotected FLI will be denied unless no service mutiplexer (MXR) or protection MIU is equipped and the protection MMFG is out-of-service in that DS3 unit.

This message also reports an unsuccessful automatic attempt to remove an unprotected FLI, which will cause a critical alarm.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility line interface

k - FLI identifier

k	*Explanation*
S	Service FLI
P	Protection FLI

COND - Condition

OOS - Out of service

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
37	SNVS	Major/Minor BER threshold value is invalid for SLC NPCs
35	SAOS	The mate FLI is OOS and Protection MIU is equipped
36	SAOS	The mate FLI is OOS and Protection MXR is IS
37	SAOS	The mate FLI is OOS and at least one Service MXR is equipped
38	SAIS	The selected FLI is IS and Pested and at least 1 Service MXR is eqd
39	SAWS	An autonomous switch is in progress
B0	SAOS	FLI is out of service

RMV,EQPT,UNIT,FMT

REMOVE FORMATTER

Input Message Format

[I.33411]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s;
```

Completion Message

[O.33411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FMT-s COMPLD
;
```

Denial Message

[O.33411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:FMT-s DENY
   mmmm
   /* [O.33411.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33411]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33411] */
   /* Entity:State of the entity */
   "UNIT-[q]q-FMT-s:OOS"
;
```

[O.33411.01]

```
   <xy> yy-mm-dd hh:mm:ss
pa ff REPT RMV EQPT
   /* [O.33411.01] */
   /* Entity:State of the entity */
   "UNIT-[q]q-FMT-s:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command requests and reports the removal of one formatter (FMT) in a DS3 unit. The removal can be either manually by a command or autonomously by error recovery.

A successful request to remove an FMT will automatically cause a switch to the other cross-connect side. A request for removal of an FMT will be denied if the switch to the other cross-connect side is not possible. The output of this command also reports an unsuccessful automatic attempt to remove an unprotected FMT. The removal of both FMTs will automatically come into effect when the unit is degrown.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FMT - Formatter

s - Side

s	*Explanation*
0	Side 0
1	Side 1

pa - Priority of action

pa	*Priority*
*C	Critical
**	Major
M	Manual

OOS - Out-of-service

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
19	SAOS	Mate CCN side is out of service
B1	SAOS	FMT is out of service

RMV,EQPT,UNIT,FTMI,DSPI

REMOVE FTMI OR DSPI

Input Message Format

[I.33321]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:{FTMI-d|DSPI};
```

Completion Message

[O.33321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:{FTMI-d|DSPI} COMPLD
   /* [O.33321] */
   "COND-éé"
;
```

Denial Message

[O.33321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:{FTMI-d|DSPI} DENY
   mmmm
   /* [O.33321.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33321]

```
   <xy> yy-mm-dd hh:mm:ss
*  ff REPT RMV EQPT
   /* [O.33321] */
   /* entity,state of the entity */
   "UNIT-[q]q-{FTMI-d|DSPI}:OOS"
;
```

[O.33321.01]

```
   <xy> yy-mm-dd hh:mm:ss
*  ff REPT RMV EQPT
   /* [O.33321] */
   /* entity,state of the entity */
   "UNIT-[q]q-{FTMI-d|DSPI}:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This message allows removal of a facility terminating module interface or a digital signal processor interface from service.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

d - FTMI number (1 through 4)

DSPI - Digital signal processor interface

OOS - Out-of-service

cc - Completion condition code (hexadecimal)

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed

RMV,EQPT,UNIT,MIU,INCL

REMOVE MULTIPLEXER INTERFACE UNIT

Input Message Format

[I.33431]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL];
```

Completion Message

[O.33431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL] COMPLD
   /* [O.33431] */
   /* MIU Number:MIU Type */
   "a:MI100"
;
```

Denial Message

[O.33431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL] DENY
   mmmm
   /* [O.33431.01] */
   /* <explanation of error condition code> */
   /* MIU Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message removes from service one or more Multiplexer Interface Unit (MIU) circuit packs in a DS3 unit. Using the INCL (inclusive) option, this remove command removes all TA-type NPCs associated with the MIU. Executing this command results in protection switching if any TA-type NPCs are in-service. TA type NPCs provide ESF data link communications according to the ANSI T1.403-1989 standard and enhanced performance monitoring.

Note: This command can not be generated autonomously.

A **RMV IN PROGRESS** messsage will be generated at 20-second intervals while this command is being executed.

There will be one completion or denial output message for each circuit pack removed.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c,d - The number of the MIU within the unit (P,1 through 6) (P means the protection MIU)

a - The MIU number within the range of c and d.

INCL - Inclusive

This keyword will cause the removal of all TA type NPCs served by the MIU.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SNVS	Unit type error
ENEQ	MIU is not equipped
SNVS	Attempt to remove a Service MIU which is under protection
IDNV	INCL not specified and at least one NPC In Service
SAOS	MIU is out of service

RMV,EQPT,UNIT,MMFG,FRC,INCL

REMOVE MMFG

Input Message Format

[I.33421]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:[FRC[,INCL]];
```

Completion Message

[O.33421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:[FRC[,INCL]] COMPLD
   /* [O.33421] */
   /*MMFG Number */
   "a"
   /*MXR Number:MXR Type:MIU Number:MIU Type */
   "a:mnxyz[:a:MI100]"
;
```

Denial Message

[O.33421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:[FRC[,INCL]] DENY
   mmmm
   /* [O.33421.01] */
   /* <explanation of error condition code> */
   /*MMFG Number */
   "a"
;
```

Autonomous Message

[O.33421]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT RMV EQPT
   /* [O.33421] */
   /* Entity:State of the entity */
   "UNIT-[q]q-MMFG-a:OOS"
[  /* MXR Number:MXR Type:MIU Number:MIU Type */]
[  "a:mnxyz[:a:MI100]"]
;
```

[O.33421.01]

```
   <xy> yy-mm-dd hh:mm:ss
*C ff REPT RMV EQPT
   /* [O.33421.01] */
   /* Entity,State of the Entity */
   "UNIT-[q]q-MMFG-a:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This command requests and reports the removal of the circuit packs of one or more Multiplexer - Multiplexer Interface Unit Functional Group (MMFG). The removal of an MMFG can be caused either by manual command or autonomous DACS II error recovery action.

An **RMV MMFG** command will remove the Multiplexer (MXR) and the Multiplexer Interface Unit (MIU) if the MIU is in-service. A manual removal request of an MMFG will cause protection switching if protection is available. However, the automatic switch to protection (or the automatic switchback in the case of protection MMFGs) can be inhibited by specifying the FRC option, which can result in loss of service. The FRC option must be used to request the unprotected removal of an MMFG. Any resulting loss of service will not cause an alarm. An attempt to remove more than one MMFG without the FRC option will be denied.

The Inclusive (INCL) keyword must be used if at least one of the DS3's tributary NPCs is in service. This option will remove the NPCs together with the MMFG.

This command also reports the unsuccessful automatic attempt to remove an unprotected MMFG, which will cause a critical alarm. An **RMV IN PROGRESS** message will be generated at 20-second intervals while this command is being executed. There will be one completion or denial output message for each circuit pack removed.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-Multiplexer Interface Unit functional group.

c,d - The number of the MMFG within the unit (P,1 through 6) (P means the protection MMFG)

a - The number of the MMFG that is removed or denied (c or d)

FRC - Force

This keyword will force a manual removal (in the case that protection is not available) and will prevent automatic protection switching from

accompanying the removal, thus forcing the removal of all the DS1 facilities served by the MMFG.

INCL - Inclusive

This keyword will cause all tributary NPCs which are still in service to be removed. A command with the INCL keyword must also contain the FRC keyword or it will be denied by DACS II.

*C - Critical priority of action
** - Major priority of action
M - Manual priority of action

MXR - Multiplexer

a - MXR identifier (P, 1 through 6)

TYPE - Type

mnxyz - Type identifier

mn - Multiplexer type

mn	*Type*
MX	DS3 multiplexer (MXR)
EX	Enhanced DS3 multiplexer (EMXR) circuit pack

Default is the MX type for backward compatibility.

xyz - Format type

x - The DS3 framing format

x	*Format*
1	M13 (default)
2	C-bit parity

y - Not assigned (the only valid value is 0)
z - Not assigned (the only valid value is 0)

MIU - Multiplexer interface unit

a - MIU identifier (P, 1 through 6)

cc mmmm - Error condition code

cc	mmmm	*Explanation*
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
24	SNVS	Unit type error
9B	ENEQ	The MXR is not grown
A8	SAOS	The MMFG is Out Of Service
A9	IDNV	INCL not specified and at least one NPC In Service
AA	IDNV	Range entered without FRC keyword
AB	SNVS	FRC specified for protection, and service MMFG is In Service
AC	SPFA	No protection is available for the Service MMFG
AD	SPSW	The Protection MMFG is selected, and auto. switchback is unavailable
B7	SNVS	The associated MXR is In-Service but pested

RMV,EQPT,UNIT,UC

REMOVE UNIT CONTROLLER

Input Message Format

[I.33311]

```
RMV-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC;
```

Completion Message

[O.33311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:UC  COMPLD
   /* [O.33311] */
   "COND-ćć"
;
```

Denial Message

[O.33311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RMV EQPT::UNIT-[q]q:[ww]:UC  DENY
   mmmm
   /* [O.33311.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.33311]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT RMV EQPT
   /* [O.33311] */
   /* entity,state of the entity */
   "UNIT-[q]q-UC:OOS"
;
```

[O.33311.01]

```
   <xy> yy-mm-dd hh:mm:ss
** ff REPT RMV EQPT
   /* [O.33311.01] */
   /* entity,state of the entity */
   "UNIT-[q]q-UC:OOS"
   "DENY:COND-cc"
;
```

Explanation Of Message

This message requests removal of the specified unit controller from service.

Explanation Of Parameters

UC - Unit controller

UNIT - Unit

[q]q - Unit number (1 through 16)

OOS - Out-of-service

COND - Condition

cc - Completion condition code
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
04	SAOS	Subject entity is out of service

Index

A

About This Document, i
ABT,CMD, 6-1
ABT,PROC, 6-5
ALW,LPBK,T1,DGA,DGB,DGC,DGD, 6-7
ALW,PMREPT,T1,NPC,ALL, 6-9
ALW,SW,EQPT,UNIT,MMFG,PROTN, 6-15
ALW,SW,T1,NPC,RT,INCL, 6-18
APPEND,END, 6-23

B

BADVERB,CMD,BAD,SYNTAX,STOPPED, 7-1
BADVERB,CMD,INERR,STOPPED, 7-3
BOOT,FROM,DISK,TAPE, 7-6
BX2,STF,ATP, 7-7

C

CHG,ACCMD,T1,AIS,INCL, 8-1
CHG,LGN,PASSWD, 8-10
CHG,RPATH,T0,INCL, 8-13
CHG,RPATH,T1,INCL, 8-21
CHG,TACC,T0,MON, 8-27
CHG,TACC,T0,SPLT, 8-38
CHG,TACC,T0,TG,MON, 8-48
CHG,TACC,T0,TG,SPLT, 8-58
CHG,TACC,T1,INCL, 8-67
CHG,TACC,TS,MON, 8-75
CHG,TACC,TS,SPLT, 8-84
CHG,TL,T0,TERM,F,T,B,L,G,A,NOT, 8-95
CHG,TL,T0,TG,TERM,F,T,B, 8-107
CHG,TL,TS,TERM,F,T,B, 8-116
CI,ECI,RESET, 8-126
CI,ECI,STARTUP,STF,ATP, 8-128
CMD,MC,OOS,MCOND,INSERVICE, 8-130
CONN,BDCST,T0,RDLD,CUS,INCL, 8-132, 8-143
CONN,BDCST,T1,RDLD,CUS,INCL, 8-153, 8-161
CONN,CRS,T0,RDLD,CUS,INCL,AIS, 8-169
CONN,CRS,T0,RDLD,CUS,INCL,NTR, 8-181
CONN,CRS,T1,RDLD,CUS,INCL,NORM, 8-197
CONN,CRS,TS,MJU,RATE,MA,NORM, 8-204
CONN,CRS,TS,MJU,RATE,MA,TERM, 8-222
CONN,CRS,TS,RATE,NORM, 8-236, 8-247
CONN,CRS,TS,RATE,TERM, 8-260, 8-270
CONN,CRS1,T0,RDLD,CUS,INCL, 8-282, 8-293
CONN,CRS1,T1,RDLD,CUS,INCL, 8-304
CONN,HUB,T0, 8-311
CONN,HUB,T0,TG, 8-318
CONN,HUB,T1,INCL, 8-327
CONN,TACC,T0,MON, 8-333
CONN,TACC,T0,TG,MON, 8-347
CONN,TACC,T1,AIS,INCL, 8-358
CONN,TACC,TS,MON, 8-368
CONN,TACC,TS,MON,MJU, 8-380
CONN,TACC,TS,SPLT, 8-391
CONN,TACC,TS,SPLT,MJU, 8-404
COPY,EQPT,NPC, 8-415
CPY,MEM,PROG,DBASE,INSTL,INCL, 8-432
CRTE,CNFGRN,EQPT,UNIT, 8-436
CRTE,CRS,TS,DS0A,DS0B,SEC,PCH, 8-442
CRTE,CRS,TS,RATE,DP,PCH, 8-453
CRTE,EQPT,NPC, 8-463
CRTE,EQPT,NPC,IW,X, 8-469
CRTE,EQPT,NPC,IW,X,INCL,AIS, 8-481, 8-503
CRTE,EQPT,NPC,NPCTG, 8-518
CRTE,EQPT,NPC,NPCTP, 8-526
CRTE,EQPT,SYNC, 8-532
CRTE,EQPT,SYNC,TLI, 8-534
CRTE,EQPT,SYNC,TLI,SSP,SRC, 8-536
CRTE,EQPT,TG, 8-541
CRTE,EQPT,TP, 8-544
CRTE,EQPT,UNIT,FTMI,EQL, 8-548
CRTE,EQPT,UNIT,MIU, 8-551
CRTE,EQPT,UNIT,MXR,BERM,BERT, 8-553
CRTE,LGN,NEW,PASSWD,REENTER, 8-557

D

DELETE,END, 9-1
DGN,EQPT,CCB,CFT,X, 9-3
DGN,EQPT,CCI,CFT,X, 9-10
DGN,EQPT,CCNI,CFT,X, 9-14
DGN,EQPT,CI,CFT,X, 9-20
DGN,EQPT,DISK,CFT,X,VERIFY, 9-24
DGN,EQPT,ETSI,CFT,X, 9-27
DGN,EQPT,ETSIS,ECCN,ALL, 9-32
DGN,EQPT,IN,PROGRESS, 9-35

DGN,EQPT,LINK,CFT,X, 9-37
DGN,EQPT,MC,CFT,X, 9-40
DGN,EQPT,MP,CFT,X, 9-44
DGN,EQPT,NPC, 9-48
DGN,EQPT,NPC,SIDE,CFT,X, 9-55
DGN,EQPT,SSC,CFT,X, 9-73
DGN,EQPT,SYNC, 9-77
DGN,EQPT,SYNC,TLI,CRO, 9-80
DGN,EQPT,SYNC,TLI,SSP, 9-84
DGN,EQPT,TAPE,CFT,X,PROG,DBASE, 9-87
DGN,EQPT,TSI,CCN,ALL, 9-91
DGN,EQPT,TSI,CCN,UNIT, 9-95
DGN,EQPT,TSI,CFT,X, 9-99
DGN,EQPT,UNIT,DSPI,CFT,X, 9-107
DGN,EQPT,UNIT,FC,CFT,X, 9-111
DGN,EQPT,UNIT,FLI,CFT,X, 9-117
DGN,EQPT,UNIT,FMT,CFT,X, 9-121
DGN,EQPT,UNIT,FTMI,CFT,X, 9-127
DGN,EQPT,UNIT,MIU,CFT,X, 9-131
DGN,EQPT,UNIT,MXR,DEV,CFT,X, 9-135
DGN,EQPT,UNIT,UC,CFT,X, 9-140
DISC,BDCST,T0,INCL,OOS,DCC, 10-1, 10-10
DISC,BDCST,T1,INCL,OOS,CONV, 10-18, 10-25
DISC,CRS,T0,INCL,DCC,OOS, 10-32
DISC,CRS,T0,INCL,OOS,DCC, 10-45
DISC,CRS,T1,INCL,OOS, 10-54
DISC,CRS,TS,MJU,RATE, 10-61
DISC,CRS,TS,MJU,RATE,ALL, 10-76
DISC,CRS,TS,RATE, 10-91, 10-101
DISC,CRS1,T0,INCL,OOS,DCC, 10-111, 10-120
DISC,CRS1,T1,INCL,OOS, 10-130
DISC,EQPT,NPC, 10-137
DISC,EQPT,NPC,NPCTG,TGR, 10-150
DISC,EQPT,NPC,NPCTP,TPR, 10-158
DISC,EQPT,SYNC,TB, 10-164
DISC,EQPT,SYNC,TLI,SSP, 10-166
DISC,EQPT,TG, 10-171
DISC,EQPT,TP, 10-174
DISC,EQPT,UNIT, 10-177
DISC,EQPT,UNIT,FTMI, 10-183
DISC,EQPT,UNIT,MIU, 10-185
DISC,EQPT,UNIT,MXR, 10-187
DISC,TACC,T0,ALL,OOS, 10-190
DISC,TACC,T0,OOS, 10-192
DISC,TACC,T0,RLS,F,T,B,L,G,A, 10-203
DISC,TACC,T0,TG,OOS, 10-215
DISC,TACC,T0,TG,RLS,F,T,B, 10-228
DISC,TACC,T1,ALL,OOS, 10-237
DISC,TACC,T1,OOS, 10-239
DISC,TACC,TS, 10-247
DISC,TACC,TS,ALL,LINKS, 10-257
DISC,TACC,TS,RLS,F,T,B, 10-259
DLT,CRS,TS,PCH,DCC, 11-1
DLT,FPKG, 11-9
DLT,LGN, 11-13
DLT,MACRO,MAP, 11-15
DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD, 11-17

E

EBX,STARTUP,STF,ATP, 12-1
ED,ADD,MAP,NPC, 12-3
ED,CNFGRN,EQPT,UNIT, 12-7
ED,CONN,TS, 12-10
ED,CONN,TS,MPTM, 12-20
ED,CRS,T0,INCL, 12-32
ED,CRTE,TS,PCH,DCC, 12-39
ED,DATE,INT, 12-49
ED,DLT,MAP,NPC, 12-51
ED,MACRO,MAP, 12-56
ED,OPT,T1,NPC,TYPE,ALL, 12-62
ED,PRMTR,EQPT,DGA,DGB,DGC,DGD, 12-74
ED,PRMTR,EQPT,NPC, 12-81
ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT, 12-106
ED,PRMTR,EQPT,NPC,IW,X,INCL, 12-118, 12-129
ED,PRMTR,EQPT,NPC,RT,DL,TYPE, 12-138
ED,PRMTR,EQPT,RT,DL, 12-165
ED,PRMTR,EQPT,RT,RTF,SWMN, 12-167
ED,PRMTR,EQPT,SYNC,MASTER, 12-172
ED,PRMTR,EQPT,SYNC,STR2,STR3, 12-174
ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC, 12-176
ED,PRMTR,EQPT,TYPE, 12-182

I

IN,PROGRESS, 13-1
INH,LPBK,T1,DGA,DGB,DGC,DGD, 13-2
INH,PMREPT,T1,NPC,ALL, 13-4
INH,SW,EQPT,UNIT,MMFG,PROTN, 13-9
INH,SW,T1,NPC,RT,FRC,INCL, 13-11
INIT,LOG,ERR,HWER,SWER, 13-16
INIT,REG,ALL, 13-18
INIT,REG,NPC, 13-20
INIT,REG,NPC,RT,DL, 13-26

INIT,REG,PWR,BMTRALM, 13-33
INIT,REG,T1,NPC,ALL, 13-36

M

MOVE,END, 14-1
MP,STARTUP,STF,ATP, 14-3
MTC,STF,ATP, 14-5

O

OPR,ACO,ALL, 15-1
OPR,LPBK,T0, 15-3
OPR,LPBK,T0,TG, 15-7
OPR,LPBK,T1, 15-9
OPR,LPBK,T1,DGA,DGB,DGC,DGD, 15-15
OPR,LPBK,T1,LPBKT,INCL, 15-17
OPR,TSIG,T1, 15-23

P

Purpose of Document, vii

R

REPT,ALM,EQPT,AR01,MISC,NPC, 16-1
REPT,ALM,EQPT,AR01,MISC,NPC,MJ, 16-6
REPT,ALM,EQPT,BMTR,TAPE,MN, 16-11
REPT,ALM,EQPT,BOOT,FAILED,BAD, 16-13
REPT,ALM,EQPT,CCN,MJ,IDLD,OOS, 16-14
REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS, 16-16
REPT,ALM,EQPT,NPC,IDLD, 16-18
REPT,ALM,EQPT,NPC,MJ,MN,INFO, 16-23
REPT,ALM,EQPT,RESET,DATE,TOD, 16-29
REPT,ALM,EQPT,SC,ALARM,NPC,RT, 16-31
REPT,ALM,EQPT,SC,ALARM,RT,COMP, 16-36
REPT,ALM,EQPT,SC,DPLX,ALARM, 16-38
REPT,ALM,SC,ALARM,MC,UC,FTMI, 16-43
REPT,ALM,SC,ALARM,RT,DL,FE, 16-45
REPT,ALM,T3,IDLD,UNIT,DS3, 16-47
REPT,ALM,T3,UNIT,DS3, 16-49
REPT,ALMDET,EQPT,ANALYSIS, 16-51
REPT,ALMDET,EQPT,ERR,HARDWARE, 16-54
RST,CNFGRN,EQPT,UNIT,CCN,TSIS, 17-1
RST,EQPT,CCB, 17-4
RST,EQPT,CCI, 17-6
RST,EQPT,CCNI, 17-8
RST,EQPT,DISK,TAPE,CLR,CLEAN, 17-10
RST,EQPT,ETSI, 17-13
RST,EQPT,ETSIS,ECCN, 17-15
RST,EQPT,LINK, 17-18
RST,EQPT,MC,MCOND,TAPE,NOJRNL, 17-20
RST,EQPT,NPC,SIDE, 17-26
RST,EQPT,SYNC, 17-41
RST,EQPT,SYNC,TLI,SSP, 17-43
RST,EQPT,TLI,CRO, 17-45
RST,EQPT,TSI, 17-47
RST,EQPT,TSIS,CCN, 17-49
RST,EQPT,UNIT,FC, 17-52
RST,EQPT,UNIT,FLI, 17-54
RST,EQPT,UNIT,FMT, 17-56
RST,EQPT,UNIT,FTMI,DSPI, 17-58
RST,EQPT,UNIT,MIU,INCL, 17-60
RST,EQPT,UNIT,MMFG,INCL, 17-63
RST,EQPT,UNIT,UC, 17-67
RST,PASSWD, 17-69
RTRV,ALM,EQPT, 18-1
RTRV,ALM,EQPT,DBASE, 18-28
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS, 18-33, 18-42, 18-52
RTRV,ALM,EQPT,RT,DL, 18-54
RTRV,ALM,T3, 18-57
RTRV,BDCST,T0, 18-61
RTRV,BDCST,T0,ALL, 18-70
RTRV,BDCST,T1,FROM, 18-76
RTRV,BKUPSCHED,MEM,SEC,DATA, 18-83
RTRV,CNFGRN,EQPT,UNIT,EQPD, 18-85
RTRV,COND,EQPT,NPC,CS, 18-87
RTRV,CRS,T1,MAP, 18-93
RTRV,CRS,T1,NPC,MAP, 18-120
RTRV,CRS,T1,RTMAP,DLMAP, 18-144
RTRV,CRS,TS, 18-162
RTRV,EQPT,TS,SRHDW, 18-169
RTRV,EVT,EQPT,NPC,BER,FTU,DS3U, 18-182
RTRV,EVT,EQPT,NPC,BER,NPCS, 18-195
RTRV,EVT,TS,SROOF,ALL, 18-197
RTRV,FPKG,NE, 18-207
RTRV,HDR, 18-210
RTRV,HDR,NE, 18-211
RTRV,LOC,EQPT, 18-215
RTRV,LOG,ERR,SWER,HWER,INT, 18-230
RTRV,MACRO, 18-241

RTRV,MACRO,COM, 18-244
RTRV,MAP,COM, 18-247
RTRV,MAP,EQPT,NPC, 18-250
RTRV,OPT,T1,NPC,ALL, 18-255
RTRV,PM,T1,NPC,ALL, 18-261
RTRV,PMREPT,SCHED,CFA,MONDAT, 18-282
RTRV,PMSCHED,T1,NPC,ALL, 18-286
RTRV,PRMTR,EQPT,LOAD,TOTAL, 18-299
RTRV,PRMTR,EQPT,NPC,ALL, 18-308
RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS, 18-318
RTRV,PRMTR,EQPT,NPC,RT,DL, 18-328
RTRV,PRMTR,EQPT,NPC,SCDG,STATE, 18-348
RTRV,PRMTR,LINK, 18-358
RTRV,PRMTR,MACRO,ATTR,ALL, 18-368
RTRV,PRMTR,MACRO,MAP,SPACE,ALL, 18-372
RTRV,PRMTR,MAP,ATTR,ALL, 18-376
RTRV,PRMTR,NE, 18-379
RTRV,PRMTR,NE,ECLOC, 18-382
RTRV,PRMTR,NE,HUBID, 18-384
RTRV,PRMTR,SQN, 18-386
RTRV,PRMTR,T0,FROM, 18-388
RTRV,PRMTR,T0,MARK, 18-407
RTRV,PRMTR,T0,TO, 18-422
RTRV,PRMTR,T1,FROM, 18-439
RTRV,PRMTR,T1,MARK, 18-445
RTRV,PRMTR,T1,TO, 18-460
RTRV,PRMTR,T3,LBO, 18-468
RTRV,PRMTR,T3,UNIT,BERMT, 18-470
RTRV,PRMTR,TS, 18-473
RTRV,PRVG,TERM,USER,ALL, 18-484
RTRV,PRVG,USER,LOG,ALL, 18-496
RTRV,REG,EQPT,CCN,ESR, 18-499
RTRV,REG,EQPT,ECCN,ESR, 18-502
RTRV,REG,EQPT,MP,ESR, 18-506
RTRV,REG,EQPT,NPC,SIDE,ESR, 18-511
RTRV,REG,EQPT,SYNC,STR, 18-522
RTRV,REG,EQPT,SYNC,TLI,SSP,STR, 18-528
RTRV,REG,EQPT,SYNC,TLI,STR, 18-532
RTRV,REG,EQPT,UNIT,DSPI,ESR, 18-535
RTRV,REG,EQPT,UNIT,ESR, 18-537
RTRV,REG,EQPT,UNIT,FC,ESR, 18-541
RTRV,REG,EQPT,UNIT,FLI,ESR, 18-545
RTRV,REG,EQPT,UNIT,FMT,ESR, 18-549
RTRV,REG,EQPT,UNIT,FTMI,ESR, 18-552
RTRV,REG,EQPT,UNIT,MIU,ESR, 18-556
RTRV,REG,EQPT,UNIT,MXR,ESR, 18-558
RTRV,REG,EQPT,XC,STR, 18-562
RTRV,REG,EQPT,XCSB,UNIT, 18-564
RTRV,ROLL,T0,NPC,ALL,UNIT, 18-572
RTRV,ROLL,T1,NPC,ALL,UNIT, 18-580
RTRV,STATE,COM,ALL, 18-590
RTRV,STATE,COM,EQPD, 18-596
RTRV,STATE,COM,PEST,FAIL,OOS, 18-600
RTRV,STATE,EQPT,ACO, 18-606
RTRV,STATE,EQPT,ETSI,EQPD, 18-608
RTRV,STATE,EQPT,MIU,EQPD, 18-610
RTRV,STATE,EQPT,MXR,EQPD, 18-612
RTRV,STATE,EQPT,NPC, 18-615, 18-633
RTRV,STATE,EQPT,NPC,EQPD,TOTAL, 18-650
RTRV,STATE,EQPT,NPC,TSIG, 18-661
RTRV,STATE,EQPT,SYNC, 18-670
RTRV,STATE,EQPT,SYNC,EQPD, 18-673
RTRV,STATE,EQPT,TSI,EQPD, 18-676
RTRV,STATE,EQPT,UNIT,ALL, 18-678
RTRV,STATE,EQPT,UNIT,EQPD, 18-699, 18-701
RTRV,STATE,EQPT,UNIT,FTMI, 18-722
RTRV,STATE,EQPT,UNIT,PEST,FAIL, 18-725
RTRV,STATE,EQPT,UNIT,PROTN, 18-745
RTRV,STATE,T3,UNIT,DS3, 18-750
RTRV,STATE,TS, 18-755
RTRV,SYSID, 18-762
RTRV,TACC,T0,NPCTG, 18-764
RTRV,TACC,T0,TG, 18-774
RTRV,TACC,T1, 18-782

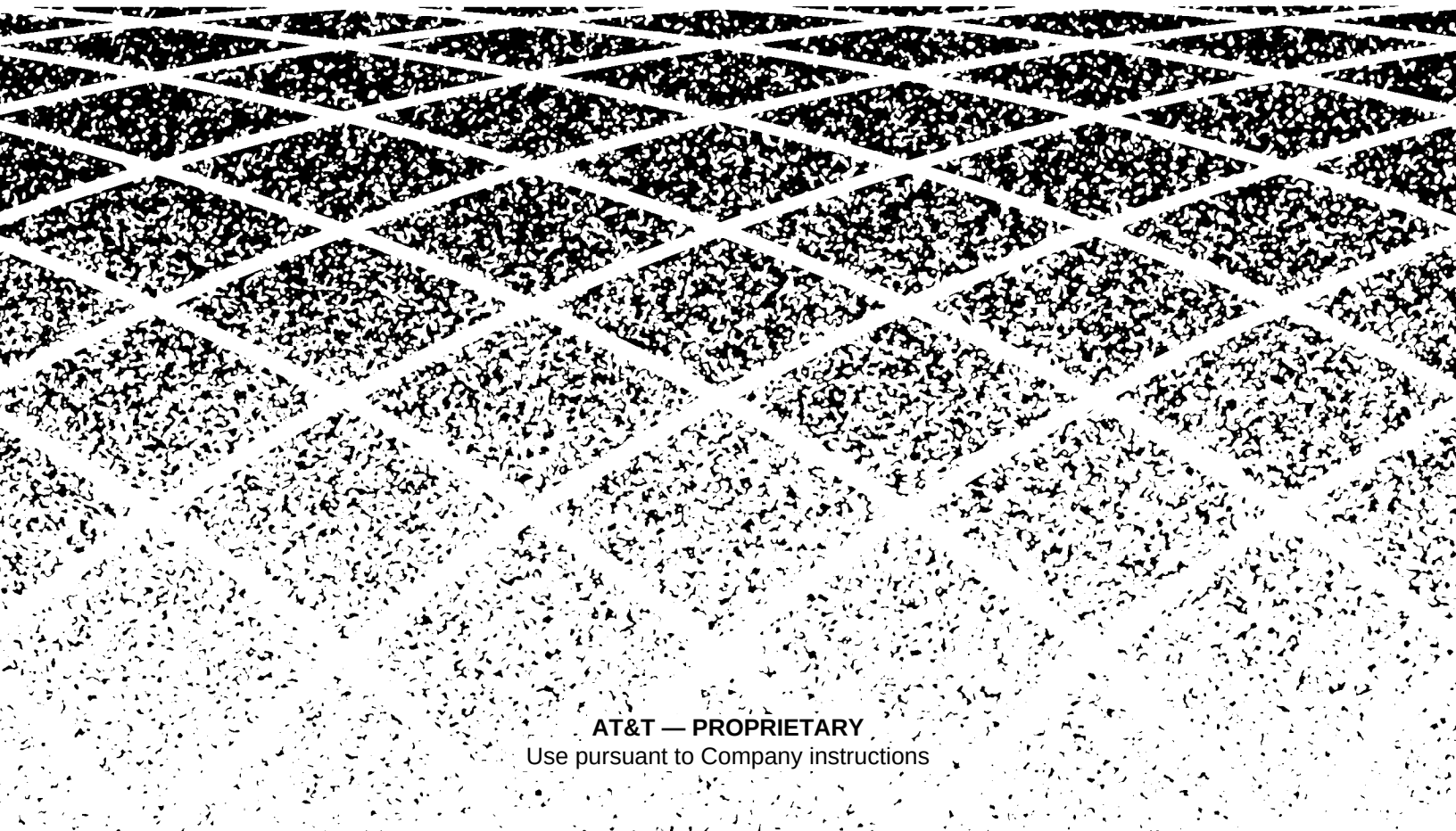
S

SAVE, 19-1
SCHED,BKUP,MEM,SEC,DATA,HR, 19-3
SCHED,PMREPT,ALL,CFA,FAC,X, 19-5
SCHED,PMREPT,T1,NPC, 19-21
SET,ATTR,EQPT,ALM, 19-31
SET,PRVG,TERM,USER,INCL,SCR,GR, 19-33
SET,PRVG,USER,TERM,ALL,INCL, 19-37
SSC,STARTUP,STF,ATP, 19-45
STA,LOCL,RST,PRI,SEC,CLR, 19-47
SW,BDCST,T0,INCL, 19-49
SW,BDCST,T1,INCL, 19-57
SW,DISC,T0,OOS, 19-64
SW,DISC,T1,OOS, 19-71
SW,DX,EQPT,XC,INCL, 19-78
SW,ROLL,T0,INCL,FRC,OOS, 19-81
SW,ROLL,T1,INCL,FRC,OOS,TWAY, 19-88
SW,TOPROTN,EQPT,UNIT,FLI, 19-95
SW,TOPROTN,EQPT,UNIT,MMFG,FRC, 19-97
SW,TOPROTN,T1,NPC,RT,INCL, 19-100
SW,TOWKG,EQPT,UNIT,FLI, 19-105
SW,TOWKG,EQPT,UNIT,MMFG, 19-107
SW,TOWKG,T1,NPC,RT,DL,INCL, 19-109

AT&T 365-353-012
Issue 2 (Revision 1)
April 1996

DACS II
Release 6.1.9, MML
Command and Message Manual

Volume III



AT&T — PROPRIETARY
Use pursuant to Company instructions

Copyright © 1996 AT&T
All Rights Reserved
Printed in U.S.A

Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

Security Statement

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such event, applicable tariffs require that the customer pay all network charges for traffic. AT&T cannot be responsible for such charges, and will not make any allowance or give any credit for charges that result from unauthorized access.

Documentation Ordering Information

The ordering number for this document is AT&T 365-353-012. To order this document, call the AT&T Customer Information Center in Indianapolis, Indiana, on 1-800-432-6600. For more ordering information, refer to "How to Order Documentation" in the section "About this Document."

Technical Support Telephone Number

The AT&T Regional Technical Assistance Center (RTAC) provides a technical assistance telephone number which is staffed 24 hours a day. For technical assistance, simply call 1-800-225-RTAC.

Documentation Support Telephone Number

AT&T provides a telephone number for you to report errors or to ask questions about the information in this document. The support telephone numbers are:

Outside North Carolina - 1-800-334-0404
Inside North Carolina - 1-919-727-6681.

Developed by The AT&T Document Development Organization

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume III

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

How Are We Doing?

Document Title: DACS II Release 6.1.9, MML Command and Message Manual Volume III

Document No.: AT&T 365-353-012 Issue 2 (Revision 1)Date: April 1996

AT&T welcomes your feedback on this document. Your comments can be of great value in helping us improve our documentation.

1. Please rate the effectiveness of this document in the following areas:

	Excellent	Good	Fair	Poor	Not Applicable
Ease of Use					////////////////////
Clarity					////////////////////
Completeness					////////////////////
Accuracy					////////////////////
Organization					////////////////////
Appearance					////////////////////
Examples					
Illustrations					
Overall Satisfaction					////////////////////

2. Please check the ways you feel we could improve this document:

- ☐ Improve the overview/introduction
- ☐ Improve the table of contents
- ☐ Improve the organization
- ☐ Include more figures
- ☐ Add more examples
- ☐ Add more detail
- ☐ Make it more concise/brief
- ☐ Add more step-by-step procedures/tutorials
- ☐ Add more troubleshooting information
- ☐ Make it less technical
- ☐ Add more/better quick reference aids
- ☐ Improve the index

Please provide details for the suggested improvement._____

_____

3. What did you like most about this document?

_____

_____

4. Feel free to write any comments below or on an attached sheet.

_____

_____

_____

_____

If we may contact you concerning your comments, please complete the following:

Name: _____ Telephone Number: (____)_____

Company/Organization: _____ Date: _____

Address: _____

When you have completed this form, please fold, tape, and return to address on back or Fax to: 919-727-3043.

Do Not Cut—Fold Here And Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1999 GREENSBORO, N.C.

POSTAGE WILL BE PAID BY ADDRESSEE

DOCUMENTATION SERVICES
2400 Reynolda Road
Winston-Salem, NC 27199-2029

RST,CNFGRN,EQPT,UNIT,CCN,TSIS

RESTORE

Input Message Format

[I.34231]

```
RST-CNFGRN-EQPT:[<xy>]:UNIT-q:[ww]:CCN-s,TSIS\
:[[a[,b[,c[,d[,e[,f]]]]]];
```

Completion Message

[O.34231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST CNFGRN EQPT::UNIT-q:[ww]:CCN-s,TSIS\
:[[a[,b[,c[,d[,e[,f]]]]]] COMPLD
   /* [O.34231] */
   "COND-cc"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
;
```

Denial Message

[O.34231.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST CNFGRN EQPT::UNIT-q:[ww]:CCN-s,TSIS\
:[[a[,b[,c[,d[,e[,f]]]]]] DENY
   mmmm
   /* [O.34231.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command applies only to the noncapacity expansion frame (NCEF).
It requests the restoration of time slot interchanges (TSIs) that connect **UNIT-q** to other specified units. **CCN-s** specifies which cross-connect network side the TSIs are on.

If the optional connectivity field is omitted, then all TSIs connected to **UNIT-q** are restored.

Explanation Of Parameters

UNIT - Unit

q - Unit number containing TSIs (1 through 6)

TSIS - Time Slot Interchanges

a,b,c,d,e,f
- Unit numbers to which UNIT q can be connected

CCN - Cross-Connect Network

sft - CCN identifier

s - Side number (0 or 1)

f - FROM unit number (1 through 6)

t - TO unit number (1 through 6)

r - Status

r	*Explanation*
C	COMPL
D	DNY

nn - Hexadecimal condition code for the particular TSI

for r = C

nn	*Explanation*
00	No condition

for r = D

nn	*Explanation*
03	Subject entity is in service
0A	Diagnostic on subject entity failed
0B	Boot on subject entity failed

mmmm - Error condition code

mmmm	*Explanation*
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
SNVS	DGN on subject entity denied
ENEQ	Unit is not equipped
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SAIS	CCN side s is in service
ENRE	Illegal connectivity specified
SNVS	SYNC is inservice but failed
SNVS	CCNI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed

RST,EQPT,CCB

RESTORE CROSS-CONNECT BUFFER

Input Message Format

[I.34202]

```
RST-EQPT:[<xy>]:CCB-sf:[ww];
```

Completion Message

[O.34202]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCB-sf:[ww]  COMPLD
   /* [O.34202] */
   "COND-ćć"
;
```

Denial Message

[O.34202.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCB-sf:[ww]  DENY
   mmmm
   /* [O.34202.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command applies only to the noncapacity expansion frame (NCEF).

It requests the restoration of the specified cross-connect buffer to service.

Explanation Of Parameters

CCB - Cross-connect buffer

s - Side number (0 or 1)

f - CCB number (1 through 6)

COND - Condition

cc - Completion condition code (hexadecimal)

To interpret values see cc.

cc mmmm - Error condition code

cc	mmmm	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
18	SAOS	CCNI is out of service
1B	SAIS	CCN side s is in service
CF	SNVS	SYNC is inservice but failed
D3	SNVS	CCNI is inservice but failed

RST,EQPT,CCI

RESTORE CONTROL AND CLOCK INTERFACE

Input Message Format

[I.34251]

```
RST-EQPT:[<xy>]:CCI-s:[ww];
```

Completion Message

[O.34251]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCI-s:[ww]  COMPLD
   /* [O.34251] */
   "COND-cc"
;
```

Denial Message

[O.34251.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCI-s:[ww]  DENY
   mmmm
   /* [O.34251.01] */
   /* <explanation of error condition code> */
   /* failed entity */
   "CCI-s"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command applies only to the capacity expansion frame (CEF).

It requests that the clock and control interface pack of side s be restored to service. The two bus terminator packs of side s are also restored along with the CCI pack.

Explanation Of Parameters

CCI - Clock and control interface

s - Side number (0 or 1)

COND - Condition

cc - Completion condition code (hexadecimal)

To interpret values see cc below.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
CF	SNVS	SYNC is inservice but failed

RST,EQPT,CCNI

RESTORE CROSS-CONNECT NETWORK INTERFACE

Input Message Format

[I.34201]

```
RST-EQPT:[<xy>]:CCNI-s:[ww];
```

Completion Message

[O.34201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCNI-s:[ww]  COMPLD
   /* [O.34201] */
   "COND-cc"
;
```

Denial Message

[O.34201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::CCNI-s:[ww]  DENY
   mmmm
   /* [O.34201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to the noncapacity expansion frame (NCEF).

It allows restoral of a cross-connect network interface to service.

Explanation Of Parameters

CCNI - Cross-connect network interface.

s - Side No. (0 or 1).

COND - Condition

ćć - Completion condition code

To interpret values see cc.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
1B	SAIS	CCN side s is in service
CF	SNVS	SYNC is inservice but failed

RST,EQPT,DISK,TAPE,CLR,CLEAN

RESTORE DISK AND/OR TAPE

Input Message Format

[I.34211]

```
RST-EQPT:[<xy>]:{DISK|TAPE}:[ww]:[{CLR|CLEAN}];
```

Completion Message

[O.34211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::{DISK|TAPE}:[ww]:[CLR]:[CLEAN] COMPLD
   /* [O.34211] */
   [/* COUNT */
      "ddd"|"COND-cc"]
;
```

Denial Message

[O.34211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::{DISK|TAPE}:[ww]:[{CLR|CLEAN}] DENY
   mmmm
   /* [O.34211.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message restores the **DISK** or **TAPE** to service. The **CLR** option is allowed only to initialize the **DISK**. It is not allowed for the **TAPE** option.

If the **CLR** keyword is entered, DACS II will respond

ARE YOU SURE?(YES/NO)

If YES, the command request will be submitted to DACS II. If NO, DACS II will respond as indicated under the Completion or Denial Message.

The **CLEAN** option is allowed only with the **TAPE** keyword. It initiates the cleaning of the tape drives.

Explanation Of Parameters

DISK - Disk

CLR - Clear

The CLR option is allowed only to initialize the DISK. It is not allowed for the TAPE option.

TAPE - Tape

The TAPE keyword will power up the tape drive and retension the tape.

CLEAN - Clean

The CLEAN option is allowed only with the TAPE option. It is used to clean the tape drive in conjunction with the cartridge found in the tape drive cleaning kit. After the cleaning operation, the tape drive is powered down.

COUNT - Count

ddd - Number of database transfers performed on the tape

The COUNT is displayed to inform the user of the number of CPY-MEM disk to tape database transfers performed on the tape. This is to estimate the useful life of a tape. NCB or ERR will appear in place of the count if the count cannot be displayed.

ddd	Explanation
ERR	There was a hard failure when reading the tape
NCB	No Count Block was found on the tape

cc mmmm - Error condition code

cc	mmmm	*Explanation*
03	SAIS	Subject entity is in service
06	SWFA	Device failed to format
07	SWFA	Device failed to initialize
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
93	SNVS	TAPE is not present
FB	SROF	Disk verification failed
11	ENRE	DISK type no longer supported

RST,EQPT,ETSI

RESTORE EXPANDED TIME SLOT INTERCHANGER

Input Message Format

[I.34261]

```
RST-EQPT:[<xy>]:ETSI-sqq:[ww];
```

Completion Message

[O.34261]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::ETSI-sqq:[ww]  COMPLD
   /* [O.34261] */
   "COND-00"
;
```

Denial Message

[O.34261.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::ETSI-sqq:[ww]  DENY
   mmmm
   /* [O.34261.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to the capacity expansion frame (CEF).

It requests that an expanded time slot interchanger (ETSI) be restored to service.

Explanation Of Parameters

ETSI - Expanded time slot interchanger

s - Side number (0 or 1)

qq - Unit number (01 through 16)

Note that the unit number qq must always be shown with two digits in both the input and output. The leading 0 is required.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	CCI is inservice but failed

RST,EQPT,ETSIS,ECCN

RESTORE ALL ETSIS

Input Message Format

[I.34271]

```
RST-EQPT:[<xy>]:ETSIS,ECCN-s:[ww];
```

Completion Message

[O.34271]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::ETSIS,ECCN-s:[ww] COMPLD
   /* [O.34271] */
   "COND-ćć"
   "TOTAL:kk"
   "s01,r,nn:s02,r,nn:s03,r,nn:s04,r,nn:s05,r,nn:s06,r,nn
:s07,r,nn:s08,r,nn"
   "s09,r,nn:s10,r,nn:s11,r,nn:s12,r,nn:s13,r,nn:s14,r,nn
:s15,r,nn:s16,r,nn"
;
```

Denial Message

[O.34271.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
RST EQPT::ETSIS,ECCN-s:[ww] DENY
   mmmm
   /* [O.34271.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to the capacity expansion frame (CEF).

It requests that all equipped expanded time slot interchangers (ETSIs) in side s of the expanded cross-connect network (ECCN) be restored to service.

Explanation Of Parameters

ETSIS - Expanded time slot interchangers

ECCN - Expanded cross-connect network

s - Side number (0 or 1)

kk - Total number of ETSIs equipped (01 through 16)

r - Restore status

Indication of the completion or denial of the restoration for each individual ETSI pack.

r	*Explanation*
C	Completed
D	Denied
-	ETSI not equipped

nn - Hexadecimal condition code for the particular ETSI

To interpret values of nn see cc below.

cc - Hexadecimal completion condition code.

To interpret values of cc see cc below.

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed
SNVS	DGN on subject entity denied
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SROF	Failed to boot subject CCN side
SAOS	CCI is out of service

xxxxxx	*Explanation*
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	CCI is inservice but failed

RST,EQPT,LINK

RESTORE ADMINISTRATIVE LINK

Input Message Format

[I.34011]

```
RST-EQPT:[<xy>]:LINK-j:[ww];
```

Completion Message

[O.34011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::LINK-j:[ww] COMPLD
   /* [O.34011] */
   "COND-cc"
;
```

Denial Message

[O.34011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::LINK-j:[ww] DENY
   mmmm
   /* [O.34011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.34011]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT RST EQPT
   /* [O.34011] */
   "LINK-j"
;
```

Explanation Of Message

This message requests the restoration of the administrative **LINK** to service. The autonomous output message will be generated when the administrative link is successfully restored by the auto-restoration option.

Explanation Of Parameters

LINK - Link

j - Administrative link number (1 through 6)
cc mmmm - Error condition code

cc	mmmm	*Explanation*
00	NCON	No conditions
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed

RST,EQPT,MC,MCOND,TAPE,NOJRNL

RESTORE MAIN CONTROLLER

Input Message Format

For Normal Operations:
[I.34001]

```
RST-EQPT:[<xy>]:MC:[ww]:[{MCOND|TAPE|NOJRNL|FRC}];
```

For Installation and Product Evaluation Only:
(Can be used only if the AT&T security warning feature bit is set)
[I.34001]

```
RST-EQPT:[<xy>]:MC:[ww]:CLR[,ALL];
```

Completion Message

For Normal Operations:
[O.34001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::MC:[ww]:[{MCOND|TAPE|NOJRNL|FRC}] COMPLD
   /* [O.34001] */
   "COND-cc"
;
```

For Installation and Product Evaluation Only:
(Will be available only if the AT&T security warning feature bit is set)
[O.34001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::MC:[ww]:CLR[,ALL] COMPLD
   /* [O.34001] */
   "COND-cc"
;
```

Denial Message

For Normal Operations:
[O.34001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::MC:[ww]:[{MCOND|TAPE|NOJRNL|FRC}] DENY
   mmmm
   /* [O.34001.01] */
   /* <explanation of error condition code> */
;
```

For Installation and Product Evaluation Only:
(Will be available only if the AT&T security warning feature bit is set)
[O.34001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::MC:[ww]:CLR[,ALL] DENY
   mmmm
   /* [O.34001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

The RST-EQPT::MC command provides different functions when different keywords are entered. DACS II responses to each keyword entered are explained below:

1. **RST-EQPT:[<xy>]:MC:[ww]:MCOND;**

   The MCOND keyword transfers the DACS II Main Controller (MC) from the normal in-service state to the Maintenance Condition (MCOND) state. MCOND is a state of the MC in which it is not fully OOS but is in a restricted mode to allow certain maintenance operations. Network traffic carried by the system will not be affected by MCOND.

2. **RST-EQPT:[<xy>]:MC:[ww];**

   This command restores the MC to the normal in-service state from either the OOS or the MCOND state by using the data base on the disk. Therefore, if the disk data base contains the state existing prior to entering the OOS or MCOND state, the system will return to the original state without affecting service, that is, no network traffic disruption. Normal in-service or original state imply that only states provisioned by the user are recorded in the data base and will be used for restoral; transient states will not be recorded or used for restoral. This command should be used to restore the system for normal operations.

   Any test groups and ports established prior to entering the RST-EQPT::MC command will be autonomously released by this command. Upon completion of the command a test group release message will be issued for the last test group released as a result of the RST::MC. No messages will be issued for any test ports released during command execution.

3. **RST-EQPT:[<xy>]:MC:[ww]:NOJRNL;**

   The NOJRNL keyword causes the system to be restored without the data base journals on the DISK. At the completion of this command the system returns to the state of the last data base backup from RAM to DISK. The effect of the commands entered after the last data base backup is destroyed. Therefore, if cross-connect commands were executed after the last backup, the resulting cross-connections will be disconnected by this command. This command is useful for system restoration after the system fails to boot due to JOURNAL failure.

4. **RST-EQPT:[<xy>]:MC:[ww]:FRC;**

   The FRC keyword forces the system to be restored when there is an empty data base in the disk. At the completion of the command the MC will be in the in-service (IS) state.

5. For Installation and Product Evaluation Only. Can be used only if the AT&T security warning feature bit is set.

   RST-EQPT:[<xy>]:MC:[ww]:CLR;

   The CLR keyword erases the Main Processor (MP) and all Unit data bases in the processor memory and on the disk before restoring the system. Thus, all transmission equipment is de-grown and all cross-connects are disconnected. This command should be used for installations only and should NOT be used for any other maintenance operations. Note that the Communications Interface (CI) data base is not erased by this command.

6. For Installation and Product Evaluation Only. Can be used only if the AT&T security warning feature bit is set.

   RST-EQPT:[<xy>]:MC:[ww]:CLR,ALL;

   The only difference between using only the CLR keyword and using both the CLR and ALL keywords is that entering ALL will cause the Communications Interface (CI) data base to be erased before restoring the system. Therefore, all information associated with user logins (except the Frame Administrator DAX login) will be deleted from the data base and the provisioning data for the administrative links will return to the default values.

7. **RST-EQPT:[<xy>]:MC:[ww]:TAPE;**

   The TAPE keyword causes the MC to be restored using the executables on the tape instead of those on the disk. At the completion of the command, the MC automatically returns to the Maintenance Condition (MCOND).

WARNING:

The use of the NOJRNL or FRC keywords can also affect existing service. DACS II treats the following commands as restricted commands (See the ADD,USER,LINK command for RMON privilege):

RST-EQPT:[<xy>]:MC:[ww]:TAPE;
RST-EQPT:[<xy>]:MC:[ww]:NOJRNL;
RST-EQPT:[<xy>]:MC:[ww]:FRC;
RST-EQPT:[<xy>]:MC:[ww]:CLR;
RST-EQPT:[<xy>]:MC:[ww]:CLR,ALL;

That is, these commands are restricted to only the users who have the RMON privilege. In addition, to prevent users from accidentally destroying service, when any of these commands is entered, DACS II will respond with:

ARE YOU SURE?(YES/NO)

When the RST-EQPT::MC::FRC command is entered, DACS II will respond with:

WARNING:

EXECUTION OF THIS COMMAND WILL RESULT IN LOSS OF SERVICE
AND WILL REQUIRE REPROVISIONING OF THE FRAME.

DO YOU STILL WANT THIS COMMAND EXECUTED?(YES/NO)

Only if the answer is **YES**, will the command be executed. If **NO**, DACS II will display the **/* COMMAND ABORTED */** response.

Explanation Of Parameters

MC - Main controller

MCOND - Maintenance condition

NOJRNL
- No Journal

Boot frame without journals.

FRC - Force

Force the frame to boot when there is an empty data base in the disk.

TAPE - Tape

Note that the TAPE and FRC options are restricted commands.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
03	SAIS	Subject entity is in service
04	SAOS	Subject entity is out of service
0A	SROF	DGN on subject entity failed
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
46	SROF	Failed to boot CONF file
47	SROF	Failed to boot DB
48	SROF	Failed to boot journal
49	SROF	Failed to boot unit
18	ENEQ	DSPI not equipped, not in service, or failed
20	SNVS	Software Identification Block is not readable

cc	mmmm	*Explanation*
21	SNVS	Software Identification Block failed comparison
22	SNVS	Release number mismatch
23	SNVS	Point number mismatch
24	SNVS	PDI Version number mismatch
52	SNVS	Database is empty
53	SNVS	Database is not empty
91	SNVS	Can't mount or unmount tape
92	SNVS	Can't mount or unmount disk
93	SNVS	TAPE is not present
F9	SNIS	Cannot clear journals for OOS unit

RST,EQPT,NPC,SIDE

RESTORE NPC

Input Message Format

Nonhierarchical

[I.34351]

```
RST-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s];
```

Hierarchical

[I.34351]

```
RST-EQPT:[<xy>]:NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s];
```

Completion Message

Nonhierarchical

[O.34351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s] COMPLD
   /* [O.34351] */
   "TYPE-mnxyz,COND-00"
   /* NPC number */
   "[s]jkl"
;
```

Hierarchical

[O.34351]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s] COMPLD
   /* [O.34351] */
   "TYPE-mnxyz,COND-00"
   /* NPC number */
   "uv-j-kl"
;
```

Denial Message

Nonhierarchical

[O.34351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::NPC-[s]abc[&&-[t]def]:[ww]:[SIDE-s] DENY
   mmmm
   /* [O.34351.01] */
   /* <explanation of error condition code> */
   /* NPC number */
   "[s]jkl[&&-[t]mno]"
;
```

Hierarchical

[O.34351.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::NPC-uv-m-np[&&&-uv-k-qr]:[ww]:[SIDE-s] DENY
   mmmm
   /* [O.34351.01] */
   /* <explanation of error condition code> */
   /* NPC number */
   "uv-j-kl[&&&-uv-m-no]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

CAUTION:
CAUTION: Digital Signal Processing Unit (DSPU) circuit packs must be inserted into the inactive Cross-Connect network side. Inserting DSPU circuit packs into the active side may result in brief transmission impairments.

This command restores Facility Terminating Unit (FTU), DS3 Unit (DS3U) or Digital Signal Processing Unit (DSPU) Network Processing Circuits (NPC) to service.

A range of FTU and DS3U NPCs may be specified, but DSPU NPCs must be individually restored.

One output message, either completion or denial, is printed for each NPC addressed in the restore command.

DSPU NPCs are duplicated and are associated with the DACS II Cross-Connect sides. DSPU NPCs are addressed with a side number, and are restored one side at a time. A single DSPU NPC restore command restores only the one addressed side of the duplicated DSPU NPC.

Digital Multipoint Bridge (DMB) Note: Each DMB circuit pack supports two NPCs. Restoring either side of a DMB NPC restores both NPCs supported by the circuit pack.

Subrate Note: Each Subrate circuit pack supports one NPC. Restoring either side of a Subrate NPC restores the NPC supported by the circuit pack.

SLC® Carrier Note: To restore RT(DL) SLC carrier terminated digroups with the range command, digroup A (DGA) must have been restored previously or must be one of the NPCs specified in the command.

Execution of this command may be stopped by entering the **ABT-CMD** command.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, denoting the beginning of the range.

[t]def
- The 3- or 4-digit nonhierarchical NPC number, denoting the end of the range.

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number denoting the beginning of a range

uv-k-qr
- Hierarchical NPC number denoting end of range, defined for uv-m-np;

range is not allowed for DSPU NPCs

uv - Unit number
m - Module number
np - NPC number within the module

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB, SR, and MJ type numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01
```

SIDE - Side

s - Side number (0 or 1)

Side of duplicated DSPU circuit to be restored

[s]jkl
- NPC number in the range [s]abc-[t]def

[t]mno
- NPC number denoting end of range within [s]abc-[t]def

TYPE - Type of NPC
mnxyz - NPC-type identifier

mn	Explanation
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC
TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC
MB	Digital multipoint bridge NPC
MJ	Multipoint junction unit NPC
SR	Subrate multiplexer unit NPC

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

NOTE:

DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if

the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field

is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field

is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an

unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an

unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the

TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

MB-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

SR- and MJ-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SNVS	FTMI is in service but failed
ENEQ	DSPI not equipped
SAOS	DSPI out-of-service
SWFA	DSPI failed
SAOS	FC out of service
SWFA	Hardware database mismatch
SNVS	Unpesting error registers for subj. entity failed
SNVS	DGA is not added
SNVS	NPC is not added
ENEQ	Mate NPC is not equipped
SNIS	RT/DL has unrestored DGA
IDRG	NPC range crosses unit boundary
SAOS	The selected MXR associated with the NPC is Out-Of-Service
SAOS	The selected MIU associated with the NPC is Out-Of-Service
SNVS	The associated MXR is In-Service but pested
SNVS	Use of this NPC is RESERVED for SLC 96 MD 1

mmmm	*Explanation*
ENFE	Subject NPC does not support CEPT BER feature
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed
SNVS	FC is inservice but failed

RST,EQPT,SYNC

RESTORE SYNCHRONIZER

Input Message Format

[I.34101]

```
RST-EQPT:[<xy>]:SYNC-a:[ww];
```

Completion Message

[O.34101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::SYNC-a:[ww] COMPLD
   /* [O.34101] */
   "COND-cc"
;
```

Denial Message

[O.34101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::SYNC-a:[ww] DENY
   mmmm
   /* [O.34101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command restores the specified synchronizer to service. This includes all constituent circuit packs; i.e., the timing extractor circuit, the phase-locked loop, the clock generator

circuit, and the service and reply circuit.

Explanation Of Parameters

SYNC - Synchronizer

a - Synchronizer side number (0 or 1)

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
91	SWFA	Sync is not configured yet
92	SWFA	Boot TLI failed
93	SNVS	TB type in hardware mismatches DB
AB	SNVS	Bad sync mode
C8	SROF	Sync pack denied command
C9	SROF	Syncs failed to cross couple
CA	SNVS	Mate sync pack denied command
CB	SROF	Sync not completely reset

RST,EQPT,SYNC,TLI,SSP

RESTORE SYNCHRONIZER'S TIMING LINK INTERFACE

Input Message Format

[I.34121]

```
RST-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:[SSP-b];
```

Completion Message

[O.34121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::SYNC-a:[ww]:TLI-m:[SSP-b]  COMPLD
   /* [O.34121] */
   "COND-cc"
;
```

Denial Message

[O.34121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::SYNC-a:[ww]:TLI-m:[SSP-b]  DENY
   mmmm
   /* [O.34121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the restoration of the synchronizer's timing link interface.

If the timing link interface is configured as a timing extractor, synchronizer sync port 0 or 1 must be specified.

Explanation Of Parameters

SYNC - Synchronizer

a - SYNC number (0 or 1)

TLI - Timing link interface

m - TLI number (1 through 4)

SSP - Synchronizer synchronization port

b - SSP number (0 or 1)

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
33	SNVS	Wrong TLI type

RST,EQPT,TLI,CRO

RESTORE CLOCK REFERENCE OSCILLATOR

Input Message Format

[I.34111]

```
RST-EQPT:[<xy>]:TLI-3:[ww]:CRO;
```

Completion Message

[O.34111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::TLI-3:[ww]:CRO  COMPLD
   /* [O.34111] */
   "COND-00"
;
```

Denial Message

[O.34111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::TLI-3:[ww]:CRO  DENY
   mmmm
   /* [O.34111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the restoration of the synchronizer time base as a clock reference

oscillator.

Explanation Of Parameters

TLI - Timing link interface

CRO - Clock reference oscillator

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
02	ENEQ	Subject entity is not equipped
03	SAIS	Subject entity is in service
0A	SROF	DGN on subject entity failed
0B	SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
16	ENEQ	SYNC TB is not equipped
A0	SNVS	Not a CRO TLI
A9	SAOS	Both syncs are out-of-service
36	SNIS	TD on one(both) sync(s) is not equipped or not in-service

RST,EQPT,TSI

RESTORE TIME SLOT INTERCHANGE

Input Message Format

[I.34221]

```
RST-EQPT:[<xy>]:TSI-sft:[ww];
```

Completion Message

[O.34221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::TSI-sft:[ww]  COMPLD
   /* [O.34221] */
   "COND-cc"
;
```

Denial Message

[O.34221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::TSI-sft:[ww]  DENY
   mmmm
   /* [O.34221.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is applicable only to the noncapacity expansion frame (NCEF).

It requests the restoration of the time slot interchange to service.

Explanation Of Parameters

TSI - Time slot interchange

s - Side No. (0 or 1).

f - From unit No. (1 through 6).

t - To unit No. (1 through 6).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SAIS	CCN side s is in service
SNVS	SYNC is inservice but failed
SNVS	CCNI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed

RST,EQPT,TSIS,CCN

RESTORE TIME SLOT INTERCHANGES

Input Message Format

[I.34241]

```
RST-EQPT:[<xy>]:TSIS,CCN-s:[ww];
```

Completion Message

[O.34241]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::TSIS,CCN-s:[ww] COMPLD
   /* [O.34241] */
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   "sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn:sft,r,nn"
   /* TOTAL TSI tt */
   "TOTAL:tt"
   "COND-ćć"
;
```

Denial Message

[O.34241.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
RST EQPT::TSIS,CCN-s:[ww] DENY
   mmmm
   /* [O.34241.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command applies only to the noncapacity expansion frame (NCEF).

It requests the restoration of all in-service Time Slot Interchanges in the specified Cross-Connect Network side.

Explanation Of Parameters

TSIS - Time slot interchanges

ALL - All

TOTAL - Total

tt - Number of TSIs currently in service (01 through 36)

CCN - Cross-connect network

s - Cross-connect network side number (0 or 1)

f - From unit number (1 through 6)

t - To unit number (1 through 6)

r - Status

r	*Explanation*
C	COMPL
D	DNY

nn - Hexadecimal condition code for the particular TSI

for r = C

nn	*Explanation*
00	No condition

for r = D

nn	*Explanation*
02	Subject entity is not equipped
03	Subject entity is in service
0A	Diagnostic (DGN) on subject entity failed
0B	Boot on subject entity failed

COND - Condition

cc - Completion condition code

To interpret values see cc.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
0C	SNVS	DGN on subject entity denied
16	ENEQ	SYNC TB is not equipped
17	SAOS	SYNC is out of service
18	SAOS	CCNI is out of service
1B	SAIS	CCN side s is in service
CF	SNVS	SYNC is inservice but failed
D3	SNVS	CCNI is inservice but failed
D5	ENEQ	CCB is not equipped
D6	SAOS	CCB is out of service
D7	SNVS	CCB is inservice but failed

RST,EQPT,UNIT,FC

RESTORE UNIT

Input Message Format

[I.34331]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb;
```

Completion Message

[O.34331]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FC-sb  COMPLD
   /* [O.34331] */
   "COND-00"
;
```

Denial Message

[O.34331.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FC-sb  DENY
   mmmm
   /* [O.34331.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests that a format converter of a facility terminating unit be restored to

service.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

s - Side number (0 or 1)

b - Format Converter number (1 through 4)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SAIS	CCN side s is in service
SNVS	FTMI is in service but failed
SAOS	FC out of service
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed
SNVS	FC is inservice but failed

RST,EQPT,UNIT,FLI

RESTORE FACILITY LINE INTERFACE

Input Message Format

[I.34401]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k;
```

Completion Message

[O.34401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FLI-k COMPLD
   /* [O.34401] */
;
```

Denial Message

[O.34401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FLI-k DENY
   mmmm
   /* [O.34401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests and reports the restoration of one facility line interface (FLI) in a DS3 unit.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility line interface

k - FLI identifier

k	*Explanation*
S	Service side
P	Protection side

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SAOS	FMT is out of service
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed
SNVS	FMT is in service but failed

RST,EQPT,UNIT,FMT

RESTORE FORMATTER

Input Message Format

[I.34411]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s;
```

Completion Message

[O.34411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FMT-s COMPLD
   /* [O.34411] */
;
```

Denial Message

[O.34411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:FMT-s DENY
   mmmm
   /* [O.34411.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests and reports the restoration of one Formatter (FMT) in a DS3 Unit. If the restoration of the FMT causes all the packs in the associated side to be in service, the side will be marked In-Service.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FMT - Formatter

s - FMT side

s	*Explanation*
0	Side 0
1	Side 1

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SNVS	Unpesting error registers for subj. entity failed
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed

RST,EQPT,UNIT,FTMI,DSPI

RESTORE FTMI or DSPI

Input Message Format

[I.34321]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:{FTMI-d|DSPI};
```

Completion Message

[O.34321]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RST EQPT::UNIT-[q]q:[ww]:{FTMI-d|DSPI} COMPLD
   /* [O.34321] */
   "COND-00
;
```

Denial Message

[O.34321.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RST EQPT::UNIT-[q]q:[ww]:{FTMI-d|DSPI} DENY
   mmmm
   /* [O.34321.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command allows restoral of a facility terminating module interface or a digital signal

processor interface to service.

Explanation Of Parameters

UNIT - Unit

[c]c - Unit number (1 through 16)

FTMI - Facility terminating module interface

d - FTMI number (1 through 4).

DSPI - Digital signaling processing interface

COND - Condition
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed

RST,EQPT,UNIT,MIU,INCL

RESTORE MULTIPLEXER INTERFACE UNIT

Input Message Format

[I.34431]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL];
```

Completion Message

[O.34431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL] COMPLD
   /* [O.34431] */
   /* MIU Number:MIU Type */
   "a:mnxyz"
;
```

Denial Message

[O.34431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:MIU-c[&&-d]:[INCL] DENY
   mmmm
   /* [O.34431.01] */
   /* <explanation of error condition code> */
   /*MIU Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

The purpose of this command is to add ANSI performance monitoring capability to an already operating Multiplexer-Multiplexer Interface Unit Functional Group(s) (MMFG) in a DS3 unit without interrupting service. This command follows a **CRTE-EQPT MIU** command for an already-operating MMFG with only the MXR circuit pack in service.

Failure to restore all equipped TA-type tributary Network Processing Circuits will result in denial of the whole command. The **INCL** option will be ignored if the MMFG is not selected to carry service.

An **RST IN PROGRESS** message will be generated every 20 seconds while this command is being executed.

A completion or denial message occurs for each MIU.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c,d - The number of the MIU in the DS3 Unit (P, 1 through 6)

a - The number of the MIU within the range of c and d

INCL - Restore all equipped TA type tributary NPCs.

Failure to restore *all* equipped NPCs will result in denial of the whole command. This keyword will be ignored if the associated MMFG is not selected to carry service.

TYPE - Type

mnxyz - NPC-type identifier

mnxyz	Explanation
MI100	Multiplexer interface unit
-----	Type unassigned

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SNVS	Unit type error
SAIS	MIU is already in service
ENEQ	MIU is not equipped
SNVS	No Facility Line Interface (FLI) is In Service
SAOS	Formatter (FMT) on active CCN side is Out-Of-Service
SROF	The MIU diagnostics failed
SROF	The MIU boot failed
SROF	MXR is failed
SAOS	MXR is out of service
SNVS	The associated MXR is In-Service but pested
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed
SNVS	FMT is in service but failed
SNVS	FLI is inservice but failed

RST,EQPT,UNIT,MMFG,INCL

RESTORE MMFG

Input Message Format

[I.34421]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c[&&-d]:[INCL];
```

Completion Message

[O.34421]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:[INCL] COMPLD
   /* [O.34421] */
   /* MMFG Number */
   "a"
   /* MXR Number:MXR Type:MIU Number:MIU Type */
   "a:mnxyz[:a:MI100]"
;
```

Denial Message

[O.34421.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:MMFG-c[&&-d]:[INCL] DENY
   mmmm
   /* [O.34421.01] */
   /* <explanation of error condition code> */
   /*MMFG Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests and reports the restoration of one or more Multiplexer-Multiplexer Interface Unit Functional Groups (MMFG) in a DS3 Unit. One MMFG consist of one Multiplexer (MXR), and one Multiplexer Interface Unit (MIU). Failure to restore either the MXR or the MIU will result in a denial. There is also an option to restore all equipped NPCs associated with the MMFG using this command.

Failure to restore any of the NPCs will result in denial of the whole command. The **INCL** option will be ignored if the MMFG is not selected to carry service.

A **RST IN PROGRESS** message will be generated every 20 seconds while this command is being executed.

A completion or denial message occurs for each MMFG.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-multiplexer interface unit functional group

c,d - MMFG number within the unit (P,1 through 6)

INCL - Inclusive

Restore all tributary NPCs that are equipped. Failure to restore any of the NPCs will result in the denial of the whole command. This INCL option will be ignored if the MMFG is not selected to carry service.

TYPE - Type

mnxyz - Type identifier

mn - Multiplexer type

mn	*Type*
MX	DS3 multiplexer (MXR)
EX	Enhanced DS3 multiplexer (EMXR) circuit pack

Default is the MX type for backward compatibility.

xyz - Format type

x - The DS3 framing format

x	*Format*
1	M13 (default)
2	C-bit parity

y - Not assigned (the only valid value is 0)
z - Not assigned (the only valid value is 0)

MIU - Multiplexer interface unit

a - The number of the MMFG/MXR/MIU within the range of c and d.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SAOS	CCNI is out of service
SNVS	Unit type error
SNVS	No Facility Line Interface (FLI) is In Service
SAOS	Formatter (FMT) on active CCN side is Out-Of-Service
ENEQ	The MXR is not grown
SAIS	The MMFG is already In-Service
SROF	The MXR diagnostics failed
SROF	The MIU diagnostics failed
SROF	The MIU boot failed
SROF	The MXR boot failed

mmmm	*Explanation*
SAOS	CCI is out of service
SNVS	SYNC is inservice but failed
SNVS	CCI is not present
SNVS	ETSI is not present
SNVS	CCNI is inservice but failed
SNVS	CCI is inservice but failed
ENEQ	CCB is not equipped
SAOS	CCB is out of service
SNVS	CCB is inservice but failed
ENEQ	ETSI is not equipped
SAOS	ETSI is out of service
SNVS	ETSI is inservice but failed
SNVS	FMT is in service but failed
SNVS	FLI is inservice but failed
SNVS	Mismatch between service MXR and protection MXR types

RST,EQPT,UNIT,UC

RESTORE UNIT CONTROLLER

Input Message Format

[I.34311]

```
RST-EQPT:[<xy>]:UNIT-[q]q:[ww]:UC;
```

Completion Message

[O.34311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:UC  COMPLD
   /* [O.34311] */
   "COND-cc"
;
```

[O.34312]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT:::[ww]:IN-PROGRESS
;
```

Denial Message

[O.34311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST EQPT::UNIT-[q]q:[ww]:UC  DENY
   mmmm
   /* [O.34311.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the restoration of the unit controller to service.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

UC - Unit controller

COND - Condition

cc - Completion condition code (hexadecimal)

To interpret values of cc see cc below

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SROF	DGN on subject entity failed
SROF	BOOT on subject entity failed OR Timing Dist. & TLI not in-service
SROF	RST failed to boot program
SROF	Failed to boot DB
SROF	Failed to boot journal
SROF	Failed to boot unit
SROF	General boot failure (vanilla flavor)
ENEQ	DSPI not equipped, not in service, or failed
SROF	RST failed to boot DB
SNVS	XMIT continuity test won't be run: no XMIT timeslots available
SNVS	No available timeslots on any of the inservice NPCS associated with FC/FMT

RST,PASSWD

UTILITY, RECOVERY,PASSWORD

Input Message Format

[I.51081]

```
RST-PASSWD:[<xy>]::[ww];
```

Completion Message

[O.51081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST PASSWD:::[ww] COMPLD
   /* [O.51081] */
;
```

Denial Message

[O.51081.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RST PASSWD:::[ww] DENY
   mmmm
   /* [O.51081.01 */
   /* <explanation of error message> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to recover the frame administrator password with the original tape.

Explanation Of Parameters

The tape must be set to read only. Upon successful completion of this command, DACS II will have copied the original frame administrator's password from the tape to the data base in the RAM. To ensure proper security, the administrator should immediately change his or her password using message I.38301.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File doesn't exist/can't be accessed
SWFA	DB disk error OP-CL-RD-WR-SK
SNVS	Tape is not READ-only
SNVS	Can't mount or unmount tape

RTRV,ALM,EQPT

UTILITY QUERY ALARMS

Input Message Format

[I.53111]

```
RTRV-ALM-EQPT:<xy>::[ww];
```

Completion Message

Nonhierarchical

When there are no alarms active on the frame, the following message is output:

[O.53112]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53112] */
   /* TOTAL */
   "000"
;
```

When there are alarms active on the frame, the following message is output:

[O.53111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   "SUM:t,u,v,w,z"
   "PWR:w,w,w,w,w,w,w,w,w,w[,w,w,w,w,w,w,w,w,w,w]"
   "ALM:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s"
   "SYNC:x,y"
   "CRO:x"
   "TLI:a,a,b,b,c,c,d,d,e,e,f,f,g,g,h,h"
[  /* TSI:ft,x,y */ ]                                    (Non-CEF frame)
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  /* Total TSIS, Total ALMS */ ]

[  /* ETSI:qq,x,y */ ]                                   (CEF frame)
[  "ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y\
:qq,x,y" ]
[  "ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y\
:qq,x,y" ]
[  /* Total ETSIS, Total ALMS */ ]
   "tt,nn"
[  /* FTU-UNIT:UC:FTMI-b,c,d,e:FC-f,g,h,i,j,k,l,m:[CCB-r,s]:[OOS] */ ]
[  "<Alarm information for common equipment in an FTU>"]
[         ........                    ..........                                ]
[  "<Alarm information for common equipment in an FTU>"]
[  /* DS3U-[q]q:UC:-a:FLI-b,c:FMT-l,m:MXR-d,e,f,g,h,i,j:\
MIU-n,o,p,q,u,v,w: */]
[  /* [CCB-r,s]:[OOS] */  ]
[  "<Alarm information for common equipment in a DS3U>"]
[         .......                     ..........                                ]
[  "<Alarm information for common equipment in a DS3U>"]
[  /* DSPU-UNIT:UC:DSPI:[CCB-r,s]:[OOS] */ ]
[  "<Alarm information for common equipment in a DSPU>"]
[         .......                     ..........                                ]
[  "<Alarm information for common equipment in a DSPU>"]
```

```
>
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV ALM EQPT:::[ww] COMPLD]
[  /* [0.53111] */]
[  /* Bank identification number:Alarm state */]
[  "RT-ffff:x"]
     .      .      .
[  "RT-ffff:x"]
>
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV ALM EQPT:::[ww] COMPLD]
[  /* [0.53111] */]
[  /* UNIT Number:DS3 Number */ ]
[  "UNIT-[q]q:DS3-y,y,y,y,y,y" ]
     .      .      .
[  "UNIT-[q]q:DS3-y,y,y,y,y,y" ]
[  /* Total DS3, Total ALMS */]
[  "rr,gg"
>
                .
                .
                .
        { NPC alarm information is arranged per module }
        { (unit, in the case of a DSPU)            }
        { See DATA LINES section for NPC alarm                  }
        { information messages                          }
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
;
```

Note 1: The DS3 segments and the SLC carrier segment will not be shown if the software running on the frame does not support them.

Note 2: The segment that corresponds to the DS3 facility alarms will only be generated if at least one DS3 is alarming. The individual lines within the segment are optional on a per unit basis.

Note 3: The segment that corresponds to the SLC carrier facility alarms will only be shown if at least one alarm related to the RT or DCLU is active.

Note 4: Information is reported in unit order. If the unit or module is unequipped, or if no NPCs in the module are alarming, the output message segment is skipped.

Note 5: If more than one alarm is active on an RT or DCLU multiple SLC segments will be output for the RT or DCLU; one segment per alarm.

DATA LINES

Data Lines For Summary Alarm Information On A Unit

Alarm information for common equipment in an FTU:

```
"FTU-[q]q:a:b,c,d,e:f,g,h,i,j,k,l,m,:[r,s]:[OOS]"
```

Alarm information for common equipment in a DS3U:

```
"DS3U-[q]q:a:b,c:l,m:d,e,f,g,h,i,j:n,o,p,q,u,v,w\
:[r,s]:[OOS]"
```

Alarm information for common equipment in a DSPU:

```
"DSPU-[q]q:a:b:[r,s]:[OOS]"
```

NPC Alarm Information Messages

Note: Information is reported in unit order. If the unit or module is unequipped, or if no NPCs in the module are alarming, the output message segment is skipped.

For an FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   /* NPC-[s]aaa[&&-[t]bbb], FTMI d of Unit [q]q */
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   /* NPC-[s]aaa[&&-[t]bbb],Total of equipped NPC,Total of \
   alarming NPC, FTMI d of Unit [q]q */
   "[s]aaa[&&[t]bbb],tt,nn"
```

For a DS3 module (MXR):

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   /* NPC-[s]aaa[&&-[t]bbb], MXR r of Unit [q]q */
   "x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x"
   "x,x,x,x,x,x,x"
   "x,x,x,x,x,x,x"
   /* NPC-[s]aaa[&&-[t]bbb],Total of equipped NPC,Total of \
   alarming NPC, MXR r of Unit [q]q */
   "[s]aaa[&&[t]bbb],tt,nn"
```

For a DSPU:

NONHIERARCHICAL

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   /* UNIT [q]q */
   /* DSPU-NPC:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y */
   "DSPU-NPC:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y"
   /* DSPU-NPC:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y */
   "DSPU-NPC:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y:[s]zzz,x,y"
   /* Total of alarming DSPU NPC */
   "nn"
```

Hierarchical

When there are no alarms active on the frame, the following message is output:

[O.53112]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53112] */
   /* TOTAL */
   "000"
;
```

When there are alarms active on the frame, the following message is output:

[O.53111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   "SUM:t,u,v,w,z"
   "PWR:w,w,w,w,w,w,w,w,w,w[,w,w,w,w,w,w,w,w,w,w]"
   "ALM:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s"
   "SYNC:x,y"
   "CRO:x"
   "TLI:a,a,b,b,c,c,d,d,e,e,f,f,g,g,h,h"
[  /* TSI:ft,x,y */ ]                                  (Non-CEF frame)
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  "TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y" ]
[  /* Total TSIS, Total ALMS */ ]

[  /* ETSI:qq,x,y */ ]                                 (CEF frame)
[  "ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y\
:qq,x,y" ]
[  "ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y:qq,x,y\
:qq,x,y" ]
[  /* Total ETSIS, Total ALMS */ ]
   "tt,nn"
[  /* FTU-UNIT:UC:FTMI-b,c,d,e:FC-f,g,h,i,j,k,l,m:[CCB-r,s]\
:[OOS] */ ]
[  "<Alarm information for common equipment in an FTU>"]
[         .......                    .........                                ]
[  "<Alarm information for common equipment in an FTU>"]
[  /* DS3U-[q]q:UC-a:FLI-b,c:FMT-l,m:MXR-d,e,f,g,h,i,j:MIU-n,\
o,p,q,u,v,w: */]
[  /* [CCB-r,s]:[OOS] */  ]
[  "<Alarm information for common equipment in a DS3U>"]
[         .......                    .........                                ]
[  "<Alarm information for common equipment in a DS3U>"]
[  /* DSPU-UNIT:UC:DSPI:[CCB-r,s]:[OOS] */ ]
[  "<Alarm information for common equipment in a DSPU>"]
[         .......                    .........                                ]
[  "<Alarm information for common equipment in a DSPU>"]
```

```
>
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV ALM EQPT:::[ww] COMPLD]
[  /* [0.53111] */]
[  /* Bank identification number:Alarm state */]
[  "RT-ffff:x"]
      .      .      .
[  "RT-ffff:x"]
>
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV ALM EQPT:::[ww] COMPLD]
[  /* [0.53111] */]
[  /* UNIT Number:DS3 Number */ ]
[  "UNIT-[q]q:DS3-y,y,y,y,y,y" ]
     .       .       .
[  "UNIT-[q]q:DS3-y,y,y,y,y,y" ]
[  /* Total DS3, Total ALMS */]
[  "rr,gg"
>
                .
                .
                .
        { NPC alarm information is arranged per module }
        { (unit, in the case of a DSPU)              }
        { See DATA LINES section for NPC alarm                  }
        { information messages                          }
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
;
```

Note 1: The optional DS3 unit alarm related segments and the SLC carrier alarm related segment apply only to the DOMESTIC feature.
The rest of the segments apply to both the DOMESTIC and CEPT features.

Note 2. The DS3 segments and the SLC carrier segment will not be shown if the software running on the frame does not support them.

Note 3: The segment that corresponds to the DS3 facility alarms will only be generated if at least one DS3 is alarming.
The individual lines within the segment are optional on a per unit basis.

Note 4: The segment that corresponds to the SLC carrier facility alarms will only be shown if at least one alarm related to the RT or DCLU is active.

Note 5: Information is reported in unit order.

If the unit or module is unequipped, or if no NPCs in the module are alarming, the output message segment is skipped.

DATA LINES

Data Lines For Summary Alarm Information On A Unit

Alarm information for common equipment in an FTU:

```
"FTU-[q]q:a:b,c,d,e:f,g,h,i,j,k,l,m,:[r,s]:[OOS]"
```

Alarm information for common equipment in a DS3U:

```
"DS3U-[q]q:a:b,c:l,m:d,e,f,g,h,i,j:n,o,p,q,u,v,w:[r,s]:[OOS]"
```

Alarm information for common equipment in a DSPU:

```
"DSPU-[q]q:a:b:[r,s]:[OOS]"
```

NPC Alarm Information Messages

For an FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [0.53111] */
   /* NPC uv-m-np[&&&-wx-k-qr], FTMI r of Unit [q]q */
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x,x,x,x:[OOS]"
   /* NPC uv-m-np[&&&-wx-k-qr],Total of equipped NPC,Total of \
   alarming NPC, FTMI r of Unit [q]q */
   "uv-m-np[&&&-wx-k-qr],tt,nn"
```

For a DS3 module (MXR):

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   /* NPC uv-m-np[&&&-wx-k-qr], MXR r of Unit [q]q */
   "x,x,x,x,x,x,x:[OOS]"
   "x,x,x,x,x,x,x"
   "x,x,x,x,x,x,x"
   "x,x,x,x,x,x,x"
   /* NPC uv-m-np[&&&-wx-k-qr],Total of equipped NPC,Total of \
   alarming NPC, MXR r of Unit [q]q */
   "uv-m-np[&&&-wx-k-qr],tt,nn"
```

For a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:::[ww] COMPLD
   /* [O.53111] */
   /* UNIT [q]q */
   /* DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y\
   :uv-m-np,x,y */
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y\
   :uv-m-np,x,y"
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y\
   :uv-m-np,x,y"
   /* Total of alarming DSPU NPC */
   "nn"
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message reports the source of all alarms currently on the DACS II frame. For each entity that has been autonomously removed the resulting alarm state is given.

If there are no alarms to report a single line message is output indicating that the total number of alarms is 000.

Explanation Of Parameters

To aid referencing the parameters listed for a given message the line containing the parameters is listed below just before the explanation of that particular set of parameters is given.

The DACS II frame alarm state summary is given by the first line of the alarm report for these variables:

CR t MJ u MN v MC w PWR z

CR - Critical

t - Critical alarm status

MJ - Major

u - Major alarm status

MN - Minor

v - Minor alarm status

MC - Main controller

w - Main controller alarm status

PWR - Power

z - Power alarm status

The value of variables t, u, v, w, and z determines the alarm status. These values and their meaning are given below for t through z.

t-z	*Status*
1	Active
0	Not Active

w - Power failure indicator

Each w in the output message corresponds to a particular power unit in the frame. The w's are numbered from left to right beginning with 1. If the frame is a non-CEF frame, the w's will end with 10. If the frame is a CEF, the w's will end with 20.

Determine the number associated with the w of interest
then use the table below to determine the affected power unit.

The value of w determines the status of the power unit

w	*Power unit status*
M	Power failure (Major)
-	No power failure

1	Power unit of unit 1
2	Power unit of unit 2
3	Power unit of unit 3
4	Power unit of unit 4
5	Power unit of unit 5
6	Power unit of unit 6
7	Synchronizer (SYNC) 0
8	SYNC 1
9	Cross-Connect Network (CCN or ECCN) 0
10	CCN or ECCN 1

For CEF frames,

11	power unit of unit 7
12	power unit of unit 8
13	power unit of unit 9
14	power unit of unit 10
15	power unit of unit 11
16	power unit of unit 12
17	power unit of unit 13
18	power unit of unit 14
19	power unit of unit 15
20	power unit of unit 16

ALM:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s

ALM - Alarm

Each of the letters a through s following the keyword ALMS, represents an entity in the DACS II frame. The entities are listed following this paragraph by the letter used to represent them. The values these letters assume give the alarm status of the particular entity. These values are listed immediately following the entity listing. Some entities do not use the full range of values but their values are separately described in the list of entities.

a - MC (Main controller)
b - MP (Main processor)
c - CI/ECI (Communications interface)
d - SCC (Secondary source controller)
e - DISK
f - TAPE
g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (Cross-Connect 0)

m	Explanation
-	No alarm active
M	Major Alarm

n - XC1 (Cross-Connect 1)

n	Explanation
-	No alarm active
M	Major Alarm

o - CCNI 0 (Cross-Connect Network Interface 0 for Non-CEF frame)
CCI 0 (Clock and Control Interface 0 for CEF frame)
p - CCNI 1 (Cross-Connect Network Interface 1 for Non-CEF frame)
CCI 1 (Clock and Control Interface 1 for CEF frame)
q - TOD (Time of Day) reset
r - DATE (Time of Day) reset
s - TAPE BACKUP

Value	Explanation
a	Autonomously removed
-	Does not apply, or part of a larger failure group
*	Minor alarm
M	Major alarm
C	Critical alarm

Where a failure group includes more than one circuit pack and individual circuit pack information is available, the character "a" will be used to indicate removal or attempted removal of that pack.

A hyphen (-) indicates the alarm state is not applicable to the particular circuit. For example, an unequipped circuit would display a "-" in its status field.

DS3U equipment entities:

Failure of a circuit pack might set the alarm bits of related circuit packs. Alarm bits a through s will be set according to the following rules.

- All DS3 circuit pack entities can be in either state "a" or "-".
- A multiplexer-multiplexer interface unit functional group (MMFG) or an incoming DS3 signal failure will put the associated NPCs in the state "-".
- A failure of a multiplexer (MXR) will not cause the multiplexer interface unit (MIU) pair to be marked "a", even though the failure may cause the attempt to remove that MIU. If only the MXR fails, the MIU will still be in state "-"
- A failure of an MIU will not cause the MXR pair to be marked "a", even though the failure may cause the attempt to remove that MXR. If only the MIU fails, the MXR will still be in state "-".
- A manual removal of a DS3 facility will remove any alarm that might exist on its associated MXR or MIU.
- Because of protection switching in the DS3U, autonomous removal indications (a)

  for DS3U circuit packs are preserved across a frame boot. The boot operation is required to configure the unit to the protection state maintained in the data base. Data base consistency requires preservation of the "a" state.

SLC carrier equipment entities:

Alarm bits a through s will be set according to the following rules.

- Because of protection switching for SLC carrier NPCs, an autonomous removal of a SLC carrier NPC is preserved across a frame boot. The boot operation is required to configure SLC carrier circuits to the protection state maintained in the data base. Data base consistency requires preservation of the "a" state.

SYNC x y

SYNC - Synchronizer

x - Side 0 alarm status of the synchronizer
y - Side 1 alarm status of the synchronizer

x	Explanation
M	Major alarm
-	No alarm

CRO - Clock reference oscillator

x - Side 0 alarm status of the oscillator

x	Explanation
M	Major alarm
-	No alarm

TLI a b c d e f g h _a _b _c _d _e _f _g _h

TLI - Timing link interface

a - TLI 1 or Synchronizer sync port (SSP) 0 of TLI 1 side 0
b - SSP 1 of TLI 1 side 0
c - TLI 2 or SSP 0 of TLI 2 side 0
d - SSP 1 of TLI 2 side 0
e - TLI 3 or SSP 0 of TLI 3 side 0
f - SSP 1 of TLI 3 side 0
g - TLI 4 or SSP 0 of TLI 4 side 0
h - SSP 1 of TLI 4 side 0

_a - TLI 1 or SSP 0 of TLI 1 side 1
_b - SSP 1 of TLI 1 side 1
_c - TLI 2 or SSP 0 of TLI 2 side 1
_d - SSP 1 of TLI 2 side 1
_e - TLI 3 or SSP 0 of TLI 3 side 1
_f - SSP 1 of TLI 3 side 1
_g - TLI 4 or SSP 0 of TLI 4 side 1
_h - SSP 1 of TLI 4 side 1

See the ALM section given previously for the alarm status values.

For NonCEF frames only:

TSIS tt nn

TSIS - Time slot interchangers

tt - Total No. of equipped TSIs (1-36)
nn - Total No. of alarming TSIs (0-36)
ft - Unit numbers

f - FROM unit number (1-6)
t - TO unit number (1-6)

x - Side 0 alarm status of the TSI
y - Side 1 alarm status of the TSI

Variables x and y can assume one of the two alarm status values given below.

- - No alarm active
M - Major alarm

For CEF frames only:

ETSIS tt nn

ETSIS - Expanded time slot interchangers

tt - Total No. of equipped ETSIs (01 through 32)
nn - Total No. of alarming ETSIs (00 through 32)

UNIT [q]q UC a FTMI b c d e FC f g h i j k l m[CCB r s][OOS]

UNIT - Unit

[q]q - Unit number (1 through 16)

UC - Unit controller

a - UC status

The UC status values are the same as those given previously for entities a through s in the explanation of ALMS. This table follows the explanation of variable s.

FTMI b c d e

FTMI - Facility terminating module interface

b - Status for FTMI 1 of specified unit
c - Status for FTMI 2 of specified unit
d - Status for FTMI 3 of specified unit
e - Status for FTMI 4 of specified unit

See the ALM section given previously for the alarm status values.

FC f g h i j k l m

FC - Format converter

f - Status for FC 01 of specified FTU
g - Status for FC 11 of specified FTU
h - Status for FC 02 of specified FTU
i - Status for FC 12 of specified FTU
j - Status for FC 03 of specified FTU
k - Status for FC 13 of specified FTU
l - Status for FC 04 of specified FTU
m - Status for FC 14 of specified FTU

See the ALM section given previously for the alarm status values.

For NonCEF frames only:

CCB r s

CCB - Cross-connect buffer

r - Status for CCB 0q in CCN 0 for specified unit q
s - Status for CCB 1q in CCN 1 for specified unit q

See the ALM section given previously for the alarm status values.

OOS - Out-of-Service

The OOS state applies to the Unit Controller.

FMT l m

FMT - Formatter

l - Status for FMT 0 of specified DS3 unit

m - Status for FMT 1 of specified DS3 unit

See the ALM section given previously for the alarm status values.

FLI b c

FLI - Facility line interface

b - Status for service FLI of specified DS3 unit

c - Status for protection FLI of specified DS3 unit

See the ALM section given previously for the alarm status values.

MXR d e f g h i j

MXR - Multiplexer

d - Status for protection MXR of specified DS3 unit

e - Status for MXR 1 of specified DS3 unit

f - Status for MXR 2 of specified DS3 unit

g - Status for MXR 3 of specified DS3 unit

h - Status for MXR 4 of specified DS3 unit

i - Status for MXR 5 of specified DS3 unit

j - Status for MXR 6 of specified DS3 unit

See the ALM section given previously for the alarm status values.

MIU n o p q u v w

MIU - Multiple interface unit

n - Status for protection MIU of specified DS3 unit

o - Status for MIU 1 of specified DS3 unit

p - Status for MIU 2 of specified DS3 unit

q - Status for MIU 3 of specified DS3 unit

u - Status for MIU 4 of specified DS3 unit

v - Status for MIU 5 of specified DS3 unit

w - Status for MIU 6 of specified DS3 unit

See the ALM section given previously for the alarm status values.

DSPI b

DSPI - Digital signal processing interface

b - Status for DSPI (digital signal processing interface) of specified DSPU

See the ALM section given previously for the alarm status values.

DS3 FACILITY ALARMS

ALMS DS3 rr

DS3 - Digital signal 3 (44.736 Mb/s rate)

rr - Total number of **equipped** DS3 facilities in the frame

NonCEF (01 through 06)
CEF (01 through 96)

UNIT [q]q y y y y y y ALMS gg

UNIT - Unit

[q]q - Unit number (1 through 16)

y - DS3 facility alarm status.

gg - Total number of alarming DS3 facilities in the frame

NonCEF (01 through 06)
CEF (01 through 96)

SLC CARRIER ALARMS

ffff - RT or DCLU Bank Identification Number (0000 through 9999)
x - Status of RT or DCLU alarm

See the ALM section given previously for the alarm status values.

FOR FTU AND DS3U NPC ALARM DATA LINES

[s]aaa
- The 3- or 4-digit nonhierarchical number of the first NPC in the module

[t]bbb
- The 3- or 4-digit nonhierarchical number of the last NPC in the module

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical number of the first NPC in the module

wx-k-qr
- Hierarchical number of the last NPC in the module

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

Valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

tt - Total number of equipped NPCs in the FTM

01 through 40

nn - Total number of alarming NPCs in the FTM

01 through 40

FOR DSPU NPC ALARM DATA LINE

[s]zzz

- The 3- or 4-digit nonhierarchical DSPU NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-np

- Hierarchical DSPU NPC number

uv - Unit number
m - Module number
np - NPC number within the module

Valid values are listed below:

```
MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

SR and MJ NPC numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01
```

nn - Total number of alarming DS NPCs per unit (01 through 16)

RTRV,ALM,EQPT,DBASE

UTILITY QUERY ALARMS

Input Message Format

[I.53151]

```
RTRV-ALM-EQPT:[<xy>]::[ww]:DBASE;
```

Completion Message

Nonhierarchical

[O.53151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* DUPLEX FAILURE */
   "c"
   /* CB type NPC numbers which are in BOFL */
   "[s]ghi:[s]ghi:[s]ghi:[s]ghi:[s]ghi:[s]ghi:[s]ghi:[s]ghi"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* FTU-NPC-[s]abc AOOS */
   "[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc"
                                    .
                                    .
   "[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc"
>
                                    .
                                    .
                                    .
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* FTU-NPC-[s]abc AOOS */
   "[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc"
                                        .
                                        .
   "[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc:[s]abc"
>
                                        .
                                        .
                                        .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* Carrier Group Alarms */
   /* NPC number:<condition type>,<type of alarm> */
   "[s]abc:CGA,k[l[m]...]"
                           .
                           .
                           .
   "[t]def:CGA,k[l[m]...]"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* [Primary Block Alarms [and ]][Time-slot Zero Monitoring] */
   /* NPC number:[<condition type>,<type of alarm>[,]][<received TS0 bit>] */
   "[s]abc:[PBA,k[l[m]...][,]][TS0-abcdefgh]"
                                        .
                                        .
                                        .
   "[t]def:[PBA,k[l[m]...][,]][TS0-abcdefgh]"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
;
```

Hierarchical

[O.53151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* DUPLEX FAILURE */
   "c"
   /* CB type NPC numbers which are in BOFL */
   "ed-f-gh:ed-f-gh:ed-f-gh:ed-f-gh:ed-f-gh:ed-f-gh:ed-f-gh:ed-f-gh"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* FTU-NPC-uv-m-np AOOS */
   "uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np"
                                                    .
                                                    .
                                                    .
   "uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np"
>
                                                    .
                                                    .
                                                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* FTU-NPC-uv-m-np AOOS */
   "uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np"
                                                    .
                                                    .
                                                    .
   "uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np:uv-m-np"
>
                                                    .
                                                    .
                                                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* Carrier Group Alarms */
   /* NPC number:<condition type>,<type of alarm> */
   "uv-m-np:CGA,k[l[m]...]"
                          .
                          .
                          .
   "wx-k-qr:CGA,k[l[m]...]"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
   /* [O.53151] */
   /* [Primary Block Alarms [and ]][Time-slot Zero Monitoring] */
   /* NPC number:[<condition type>,<type of alarm>[,]][<received TS0 bit>] */
   "uv-m-np:[PBA,k[l[m]...][,]][TS0-abcdefgh]"
                                      .
                                      .
                                      .
   "wx-k-qr:[PBA,k[l[m]...][,]][TS0-abcdefgh]"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT:[<xy>]::[ww]:DBASE COMPLD
;
```

Common

Note: Except for the first and the last segment, all other segments in this message are optional and will be output only if the alarm condition to be reported exists.

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message reports the following alarms:

Critical frame alarms caused by duplex failures, that is, failures other than FTU or PBA NPCs.

Failed or out-of-service alarms for the FTU NPCs

Explanation Of Parameters

ALM(S)
- Alarm(s)

DBASE - Data base

Used to provide the output necessary to verify data base coherence between DACS II and the DACS controller.

c - Duplex frame alarm status

c	*Explanation*
1	Duplex frame alarm
0	No Duplex frame alarm

NPC - Network processing circuit

FTU - Facility terminating unit

Only alarmed FTU NPCs will be reported. Hence the number of NPCs in the message and the number of lines will be variable.

[s]abc, [t]def
- The 3- or 4-digit nonhierarchical NPC numbers.

uv-m-np
- Hierarchical FTU NPC number

wx-k-qr
- Hierarchical FTU NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

BOFL - Buffer overflow

AOOS - Autonomous out-of-service (autonomous removal)

CGA - Carrier group alarm

k,l,m,...
- Representation for multiple alarms

k,l,or m (CGA)	*Explanation*
A	AIS - Alarm Indication Signal; also known as All Ones Signal or Blue Signal
B	Both - Yellow and Red (Note: B is valid only for SLC® Series 5 NPCs)
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
R	Red
Y	Yellow

RTRV,ALM,EQPT,NPC,CFA,CGA,LOS

QUERY FACILITY ALARMS

Input Message Format

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

Completion Message

Nonhierarchical

[O.81001]

```
   [<xy>] yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT::NPC:[ww]:{CFA|CGA|LOS} COMPLD
   /* [O.81001] */
   "AR01, MISC ALARM"
   /* NPC:<state of alarm>,{CFA|CGA|LOS|PBA},MISC[,type of alarm] */
   "[s]abc:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
                    .
                    .
                    .
   "[s]abc:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
>
                    .
                    .
                    .
```

```
>
   [<xy>] yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT::NPC;[ww]:{CFA|CGA} COMPLD
   /* [O.81001] */
   "SC, ALARM"
   /* NPC:<state of alarm>,{CFA|CGA},SC,type of alarm */
   "[s]abc:MJ,{CFA|CGA},SC,k"
                    .
                    .
                    .
   "[s]abc:MJ,{CFA|CGA},SC,k"
   "PRMTR output completed"
;
```

Hierarchical

[O.81001]

```
   [<xy>] yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT::NPC:[ww]:{CFA|CGA|LOS} COMPLD
   /* [O.81001] */
   "AR01, MISC ALARM"
   /* NPC:<state of alarm>,{CFA|CGA|LOS|PBA},MISC[,type of alarm] */
   "uv-m-np:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
                    .
                    .
                    .
   "uv-m-np:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
>
                    .
                    .
                    .
>

   [<xy>] yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM EQPT::NPC;[ww]:{CFA|CGA} COMPLD
   /* [O.81001] */
   "SC, ALARM"
   /* NPC:<state of alarm>,{CFA|CGA},SC,type of alarm */
   "uv-m-np:MJ,{CFA|CGA},SC,k"
                    .
                    .
                    .
   "uv-m-np:MJ,{CFA|CGA},SC,k"
   "PRMTR output completed"
;
```

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.81001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT::NPC:{CFA|CGA|LOS}
   /* [O.81001] */
   "AR01, MISC ALARM"
   /* NPC:<state of alarm>,{CFA|CGA|LOS|PBA},MISC[,type of alarm] */
   "[s]abc:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
                    .
                    .
                    .
   "[s]abc:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
>
                    .
                    .
                    .
>

   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT::NPC:{CFA|CGA}
   /* [O.81001] */
   "SC, ALARM"
   /* NPC:<state of alarm>,{CFA|CGA},SC,type of alarm */
   "[s]abc:MJ,{CFA|CGA},SC,k"
                    .
                    .
                    .
   "[s]abc:MJ,{CFA|CGA},SC,k"
;
```

Hierarchical

[O.81001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT::NPC:{CFA|CGA|LOS}
   /* [O.81001] */
   "AR01, MISC ALARM"
   /* NPC:<state of alarm>,{CFA|CGA|LOS|PBA},MISC[,type of alarm] */
   "uv-m-np:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
                    .
                    .
                    .
   "uv-m-np:<state>,{CFA|CGA|LOS|PBA},MISC[,k]"
>
                    .
                    .
                    .
>

   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM EQPT::NPC:{CFA|CGA}
   /* [O.81001] */
   "SC, ALARM"
   /* NPC:<state of alarm>,{CFA|CGA},SC,type of alarm */
   "uv-m-np:MJ,{CFA|CGA},SC,k"
                    .
                    .
                    .
   "uv-m-np:MJ,{CFA|CGA},SC,k"
;
```

Note: The above message can be followed by messages 0.81002, 0.81003 and 0.81004 if their respective parameters have been enabled by Message I.51011. Please refer to Message I.51011 for the list of presently implemented parameter audit reports.

Explanation Of Message

This message requests a listing of all Network Processing Circuits (NPCs) reporting a Carrier Failure Alarm (CFA), a Carrier Group Alarm (CGA), or a Loss of Signal (LOS) alarm,

Note that the CGA and CFA keywords are alternatives and may be used interchangeably on input. CGA will report carrier group alarms only; CFA will report CGA plus other parameters enabled via Message I.51011.
The alarm report is followed by reports of the form [O.81002], [O.81003] and [O.81004] — if their respective parameters have been enabled as specified in Message I.51101.

The end of the report is indicated by AUD PARAMS COMPL.

For an autonomous message, the link field "n" is blank.

Explanation Of Parameters

CFA - Carrier failure alarm

CGA - Carrier group alarm

LOS - Loss of signal

PRMTR - Parameter

PARAMS
- Parameters

AR01 - Alarm report 1

AR02 - Alarm report 2

ALARM - Alarm

SUM - Summary

REPORTS
- Reports

FOLLOW
- Follow

NPC - Network processing circuits

MISC - Miscellaneous

END - End

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The values are listed below:

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

nnnn - Total number of CGA/CFA reports

SC - Subscriber (loop) carrier

ALM - Alarm

state - Alarm status

state	*Explanation*
MJ	Major
MN	Minor
INFO	Information

k - Type of alarm

k	*Explanation*

A	AIS - Alarm Indication Signal; also known as All Ones Signal or Blue Signal
B	Both - Yellow and Red (Note: B is valid only for SLC® Series 5 NPCs)
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
R	Red
Y	Yellow

RTRV,ALM,EQPT,NPC,CFA,CGA,LOS

AUDIT QUERY NPC PARAMETER

Input Message Format

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

Completion Message

Nonhierarchical

[O.81002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in DS3U, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
;
```

Hierarchical

[O.81002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in DS3U, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

[O.81002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in DS3U, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "[s]abc[&&-[t]def],nnn"
;
```

Hierarchical

[O.81002]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in DS3U, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81002] */
   /* <Facility performance parameter value> */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPCs in FTU, Cumulative total NPCs */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

Explanation Of Message

This command is used to request the value of selected facility performance parameters of all FTU or DS3U NPCs that are associated with active Carrier Group Alarms (CGAs) or Carrier Failure Alarms (CFAs). Only those parameters that were enabled by the SCHED-PMREPT-ALL command are reported.
The output messages may be the result of executing the AUD::QRY, {CFA|CGA|LFVR|FFER} command or they may be autonomously produced.
The output messages are part of the "midnight report" parameter count section. The parameter count section appears:

- Manually: Immediately when requested by the RTRV-ALM-EQPT:NPC:CFA command.
- Autonomously: Daily at the time scheduled with the SCHED-PMREPT-ALL command.

Explanation Of Parameters

parameter

- Facility performance parameter

For DS1 signal (Not applicable to DA or TA type NPCs):

parameter	*Explanation*
OOF	Out Of Frame
SLIP	Slip counts
ERS	Errored Seconds
SERS	Severely Errored Seconds
COFA	Change Of Frame Alignment
BPV	Bipolar Violation
SANE	Shelf Alarm Near End
SAFE	Shelf Alarm Far End

[s]abc

- The 3- or 4-digit nonhierarchical NPC number, the first NPC in a module.

[t]def

- The 3- or 4-digit nonhierarchical NPC number, the last NPC in a module.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number, the first NPC in a module.

uv-m-qr
- Hierarchical NPC number, the last NPC in a module.

uv - Unit number
m - Module number
np,qr - NPC number within the module

The valid values are listed below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

TOTAL - Total

nnn - Cumulative total number of NPCs in the module

A module is either an FTM or a Multiplexer on a DS3U with the specified facility performance parameter value greater than 0.

One DS3U output module contains the information about NPCs on one Multiplexer.

xxxxx - Facility performance parameter value (00000 through 65536)

RTRV,ALM,EQPT,NPC,CFA,CGA,LOS

AUDIT QUERY FACILITY PERFORMANCE PARAMETERS

Input Message Format

[I.81001]

```
RTRV-ALM-EQPT:[<xy>]:NPC:[ww]:{CFA|CGA|LOS};
```

Completion Message

[O.81004]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:<parameter>  COMPLD
   /* [O.81004] */
   /* All NPCS have zero values */
;
```

Denial Message

Not applicable.

Autonomous Message

[O.81004]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:<parameter>
   /* [O.81004] */
   /* All NPCS have zero values */
;
```

Explanation Of Message

This message indicates all equipped facility terminating and DS3 unit network processing circuits have zero values for a specified facility performance parameter since local midnight.

Explanation Of Parameters

CFA - Carrier failure alarm
CGA - Carrier group alarm

ALL - All

NPCS - Network processing circuits

TOT - Total

Total of all NPCs

parameter
- Facility performance parameter

For DS1 signal:

parameter	*Explanation*
OOF	Out Of Frame
SLIP	Slip counts
ERS	Errored Seconds
SERS	Severely Errored Second
COFA	Change Of Frame Alignment
BPV	Bipolar Violation
SANE	Shelf Alarm Near End
SAFE	Shelf Alarm Far End

RTRV,ALM,EQPT,RT,DL

UTILITY QUERY ALARMS

Input Message Format

[I.53141]

```
RTRV-ALM-EQPT:[<xy>]:{RT|DL}-ffff:[ww];
```

Completion Message

[O.53141]

```
  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV ALM EQPT::{RT|DL}-ffff:[ww] COMPLD
  /* [O.53141] */
  /* Alarm type:Alarm status */
  "DLF:tuu"
  "MISC1:uu"
  "MISC2:uu"
  "PWR:uu"
  "COMP:uu"
  "EEPROM:uu"
  "RGF:uu"
  "{RT|DL}:uu"
  /* Mode of operation */
  "g[g]"
;
```

[O.53142]

```
  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV ALM EQPT::{RT|DL}-ffff:[ww] COMPLD
  /* [O.53142] */
  /* Alarm type:Alarm status */
  "PWR:uu"
  "MISC:uu"
  "{RT|DL}:uu"
  /* Mode of operation */
  "g[g]"
[ /* Protection switching related minor alarm handling */]
[ "x"]
;
```

Denial Message

[O.53141.01]

```
  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV ALM EQPT::{RT|DL}-ffff:[ww] DENY
  mmmm
  /* [O.53141.01] */
  /* <explanation of the error condition code> */
[ /* mode of operation */]
[ "g[g]"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message retrieves the information of non-digroup-associated alarm(s) declared for a SLC® carrier remote terminal. Two completion output formats, O.53141 and O.53142, are employed for this message. Message O.53141 is used to present SLC® Series 5 carrier Feature Package C (FPC) related alarms, and message O.53142 is used for SLC 96 carrier-related alarms.

Explanation Of Parameters

ALMS - Alarm

RT - Remote terminal

DL - Digital carrier line unit (DCLU)

ffff - Remote Terminal ID number (0000 through 9999)

MD - Mode

g[g] - Operation Mode of a SLC® carrier bank

g[g]	Explanation
1	SLC 96 carrier Mode 1
3	SLC 96 carrier Mode 3
C	SLC Series 5 carrier FPC

DLF - Data link failure

tuu - DLF states

tuu	Explanation
AMN	DLF on Digroup A causes minor alarm
PMN	DLF on Digroup P causes minor alarm
---	No DLF

MISC1 - Miscellaneous alarm 1

MISC2 - Miscellaneous alarm 2

PWR - Power alarm

COMP - Compatibility alarm

EEPROM
- EEPROM Alarm

RGF - Ringing generator failure

uu - States for other alarms

uu	Explanation
MJ	Major alarm
MN	Minor alarm
MM	Major alarm and Minor alarm coexisting
--	No alarm

SWMN - Protection switch related minor alarm

x - Protection switch related minor alarm handling setting

x	*Explanation*
R	Declare locally and send MN via data link to the DCLU
L	Declare locally only

mmmm - Error condition code

mmmm	*Explanation*
SAOS	UC is out of service
SNVS	UC is in service but failed
IDNV	Bank id number not found
SNVS	The mode of the RT is not applicable

RTRV,ALM,T3

QUERY DS3 ALARMS

Input Message Format

[I.56331]

```
RTRV-ALM-T3:[<xy>]::[ww];
```

Completion Message

[O.56331]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM T3:::[ww] COMPLD
   /* [O.56331] */
   /* Total Number of DS3 Reporting Facility Alarm> */
   "ppp"
   /* UNIT Number:Alarm State LOS OOF BER AIS IDLE */
   "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"

[              .......              .......              ]
[              .......              .......              ]

[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
;
```

[O.56332]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ALM T3:::[ww] COMPLD
   /* [O.56332] */
   /* <All DS3 are in either Clear or Unequipped State> */
;
```

Denial Message

Not applicable.

Autonomous Message

[O.56331]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM T3
   /* [O.56331] */
   /* Total Number of DS3 Reporting Facility Alarm> */
   "ppp"
   /* UNIT Number:Alarm State LOS OOF BER AIS IDLE */
   "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[>]
[                  .......            .......                  ]
[                  .......            .......                  ]
[>]
[  <xy> yy-mm-dd hh:mm:ss]
[A  ff REPT ALM T3]
[  /* [O.56331] */]
[  /* Total Number of DS3 Reporting Facility Alarm> */]
[  "ppp"]
[  /* UNIT Number:Alarm State LOS OOF BER AIS IDLE */]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
[  "UNIT-[q]q:xxlobai,xxlobai,xxlobai,xxlobai,xxlobai,xxlobai"]
;
```

[O.56332]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT ALM T3
   /* [O.56332] */
   /* <All DS3 are in either Clear or Unequipped State> */
;
```

Explanation Of Message

This message queries the state of the facility alarm on all DS3 facilities and appends the results to the midnight output message provided the respective bit has been enabled in Message 51011.

Explanation Of Parameters

ALM - Alarm

TOT - Total number of facilities reporting alarms

ppp - The total number of DS3 facilities in the output segment that are reporting critical facility alarms

UNIT - Unit

[q]q - Unit number (1 through 16)

LOS - Loss of signal
OOF - Out of frame
BER - Bit error rate
AIS - Alarm indication signal
IDLE - Idle signal

xx - The facility alarm status of the DS3:

- **CR** - Critical alarm
- **--** - The DS3 is unequipped
- **ER** - Error (either the MMFG selected to serve the facility is Out of Service or In Service_Pested, or the FLI selected to serve the facility is In Service_Pested)
- **CL** - Clear (no alarm, no AIS or IDLE condition)
- **UX** - The unit is out of service, data unavailable

l - The loss of signal alarm status for a DS3 facility:

- **0** - The loss of signal alarm is clear
- **1** - The loss of signal alarm is active
- **-** - The xx field is either UX, ER or --

o - The out of frame alarm status for a DS3 facility:

- **0** - The out of frame alarm is clear
- **1** - The out of frame alarm is active
- **-** - The xx field is either UX, ER or --

b - The high bit error rate alarm status for a DS3 facility:

0	- The high BER alarm is clear
1	- The high BER alarm is active
-	- The xx field is either UX, ER or --

a - The alarm indication signal (AIS) alarm status for a DS3 facility:

0	- The AIS alarm is clear
1	- The AIS alarm is active
-	- The xx field is either UX, ER or --

i - The idle signal alarm status for a DS3 facility:

0	- The idle signal alarm is clear
1	- The idle signal alarm is active
-	- The xx field is either UX, ER or --

e - Number of lines in each segment (2 to 5)

RTRV,BDCST,T0

UTILITY QUERY BROADCAST

Input Message Format

Nonhierarchical

[I.52111]

```
RTRV-BDCST-T0:[<xy>]:[s]abc-ddd:[ww];
```

Hierarchical

[I.52111]

```
RTRV-BDCST-T0:[<xy>]:uv-m-np-ddd:[ww];
```

Completion Message

Nonhierarchical

[O.52111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::[s]abc-ddd:[ww] COMPLD
   /* [O.52111] */
   /* <each data line can list up to eight sources> */
   "[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,
    [t]rst-uuu,[t]rst-uuu"
                          .
                          .
                          .
   "[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,[t]rst-uuu,
    [t]rst-uuu,[t]rst-uuu"
   /* Full tributary */
   "[t]ghi-jjj"
   /* Number of data field in one segment of the message */
   "xxx"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::[s]abc-ddd:[ww] COMPLD
   /* [O.52111] */
   "000"
;
```

Hierarchical

[O.52111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::uv-m-np-ddd:[ww] COMPLD
   /* [O.52111] */
   /* <each data line can list up to six sources> */
   "ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,\
   ed-h-fg-uuu"
                          .
                          .
                          .
   "ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,ed-h-fg-uuu,\
   ed-h-fg-uuu"
   /* Full tributary */
   "wx-k-qr-jjj"
   /* Number of data field in one segment of the message */
   "xxx"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::uv-m-np-ddd:[ww] COMPLD
   /* [O.52111] */
   "000"
;
```

Denial Message

Nonhierarchical

[O.52111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::[s]abc-ddd:[ww] DENY
   mmmm
   /* [O.52111.01] */
   /* <explanation of error condition code> */
[  /*Bank ID, Mode, Digroup A NPC Number*/]
[  "RT-ffff,g[g],[t]aaa"]
   /* {UEQD|NOBBL|COND-cc} */
;
```

Hierarchical

[O.52111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0::uv-m-np-ddd:[ww] DENY
   mmmm
   /* [O.52111.01] */
   /* <explanation of error condition code> */
[  /*Bank ID, Mode, Digroup A NPC Number*/]
[  "RT-ffff,g[g],wx-j-aa"]
   /* {UEQD|NOBBL|COND-cc} */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a listing of the tributaries (**TO**) connected to a specified broadcast type source (**FROM**).

The output message header line lists the full tributary, and the data lines list all the tributaries (**TO**s) connected to a broadcast type circuit with the specified source (**FROM**). Other **TO**s will appear in following lines, with sufficient lines to report all of the **TO**s involved, six per line. The last line of the message will be filled with zeros if there are less than eight **TO**s (or a multiple thereof) connected.

You must enter the first channel of the broadcast source for this command.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical FROM NPC number belonging to FTU

(FT type) or DS3U (DT type)

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical FROM NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number denoting the first channel of a channel range specification

001-024	(Domestic)
001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

If a data line contains fewer tributaries than data fields, the data fields will be filled with 000000.

[t]ghi

- The 3- or 4-digit nonhierarchical NPC number of the full tributary with the same valid values as [s]abc.

[t]rst
- The 3- or 4-digit nonhierarchical NPC number of additional tributaries with the same valid values as [s]abc.

[t]aaa
- The 3- or 4-digit nonhierarchical TO NPC number of an RT/DL Digroup A with the same valid values as [s]abc.

wxjaa - Hierarchical TO NPC number of an RT/DL Digroup A with the same valid values as uvmnp

ed-h-fg
- Hierarchical TO NPC number with the same valid values as uv-m-np.

wx-j-aa
- Hierarchical TO NPC number of an RT/DL Digroup A with the same valid values as uv-m-np.

eee - Channel number denoting the last channel of a range specification with the same valid values as ddd.

jjj - Channel number of the full tributary with the same valid values as ddd.

xxx - Number of data fields in the current message segment (001 through 016)

e - Number of lines in the message (2 through 5)

uuu - Channel number of additional tributaries with the same valid values as ddd.

UEQD - Unequipped

NOBBL - No backbone leg

The requested printout of all the tributaries connected to the DACS II broadcast source abcddd was denied because the source NPC was not a backbone leg.

RT - Remote terminal

ffff - Bank identification number (0000 through 9999)

[g]g - Mode of operation

[g]g	*Explanation*
1	SLC 96 Carrier Mode 1
3	SLC 96 Carrier Mode 3
C	SLC Series 5 Carrier (Feature Package C)

COND - Condition
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
0B	IDNV	Invalid CEPT NPC
62	IDNV	Invalid channel number
63	IDNV	NPC is a DGP
7F	SNVS	NPC is not added
F7	ENRE	Corresponding NPC for virtual channel is not provisioned
70	SNVS	NPC invalid type
B4	IDNV	NPC is channelized type

RTRV,BDCST,T0,ALL

UTILITY QUERY BROADCAST ALL

Input Message Format

[I.52101]

```
RTRV-BDCST-T0:[<xy>]::[ww]:ALL;
```

Completion Message

Nonhierarchical

[O.52101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0:::[ww]:ALL COMPLD
   /* [O.52101] */
   /* <each data line can list up to eight sources> */
   "[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,\
   [s]rst-jjj, [s]rst-jjj,[s]rst-jjj"
        ....       ....       ......
   "[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,\
   [s]rst-jjj,[s]rst-jjj,[s]rst-jjj"
   /* Number of data fields in one segment of the message */
   "xxx"
>
        ....       ....       ......
        ....       ....       ......
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0:::[ww]:ALL COMPLD
   /* [O.52101] */
   /* <each data line can list up to eight sources> */
   "[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,\
   [s]rst-jjj,[s]rst-jjj,[s]rst-jjj"
        ....      ....      ......
   "[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,[s]rst-jjj,\
   [s]rst-jjj,[s]rst-jjj,[s]rst-jjj"
   /* Number of data fields in one segment of the message */
   "xxx"
;
```

Hierarchical

[O.52101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0:::[ww]:ALL COMPLD
   /* [O.52101] */
   /* <each data line can list up to six sources> */
   "uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,\
   uv-m-npjjj"
        ....      ....      ......
   "uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,\
   uv-m-npjjj"
   /* Number of data fields in one segment of the message */
   "xxx"
>
        ....      ....      ......
        ....      ....      ......
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0:::[ww]:ALL COMPLD
   /* [O.52101] */
   /* <each data line can list up to eight sources> */
   "uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,\
   uv-m-npjjj"
        ....      ....      ......
   "uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,uv-m-npjjj,\
   uv-m-npjjj"
   /* Number of data fields in one segment of the message */
   "xxx"
;
```

Common

If there is no broadcast connection,

[O.52101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T0:::[ww]:ALL COMPLD
   /* [O.52101] */
   "000"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a source listing for all the FROM terminations or for the clear DS1 network processing circuits that are associated with broadcast connections.

The abort command may be used to stop the output of this message.

Explanation Of Parameters

BCAST - Broadcast

ALL - All NPCs

xxx - Number of data fields denoting broadcast sources in a segment

e - Number of lines in a message segment (2 through 5)

[s]rst

- The 3- or 4-digit nonhierarchical NPC number belonging to FTU or DS3U

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

jjj - Source channel number

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

RTRV,BDCST,T1,FROM

UTILITY QUERY BROADCAST FROM

Input Message Format

Nonhierarchical

[I.52121]

```
RTRV-BDCST-T1:[<xy>]:[s]abc:[ww]:FROM;
```

Hierarchical

[I.52121]

```
RTRV-BDCST-T1:[<xy>]:uv-m-np:[ww]:FROM;
```

Completion Message

Nonhierarchical

[O.52121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::[s]abc:[ww]:FROM COMPLD
   /* [O.52121] */
   /* <each line lists up to eight tributaries> */
   "[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst"
        ....       ....       ......
   "[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst,[t]rst"
   /* Full tributary */
   "[t]ghi"
   /* Number of tributaries in the message */
   "xxx"
>
            :                          :                          :
>
;

OR

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::[s]abc:[ww]:FROM COMPLD
   /*[O.52121]*/
   "000"
;
```

Hierarchical

[O.52121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::uv-m-np:[ww]:FROM COMPLD
   /* [O.52121] */
   /* <each line lists up to eight tributaries> */
   "wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr"
        ....       ....        ......
   "wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr,wx-k-qr"
   /* Full tributary */
   "gh-i-jk"
   /* Number of tributaries in the message */
   "xxx"
>
            :                          :                          :
>
;

OR

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::uv-m-np:[ww]:FROM COMPLD
   /*[O.52121]*/
   "000"
;
```

Denial Message

Nonhierarchical

[O.52121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::[s]abc:[ww]:FROM DENY
   mmmm
   /* [O.52121.01] */
   /* <explanation of error condition code> */
   /* {UEQD|NOBBL|COND-cc} */
;
```

Hierarchical

[O.52121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BDCST T1::uv-m-np:[ww]:FROM DENY
   mmmm
   /* [O.52121.01] */
   /* <explanation of error condition code> */
   /* {UEQD|NOBBL|COND-cc} */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a listing of the tributary network processing circuits that is associated with a non-channelized digital signal broadcast connection.

Explanation Of Parameters

BCAST - Broadcast

FROM - From

Source network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical non-channelized source (FROM) NPC Number, whose tributaries will be listed

[t]ghi
- The 3- or 4-digit full tributary (TO) NPC number

[t]rst
- The 3- or 4-digit tributary (TO) NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np - Hierarchical number of source (FROM) NPC

gh-i-jk
- Hierarchical number of full tributary (TO) NPC

wx-k-qr - Hierarchical number of tributary (TO) NPC

uv,gh,wx
- Unit number

m,i,k
- Module number

np,jk,qr
- NPC number within the module

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

NOBBL - No backbone leg

UEQD - Unequipped

COND - Condition

TO - To

Tributary

e - Number of lines in each message segment (2 through 5)

xxx - Number of tributary NPCs in the broadcast connection

cc **mmmm** - Error condition code

cc	mmmm	*Explanation*
0B	IDNV	Invalid CEPT NPC
B4	IDNV	NPC is channelized type

RTRV,BKUPSCHED,MEM,SEC,DATA

UTILITY QUERY TIME OF DAY

Input Message Format

[I.51061]

```
RTRV-BKUPSCHED-MEM:[<xy>]:SEC:[ww]:DATA;
```

Completion Message

[O.51061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV BKUPSCHED MEM::SEC:[ww]:DATA COMPLD
   /* [O.51061] */
   "SEC,DATA:{00|24}-HR,{hr-mn-sc|--------}"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the time of day at which an automated backup from disk to tape is scheduled to occur.

Explanation Of Parameters

TOD - Time of day

BMTR - Backup Memory Transfer

Used to request the time of day for the daily transfer from disk to tape

hr-mn-sc

- Starting time of facility report or transfer from disk to tape

hr	hours (00 through 23)
mn	minutes (00 through 59)
sc	seconds (00 through 59)

00-HR - The daily transfer from disk to tape is not scheduled
24-HR - The time for the daily transfer from disk to tape is set

RTRV,CNFGRN,EQPT,UNIT,EQPD

UTILITY QUERY, EQUIPMENT CONNECTIVITY

Input Message Format

[I.53031]

```
RTRV-CNFGRN-EQPT:[<xy>]:UNIT:[ww]:EQPD;
```

Completion Message

[O.53031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CNFGRN EQPT::UNIT:[ww]:EQPD COMPLD
   /* [O.53031] */
   /* Units:1,2,3,4,5,6 */
   "1:x,x,x,x,x,x"
   "2:x,x,x,x,x,x"
   "3:x,x,x,x,x,x"
   "4:x,x,x,x,x,x"
   "5:x,x,x,x,x,x"
   "6:x,x,x,x,x,x"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of an interunit connectivity matrix. A "1" indicates cross-connections are made between the two units listed in the row and column. A "0" indicates no connectivity between the two units.

The matrix also serves as an equipage map of the time slot interchange (TSI) circuit packs on each side of the cross-connect network.

Explanation Of Parameters

UNIT - Request information on connectivity between units

EQPD - Request equipage status

x - Interunit connectivity

x	Explanation
1	Connectivity
0	No connectivity

RTRV,COND,EQPT,NPC,CS

UTILITY QUERY CIRCUIT STATUS, NPC

Input Message Format

Nonhierarchical

[I.53121]

```
RTRV-COND-EQPT:[<xy>]:NPC-[s]abc:[ww]:CS;
```

Hierarchical

[I.53121]

```
RTRV-COND-EQPT:[<xy>]:NPC-uv-m-np:[ww]:CS;
```

Completion Message

Nonhierarchical

[O.53121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV COND EQPT::NPC-[s]abc:[ww]:CS COMPLD
   /* [O.53121] */
   /* Near-end Circuit Status,Far-end Circuit Status */
   "furyatlo,fumcablo"
;
```

Hierarchical

[O.53121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV COND EQPT::NPC-uv-m-np:[ww]:CS COMPLD
   /* [O.53121] */
   /* Near-end Circuit Status,Far-end Circuit Status */
   "furyatlo,fumcablo"
;
```

Denial Message

Nonhierarchical

[O.53121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV COND EQPT::NPC-[s]abc:[ww]:CS DENY
   mmmm
   /* [O.53121.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.53121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV COND EQPT::NPC-uv-m-np:[ww]:CS DENY
   mmmm
   /* [O.53121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the Circuit Status (CS) of an ANSI type Network Processing Circuit (NPC). The response to this query displays the ANSI NPC's Near-end and Far-end Alarm/Status bytes. ANSI capability is supported by DA-type NPCs in a DACS II Facility Terminating Unit or TA-type NPCs in a DACS II DS3 Unit.

Note: This message will be denied if the NPC is not equipped as an DA/TA type NPC.

Explanation Of Parameters

CS - Circuit status

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within Unit

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

furyatlo

- Near-end circuit status. The bits in the near-end byte identify the following alarm/status conditions:

Field	Explanation
f	f = 1, if u or r or y or a or t or l or o = 1
u	u = 1, if an unavailable signal status exists
r	r = 1, if a Red-CGA exists
y	y = 1, if a Yellow-CGA exists
a	a = 1, if an AIS-CGA exists
t	t = 0, (unused)
l	l = 1, if a payload loopback or test signal is active
o	o = 0, (unused)

fumcablo

- Far-end circuit status. The bits in the far-end byte identify the following alarm/status conditions:

Field	Explanation
f	f = 1, if u or m or c or a or b or l or o = 1
u	u = 1, if a far-end unavailable signal status exists
m	m = 1, if no ANSI PRMs or RAI has been received for 4.5 seconds
c	c = 1, if loopback retention code is being received
a	a = 1, if a far-end AIS-CGA or Red-CGA exists
b	b = 1, if loopback retention code is being transmitted
l	l = 1, if a far-end payload loopback is active
o	o = 0, (unused)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	Unit type error
IDNV	Invalid CEPT NPC
SAIS	NPC not IU/TI type
SROF	NPC Failed or Out of Service
ENEQ	MIU is not equipped
SROF	MIU is failed
SAOS	MIU is out of service
SNVS	NPC not DA or TA type.

RTRV,CRS,T1,MAP

QUERY CROSS-CONNECT MAP

Input Message Format

Nonhierarchical

[I.52011]

```
RTRV-CRS-T1:[<xy>]:[s]abc[&&[t]def]:[ww]:MAP;
```

Hierarchical

[I.52011]

```
RTRV-CRS-T1:[<xy>]:uv-m-np[&&&-wx-k-qr]:[ww]:MAP;
```

Completion Message

Nonhierarchical

For DE, DS, TE, DA and TA NPCs, the output message formats are shown below:

[O.52011]

If the link/user is using the 3-digit nonhierarchical NPC number, the format below shall be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::abc[&&def]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "abc,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, kkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tlmndddr]"]
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::abc[&&def]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* [t]ghi[r][,ghi] */
   /* t = * for oneway, B for broadcast, T for unmapped case under */
   /* test access, C for DCTN conference circuit, R for Bridged leg, */
   /* and blank for two-way connection; ghi is mapped NPC */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   /* if NPC is FAD, then ghi's are NPCs under test and the t and r */
   /* fields are not used */
   "[t]ghi[r][,ghi]"
   /* NPC number,NPC type */
   "jkl,mn9y9"
[  "{FAD:<tmode>|ROLL}"]
>
                          .
                          .
                          .
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::abc[&&def]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "def,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, kkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tlmndddr]"]
;
```

If the link/user is using the 4-digit nonhierarchical NPC number, the format below will be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::sabc[&&tdef]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "sabc,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, tkkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tulmndddr]"]
>
                          .
                          .
                          .
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::sabc[&&tdef]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* [t]vghi[r][,vghi] */
   /* t = * for oneway, B for broadcast, T for unmapped case under */
   /* test access, C for DCTN conference circuit, R for Bridged leg, */
   /* and blank for two-way connection; vghi is mapped NPC */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   /* if NPC is FAD, then vghi's are NPCs under test and the t and r */
   /* fields are not used */
   "[t]vghi[r][,vghi]"
   /* NPC number,NPC type */
   "sjkl,mnxyz"
[  "{FAD:<tmode>|ROLL}"]
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::sabc[&&tdef]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "tdef,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, tkkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tulmndddr]"]
;
```

For MB NPCs, the output message formats are shown below:

[O.52013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::[s]abc[&&[t]def]:[ww]:MAP COMPLD
   /* [O.52013] */
   /* lll:number of legs in each multiple circuit */
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   /* NPC number,NPC type,range of termination, duplex equipped */
   "[s]mbn,MB100,ccc&&ddd,DPLX"
;
```

For VI NPCs, the output message formats are shown below:

[O.52014]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::[s]abc:[ww]:MAP COMPLD
   /* [O.52014] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* C for DCTN conference circuit, and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
   /* NPC number,NPC type,number of data fields */
   "[s]vnp,TYPE=VI100,xx"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::[s]abc:[ww]:MAP COMPLD
   /* [O.52014] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* C for DCTN conference circuit, and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
   /* NPC number,NPC type,number of data fields */
   "[s]vnp,TYPE=VI100,xx"
;
```

Hierarchical

For DE, DS, TE, DA, and TA NPCs, the output message formats are shown below:

[O.52011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np[&&&-wx-k-qr]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   /* NPC number, NPC Type, Range of Channels */
   "uv-m-np,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status, Digroup A NPC Number */]
[  "{SWMR|SWAR}, uv-k-kk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tjk-l-mn-dddr]"]
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np[&&&-wx-k-qr]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* [t]gh-i-kl[r][,gh-i-kl] */
   /* t = * for oneway, B for broadcast, T for unmapped case under */
   /* test access, C for DCTN conference circuit, R for Bridged leg, */
   /* and blank for two-way connection; gh-i-kl is mapped NPC */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   /* if NPC is FAD, then gh-i-kl's are NPCs under test and the t and r */
   /* fields are not used */
   "[t]gh-i-kl[r][,gh-i-kl]"
   /* NPC number,NPC type */
   "ed-h-fg,mnxyz"
[  "{FAD:<tmode>|ROLL}"]
>
                          .
                          .
                          .
```

[O.52011]

```
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np[&&&-wx-k-qr]:[ww]:MAP COMPLD
   /* [O.52011] */
   /* tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr */
   /* t = * for oneway, B for broadcast, T for test access, R for Bridged leg,*/
   /* C for DCTN conference circuit, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   /* NPC number, NPC Type, Range of Channels */
   "wx-k-qr,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status, Digroup A NPC Number */]
[  "{SWMR|SWAR}, uv-k-kk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tjk-l-mn-dddr]"]
;
```

For MB NPCs, the output message formats are shown below:

[O.52013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np[&&&-wx-k-qr]:[ww]:MAP COMPLD
   /* [O.52013] */
   /* lll:number of legs in each multiple circuit */
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   "lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll,lll"
   /* NPC number,NPC type,range of termination, duplex equipped */
   "ub-n-op,MB100,001&&085,DPLX"
;
```

For VI NPCs, the output message formats are shown below:

[O.52014]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np:[ww]:MAP COMPLD
   /* [O.52014] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* C for DCTN conference circuit, and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
   /* NPC number,NPC type,number of data fields */
   "vn-p-rs,TYPE=VI100,xx"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np:[ww]:MAP COMPLD
   /* [O.52014] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* C for DCTN conference circuit, and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
   /* NPC number,NPC type,number of data fields */
   "vn-p-rs,TYPE=VI100,xx"
;
```

Denial Message

Nonhierarchical

[O.52011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::[s]abc[&&[t]def]:[ww]:MAP DENY
   mmmm
   /* [O.52011.01] */
   /* <explanation of error condition code> */
[  /* UEQD */]
   /* NPC Number */
   "[w]mno"
;
```

Hierarchical

[O.52011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::uv-m-np[&&&-wx-k-qr]:[ww]:MAP DENY
   mmmm
   /* [O.52011.01] */
   /* <explanation of error condition code> */
[  /* UEQD */]
   /* NPC Number */
   "ed-m-no"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the DACS II cross-connect map for a single network processing circuit (NPC) or a range of NPCs.

If a range of NPCs is specified in this message, DACS II will print out the cross-connect maps for only those NPCs that are equipped and have at least one cross-connected channel.

The execution of the input command and the generation of the output message are aborted by entering ABT-CMD

If the range includes non-channelized NPCs, only the PAxyz types are mapped and listed. If the NPCs are unmapped, the TO NPC number is omitted.

The message segment has one or two lines.

For 64 kbit/s test access, the FROM and TO terminations under test by the corresponding active testport channels will be displayed rather than far-end mapped terminations.

For non-channelized digital signal test access, the FROM and TO NPCs of the circuit under test are listed, and if only one NPC is actually under test, it is listed first.

Note: No range is allowed for virtual NPCs.

Note 2: This command is invalid for Subrate NPCs.

Explanation Of Parameters

MAP - Map (Cross-connect)

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, the first number of a range

[t]def
- The 3- or 4-digit nonhierarchical NPC number, the last number of a range

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np
- Hierarchical NPC number, the first number of a range

wx-k-qr
- Hierarchical NPC number, the last number of a range

uv,wx	- Unit number
m,k	- Module number
np,qr	- NPC number within the module

The valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

[s]jkl
- Nonhierarchical non-channelized NPC number in range [s]abc-[s]def

ed-h-fg
- Hierarchical non-channelized NPC number in range uv-m-np through wk-x-qr

mnxyz - NPC-type identifier

mnxyz	*Explanation*
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC

TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

MB100 - Digital multipoint bridge NPC

DPLX - Duplex

Duplex equipped

ccc-ddd

- Channel number range

The channel number range varies with the NPC type. It is not printed for non-channelized NPCs

ccc-ddd	*Explanation*
001-024	Channel range for type DExyz and DAxyz NPC
001-024	Channel range for type TExyz and TAxyz NPC

For DSxyz-type NPC (SLC® carrier interface digroup)

ccc-ddd	*Digroup & Mode*
001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085	(MB NPC)

SWMR - Switch manually requested

Protection switch manually requested for SLC carrier NPC

SWAR - Switch automatically requested

Protection switch automatically requested for SLC carrier NPC

ACTPL - Active protection line

Queried SLC carrier NPC is a protection line which is active

NACPL - Nonactive protection line

Queried SLC carrier NPC is a protection line which is not active

[t]kkk

- Nonhierarchical corresponding SLC carrier Digroup A (DGA) NPC number (with the same valid values as [s]abc)

uv-k-kk

- Hierarchical SLC carrier Digroup A (DGA) NPC number

FDL - Facility data link

Only for DE-type NPCs

[u]lmnddd

- Nonhierarchical termination number to which the FDL is mapped

jk-l-mn-ddd

- Hierarchical termination number to which the FDL is mapped

[u]lmn

- The 3- or 4-digit nonhierarchical NPC number (with the same valid values as [s]abc)

t	*Type of connection*
*	One-way
" "	Two-way (a blank)
B	Broadcast (BCON)
T	Test Access*

* T will not be displayed for mapped terminations.

NPCTP - Network processing circuit for test port

DExyz or TExyz type NPC for DS0 Test Ports

FAD - Facility access digroup

Non-channelized test NPC

Note: In a segment containing information for a FAD type NPC, the NPCs under test will be listed without the type of the connection they are in.

tmode - Test mode of non-channelized test NPC

tmode	*Test mode*
HUB	Hub
LOOPE	Loop E
LOOPF	Loop F
LPBKT	Terminal Loopback
MONE	Monitor E(FROM)
MONEF	Monitor E and F
MONF	Monitor F(TO)
SPLTA	Split A
SPLTAB	Split A and B
SPLTB	Split B
SPLTE	Split E
SPLTEF	Split E and F
SPLTF	Split F

[v]ghijjj

- Nonhierarchical number of NPC and channel or conference port number/circuit ID. For a non-channelized cross-connect, the channel number jjj will not be shown.

[v]ghi

- Nonhierarchical NPC with the same valid values as [s]abc.

For an FAD, the tested NPC is listed first if only one of the two mapped NPCs is under test.

jjj - Channel number (If [v]ghi is MB type, the range for jjj is 001 to 085.)

Some examples of [v]ghijjj are listed below:

[v]ghijjj	Explanation
[0]000000	Unmapped channel
[v]ghi000	Mapped channel connected to an FDL of NPC [v]ghi
[-]-SECH-	Mapped channel connected to a Subrate (SR) or MJ-type NPC.
[v]ghijjj	Mapped channel NOT connected to an FDL, SR or MJ channel

r - Termination status

r	*Termination status*
T	Terminated
blank	Not Terminated

gh-i-kljjj
- Hierarchical number of NPC and channel or conference port number/circuit ID. For a non-channelized cross-connection, the channel number jjj will not be shown.

00-0-00000
- Unmapped channel

gh-i-kl000
- Mapped channel connected to a FDL of NPC gh-i-kl

ghikljjj
- Mapped channel NOT connected to an FDL, SR and MJ channel

jjj - Channel number

If ghikl is an MB type, the range for jjj is 001 to 085.

[s]cbn
- The 3- or 4-digit nonhierarchical CB type NPC number.

[s]mbn
- The 3- or 4-digit nonhierarchical MB type NPC number

mb-n-op
- Hierarchical MB type NPC number

mb - Unit number
n - Module number
op - NPC number

111 - Number of legs for the multipoint termination (003 through 256)

[s]vnp
- The 3- or 4-digit nonhierarchical virtual NPC number

vn-p-rs
- Hierarchical virtual NPC number

xx - Number of conferences reported in the segment (01 through 48)

tnnn - Virtual conference type and number

t - Virtual conference type

t	Explanation
*	One-way
blank	Two-way

nnn - Virtual conference number (001 through 500)

[w]mno
- The 3- or 4-digit nonhierarchical NPC number that caused the denial ([s]abc through [t]def)

ed-m-no
- Hierarchical NPC number that caused the denial (uvmnp through wxkqr)

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid CEPT NPC
SNVS	NPC is not added
SNVS	SR NPC was specified - not allowed

RTRV,CRS,T1,NPC,MAP

UTILITY QUERY DMAP

Input Message Format

[I.52031]

```
RTRV-CRS-T1:[<xy>]:NPC:[ww]:MAP;
```

Completion Message

Nonhierarchical

For DE, DS, TE, DA and TA NPCs, the format of the output message fragment is shown below:

If the 3-digit nonhierarchical NPC number is used, the output will be eight columns, where ghi is the nonhierarchical NPC number:

[O.52031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52031] */
   /* tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, */
   /* R for bridged leg, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   "tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr,tghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "abc,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, kkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tlmndddr]"]
>
```

If the 4-digit nonhierarchical NPC number is used, the output will be six columns, where vghi is the nonhierarchical NPC number:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52031] */
   /* tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr */
   /* t = * for oneway, B for broadcast, T for test access, */
   /* R for bridged leg, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   "tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr,tvghijjjr"
   /* NPC number,NPC type,Range of Channels */
   "sabc,mnxyz,ccc&&ddd"
[  /* Protection Line Activation */]
[  "{ACTPL|NACPL}"]
[  /* Protection Status,Digroup A NPC number */]
[  "{SWMR|SWAR}, tkkk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tulmndddr]"]
>
```

For Clear DS1 NPCs, the format of the output message fragment is shown below:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52031] */
   /* [t]ghi[r][,ghi] */
   /* t = * for oneway, B for broadcast, T for unmapped case under */
   /* test access, R for bridged facility and blank for two-way connection; */
   /* ghi is mapped NPC */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   /* if NPC is FAD, then ghi's are NPCs under test and the t and r */
   /* fields are not used */
   "[t]ghi[r][,ghi]"
   /* NPC number,NPC type */
   "[s]jkl,mn9y9"
[  "{FAD:<tmode>|ROLL}"]
>
```

For MB NPCs, the format of the output message fragment is shown below:

[O.52033]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52033] */
   /* lll:number of legs in each multiple circuit */
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111"
   /* NPC number,NPC type,range of termination, duplex equipped */
   "[s]mbn,MB100,ccc&&ddd,DPLX"
>
```

For VI NPCs, the format of the output message fragment is shown below:

[O.52034]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52034] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   /* NPC number,NPC type,number of data fields */
   "[s]vnp,TYPE=VI100,xx"
>
```

Hierarchical

For DE, DS, TE, DA and TA NPCs, the output message format is shown below:

[O.52031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52031] */
   /* tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr */
   /* t = * for oneway, B for broadcast, T for test access, */
   /* R for bridged leg, and blank for two-way connection */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   "tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr,tgh-i-kljjjr"
   /* NPC number, NPC Type, Range of Channels */
   "uv-m-np,mnxyz,ccc&&ddd"
[  /*Protection Line Activation*/]
[  "{ACTPL|NACPL}]
[  /*Protection Status, Digroup A NPC Number*/]
[  "{SWMR|SWAR}, uv-k-kk"]
[  "[{NPCTP|NPCTG|ROLL}][,FDL-tjk-l-mn-dddr]"]
>
```

For Clear DS1 NPCs, the format of the output message fragment is shown below:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52031] */
   /* [t]gh-i-kl[r][,gh-i-kl] */
   /* t = * for oneway, B for broadcast, T for unmapped case under */
   /* test access, R for bridged facility, and blank for two-way connection; */
   /* gh-i-kl is mapped NPC */
   /* r = blank for not terminated, r = T for terminated cross-connection */
   /* if NPC is FAD, then gh-i-kl's are NPCs under test and the t and r */
   /* fields are not used */
   "[t]gh-i-kl[r][,gh-i-kl]"
   /* NPC number,NPC type */
   "ed-h-fg,mn9y9"
[ "{FAD:<tmode>|ROLL}"]
>
```

For MB NPCs, the format of the output message fragment is shown below:

[O.52033]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52033] */
   /* lll:number of legs in each multiple circuit */
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111,111,111,111,111,111"
   "111,111,111,111,111,111,111,111,111,111"
   /* NPC number,NPC type,range of termination, duplex equipped */
   "ub-n-op,MB100,001&&085,DPLX"
>
```

For VI NPCs, the format of the output message fragment is shown below:

[O.52034]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS T1::NPC:[ww]:MAP COMPLD
   /* [O.52034] */
   /* tnnn */
   /* t = * for one-way, B for broadcast, T for test access, */
   /* and blank for two-way connection */
   "tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn,tnnn"
                          .
                          .
                          .
   /* NPC number,NPC type,number of data fields */
   "vn-p-rs,TYPE=VI100,xx"
>
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a printout of the DACS II map on ALL cross-connected channels.

The output lists all FROM and TO side identifiers for all equipped network processing circuits (NPCs). Unequipped and fully unassigned circuits will not be listed.
The outputs are similar to the RTRV-CRS-T1::::MAP output.
This command may produce a large volume of output. To terminate the output enter the ABT-CMD command.

Explanation Of Parameters

DMAP - Digroup map

NPC - Network processing circuit

MAP - Map

[s]abc
- The 3- or 4-digit nonhierarchical NPC number
For FT NPCs excluding non-channelized NPCs.

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mnxyz - NPC-type identifier

mn	*Explanation*
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC

DS SLC® carrier NPC

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an **unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U,** the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

MB-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

ccc - Starting channel or conference number
ddd - Ending channel or conference number

Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085 (MB NPC)

FDL - Facility data link

Only for DE type NPCs

The FDL is mapped to the following termination:

t[u]lmndddr
- Nonhierarchical termination number and state

t - Type of connection
[u]lmn
- The 3- or 4-digit nonhierarchical NPC number
ddd - Channel number
r - Termination state

tjk-l-mn-ddd
- Hierarchical termination number

t	- Type of connection
jk	- Unit number
l	- Module number
mn	- NPC number within the module
ddd	- Channel number
r	- Termination state

r	*Explanation*
T	Terminated
blank	Not Terminated

NPCTP - NPC for DS0 Test Ports

NPCTG - NPC for Nx64Kbit/s Test-access Groups

ROLL - bridged facility in Roll procedure

t[v]ghijjjr
- Nonhierarchical termination number and state

t	- Type of connection
[v]ghi	- Nonhierarchical NPC number
jjj	- Channel/conference number
r	- Termination state

t	*Explanation*
*	One-way
blank	Two-way
B	Broadcast
R	Bridged (from Roll)
T	Test access

[v]ghijjj
- Nonhierarchical termination number

Number of NPC and channel or conference port number/circuit ID.

[0]000000	Unmapped termination number
[v]ghi000	Mapped termination number connected to an FDL
[-]-SECH-	Mapped termination connected to a Subrate (SR) or Multijunction (MJ) type NPC.

r	*Explanation*
T	Terminated
blank	Not Terminated

tgh-i-kljjjr
- Hierarchical termination number and state

t	- Type of connection
gh	- Unit number
i	- Module number
kl	- NPC number
jjj	- Channel/conference number
r	- Termination state

gh-i-kljjj	Hierarchical termination number
00-0-00000	Unmapped termination number
gh-i-kl000	Mapped termination number connected to an FDL
---SECH---	Mapped termination connected to a Subrate (SR) or Multijunction (MJ) type NPC.

[s]mbn
- The 3- or 4-digit nonhierarchical MB type NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

mb-n-op

- Hierarchical MB type NPC number

mb - Unit number
n - Module number
op - NPC number

The valid values are:

```
MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02
```

111 - Number of legs involved in the multipoint conference (000 through 256)

[s]vnp
- The 3- or 4-digit nonhierarchical NPC number

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

vn-p-rs

- Hierarchical NPC number

The valid values are:

```
VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

tnnn - Virtual conference type and number

t - Virtual conference type
nnn - Virtual conference number (001 through 500)

t	*Explanation*
*	one-way
blank	two-way

DPLX - Duplex

Duplex equipped

ACTPL - Active protection line

Queried SLC® carrier NPC is a protection line which is active

NACPL - Nonactive protection line

Queried SLC carrier NPC is a protection line which is not active

[t]kkk

- The 3- or 4-digit nonhierarchical NPC number

Corresponding SLC carrier Digroup A (DGA) NPC number

Valid values are identical to [s]abc

uv-k-kk
- Hierarchical NPC number

SLC carrier digroup A (DGA) NPC number

SWMR - Switch manually requested

Protection switch manually requested for SLC carrier NPC

SWAR - Switch automatically requested

Protection switch automatically requested for SLC carrier NPC

FAD - Facility access digroup

Non-channelized Test NPC

Note: In a message segment containing information for an FAD type NPC, the NPCs under test will be listed without the type of the connection they are in.

tmode - Nonchannelized test mode

E-end - Equipment end
F-end - Facility end

tmode	*Explanation*
MONE	Monitor signal from E-end NPC to F-end NPC of unmapped or one-/two-way mapped test session
MONF	Monitor signal from F-end NPC to E-end NPC of a two-way mapped test session
MONEF	Monitor a two-way mapped connection in both directions Two FADs are connected for the test session, and test mode can only be changed to SPLTEF
SPLTA	Split the A signal from the E-end NPC to the F-end NPC of one-/two-way mapped test session
SPLTB	Split the B signal from the F-end NPC to the E-end NPC of a mapped two-way test session
SPLTAB	Split a two-way mapped circuit in both directions
SPLTE	Split the input and output ports of E-end NPC of an unmapped or two-way mapped test session
SPLTF	Split the input and output ports of F-end NPC of a two-way mapped test session
SPLTEF	Split a two-way mapped test session in both directions Two FADs are connected for the test session, and test mode can only be changed to MONEF
LOOPE	Loop the E-end input port to the output port, and connect the looped signal to the FAD The test session may include an unmapped or two-way mapped connection
LOOPF	Loop the F-end input port to the output port, and connect the looped signal to the FAD Only for a two-way mapped test session Not allowed for one-way broadcast tributaries

[s]jkl
- The 3- or 4-digit nonhierarchical NPC number

Values are identical to [s]abc

For Clear DS1 NPCs

ed-h-fg
- Hierarchical NPC number

ed - Unit number
h - Module number
fg - NPC number within the module

Valid values are identical to uv-m-np

[t][v]ghi[r]
- Nonhierarchical termination number and state

t - Type of connection
[v]ghi
- The 3- or 4- digit nonhierarchical NPC number
r - Termination state

Valid values are identical to abc

[t]gh-i-kl[r]
- Hierarchical termination number and state

t - Type of connection
gh - Unit number
i - Module number
kl - NPC number
r - Termination state

Valid values are identical to uv-m-np

Note: For an FAD, the tested NPC is listed first if only one of the two mapped NPCs is under test.

RTRV,CRS,T1,RTMAP,DLMAP

UTILITY QUERY, RTMAP, DLMAP

Input Message Format

[I.52311]

```
RTRV-CRS-T1:[<xy>]::[ww]:[ffff]:{RTMAP|DLMAP};
```

Completion Message

Nonhierarchical

[O.52311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV CRS T1:::[ww]:ffff:{RTMAP|DLMAP} COMPLD
   /* [O.52311] */
   /* t[s]ghijjj */
   /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */
   "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"
   "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"
   "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"
   /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */
   "DGA-[a]aaa:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"
   /* Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */
   "g[g][,{sss|NDL|RTF}]"
[>]
[                          .           ]
[                          .           ]
[                          .           ]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]:ffff:{RTMAP|DLMAP} COMPLD]
[  /* [O.52311] */]
[  /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-[b]bbb:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"]
[  /* Mode of operation[,{RWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "g[g][,{sss|NDL|RTF}]"]
;
```

[O.52312]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD
   /* [O.52312] */
   /* Total number of Banks */
   "kkk"
[  /* t[s]ghijjjr */]
[  /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGA-[a]aaa:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{RWR/MISC Alarm|Retrofit(RTF)}] */]
[  "ffff,g[g][,{sss|NDL|RTF}]"]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-[b]bbb:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{RWR/MISC Alarm|Retrofit(RTF)}] */]
[  "ffff,g[g][,{sss|NDL|RTF}]"]
[>]
[                          .          ]
[                          .          ]
[                          .          ]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* t[s]ghijjj */]
[  /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGA-[a]aaa:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{RWR/MISC Alarm|Retrofit(RTF)}] */]
```

```
[  "hhhh,g[g][,{sss|NDL|RTF}]"]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* t=* for oneway,B for broadcast,T for test access,and blank for two way
connection */]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  "t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,t[s]ghijjjr,
t[s]ghijjjr,t[s]ghijjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-[b]bbb:[{SWMR|SWAR},DGP-[p]ppp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{RWR/MISC Alarm|Retrofit(RTF)}] */]
[  "hhhh,g[g][,{sss|NDL|RTF}]"]
;
```

Hierarchical

[O.52311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV CRS T1:::[ww]:ffff:{RTMAP|DLMAP} COMPLD
   /* [O.52311] */
   /* tuv-m-npjjjr */
   /* t=* for oneway, B for broadcast, T for test access, and blank for two
way connection */
   "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"
   "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"
   "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"
   "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"
   /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */
   "DGA-uv-j-aa:[{SWMR|SWAR},DGP-uv-j-pp]:DSxyz:ccc-ddd"
   /* Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */
   "g[g][,{sss|NDL|RTF}]"
[>]
[                          .          ]
[                          .          ]
[                          .          ]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]:ffff:{RTMAP|DLMAP} COMPLD]
[  /* [O.52311] */]
[  /* t=* for oneway, B for broadcast, T for test access, and blank for two
way connection */]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-uv-l-bb:[{SWMR|SWAR},DGP-uv-j-pp]:DSxyz:ccc-ddd"]
[  /* Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "g[g][,{sss|NDL|RTF}]"]
;
```

[O.52312]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD
   /* [O.52312] */
   /* Total number of banks */
   "kkk"
[  /* tuv-m-npjjjr */]
[  /* t=* for oneway, B for broadcast, T for test access, and blank for two
way connection */]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGA-uv-j-aa:[{SWMR|SWAR},DGP-uv-j-pp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "ffff,g[g][,{sss|NDL|RTF}]"]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* t=* for oneway, B for broadcast, T for test access, and blank for two
way connection */]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-uv-k-bb:[{SWMR|SWAR},DGP-uv-j-pp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "ffff,g[g][,{sss|NDL|RTF}]"]
[>]
[                          .          ]
[                          .          ]
[                          .          ]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* tuv-m-npjjjr */]
[  /* t=* for oneway, B for broadcast, T for test access, and blank for two
way connection */]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGA-wx-l-aa:[{SWMR|SWAR},DGP-wx-l-pp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "hhhh,g[g][,{sss|NDL|RTF}]"]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M RTRV CRS T1:::[ww]::{RTMAP|DLMAP} COMPLD]
[  /* [O.52312] */]
[  /* t=* for oneway, B for broadcast, T for test access, and blank for two
```

```
way connection */]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  "tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr,tuv-m-npjjjr"]
[  /* Digroup Name:[Protection Switch Status,Protection Line NPC Number]:
Type:Range of Channels */]
[  "DGx-wx-m-bb:[{SWMR|SWAR},DGP-wx-l-pp]:DSxyz:ccc-ddd"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|Retrofit(RTF)}] */]
[  "hhhh,g[g][,{sss|NDL|RTF}]"]
;
```

Denial Message

[O.52311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV CRS T1:::[ww]:ffff:{RTMAP|DLMAP} DENY
   mmmm
   /* [O.52311.01] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message shows all connections on a specific remote terminal (RT) or data link (DL) for a digital carrier line unit or shows all cross-connections for all of the RTs or DLs terminated on the frame provided the bank identification option is not present on the input.

On output, the SWMR or SWAR network processing circuit shows only the digroup which is switch protected. Bank identification numbers are listed in ascending order.

Explanation Of Parameters

RTMAP - Remote terminal (RT) channel map (SLC® carrier)

DLMAP - Digital carrier line unit (DCLU) channel map

ffff - Bank identification number (0000 through 9999)

hhhh - Bank identification number (ffff ≤ hhhh)

MD - Mode

g[g] - Mode of operation

g[g]	*Explanation*
1	SLC 96 Carrier Mode I
3	SLC 96 Carrier Mode III
C	SLC Series 5 Carrier FPC

DGA - Digroup A of a SLC carrier bank
DGx - Digroup x (x = B, C, or D) of a SLC carrier bank
DGP - Digroup P of a SLC carrier bank

aaa - 3-digit nonhierarchical DGA NPC number
bbb - 3-digit nonhierarchical DGB, DGC, or DGD NPC number
ppp - 3-digit nonhierarchical DGP NPC number

aaaa - 4-digit nonhierarchical DGA NPC number
bbbb - 4-digit nonhierarchical DGB, DGC, or DGD NPC number
pppp - 4-digit nonhierarchical DGP NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

Unit 5	**Unit 6**	**Unit 7**	**Unit 8**
NPC 0641-0800	**NPC 0801-0960**	**NPC 0961-1120**	**NPC 1121-1280**
Unit 9	**Unit 10**	**Unit 11**	**Unit 12**
NPC 1281-1440	**NPC 1441-1600**	**NPC 1601-1760**	**NPC 1761-1920**
Unit 13	**Unit 14**	**Unit 15**	**Unit 16**
NPC 1921-2080	**NPC 2081-2240**	**NPC 2241-2400**	**NPC 2401-2560**

DSxyz - SLC® Carrier Terminating NPC type

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

wx-l-aa
- Hierarchical DGA NPC number of the last RT or DCLU listed.

uv-j-aa
- Hierarchical DGA NPC number

uv-k-bb
- Hierarchical DGB, DGC, or DGD NPC number

wx-m-bb
- Hierarchical DGB, DGC, or DGD NPC number of the last RT or DCLU listed.

uv-j-pp
- Hierarchical DGP NPC number

wx-l-pp
- Hierarchical DGP NPC number of the last RT or DCLU listed.

uv,wx - Unit number

j,k,l,m
- Module number

aa - NPC number

bb - NPC number

pp - NPC number

The valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

SWMR - Switch manually requested

SWAR - Switch automatically requested

Switch refers to a protection switch.

ccc - Beginning channel number

ddd - Ending channel number

ccc-ddd	*Digroup*	*Mode*
001-024	DGA	Mode I and C
001-047(odd # only)	DGA	Mode III
025-048	DGB	Mode I and C
049-072	DGC	Mode I and C
049-095(odd # only)	DGC	Mode III
073-096	DGD	Mode I and C

sss - SLC 96 carrier remote terminal power or miscellaneous alarm option

sss	*Explanation*
PMJ	Power major alarm from the data link
PMN	Power minor alarm from the data link
MMJ	Miscellaneous major alarm from the data link
MMN	Miscellaneous minor alarm from the data link

NDL - No data link

RTF - Retrofit (only applicable to SLC Series 5 carrier FPC RT)

kkk - Total number of SLC carrier RT or DCLU banks

tghijjjr
- Termination with 3-digit nonhierarchical NPC number

t[s]ghijjjr
- Termination with 4-digit nonhierarchical NPC number.

tuv-m-npjjjr
- Termination with hierarchical NPC number

t	*Type of Connection*
*	One-way
" "	Two-way (a blank)
B	Broadcast

[s]ghijjj
- The mapped 3- or 4-digit nonhierarchical NPC and channel numbers.

[s]ghijjj	*Explanation*
[0]000000	Unmapped
[-]-SECH-	Subrate channel

[s]ghi

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-002	161-162	321-322	481-482	641-642	801-802
021-022	181-182	341-342	501-502	661-662	821-822
041-042	201-202	361-362	521-522	681-682	841-842
061-062	221-222	381-382	541-542	701-702	861-862
081-082	241-242	401-402	561-562	721-722	881-882
101-102	261-262	421-422	581-582	741-742	901-902
121-122	281-282	441-442	601-602	761-762	921-922
141-142	301-302	461-462	621-622	781-782	941-942

If NPC numbers are expressed in four digits, the valid values are:

MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0002	0161-0162	0321-0322	0481-0482
0021-0022	0181-0182	0341-0342	0501-0502
0041-0042	0201-0202	0361-0362	0521-0522
0061-0062	0221-0222	0381-0382	0541-0542
0081-0082	0241-0242	0401-0402	0561-0562
0101-0102	0261-0262	0421-0422	0581-0582
0121-0122	0281-0282	0441-0442	0601-0602
0141-0142	0301-0302	0461-0462	0621-0622

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-npjjj
- Mapped hierarchical NPC and channel numbers.

uv-m-npjjj	*Explanation*
00-0-00000	unmapped
--SECH--	Subrate channel
---SECH---	Subrate channel

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

jjj - Channel number

The valid channel numbers for each NPC type are:
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)
Conference numbers

001-500 (Virtual NPC)

001-085 (MB NPC)

r - Termination status

r	*Explanation*
T	Terminated
blank	Not Terminated

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Bank id number not found

RTRV,CRS,TS

UTILITY QUERY

Input Message Format

Nonhierarchical

[I.52511]

```
RTRV-CRS-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww];
```

Hierarchical

[I.52511]

```
RTRV-CRS-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww];
```

Completion Message

Nonhierarchical

[O.52511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS TS::[s]abc-ddd[&&-eee]:[ww] COMPLD
   /* [O.52511] */
   /* NPC Number-Channel Number */
   "[s]abc-hhh"
   /* FROM data */
   "<data line(s) for each type of channel>"
;
```

Hierarchical

[O.52511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS TS::uv-m-np-ddd[&&-eee]:[ww] COMPLD
   /* [O.52511] */
   /* NPC Number-Channel Number */
   "uv-m-np-hhh"
   /* FROM data */
   "<data line(s) for each type of channel>"
;
```

Denial Message

Nonhierarchical

[O.52511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS TS::[s]abc-ddd[&&-eee]:[ww] DENY
   mmmm
   /* [O.52511.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV CRS TS::uv-m-np-ddd[&&-eee]:[ww] DENY
   mmmm
   /* [O.52511.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the far end information for each customer in the connected channel or range of connected channels.

Only one customer will be reported for a DS0A channel. For a DS0B channel, the number of customers reported will be 5, 10, or 20, depending on how the channel was established.

Explanation Of Parameters

CH - Channel

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-mp

- Hierarchical FROM NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number for NPC specified in input
eee - Channel number for NPC specified in input denoting end of range

The allowable values are presented below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

hhh - Channel number (ddd through eee)

far-end

- Far-end data in the form:

far-end	*Explanation*
[t]ghijjj/ll	Far-end FROM customer
[t]ghi-jjj-ll	Far-end FROM customer
ghijkjjj/ll	Far-end FROM customer
gh-i-jk-jjj-ll	Far-end FROM customer
MPT aa	Customer is part of a multipoint circuit where aa is either MA (MASTER) or BR (BRANCH).
UASGN	Customer is unassigned
NOT_EST	Channel is not established
PCH ddd	Parity channel to data channel ddd

data line(s) for each type of channel

Data lines(s) depend on the type of channel specified.

For a DS0A channel, <data line(s) ...> =

"<far-end>"

For a 5-channel DS0B, <data line(s) ...> =

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

For a 10-channel DS0B, <data line(s) ...> =

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

For a 20-channel DS0B, <data line(s) ...> =

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

"<far-end>,<far-end>,<far-end>,<far-end>,<far-end>"

mmmm *Explanation*

explanation of error condition code

ENEQ Equipage, not equipped

UNIT qq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

IDNV Input, data not valid

INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
NPC abc IS NOT A VALID NPC NUMBER

IDRG Input, data out of range

[s]abcddd-fff IS AN INVALID RANGE OF CHANNELS

SNVS Status, not in valid state

NPC [s]abc IS NOT PART OF AN RT

RTRV,EQPT,TS,SRHDW

UTILITY QUERY

Input Message Format

Nonhierarchical

[l.52531]

```
RTRV-EQPT-TS:[<xy>]:[s]abc-ddd[-ff]:[ww]:SRHDW;
```

Hierarchical

[l.52531]

```
RTRV-EQPT-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww]:SRHDW;
```

Completion Message

Nonhierarchical

For a two-point circuit:

[O.52531]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::[s]abc-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52531] */
[  /* TO customer number */]
[  "01"]
   "TO-[s]abc-ddd-ff"
   "FROM-{[t]ghi-hhh-ll|UASGN}"
   /* TO error correction NPC, subrate multiplexer NPC */
   "<ec>,<mux>"
   /* FROM error correction NPC, subrate multiplexer NPC */
   "<ec>,<mux>"
;
```

Note: The optional TO customer number information in lines 4 and 5 only appears if the ff field is not specified in the input command.

For a multipoint circuit:

[O.52532]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::[s]abc-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52532] */
[  /* TO customer number */]
[  "01"]
   /* MPTM-[t]ghi-hhh-ll, error correction NPC, subrate multiplexer NPC */
   "[t]ghi-hhh-ll,<ec>,<mux>"
   /* MJU number, MJU NPC-[u]aaa */
   /* BR1 data, ec NPC, mux NPC:BR2 data, ec NPC, mux NPC */
   /* BR3 data, ec NPC, mux NPC:BR4 data, ec NPC, mux NPC */
   "0001,[u]aaa"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
>
                . . . .
                . . . .
```

```
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::[s]abc-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52532] */
   /* MJU number,FROM MJU number-BR number,MJU NPC-[u]aaa */
   /* BR1 data, ec NPC, mux NPC:BR2 data, ec NPC, mux NPC */
   /* BR3 data, ec NPC, mux NPC:BR4 data, ec NPC, mux NPC */
   "ssss,tttt-i,[u]aaa"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
;
```

Note: The optional TO customer number information in lines 4 and 5 only appears if the ff field is not specified in the input command.

Hierarchical

Usage: For a two-point circuit

[O.52531]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::uv-m-np-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52531] */
[  /* TO customer number */]
[  "01"]
   "TO-uv-m-np-ddd-ff"
   "FROM-{ed-f-hg-hhh-ll|UASGN}"
   /* TO error correction NPC, subrate multiplexer NPC */
   "<ec>,<mux>"
   /* FROM error correction NPC, subrate multiplexer NPC */
   "<ec>,<mux>"
;
```

Note: The optional TO customer number information in lines 4 and 5 only appears if the ff field is not specified in the input command.

For a multipoint circuit

[O.52532]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::uv-m-np-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52532] */
[  /* TO customer number */]
[  "01"]
   /* MPTM-ed-f-hg-hhh-ll, error correction NPC, subrate multiplexer NPC */
   "ed-f-hg-hhh-ll,<ec>,<mux>"
   /* MJU number, MJU NPC-wx-k-qr */
   /* BR1 data, ec NPC, mux NPC:BR2 data, ec NPC, mux NPC */
   /* BR3 data, ec NPC, mux NPC:BR4 data, ec NPC, mux NPC */
   "0001,wx-k-qr"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
>
                . . . .
                . . . .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::uv-m-np-ddd[-ff]:[ww]:SRHDW COMPLD
   /* [O.52532] */
   /* MJU number,FROM MJU number-BR number,MJU NPC-wx-k-qr */
   /* BR1 data, ec NPC, mux NPC:BR2 data, ec NPC, mux NPC */
   /* BR3 data, ec NPC, mux NPC:BR4 data, ec NPC, mux NPC */
   "ssss,tttt-i,wx-k-qr"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
   "<br_data>,<ec>,<mux>:<br_data>,<ec>,<mux>"
;
```

Note: The optional TO customer number information in lines 4 and 5 only appears if the ff field is not specified in the input command.

Denial Message

Nonhierarchical

[O.52531.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::[s]abc-ddd[-ff]:[ww]:SRHDW DENY
   mmmm
   /* [O.52531.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52531.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EQPT TS::uv-m-np-ddd[-ff]:[ww]:SRHDW DENY
   mmmm
   /* [O.52531.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This Subrate message requests a circuit/hardware trace for the customer's channel.

Explanation Of Parameters

SRHDW - Subrate hardware

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H


DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

```
TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel for NPC specified in input

The allowable values are presented below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number

The allowable values are presented below:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

[t]ghi
- Nonhierarchical NPC number of multipoint circuit master leg or of FROM side of two-point circuit

ed-f-hg
- Hierarchical NPC number of multipoint circuit master leg or of FROM side of two-point circuit

hhh - Channel number of multipoint circuit master leg or of FROM side of two-point circuit

ll - Customer number of multipoint circuit master leg or of FROM side of two-point circuit

from - Far-end connection in the form:

from	*Explanation*
[v]def-jjj-ii	Far-end customer
wx-k-qr-jjj-ii	Far-end customer
UASGN	Far-end customer is not assigned

ec - Error corrector NPC number in the form:

ec	*explanation*
SEC [w]eee	Subrate error corrector on NPC [w]eee (nonhierarchical)
PEC [w]ppp	Parity channel error corrector on NPC [w]ppp (nonhierarchical)
SEC wx-k-ee	Subrate error corrector on NPC wx-k-ee
PEC uv-l-pp	Parity channel error corrector on NPC uv-l-pp
---	No error corrector applicable

mux - Subrate multiplexer NPC information in the form:

mux	*Explanation*
MUX [w]mmm	Subrate multiplexer on NPC [w]mmm (nonhierarchical)
MUX ed-j-mm	Subrate multiplexer on NPC ed-j-mm
---	No subrate multiplexer applicable

[s]abc-ddd-ff
- Customer for which trace was requested

[t]ghi-jjj-ll
- External facility termination of multipoint master

MJU - Multipoint junction unit

ssss - MJU number (0002 - 9999)
tttt - MJU number providing input to MJU ssss

BR - Branch

i - Branch number of MJU tttt providing signal to MJU ssss

[u]aaa
- Nonhierarchical Subrate NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

wx-k-qr

- Hierarchical Subrate NPC number

wx	- Unit number
k	- Module number
qr	- NPC number

The valid values are presented below:

```
SR and MJ NPC numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01
```

mju_br_data
- MJU branch leg data in the form:

mju_br_data	*Explanation*
[v]rst-ggg-hh <ec> <mux>	External facility termination, error corrector and multiplexer information (see below)
ed-r-st-ggg-hh <ec> <mux>	External facility termination, error corrector and multiplexer information (see below)
MJU ssss	MJU number to which this branch is internally connected
UASGN	Unassigned branch

br_data
- MJU branch connection data in the form:

[v]jkl-fff-nn
- External facility termination of branch

jk-l-mn-fff-nn
- External facility termination of branch

MJU-ssss
- MJU number of cascaded MJU connected to branch

UASGN - Unassigned branch (ec and mux = "---")

mmmm - Error condition code

mmmm Explanation

ENEQ Equipage, not equipped

UNIT qq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

IDNV Input, data not valid

INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd
CHANNEL [s]abcddd IS A PARITY CHANNEL
NPC abc IS NOT A VALID NPC NUMBER

CUSTOMER NUMBER MUST BE SPECIFIED FOR DS0B

SNVS Status, not in valid state

NPC [s]abc IS NOT PART OF AN RT
CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE

IDRG Input, data out of range

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0A
CHANNEL [s]abcddd

CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS0B
CHANNEL [s]abcddd

RTRV,EVT,EQPT,NPC,BER,FTU,DS3U

RETRIEVE EVENT EQUIPMENT

Input Message Format

Not applicable.

Completion Message

Nonhierarchical

For a Facility Terminating Module (FTM):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

For a DS3 module (Multiplexer):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

Hierarchical

For a Facility Terminating Module (FTM):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

For a DS3 module (Multiplexer):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

Denial Message

Not applicable.

Autonomous Message

Nonhierarchical

For a Facility Terminating Module (FTM):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

For a DS3 module (Multiplexer):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "[s]abc[&&-[t]def],nnn"
;
```

Hierarchical

For a Facility Terminating Module (FTM):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in FTU,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

For a DS3 module (Multiplexer):

[O.81003]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss
A  ff RTRV EVT EQPT::NPC:BER
   /* [O.81003] */
   /* <Alarm state {Major|Minor|Error|Clear|Unequipped}> */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPCs range in DS3U,Number of NPCs with BER value > \
   BER minor threshold */
   "uv-m-np[&&&-uv-m-qr],nnn"
;
```

Explanation Of Message

This message lists all facility terminating and DS3 unit network processing circuits associated with facilities exceeding bit error rate thresholds.

Explanation Of Parameters

BER - Bit error rate

[s]abc
- The 3- or 4-digit nonhierarchical NPC number
The first NPC in a module.

[t]def
- The 3- or 4-digit nonhierarchical NPC number
The last NPC in a module.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number
The first NPC in a range.

uv-m-qr

- Hierarchical NPC number
The last NPC in a range.

uv - Unit number
m - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

nnn - Number of NPCs with BER values greater than BER minor threshold or number of NPCs with the parameter threshold exceeded.

xx - Alarm State

xx	*Explanation*
CL	Clear
ER	Error
MJ	Major
MN	Minor
--	NPC is unequipped or out of service

Note: For the NPCs in Multiplexers (MXRs), one output module corresponds to all the NPCs in an MXR.

RTRV,EVT,EQPT,NPC,BER,NPCS

AUDIT QUERY

Input Message Format

Not applicable.

Completion Message

[O.81005]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT EQPT::NPC:[ww]:BER COMPLD
   /* [O.81005] */
   /* All NPCS have zero values */
;
```

Denial Message

Not applicable.

Autonomous Message

[O.81005]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT EVT EQPT::NPC:[ww]:BER
   /* [O.81005] */
   /* All NPCS have zero values */
;
```

Explanation Of Message

This message indicates all equipped facility terminating and DS3 unit network processing circuits have zero values for the BER parameter since local midnight.

The scope of this message includes both FTU and DS3U type NPCs.

Explanation Of Parameters

BER - Bit error rate

ALL NPCS TOT
- Total of all NPCs

RTRV,EVT,TS,SROOF,ALL

UTILITY QUERY

Input Message Format

Nonhierarchical

[I.56501]

```
RTRV-EVT-TS:[<xy>]:[[s]abc-ddd[&&-eee]]:[ww]:SROOF:[ALL];
```

Hierarchical

[I.56501]

```
RTRV-EVT-TS:[<xy>]:[uv-m-np-ddd[&&-eee]]:[ww]:SROOF:[ALL];
```

Completion Message

Nonhierarchical

[O.56501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[s]abc-ddd:[ww]:SROOF COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "[s]abc-ddd,<mux_stat>,<npc_stat>"
;
```

Note: The above message applies if a single channel was requested.

[O.56501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[[s]abc-ddd[&&-eee]]:[ww]:SROOF:[ALL] COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "[s]abc-ddd,<dsob_stat>,<npc_stat>"
                .
                        .
                        .
   "[s]abc-ddd,<dsob_stat>,<npc_stat>"
>
                        .
                        .
                        .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[[s]abc-ddd[&&-eee]]:[ww]:SROOF:[ALL] COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "[s]abc-ddd,<dsob_stat>,<npc_stat>"
                        .
                        .
                        .
   "[s]abc-ddd,<dsob_stat>,<npc_stat>"
;
```

Note: The above message, listing all established cross-connected channels, applies if a channel range or ALL was specified.

Hierarchical

[O.56501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::uv-m-np-ddd:[ww]:SROOF COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "uv-m-np-ddd,<mux_stat>,<npc_stat>"
;
```

Note: The above message applies if a single channel was requested.

[O.56501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[uv-m-np-ddd[&&&-eee]]:[ww]:SROOF:[ALL] COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "uv-m-np-ddd,<dsob_stat>,<npc_stat>"
                .
                .
                .
   "uv-m-np-ddd,<dsob_stat>,<npc_stat>"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[uv-m-np-ddd[&&&-eee]]:[ww]:SROOF:[ALL] COMPLD
   /* [O.56501] */
   /* Facility, DS0B status, Facility NPC status */
   "uv-m-np-ddd,<dsob_stat>,<npc_stat>"
                        .
                        .
                        .
   "uv-m-np-ddd,<dsob_stat>,<npc_stat>"
;
```

Note: The above message, listing all established cross-connected channels, applies if a channel range or ALL was specified.

Common

[O.56502]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS:::[ww]:SROOF:ALL COMPLD
   /* [O.56502] */
   /* NO DS0B CHANNELS ARE OUT-OF-FRAME */
;
```

Denial Message

Nonhierarchical

[O.56501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[[s]abc-ddd[&&-eee]]:[ww]:SROOF:[ALL] DENY
   mmmm
   /* [O.56501.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.56501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV EVT TS::[uv-m-np-ddd[&&&-eee]]:[ww]:SROOF:[ALL] DENY
   mmmm
   /* [O.56501.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the framing status of a Subrate multiplexer that is associated with a single DS0B channel or a range of channels or all the DS0B channels in the frame.

The DS0B channels that are reported in the output message must be established and have active cross-connections where multiple channels are listed. Also listed are the carrier group alarm and the failure status of the digroup that is associated with the DS0B channel. This allows the user to determine if the out-of-frame condition is being caused by a failure in a digroup facility or in the equipment.

Explanation Of Parameters

SROOF - Subrate out-of-frame

TO - To NPC

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical subrate or multijunction NPC number

uv - Unit number
m - Module number
np - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd - Channel number
eee - Channel number indicating end of channel range

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

The reported DS0B channels must be already established, and where

multiple channels are listed, the DS0Bs must have active cross-connections. This utility also lists the CGA and failure status

of the digroup associated with the DS0B to enable the user to determine if the OOF condition is being caused by a digroup facility or equipment failure.

ALL - All channels

The ALL keyword cannot be used simultaneously with a single channel or a range of channels.

mux_stat

- Status of DS0B multiplexer in the form:

mux_stat	*Explanation*
OOF	Multiplexer is out-of-frame
---	Multiplexer is in-frame

npc_stat

- Status of the facility terminating NPC specified as one or more of the following:

npc_stat	*Explanation*
OOS	NPC is out-of-service
FAIL	NPC is in the fail state
---	NPC is not failed, out-of-service, or in CGA
CGA <state>	NPC is in one of the following CGA state:

state	*Explanation*
AIS	Alarm Indication Signal
RED	Received DS-1 framing failure
YEL	Remote DS-1 framing failure
LMA	Loss of multiframe alignment
RMA	Remote multiframe alarm
FFE	Frame format error rate alarm
LFV	Loss of signal/line format
MUL	More than one CGA reported
NA - UC OOS	No access, UC is out-of-service

dsob_stat

- Status of the DS0B channel requested:

dsob_stat	*Explanation*
OOF	Multiplexer is out-of-frame
NA - SRM FAIL	No access, SRM is failed
NA - SRM PEST	No access, SRM is pested
NA - DSPU OOS	No access, DSPU is out-of-service
NA - DSPU FAIL	No access, DSPU is failed
NA - DSPU PEST	No access, DSPU is pested
NA - DSPI OOS	No access, DSPI is out-of-service
NA - DSPI FAIL	No access, DSPI is failed
NA - DSPI PEST	No access, DSPI is pested

CHANNEL NOT ESTABLISHED AS DS0B

NO DS0B CHANNELS ARE OUT-OF-FRAME

reason
- Reason for denial

mmmm - Four-character error condition code

mmmm	*Explanation*
	explanation of error condition code
ENEQ	Equipage, not equipped
	UNIT [q]q IS NOT EQUIPPED NPC [s]abc IS NOT EQUIPPED
SNVS	Status, not in valid state
	NPC [s]abc IS NOT PART OF AN RT
	CHANNEL [s]abcddd IS NOT ESTABLISHED AS DS0B
IDRG	Input, data out of range
	[s]abcddd-fff IS AN INVALID RANGE OF CHANNELS
IDNV	Input, data not valid
	INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd NPC abc IS NOT A VALID NPC NUMBER
SNIS	Status, not in-service
	UNIT [q]q IS OUT-OF-SERVICE
	DSPI IN UNIT [q]q IS OUT-OF-SERVICE
SROF	Status, requested operation failed
	UNIT [q]q IS FAILED
	DSPI IN UNIT [q]q IS FAILED

RTRV,FPKG,NE

QUERY FEATURE PACKAGE

Input Message Format

[I.51121]

```
RTRV-FPKG-NE:[<xy>]::[ww];
```

Completion Message

[O.51121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV FPKG NE:[xy]::[ww] COMPLD
[O.51121]

[/* BASIC DS1 TERMINATIONS */]
[/* BASIC CEPT TERMINATIONS */]
[/* CAPACITY EXPANSION FRAME */]
[/* BASIC CEPT WITH FRANCE FEATURES */]
[/* DS3 TERMINATIONS */]
[/* DIRECT SLC TERMINATIONS */]
[/* SWITCHED TELECONFERENCING */]
[/* SUBRATE DATA */]
[/* ENHANCED DS1 PERFORMANCE MONITORING */]
[/* SERVICE ROLL FEATURE */]
[/* AT&T SECURITY WARNING MESSAGE */]
[/* NX64KBIT TEST ACCESS */]
[/* CLEAR 2MB/S INTERFACE */]
[/* TS0 TO NON-TS0 XCON */]
   /* Feature Package ID:DACSIIRelease,PDI Version */
   "kkttuuvv:DACSIIgg.pp,r"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a listing of the installed features and the feature package identification code.

Explanation Of Parameters

FPKG - Feature Package

Output includes a list of DACS II optional features.

kkttuuvv

- Feature package identification code

kkttuuvv	Feature
00000001	DS1
00000002	CEPT
00000004	Subrate
00000008	Direct SLC® 96 and Series 5 Carrier Interface
00000010	DS3 Terminations
00000020	Enhanced CEPT
00000040	Switched Teleconferencing
00000080	CEF
00000100	Enhanced DS1 Performance Monitoring
00000200	Roll
00000400	AT&T Security Warning Message
00000800	NX64KBIT Test Access
00001000	Clear 2MB/S Interface
00002000	TS0 to Non-TS0 Cross-connection

In general a feature package identification code is a combination of several individual feature package numbers. To determine the individual features that make up a feature package it is necessary to decode the feature package identification code. This code is an eight digit hexadecimal number. Each hexadecimal number represents a four-bit binary number. Within this binary number each feature is associated with one particular bit. Consequently to determine the feature list from a feature package identification code it is necessary to convert each hexadecimal digit to its binary equivalent and look up the features in the list above. For example the feature package identification code 00000007 can be converted to the following binary number working from left to right one hex digit at a time.

0000 0000 0000 0000 0000 0000 0000 0111

This number contains eight binary numbers each representing one of the hexadecimal numbers in the feature package identification code 00000007. The rightmost digit of the code contains three features since there are three bits set to one. This would be decoded as follows using the table of features above.

	hexadecimal	binary	Feature
	0000	0	Feature unavailable
	0001	1	DS1
	0010	2	CEPT
	0100	4	Subrate
Total	0111	7	(DS1 + CEPT + Subrate)

gg - DACS II software release number

pp - DACS II software release point number

r - DACS II software PDI number

RTRV,HDR

QUERY DATE

Input Message Format

[I.51031]

```
RTRV-HDR:[<xy>]::[ww];
```

Completion Message

[O.51031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV HDR:::[ww] COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

[O.51031]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT HDR
   "COMPLD"
;
```

Explanation Of Message

This message requests a printout of the current date (year, month, day), the time (hour, minute, second), and the time interval at which DACS II prints the date.

RTRV,HDR,NE

UTILITY QUERY WHO

Input Message Format

[I.51041]

```
RTRV-HDR-NE:[<xy>]::[ww];
```

Completion Message

[O.51041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV HDR NE:::[ww] COMPLD
   /* [0.51041] */
   /* Unique Identification Number (UID) */
   "adcdefghij0123456789"
   /* DACSIIRelease,Point,PDI Version,Feature package number */
   "DACSIIgg,pp,r,kkttuuvv"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a display of the unique frame identifier (UFI) of the DACS frame, the software version identifier, and the feature package identification code.

Explanation Of Parameters

WHO - Who

With reference to the frame "Who are you?"

uid - Unique (frame) identifier (1 to 20 alphanumeric characters)

The uid is initialized by ED-PRMTR-NE.
If the uid is not initialized, no characters will appear.

VERSN - Version

DACSII
- DACS II

gg - DACS II software release number

pp - DACS II software release point number

r - Version number of the release point

HDR - Header

FPKG - Feature package

kkttuuvv
- Feature package identifier

kkttuuvv	Feature
00000001	DS1
00000002	CEPT
00000004	Subrate
00000008	Direct SLC® 96 and Series 5 Carrier Interface
00000010	DS3 Terminations
00000020	Enhanced CEPT
00000040	Switched Teleconferencing
00000080	CEF
00000100	Enhanced DS1 Performance Monitoring
00000200	Roll
00000400	AT&T Security Warning Message
00000800	NX64KBIT Test Access
00001000	Clear 2MB/S Interface
00002000	TS0 to Non-TS0 Cross-connection

In general a feature package identification code is a combination of several individual feature package numbers. To determine the individual features that make up a feature package it is necessary to decode the feature package identification code. This code is an eight digit hexadecimal number. Each hexadecimal number represents a four-bit binary number. Within this binary number each feature is associated with one particular bit. Consequently to determine the feature list from a feature package identification code it is necessary to convert each hexadecimal digit to its binary equivalent and look up the features in the list above. For example the feature package identification code 00000007 can be converted to the following binary number working from left to right one hex digit at a time.

0000 0000 0000 0000 0000 0000 0000 0111

This number contains eight binary numbers each representing one of the hexadecimal numbers in the feature package identification code 00000007. The rightmost digit of the code contains three features since there are three bits set to one. This would be decoded as follows using the table of features above.

	hexadecimal	binary	Feature
	0000	0	Feature unavailable
	0001	1	DS1
	0010	2	CEPT
	0100	4	Subrate
Total	0111	7	(DS1 + CEPT + Subrate)

RTRV,LOC,EQPT

UTILITY LOCATION

Input Message Format

[I.56401]

```
RTRV-LOC-EQPT:[<xy>]:<entity>:[ww]:[<arg>];
```

Completion Message

[O.56401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOC EQPT::<entity>:[ww]:[<arg>] COMPLD
   /* [O.56401] */
   /* Dimension of the frame entity */
   "b[-[q]q]-vv,hhh"
[  "c[-[q]q]-uu,iii"]
;
```

Denial Message

[O.56401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOC EQPT::<entity>:[ww]:[<arg>] DENY
   mmmm
   /* [O.56401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the physical location of a plug-in entity using the equipment location (EQL) method. A similar method must be used if nonplug-in entities must be located, such as a network processing circuit, main controller, cross-connect network, etc.

Explanation Of Parameters

LOC - Location

Physical location

entity

- Plug-in equipment entity

Main Controller Entities:

entity	*Explanation*
MC	Main controller
CPU	Central processing unit
BX	Bus extender (SBF/Non-CEF)
MTC	Maintenance circuit pack (SBF/Non-CEF)
EBX	Expanded bus extender (CEF/ECEF/ESBF)
EMTC	Expanded maintenance circuit pack (CEF/ECEF/ESBF)
CI	Communications interface
SSC	Secondary storage controller
DISK	(Note 1)
TAPE	(Note 1)
STATUS PANEL	(Note 1)

fBNote 1:f1 The location of this entity is not on the designation strip. The approximate location is returned in the output message.

The entity CPU cannot be used with UNIT to query the Unit Controller; instead only the entity UC can be used.

Synchronizer entities:

entity & arguments		*Explanation*
SYNC-0		Synchronizer
SYNC-1		
SYNC-0	TB	Synchronizer Time Base
SYNC-1	TB	
SYNC-0	TLI-1	Synchronizer Timing Link Interface
SYNC-0	TLI-2	
SYNC-0	TLI-3	
SYNC-0	TLI-4	
SYNC-1	TLI-1	
SYNC-1	TLI-2	
SYNC-1	TLI-3	
SYNC-1	TLI-4	
SYNC	TLI-3,CRO	Synchronizer Clock Reference Oscillator (Note 2)

Note 2: Location of CRO is not on designation strip. It is a Time Base application for TLI slots 3 and 4 on sides 0 and 1.

Cross-Connect entities:

entity	*Explanation*
CCN-0 CCN-1	Cross-connect network (SBF/ESBF/Non-CEF)
CCNI-0 CCNI-1	Cross-connect network interface (SBF/ESBF/Non-CEF)
CCB-01 CCB-02 CCB-03 CCB-04 CCB-05 CCB-06 CCB-11 CCB-12 CCB-13 CCB-14 CCB-15 CCB-16	Cross-connect buffer (SBF/ESBF/Non-CEF)
ECCN-0 ECCN-1	Expanded cross-connect network (CEF/ECEF)
CCI-0 CCI-1	Clock and control interface (CEF/ECEF)
BT-01 BT-02 BT-11 BT-12	Bus terminator (CEF/ECEF)

ETSI-001	Expanded Time Slot Interchanger (CEF/ECEF)
ETSI-002	
ETSI-003	
ETSI-004	
ETSI-005	
ETSI-006	
ETSI-007	
ETSI-008	
ETSI-009	
ETSI-010	
ETSI-011	
ETSI-012	
ETSI-013	
ETSI-014	
ETSI-015	
ETSI-016	

ETSI-101	Expanded Time Slot Interchanger (CEF/ECEF)
ETSI-102	
ETSI-103	
ETSI-104	
ETSI-105	
ETSI-106	
ETSI-107	
ETSI-108	
ETSI-109	
ETSI-110	
ETSI-111	
ETSI-112	
ETSI-113	
ETSI-114	
ETSI-115	
ETSI-116	

DSPU entities:

entity	Explanation
UNIT [q]q,DSPI	Digital signal processing interface

UNIT Common Equipment entities:

entity	location	
/f(CBentity	location	
UNIT-01		NPC 0001
UNIT-02	NPC 0161	
UNIT-03	NPC 0321	
UNIT-04	NPC 0481	
UNIT-05	NPC 0641	
UNIT-06	NPC 0801	
UNIT-07	NPC 0961	location (UNITs 07 through 16, CEF/ECEF)
UNIT-08	NPC 1121	
UNIT-09	NPC 1281	
UNIT-10	NPC 1441	
UNIT-11	NPC 1601	
UNIT-12	NPC 1761	
UNIT-13	NPC 1921	
UNIT-14	NPC 2081	
UNIT-15	NPC 2241	
UNIT-16	NPC 2401	
UNIT-[q]q	UC	Unit controller

FTU entities:

entity	argument	Explanation
UNIT-[q]q	UBX	Unit bus extender
UNIT-[q]q	FTMI-b	Facility terminating module interface (b = 1 through 4)
UNIT-[q]q	FC-0b	Format converter (b = 1 through 4)
UNIT-[q]q	FC-1b	

DSPU entities:

entity	argument	Explanation
UNIT-[q]q	DSPI	Digital signal processing interface

If the unit is equipped as a DS3 Unit:

UNIT Common Equipment entities:

entity	arguments	Explanation
UNIT-[q]q	Unit [q]q's Protection MXR (01 through 16)	
UNIT-[q]q	UC	Unit Controller
UNIT-[q]q	MXR-d	Multiplexer (d = P,1 through 6)
UNIT-[q]q	MIU-d	Multiple Interface Unit
UNIT-[q]q	FLI-k	Facility Line Interface (k = S or P)
UNIT-[q]q	FMT-s	Formatter (s = 0 or 1)

Network Processing Circuit entities of an FTU:

entity	*Explanation*
NPC-[s]abc[&&-[t]def]	Nonhierarchical NPC number
NPC-uv-m-np[&&&-wx-k-qr]	Hierarchical NPC number

Network Processing Circuit entities of DS3U:

entity	*Explanation*
NPC-[s]abc[&&-[t]def]	Nonhierarchical NPC number
NPC-uv-m-np[&&&-wx-k-qr]	Hierarchical NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

If an NPC is in an FTU, the command will return the location of the Dual Digroup Card that processes the NPC.

The valid nonhierarchical FTU NPC numbers are:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

The valid hierarchical FTU NPC numbers are:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

If an NPC is in a DS3 Unit, the command will return the location of the Service MXR that processes the NPC.

Network Processing Circuit entities of a DSPU:

entity	*argument*
NPC-[s]abc[&&-[t]def]	SIDE-s
NPC-uv-m-np[&&&-wx-k-qr]	SIDE-s

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

As shown above, the command will return the location of the DSPC pack including the side information, the value of "s" can be either 0 or 1.

The valid nonhierarchical DSPU NPC numbers are:

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

The valid hierarchical DSPU NPC numbers are:

```
MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02
```

```
SR and MJ NPC numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit        Module     NPC
01-16       1-8        01
```

b,c - Bay number (1 through 7)

The bay in which the entity is located.

[q]q - Unit number (1 through 16)

vv,uu - Entity height, in inches.

For an FTU, the value is the number of inches from the bottom of the unit shelf to the center of the entity. The possible vv and uu values are:

02, 06, 10, 14, and 18 inches

For a DSPU the value of variables vv and uu can only be 06.

vv,uu - Entity height, in inches.

For an FTU, the value is the number of inches from the bottom of the unit shelf to the center of the entity. The possible vv and uu values are:

02, 06, 10, 14, and 18 inches

For a DS3U the value of variables vv and uu can only be 06.

hhh,iii

- Entity horizontal location in inches

Entity horizontal distance from the left front side of the bay, approximately 1-1/4 inches to the right of the bay upright, in 1/8 inch increments, to the center of the circuit pack slot of the entity (000 through 158).

The values for any entity will be the same as those shown on the designation strips for that entity, located above the entity. Note, however, that for duplicated entities the side (0 or 1) value precedes the name on the designation strip.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Entity can't be addressed in this configuration

RTRV,LOG,ERR,SWER,HWER,INT

QUERY SOFTWARE/HARDWARE ERROR RECOVERY

Input Message Format

[I.55011]

```
RTRV-LOG:[<xy>]::[ww]:ERR:{SWER|HWER}[,{INT-mn|[DATE-\
[ce]yr-mo-da,]TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee]\
[,ERCL-{HARD|TRANS|APPINT}][,ENTY-<entity>];
```

Completion Message

[O.55011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOG:::[ww]:ERR:SWER[,{INT-mn|[DATE-[ce]yr-mo-da,]\
TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee][,ERCL-{HARD|TRANS|APPINT}]\
[,ENTY-<entity>] COMPLD
   /* [O.55011] */
   /* Year-Month-Day,Hour-Minute-Second */
   "yyyy-mm-dd,hr-mn-sc"
   "TN-X-dddd"
   /* Entity,Error,Source,Decision Point */
   "xxxxxx,xxxxxx,xxxxxx,xx"
   /* Process ID,Return Code,Mailbox ID,Process */
   "xxxxxx,xxxxxxxx,xxxx,xxxxxx"
   /* Trouble Shooting Arguments */
   "TSARGSxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "FAUDTIME,xxxxxxxx,FACYxxxx,FATNxxxx,ISPExxxx,xxxxxxxx"
   /* Stack Trace Data Section One */
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   /* Stack Trace Data Section Two */
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
;
```

[O.55012]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOG:::[ww]:ERR:HWER[,{INT-mn|[DATE-[ce]yr-mo-da,]\
TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee][,ERCL-{HARD|TRANS|APPINT}]\
[,ENTY-<entity>] COMPLD
   /* [O.55012] */
   /* Year-Month-Day,Hour-Minute-Second */
   "yyyy-mm-dd,hr-mn-sc"
   /* Hardware Error Recovery Data */
   "HOSTxxxx,ENTTxxxx,ERRCxxxx,ERRTxxxx,TRANxxxx,EVENxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
   "xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx,xxxxxxxx"
;
```

[O.55013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOG:::[ww]:ERR:SWER[,{INT-mn|[DATE-[ce]yr-mo-da,]\
TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee][,ERCL-{HARD|TRANS|APPINT}]\
[,ENTY-<entity>] COMPLD
   /* [O.55013] */
   /* Background Audits Data */
   /* Message Type,Source,First Address,Last Address */
   "<1000>,<2000>,<400000>,xx"
   /* RAM Test Data,Actual Checksum,Computed Checksum,Processor */
   "<5000>,<6000>,<7000>,<8000>"
;
```

[O.55014]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOG:::[ww]:ERR:{SWER|HWER}[,{INT-mn|[DATE-[ce]yr-mo-da,]\
TOD-hr-mn-sc}][,TN-X-dddd][,EVENT-X-eeee][,ERCL-{HARD|TRANS|APPINT}]\
[,ENTY-<entity>] COMPLD
;
```

Denial Message

[O.55011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV LOG:::[ww]:ERR:HWER,ENTY-<entity> DENY
   /* [O.55011.01] */
   mmmm
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the contents of the error recovery log file. The log file contains the past history of error recovery events and can be very large. Therefore, the printout can be aborted. Because the printout is of a technical nature, assistance may be necessary for interpretation.

At least one option must be specified in the input command or it will be denied.
Note: Both the USA date format and international date format are supported by this command. The date format is set by the ED-DATE command and this message must use the same format. The date format shown in the output for this command will match the current setting.

Explanation Of Parameters

ERR - Error recovery

Refers to the error recovery log file

SWER - Software error

Query the software error log file.

HWER - Hardware error

Query the hardware error log file.

INT - Time interval

The user may retrieve entries by specifying a past interval of time. This interval may be the last 59 minutes or less or from a specified date and time of day (see DATE and TOD fields) to the present moment. If the time but not the optional date is specified, DACS II assumes the present date.

mn - minutes (00 to 59)

DATE - date

[ce]yr-mo-da

mo - Month (01 through 12)
da - Day (01 through 31)
ce - Century (19 or 20)
yr - Year (00 through 99)

TOD - time of day

hr-mn-sc

- Hours, minutes, seconds

hr - hour (00 through 23)
mn - Minutes (00 through 59)
sc - seconds (00 through 59)

TN - Transaction

X - Hexadecimal

dddd - Transaction number

EVENT - Event

eeee - Event number

ERCL - Error class

This keyword applies only to queries of the hardware error log file (HWER option). It is not applicable to queries of the software error log file (SWER option) and it returns no data for the software case. The hardware log file may be queried for errors of either the hardware or transient error class.

HARD - Hard

Hardware error detected by Error Recovery

TRANS - Transient

Transient error detected by Error Recovery

APPINT

- Application interrupt

Hardware error detected by applications

ENTY - Entity (hardware)

This keyword applies only to queries of the hardware error log file (HWER option). It is not applicable to queries of the software error log file (SWER option) and it returns no data for the software case. The hardware log file may be queried for entries related to particular DACS II hardware entities.

entity

- Entity type

entity	*Explanation*
BX	Bus extender
CCB	Cross-connect buffer
CCNI	Cross-connect network interface
CCI	Clock and control interface
CI	Communications interface
CPR	C-bit processor
CRO	Clock reference oscillator
DDC	Dual digroup circuit
DISK	Hard disk
DMB	Digital multipoint bridge
DSPI	Digital signal processor interface
EBX	Expanded bus extender
EMTC	Expanded maintenance circuit
ETSI	Expanded time slot interchanger
FC	Format converter
FLI	Facility line interface
FMT	Formatter
FTMI	Facility terminating module interface
LINK	Administrative link
MC	Main controller
MIU	Multiplexer interface unit
MJU	Multipoint junction unit
MP	Main processor
MTC	Maintenance circuit
MXR	Multiplexer
NPC	Network processing circuit
SRM	Subrate multiplexer
SSC	Secondary storage controller
SYNC	Synchronizers (DPLL, TB)
TAPE	Tape drive
TL	Timing link
TLI	Timing link interface
TSI	Time slot interchange
UBX	Unit bus extender
UC	Unit controller

ENTITY

- Entity

ERROR - Error

SOURCE
- Source

DP - Decision point

PID - Process identification

RC - Return code (of function in which the error occurred)

MID - Mbox identification

PROC - Process

TSARGS
- Trouble shooting arguments

FAUDTIME
- Frame audit time

FACY - Frame audits cycle number when the error occurred

FATN - Frame audits test number when the error occurred

ISPE - ISPerr LAN error count

HOST - Host

xxxx - Error identification

Controller (sub-system) on which the error occurred

xxxx	*error*
0000	UC1
0001	UC2
0002	UC3
0003	UC4
0004	UC5
0005	UC6
0006	UC7
0007	UC8
0008	UC9
0009	UC10
000a	UC11
000b	UC12
000c	UC13
000d	UC14
000e	UC15
000f	UC16
0010	CI
0011	MP

ENTT - Hardware entity for hardware error recovery

xxxx	*Explanation*
0001	Unit Controller
0002	UBX
0003	BX
0004	FTMI
0005	FC
0006	DDC
0007	DSPU DSPI
0008	DSPU DMB
0009	CCN CCNI
000a	CCN CCB
000b	CCN TSI
000c	SSC
000d	MTC
000e	SYNC
000f	TLI
0010	TL
0011	DISK
0012	TAPE
0013	MP
0014	CI
0015	LINK
0016	NPC
0017	MC
0018	MJU
0019	SRM
0020	DS3U Multiplexer
0021	DS3U Facility Line Interface
0022	DS3U Formatter
0023	DS3U Multiple Interface Unit
0024	CPR (C-Bit processor)
0027	ECCN CCI
0028	Expanded TSI

ERRC - Error class

xxxx - Error identification

xxxx	*Error*
0001	Hardware Error
0002	Transient Error
0003	Power Failure
0004	Error Sanity Bit Error
0005	CI Link related errors
0006	Sync mode switch
0007	Software error recovery
0008	Error not found
0009	Sync booted message from boot
000A	Sync timing link errors
000B	Background audits
000C	Facility errors
000D	Disk log of errors from HARDERR()
000E	Error detected from Frame Audits

ERRT - Error type

TRAN - Transaction number (software)

EVEN - Event number (software)

MSGTYP
- Message type

ADD1 - Address 1

First address of failed range

ADD2 - Address 2

Second address of failed range

DATA - Data

CHKACT
- Actual check

CHKCOM
- Computed check

COMMTO
- Communication to (lost)

MEMORY DATA
- Memory data

READY QUEUE
- Ready queue

PAUSE QUEUE
- Pause queue

LOCAL STACK
- Local stack

STACK TRACE
- Stack trace

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Entity can't be addressed in this configuration

RTRV,MACRO

UTILITY QUERY MACRO

Input Message Format

[I.54121]

```
RTRV-MACRO:[<xy>]::[ww]:<name>:[<user id>];
```

Completion Message

[O.54121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO:::[ww]:<name>:[<user id>] COMPLD
   /* [O.54121] */
   /* Language,Parameter total,Macro space used,NPC Addressing Scheme, \
Line total */
   "{M|P},jk,sss,{E|X|H},<line total>"
;
```

Denial Message

[O.54121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO:::[ww]:<name>:[<user id>] DENY
   nnnnn
   /* [O.54121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query the attributes of a macro including the language, the number of macro parameters, the amount of user macro space used by the macro, the NPC addressing scheme used by the macro, and the total number of macro command lines in the macro.

A user can query his or her own macros but only the frame administrator can query macros owned by another user.

Explanation Of Parameters

name - The macro name (seven characters maximum length)

The name of a collection of DACS II commands executed as a group.

A macro name is a string of capitalized alphanumeric characters. There are two type of macros; public and private. A private macros is created by a user in space allocated to the user by the system administrator. Only the user that created it can execute or read (LIST) a private macro. A public macro is created by the system administrator and is executable and readable by all users. A public macro name must start with the letter "P". A private macro name must not start with the letter "P".

USER - User

user id

- User identifier (two to eight alphabetic characters)

User login identification

A user can query their own macros but only the frame administrator can use the command to query macros owned by other users. The frame administrator must specify the user id to query other users' macros.

LANG - Language

M - Man-Machine language

P - Program documentation standards

PRMTR - Parameter

jk - Total number of macro parameters used (01 through 10)

SPACE - Space

sss - User macro or map space allocation (000 through 100 percent)

Variable sss represents the space allocated to user macros or maps for the entire DACS II system as a percentage of the system macro space.

TOTAL - Total

line total
- Total number of macro command lines in the macro

NPCAD - NPC addressing scheme

E - 3-digit extended (non-hierarchical) NPC addressing scheme

X - 4-digit extended (non-hierarchical) NPC addressing scheme

H - Hierarchical NPC addressing scheme, that is, address the NPC by using the unit number, module number, and NPC number within the module.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,MACRO,COM

UTILITY QUERY LIST MACRO

Input Message Format

[I.54131]

```
RTRV-MACRO-COM:[<xy>]::[ww]:<macro name>:[<user id>];
```

Completion Message

[O.54131]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO COM:::[ww]:<macro name>:[<user id>] COMPLD
   /* [O.54131] */
   "l <first 70 characters of lth component command line text>"
   "  <remaining characters of lth component command line text>"
                                                    .
                                                    .
                                                    .
   "m <first 70 characters of mth component command line text>"
   "  <remaining characters of mth component command line text>"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO COM:::[ww]:<macro name>:[<user id>] COMPLD
   /* [O.54131] */
   "m <first 70 characters of mth component command line text>"
   "  <remaining characters of mth component command line text>"
                                                    .
                                                    .
                                                    .
   "s <first 70 characters of sth component command line text>"
   "  <remaining characters of sth component command line text>"
;
```

[O.54132]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO COM:::[ww]:<macro name>:[<user id>] COMPLD
   /* [O.54132] */
   "NONE"
;
```

Denial Message

[O.54131.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MACRO COM:::[ww]:<macro name>:[<user id>] DENY
   mmmm
   /* [O.54131.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command lists the contents of individual or public macros. Only the frame administrator can list all macros, whether owned by an individual or by the public.

Explanation Of Parameters

LIST - List

macro name
- Macro name (seven characters maximum length)

The name of a collection of DACS II commands executed as a group.

A macro name is a string of capitalized alphanumeric characters. There are two type of macros; public and private. A private macros is created by a user in space allocated to the user by the system administrator. Only the user that created it can execute or read (LIST) a private macro. A public macro is created by the system administrator and is executable and readable by all users. A public macro name must start with the letter "P". A private macro name must not start with the letter "P".

user id - User identifier (two to eight alphabetic characters)

User login identification

A user can query their own macros but only the frame administrator can use the command to query macros owned by other users. The frame administrator must specify the user id to query other users' macros.

l,
m,
n,
s - Macro command line numbers

NONE - The macro contains no commands
mmmm - Error condition code

mmmm	*Explanation*
SNVS	File is being accessed
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,MAP,COM

UTILITY QUERY LIST MAP

Input Message Format

[I.54101]

```
RTRV-MAP-COM:[<xy>]::[ww]:<name>:[<user id>];
```

Completion Message

[O.54101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP COM:::[ww]:<name>:[<user id>] COMPLD
   /* [O.54101] */
   "<CONN-CRS-TO ... format ... >"
                  .
                  .
                  .
   "<CONN-CRS-TO ... format ... >"
   /* Status of the map */
   "ab"
;
```

[O.54102]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP COM:::[ww]:<name>:[<user id>] COMPLD
   /* [O.54102] */
   "NONE"
;
```

Denial Message

[O.54101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP COM:::[ww]:<name>:[<user id>] DENY
   mmmm
   /* [O.54101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message lists the user's own login on which link and at what time.

Any user can query his/her own login identification but only the frame administrator can query a login owned by another user.

Explanation Of Parameters

MAP - Alternate MAP

name - Name of the specified alternate MAP. A MAP name may have up to seven alphanumeric characters. The first character of a MAP name must be an alphabetic character. All alphabetic characters of a MAP name must be capitalized.

USER - User

user id - User login identification is two to eight alphabetic characters.

STATS - Status

ab - Status field

ab	*Explanation*
00	Map is valid (can be activated)
01	Map is not valid (contains conflicting circuits and thus cannot be activated)
D0	USER <id> is not your login name and your are not the frame administrator
D3	USER <id> does not exist
D5	The command cannot be entered without logging in

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File is being accessed
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,MAP,EQPT,NPC

UTILITY QUERY NPC MAP

Input Message Format

[I.54111]

```
RTRV-MAP-EQPT:[<xy>]:NPC:[ww]:<name>:[<user id>];
```

Completion Message

Nonhierarchical

[O.54111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
   /* [O.54111] */
   /* NPC xxx */
   "[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
                  .
                  .
                  .
   "[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
;
```

[O.54112]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
   /* [O.54112] */
   "NONE"
;
```

Hierarchical

[O.54111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
   /* [O.54111] */
   /* NPC uv-m-np */
   "uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np"
                                    .
                                    .
                                    .
   "uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
;
```

[O.54112]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] COMPLD
   /* [O.54112] */
   "NONE"
;
```

Denial Message

[O.54111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV MAP EQPT::NPC:[ww]:<name>:[<user id>] DENY
   mmmm
   /* [O.54111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message lists all network processing circuits (NPCs) added to the alternate map **<name>** except for the two-point, two-way cross-connect circuits (CONN-CRS).

A user can query their own maps or macros but only the frame administrator can query maps or macros owned by another user.

Explanation Of Parameters

NPC - Network processing circuit

MAP - Alternate Map

name - The alternate map name which is a string of uppercase alphanumeric characters from one to seven characters long. The first character must be an alphabetic character.

USER - User

user id
- User login identification is two to eight alphabetic characters.

A user can query his or her own maps but only the frame administrator can use the command to query maps owned by other users. To do so, the optional USER field must be entered.

[x]xxx
- The 3- or 4-digit nonhierarchical NPC Number

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC Number

```
DE type NPC numbers listed by unit, module,
and NPC No.

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File is being accessed
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,OPT,T1,NPC,ALL

UTILITY QUERY OPTIONS NPCS

Input Message Format

[I.53051]

```
RTRV-OPT-T1:[<xy>]:NPC:[ww]:[{mn|ALL}];
```

Completion Message

For DE or TE type

[O.53051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV OPT T1::NPC:[ww]:[{mn|ALL}] COMPLD
   /* [0.53051] */
   /* OPT:abcde,bbbbb,ccccc,ddddd,mn,opt */
   "01:00255,bbbbb,ccccc,ddddd,MJ,SLIP"
   "02:00004,bbbbb,ccccc,ddddd,MN,SLIP"
   "03;00003,bbbbb,ccccc,ddddd,MJ,BER"
[  "03:00004,bbbbb,ccccc,ddddd,MJ,BER,TRSP"]
   "04:00006,bbbbb,ccccc,ddddd,MN,BER"
   "05:00864,bbbbb,ccccc,ddddd,,ERS"
   "06:00225,bbbbb,ccccc,ddddd,,SERS"
   "07:00511,bbbbb,ccccc,ddddd,MJ,COFA"
   "08:00017,bbbbb,ccccc,ddddd,MN,COFA"
[  /* TYPE */]
[  "mn"]
{;|>}
```

For DS type

[O.53051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV OPT T1::NPC:[ww]:[{DS|ALL}] COMPLD
   /* [0.53051] */
   /* OPT:abcde,bbbbb,ccccc,ddddd,mn,opt */
   "01:00255,bbbbb,ccccc,ddddd,MJ,SLIP"
   "02:00004,bbbbb,ccccc,ddddd,MN,SLIP"
   "03;00004,bbbbb,ccccc,ddddd,MJ,BER"
   "04:00006,bbbbb,ccccc,ddddd,MN,BER"
   "05:00864,bbbbb,ccccc,ddddd,,ERS"
   "06:00225,bbbbb,ccccc,ddddd,,SERS"
   "07:00511,bbbbb,ccccc,ddddd,MJ,COFA"
   "08:00017,bbbbb,ccccc,ddddd,MN,COFA"
   "09:00000,bbbbb,ccccc,ddddd,,SANE"
   "10:00000,bbbbb,ccccc,ddddd,,SAFE"
[  /* TYPE */]
[  "mn"]
{;|>}
```

For DA or TA type

[O.53051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV OPT T1::NPC:[ww]:[{mn|ALL}] COMPLD
   /* [0.53051] */
   /* OPT:ttttt[tttt],bbbbb[bbbb],ccccc[cccc],ddddd[dddd],param,inv1-locn */
   "41:000132960/000000691,bbbbbbbbb,ccccccccc,ddddddddd,CVP,DN"
   "42:00648,bbbbb,ccccc,ddddd,ESP,DN"
   "43:00100,bbbbb,ccccc,ddddd,SESP,DN"
   "44:00017,bbbbb,ccccc,ddddd,SEFS,DN"
   "45:00004,bbbbb,ccccc,ddddd,CSSP,DN"
   "46:00010,bbbbb,ccccc,ddddd,UASP,DN"
   "47:000133400,bbbbbbbbb,ccccccccc,ddddddddd,CVL,DN"
   "48:00648,bbbbb,ccccc,ddddd,ESL,DN"
   "49:00100,bbbbb,ccccc,ddddd SESL,DN"
   "50:000132960/000000691,bbbbbbbbb,ccccccccc,ddddddddd,CVP,DF"
   "51:00648,bbbbb,ccccc,ddddd,ESP,DF"
   "52:00100,bbbbb,ccccc,ddddd,SESP,DF"
   "53:00017,bbbbb,ccccc,ddddd,SEFS,DF"
   "54:00004,bbbbb,ccccc,ddddd,CSSP,DF"
   "55:00010,bbbbb,ccccc,ddddd,UASP,DF"
   "56:00648,bbbbb,ccccc,ddddd,ESL,DF"
   "57:0013296/0000072,bbbbbbb,ccccccc,ddddddd,CVP,QN"
   "58:00065,bbbbb,ccccc,ddddd,ESP,QN"
   "59:00010,bbbbb,ccccc,ddddd,SESP,QN"
   "60:00002,bbbbb,ccccc,ddddd,SEFS,QN"
   "61:00001,bbbbb,ccccc,ddddd,CSSP,QN"
   "62:00010,bbbbb,ccccc,ddddd,UASP,QN"
   "63:0013340,bbbbbbb,ccccccc,ddddddd,CVL,QN"
   "64:00065,bbbbb,ccccc,ddddd,ESL,QN"
   "65:00010,bbbbb,ccccc,ddddd,SESL,QN"
   "66:0013296/0000072,bbbbbbb,ccccccc,ddddddd,CVP,QF"
   "67:00065,bbbbb,ccccc,ddddd,ESP,QF"
   "68:00010,bbbbb,ccccc,ddddd,SESP,QF"
   "69:00002,bbbbb,ccccc,ddddd,SEFS,QF"
   "70:00001,bbbbb,ccccc,ddddd,CSSP,QF"
   "71:00010,bbbbb,ccccc,ddddd,UASP,QF"
   "72:00065,bbbbb,ccccc,ddddd,ESL,QF"
[  /* TYPE */]
[  "mn"]
{;|>}
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the parameter threshold values for NPC types stored in the DACS II threshold data base.
If an NPC type is specified, the output message shows the threshold values for all parameters associated with the designated NPC type. If the ALL keyword is entered, the output message shows the threshold values for the parameters and all NPC types.

Explanation Of Parameters

OPT - Option

In the output messages the two-digit number following a leading quote mark is an option number. The value immediately following the option number is the default alarm threshold value. The next three fields show user-programmed values. Any user-programmed values that have not been initialized in the DACS II data base will be shown as "-----". User-programmable values can not be used as valid alarm thresholds until they are initialized.

For ANSI NPC types (DA and TA type NPCs), a programmed alarm threshold value of zero for any parameter disables threshold crossing alert messages for that parameter.

For the Major Slip and Minor Slip parameters (OPT 01 and 02, respectively) a programmed threshold value of zero disables the respective threshold crossing alarms.

TYPE - Type

mn - NPC type

mn	*Explanation*
DA	Facility Terminating Unit (FTU) ANSI NPC type
DE	Facility Terminating Unit (FTU) NPC type
DS	SLC® carrier NPC type
TA	DS3 Unit ANSI NPC type
TE	DS3 Unit NPC type

ALL - Indicates all NPC types associated with the features being turned on in the frame (for example, TE for the DS3 feature and DS for the SLC carrier feature).

If neither an NPC type nor the ALL keyword are specified, the default NPC type is DE.

If the frame is a Gateway frame the default NPC type is DE.

NPCS - Network processing circuits

SLIP - Slip
BER - Bit Error Rate
ERS - Errored Seconds
SERS - Severely Errored Seconds
COFA - Change of Frame Alignment
SAFE - Shelf Alarm Far End
SANE - Shelf Alarm Near End

MJ - Major
MN - Minor

DE - Facility Terminating Unit (FTU) NPC type

Threshold parameters for ANSI NPC types

CVP - Coding Violations, Path
CVL - Coding Violations, Line
ESP - Errored Seconds, Path
ESL - Errored Seconds, Line
SESP - Severely Errored Seconds, Path
SESL - Severely Errored Seconds, Line
SEFS - Severely Errored Framing Seconds
CSSP - Controlled Slip Seconds, Path
UASP - Unavailable Seconds, Path

D - Daily
Q - 15 minute
N - Near-end
F - Far-end

TRSP - Transparent

This keyword indicates that the message contains the BER alarm threshold

options for clear-DS1 NPCs. User-defined options with values other than 4, 5 or 6 are shown as '-----'

User-programmed alarm threshold values

bbbbb[bbbb]
- First

ccccc[cccc]
- Second

ddddd[dddd]
- Third

RTRV,PM,T1,NPC,ALL

UTILITY QUERY DA/TA/PA NPC PARAMETERS

Input Message Format

Nonhierarchical

[I.56091]

```
RTRV-PM-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,aaaaa \
,[1111111111],[locn],[dddd],[tttt];
```

Hierarchical

[I.56091]

```
RTRV-PM-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,aaaaa \
,[1111111111],[locn],[dddd],[tttt];
```

Completion Message

Nonhierarchical

Output message when the ALL keyword is used for NPCs, retrieving the current counter values of a single specified parameter type from all ANSI NPCs:

Note: The following segment applies to a Facility Terminating Module.

[O.56091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
   /* [O.56091] */
   /* Parameter Counts */
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   /* NPC-[s]abc[&&-[t]def] */
   "[s]abc&&[t]def"
>
                    .
                    .
                    .
>
```

Note: The following segment applies to a DS3 Module.

[O.56091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
   /* [O.56091] */
   /* Parameter Counts */
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   /* NPC-[s]abc[&&-[t]def] */
   "[s]abc&&[t]def"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
;
```

Output message when the ALL keyword is not used for NPCs.

[O.56092]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
   /* [O.56092] */
   /* NPC Number:PARAM,COUNT,VLDTY,MONDAT,MONTIM */
   "[s]abc:pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "[v]ghi:pppp,ccccccccc,v,dddd,tttt"
>
                    .
                    .
>

[O.56092]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
   /* [O.56092] */
   /* NPC Number:PARAM,COUNT,VLDTY,MONDAT,MONTIM */
   "[u]jkl:pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "   .    :pppp,ccccccccc,v,dddd,tttt"
   "[t]def:pppp,ccccccccc,v,dddd,tttt"
>
                    .
                    .
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
;
```

Hierarchical

Output message when the ALL keyword is used for NPCs, retrieving the current counter values of a single specified parameter type from all ANSI NPCs:

Note: The following segment applies to a Facility Terminating Module.

[O.56091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
   /* [O.56091] */
   /* Parameter Counts */
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   /* NPC-uv-m-np[&&&-uv-m-qr] */
   "uv-m-np&&&-uv-m-qr"
>
                    .
                    .
                    .
>
```

Note: The following segment applies to a DS3 Module.

[O.56091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
   /* [O.56091] */
   /* Parameter Counts */
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   "xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx,xxxxxxxxxx"
   /* NPC-uv-m-np[&&&-uv-m-qr] */
   "uv-m-np&&&-uv-m-qr"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::ALL:[ww]:<parameter>,aaaaa COMPLD
;
```

Output message when the ALL keyword is not used for NPCs.

[O.56092]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
   /* [O.56092] */
   /* NPC Number:PARAM,COUNT,VLDTY,MONDAT,MONTIM */
   "uv-m-np:pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "ed-h-fg:pppp,ccccccccc,v,dddd,tttt"
>
                    .
                    .
                    .
>

[O.56092]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
   /* [O.56092] */
   /* NPC Number:PARAM,COUNT,VLDTY,MONDAT,MONTIM */
   "op-j-st:pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "    .    :pppp,ccccccccc,v,dddd,tttt"
   "wx-k-qr:pppp,ccccccccc,v,dddd,tttt"
>
                    .
                    .
                    .
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>,aaaaa,[1111111111], \
[locn],[dddd],[tttt] COMPLD
;
```

Denial Message

Nonhierarchical

[O.56091.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww]:<parameter>,aaaaa, \
[1111111111],[locn],[dddd],[tttt] DENY
   mmmm
   /* [O.56091.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.56091.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PM T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww]:<parameter>,aaaaa, \
[1111111111],[locn],[dddd],[tttt] DENY
   mmmm
   /* [O.56091.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message retrieves current and/or historical DS1 performance monitoring data from DA and TA type NPCs. The message response is output in two distinct formats depending on whether the input command is applied to ALL NPCs on the frame or a set of specifically addressed NPCs.

When the command is applied to ALL NPCs, DACS II responds with the current parameter counts of a single specified performance parameter for ALL NPCs. No output level thresholding is performed and all counts, whether they are zero or greater, are output. The output is formatted on a module-by-module basis for Facility Terminating Units and DS3 Units. If a particular NPC within a module is not a DA or TA type NPC, its accumulator count will be printed as a string of dashes.

When a single NPC or range of NPCs is specifically addressed in the input command, all of the optionally entered user parameters are programmable. DACS II outputs the requested data in a different format, which accommodates the various user options.

This command will handle NPC addressing as follows: If only a single NPC is addressed in the input command, then either a completion or denial response will be generated for the addressed NPC. DACS II will always deny invalid commands to specifically addressed NPCs.

If a range of NPCs is addressed and the feature applies to one or more NPCs within the range, DACS II will perform the command on the NPCs in the range that support the requested feature, but skip the NPCs which do not support the requested feature. DACS II does not output denial responses for range of NPCs.

Restrictions are placed on the use of the "ALL" options for various keywords to constrain the amount of data that will be output for a single command. In particular,

1. If all parameters are requested, the input command is restricted to specifying a single NPC and a single monitored date and/or historical accumulation interval (monitored time).
2. If all daily accumulation registers are requested, the input command is restricted to specifying a single NPC and a single parameter.
3. If all 15-minute accumulation registers are requested, the input command is restricted to specifying a single NPC and a single parameter.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical NPC number
[v]ghi - The 3- or 4-digit nonhierarchical NPC number
[u]jkl - The 3- or 4-digit nonhierarchical NPC number
[t]def - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number
ed-h-fg - Hierarchical NPC number
op-j-st - Hierarchical NPC number
wx-k-qr
- Hierarchical NPC number

uv,ed,op,wx
- Unit number
m,h,j,k
- Module number
np,fg,st,qr
- NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

PARAM - Parameter

parameter
pppp

- The type of monitored parameter whose value is requested and/or reported. The <parameter> value ALLPAR is an option only for input commands. If the value ALLPAR is selected, the following restrictions apply to the input command:

1) The command must specify only a single NPC; ranges are not allowed.
2) The MONTIM input parameter may not have a value of ALL.
3) The MONDAT input parameter may not have a value of ALL.
4) The optional LV input parameter must not be present in the command; it defaults to a value of 1-Up and parameter counts of zero are not shown.

parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds
ALLPAR	All parameters listed above

LV - Level

lllllllll

- The discriminating level for the requested parameter. If this optional parameter is not present in the input command, it defaults to a value of 1-Up.

The only exception to the default value is when the ALL NPC keyword is used. When the ALL NPC keyword is used, the LV parameter is not entered, and it defaults to a value of 0-Up. This provides the current counts (zero included, unfiltered) of the specified parameter for all NPCs on the frame.

lllllllll	*Explanation*
{000000000-134217728}U	Discriminating Level-Up Direction
{000000000-134217728}D	Discriminating Level-Down Direction

Up - Parameters with values equal to or greater than the "discriminating level" specified are reported.

Down - Parameters with values equal to or less than the "discriminating level" specified are reported.

LOCN - Location

locn - The location being performance monitored. If this optional parameter is not present in the input command, it defaults to a value of NEND.

locn	*Explanation*
NEND	Near-end
FEND	Far-end

AI - Accumulation interval

aaaaa - The accumulation time period for the specified parameter.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

COUNT - Count

ccccccccc
- The accumulated value of a monitored parameter. This parameter is meaningless if the VLDTY parameter indicates that data is not available for the interval.

ccccccccc	*Explanation*
{000000000-134217728}	Range of parameter counts

VLDTY - Validity

v - Indicates the validity of historical monitoring information. This parameter indicates whether the information for the specified accumulation interval was accumulated over the entire interval or some portion of it.

v	*Explanation*
A	Adjusted, data was manually initialized
C	Complete, data was accumulated over the entire interval
L	Long, data was accumulated longer than the interval period
P	Partial, data was accumulated over only part of the interval

MONDAT

- Monitored Date

dddd - As an input parameter, this specifies the date of the beginning of the performance monitoring period (specified in the AI parameter) as MMDD, where MM is the month (01-12) and DD is the day (01-31) of the month. If this optional input parameter is not present in the command, it defaults to a value of CURD.

The value ALL is an option only for input commands. If the value ALL is selected, all of the daily accumulation registers are retrieved. If the value ALL is selected, only a single NPC can be specified in the input command. The input command must also select the value of DAILY for the AI parameter, and must not contain the MONTIM parameter.

The following restrictions apply to the use of MONDAT in input commands:

1) This parameter must not appear in input commands which select AI = 15MIN and MONTIM = ALL.

As an output parameter, this specifies the date of the beginning of the performance monitoring period as MMDD, where MM is the month (01-12) and DD is the day (01-31) of the month.

dddd	*Explanation*
{01-12}{01-31}	Month of Year/Day of Month Format
ALL	All daily accumulators (historical and current)
CURD	Current Date

MONTIM

- Monitored Time

tttt - This parameter specifies the beginning time of day of the requested performance monitoring period (specified in the AI parameter) as HHMM, where HH is the hour (00-23) and MM is the minute {00,15,30,45} of the hour. If this optional input parameter is not present in the command, it defaults to a value of CURT.

The value ALL is an option only for input commands. Selecting the value ALL retrieves all 97 (historical and current) 15-minute accumulation registers of the selected NPC. If the value ALL is selected, only a single NPC can be specified in the input command. The input command must also select the value of 15MIN for the AI parameter. In addition, an input command which specifies <parameter> = ALLPAR can not also select MONTIM = ALL.

The following restrictions apply to the use of MONTIM in input commands:

1) This parameter must not appear in input commands which specify daily accumulation intervals (AI = DAILY).

tttt	*Explanation*
{00-23}{00,15,30,45}	Hour of Day/Minute of Hour
ALL	All 15-minute accumulators
CURT	Current Time

[s]abc - The 3- or 4-digit nonhierarchical NPC number
[v]ghi - The 3- or 4-digit nonhierarchical NPC number
[u]jkl - The 3- or 4-digit nonhierarchical NPC number
[t]def - The 3- or 4-digit nonhierarchical NPC number

The valid values are:

uv-m-np
- Hierarchical NPC number
ed-h-fg - Hierarchical NPC number
op-j-st - Hierarchical NPC number
wx-k-qr
- Hierarchical NPC number

uv,ed,op,wx
- Unit number
m,h,j,k
- Module number
np,fg,st,qr
- NPC number within the module

The valid values are:

PARAM - Parameter

parameter
pppp

- The type of monitored parameter whose value is requested and/or reported. The <parameter> value ALLPM, ALLE and ALLF are the options for input commands only. If the value ALLPM, ALLE or ALLF is selected, the following restrictions apply to the input command:

1) The command must specify only a single NPC; ranges, including ALL option, are not allowed.
2) The MONTIM input parameter may not have a value of ALL.
3) The MONDAT input parameter may not have a value of ALL.
4) The optional LV input parameter must not be present in the command; it defaults to a value of 1-Up and parameter counts of zero are not shown.

parameter	*Explanation*
CRC	CRC Block Errors
FRER	Framing Errors
OFS	Out of Frame Seconds
ES	Errored Seconds
SES	Severely Errored Seconds
CSS	Controlled Slip Seconds
CV	Coding Violations
UAS	Unavailable Seconds
UATC	Unavailable Time Count
MER	Multiframe Errors
FEBE	Far End Block Errors*
FES	Far End Errored Seconds*
FSES	Far End Severely Errored Seconds*
FUAS	Far End Unavailable Seconds*
ALLPM	All parameters listed above
ALLE	All Near-end parameters listed above
ALLF	All Far-end parameters (marked by *) listed above

LV - Level

lllllllll

- The discriminating level for the requested parameter. If this optional parameter is not present in the input command, it defaults to a value of 1-Up.

The only exception to the default value is when the ALL NPC keyword is used. When the ALL NPC keyword is used, the LV parameter is not allowed, and it defaults to a value of 0-Up. This provides the current counts (zero included, unfiltered) of the specified parameter for all NPCs on the frame.

lllllllll	*Explanation*
{000000000-345600000}U	Discriminating Level-Up Direction
{000000000-345600000}D	Discriminating Level-Down Direction

Up - Parameters with values equal to or greater than the "discriminating level" specified are reported.

Down - Parameters with values equal to or less than the "discriminating level" specified are reported.

AI - Accumulation interval

aaaaa - The accumulation time period for the specified parameter.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

h - PA NPC thresholding mode

h	*Explanation*
I	Inhibited
A	Allowed

xxxxxxxxx

- A 9-digit accumulated value of a monitored parameter. All leading 0's will be output.

xxxxxxxxx	*Explanation*
{000000000-345600000}	Range of parameter counts

COUNT - Count

ccccccccc
- A 9-digit accumulated value of a monitored parameter. All leading 0's will be output.

ccccccccc	*Explanation*
{000000000-345600000}	Range of parameter counts

MONDAT
- Monitored date

dddd - This parameter specifies the requested 24-hour performance monitoring period. If this optional input parameter is not present in the command, it defaults to a value of CURD.

The value ALL is an option only for input commands. Selecting the value ALL retrieves both previous and current 24-hour accumulation registers of the selected NPC. If the value ALL is selected, only a single NPC can be specified in the input command. This parameter must not appear in input commands which specify 15-minute accumulation intervals (AI = 15MIN). When the parameter ALLPM, ALLE or ALLF is specified, MONTIM and MONDAT cannot be ALL.

dddd	*Explanation*
HIST	Previous 24-hour accumulators
CURD	Current 24-hour accumulators
ALL	ALL Current and previous daily accumulators

MONTIM

- Monitored Time

tttt - This parameter specifies the requested 15-minute performance monitoring period. If this optional input parameter is not present in the command, it defaults to a value of CURT.

The value ALL is an option only for input commands. Selecting the value ALL retrieves both previous and current 15-minute accumulation registers of the selected NPC. If the value ALL is selected, only a single NPC can be specified in the input command. This parameter must not appear in input commands which specify daily accumulation intervals (AI = DAILY). When the parameter ALLPAR, ALLE or ALLF is specified, MONTIM and MONDAT cannot be ALL.

tttt	*Explanation*
HIST	Previous 15-minute accumulators
CURT	Current 15-minute accumulators
ALL	All Current and previous 15-minute accumulators

THMODE

- Thresholding Mode

hhh - This output keyword indicates the thresholding mode of the PA NPC.

hhh	*Explanation*
INH	Inhibited
ALW	Allowed

mmmm - Error condition code

mmmm	*Explanation*
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
ENEQ	NPC is unequipped
SNVS	FTMI is in service but failed
SNVS	NPC type error
IDNV	Invalid CEPT NPC
IPNV	The MONDAT and MONTIM parameters can not both be specified
SAOS	The selected MXR associated with the NPC is Out-Of-Service
SNVS	The selected MXR associated with the NPC is In-Service but failed
SNVS	The associated MXR is In-Service but pested
IPNV	The parameter specified does not match with the NPC type
IPNV	Only one parameter is allowed
IPNV	Historical data can not be specified
IPNV	Level field is not allowed

mmmm	*Explanation*
IPNV	Monitored Date field is not allowed
IPNV	Only DAILY for accumulation interval is allowed
IPNV	Only 15MIN for accumulation interval is allowed
SNVS	FTMI is PESTED
IDNV	No PM data available
IPNV	Monitored Time field is not allowed
IPNV	Interval is not valid/not available
IPNV	MONDAT set to ALL is not allowed
IPNV	MONTIM set to ALL is not allowed

RTRV,PMREPT,SCHED,CFA,MONDAT

RETRIEVE PERFORMANCE MONITORING REPORT SCHEDULE

Input Message Format

[I.51071]

```
RTRV-PMREPT-SCHED:[<xy>]::[ww]:[CFA],[MONDAT];
```

Completion Message

[O.51071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMREPT SCHED:::[ww]:CFA COMPLD
   /* [O.51071] */
   "hr-mn-sc,CFA,FAC-X-abcdef"
   /* FAC-X-abcdef: 'abcdef' is the hex value of the FAC params */
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query the scheduled time for the daily report of facility performance parameter threshold alarms (FAC) and carrier failure alarms (CFA). On a frame with the GATEWAY feature enabled, the normal output response message format includes both the North American and International parameters.

Explanation Of Parameters

TOD - Time of day

CFA - Carrier Failure Alarm

Used to request the time of day for the daily CFA and FAC/PRIM report for non-PA and non-ANSI type NPCs.

FAC - Facility

Facility performance alarm report keyword.

abcdef

- Facility performance alarm enable. This field is a 6-digit, hexadecimal number. The 4-bits in each of the hexadecimal digits correspond to a particular facility parameter. To enable alarm reports for a facility parameter, set the appropriate bit of abcdef to 1. A bit set to 0 will disable the alarm report.

bit value	*meaning*
0	disabled
1	enabled

hex digit	*bit*	*parameter*
f	0	CGA (Carrier Group Alarm)
	1	OOF (Out of Frame)
	2	SLIP
	3	BER (Bit Error Rate)
e	4	ERS (Errored Seconds)
	5	SERS (Severely Errored Seconds)
	6	COFA (Change of Frame Alignment)
	7	CRC (Cyclic Redundancy Checksum)
d	8	BPV (Bipolar Violations)
	9	FRER (Frame Errors)
	10	Not Used
	11	Not Used
c	12	Not Used
	13	Not Used
	14	Not Used
	15	Not Used
b	16	SANE (Shelf Alarm Near End)
	17	SAFE (Shelf Alarm Far End)
	18	DS3 ALM (DS3 Alarm)
	19	Not Used
a	20	Not assigned
	21	Not assigned
	22	Not assigned
	23	Not assigned

MDNT - Midnight
The MDNT will be shown in the output when the CFA option is entered.

hr-mn-sc

- Time of the scheduled performance parameter report

hr - hours (00 through 23)

mn - minutes (00 through 59 for MDNT; 00, 15, 30 or 45 for MONDAT)

sc - seconds (00 through 59 for MDNT; 00 for MONDAT)

RTRV,PMSCHED,T1,NPC,ALL

QUERY DS1 PERFORMANCE MONITORING REPORT SCHEDULE

Input Message Format

Nonhierarchical

[I.51151]

```
RTRV-PMSCHED-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL}:[ww];
```

Hierarchical

[I.51151]

```
RTRV-PMSCHED-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww];
```

Completion Message

Nonhierarchical

Output message when there are no scheduled reports for the addressed NPCs:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] COMPLD
;
```

Output message for one or a range of NPCs, and there is at least one schedule to report:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::NPC-[s]abc[&&-[t]def]:[ww] COMPLD
   /* [0.51151] */
   /*NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST*/
   "[v]ghi,rrrrr,dddd,cccc,nn,<parameter>,llllllllll,locn,aaaaa,
    ttttt[&&-ooooo]"
   /* INHMODE[,Output Links] */
   "iii[,p[vv][&q[vv]]]"
>
                    .
                    .
                    .
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV PMSCHED T1::NPC-[s]abc[&&-[t]def]:[ww] COMPLD]
[   /* [0.51151] */]
[   /*NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST*/]
[   "[u]jkl,rrrrr,dddd,cccc,nn,<parameter>,llllllllll,locn,aaaaa,
     ttttt[&&-ooooo]"]
[   /* INHMODE[,Output Links] */]
[   "iii[,p[vv][&q[vv]]]"]
[>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
M  RTRV PMSCHED T1::NPC-[s]abc[&&-[t]def]:[ww] COMPLD]
;
```

Output message for 'ALL' NPCs, and there is at least one schedule to report:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::ALL:[ww] COMPLD
   /* [0.51151] */
   /* NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST */
   "[v]ghi[&&-[u]jkl],rrrrr,dddd,cccc,nn,<parameter>,llllllllll,locn,aaaaa,ttttt
    [&&-ooooo]"
[  /* Output Links */]
[   "p[vv][&q[vv]]"]
>
                    .
                    .
                    .
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV PMSCHED T1::ALL:[ww] COMPLD]
[   /* [0.51151] */]
[   /* NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST */]
[   "[v]ghi[&&-[u]jkl],rrrrr,dddd,cccc,nn,<parameter>,llllllllll,locn,aaaaa,
     ttttt[&&-ooooo]"]
[  /* Output Links */]
[   "p[vv][&q[vv]]"]
[>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
M  RTRV PMSCHED T1::ALL:[ww] COMPLD]
;
```

Hierarchical

Output message when there are no scheduled reports for the addressed NPCs:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] COMPLD
;
```

Output message for one or a range of NPCs, and there is at least one schedule to report:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww] COMPLD
   /* [0.51151] */
   /*NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST*/
   "ed-h-fg,rrrrr,dddd,cccc,nn,<parameter>,1111111111,locn,aaaaa,ttttt
    [&&-ooooo]"
   /* INHMODE[,Output Links] */
   "iii[,p[vv][&q[vv]]]"
>
                    .
                    .
                    .
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV PMSCHED T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww] COMPLD]
[   /* [0.51151] */]
[   /*NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,
      TMOFST*/]
[   "op-j-st,rrrrr,dddd,cccc,nn,<parameter>,1111111111,locn,aaaaa,
     ttttt[&&-ooooo]"]
[   /* INHMODE[,Output Links] */]
[   "iii[,p[vv][&q[vv]]]"]
[>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww] COMPLD
;
```

Output message for 'ALL' NPCs, and there is at least one schedule to report:

[O.51151]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::ALL:[ww] COMPLD
   /* [0.51151] */
   /* NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST */
   "ed-h-fg[&&&-op-j-st],rrrrr,dddd,cccc,nn,<parameter>,1111111111,locn,aaaaa,
    ttttt[&&-ooooo]"
[  /* Output Links */]
[   "p[vv][&q[vv]]"]
>
                      .
                      .
                      .
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
M  RTRV PMSCHED T1::ALL:[ww] COMPLD
[    /* [0.51151] */]
[    /* NPC Number,INVL,REPTDAT,REPTTM,NUMINVL,PARAM,MONLEV,LOCN,TMPER,TMOFST */]
[    "ed-h-fg[&&&-op-j-st],rrrrr,dddd,cccc,nn,<parameter>,1111111111,locn,
     aaaaa,ttttt[&&-ooooo]"]
[  /* Output Links */]
[   "p[vv][&q[vv]]"]
[>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::ALL:[ww] COMPLD
;
```

Denial Message

Nonhierarchical

[O.51151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::{NPC-[s]abc[&&-[t]def]|ALL}:[ww] DENY
   mmmm
   /* [0.51151.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.51151.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PMSCHED T1::{NPC-uv-m-np[&&&-wx-k-qr]|ALL}:[ww] DENY
   mmmm
   /* [O.51151.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message retrieves information on the user-programmed schedule of autonomous performance monitoring reports, which DACS II will generate for DA and TA type NPCs. The user may retrieve the PM report schedule information for a single, a range or all applicable NPCs on the frame.

This command will handle NPC addressing in the input command as follows:

If only a single NPC is addressed in the input command, and it is of an applicable type, then a completion response will be generated. The choice of completion response depends on if any scheduled report exists for that NPC. If the NPC type is not applicable, DACS II will always deny invalid commands to a specifically addressed NPC.

If a range of NPCs is addressed, and one or more NPCs within the range is of applicable types, DACS II will retrieve the information for each of the NPCs in the range that support this feature, but skip the NPCs which do not support this feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports this feature, DACS II will generate a completion response with one output segment containing the information for each applicable NPC in the range; individual denial responses will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range supports the requested feature, DACS II will generate a range denial response.

If the 'ALL' option is used, and there is one or more PM report schedule(s) on the frame, DACS II will response by echoing all the PM report data as they were entered when the report was scheduled, with the current NI and RT values , and omitting the inhibit information. The output information is necessary for a PM report to be deleted. If there are

no applicable NPC types on the DACS II frame, the response will be a denial.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical starting NPC number
[t]def - The 3- or 4-digit nonhierarchical ending NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical starting NPC number

wx-k-qr
- Hierarchical ending NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ALL - All report schedules are queried for all NPCs.
Each scheduled report is displayed with its range of NPCs.

[v]ghi - The 3- or 4-digit nonhierarchical NPC number ([s]abc through [u]jkl)
[u]jkl - The 3- or 4-digit nonhierarchical NPC number ([v]ghi through [t]def)
Or range of NPCs for a scheduled report, if ALL NPCs are queried.

ed-h-fg - Hierarchical NPC number (uv-m-np through op-j-st)
op-j-st - Hierarchical NPC number (ed-h-fg through wx-k-qr)
Or range of NPCs for a scheduled report, if ALL NPCs are queried.

ed,op - Unit number (uv through wx)
h,j - Module number
fg,st - NPC number within the module

RI - Report interval

rrrrr - The interval between performance monitoring reports

rrrrr	*Explanation*
{0001-1440}M	Report interval in minutes
{0001-0024}H	Report interval in hours
{0001-0007}D	Report interval in days

RD - Report date

dddd - The date for the next performance monitoring report.

dddd	*Explanation*
{01-12}{01-31}	Month of Year/Day of Month Format

RT - Report time

cccc - The time of day for the next performance monitoring report.

cccc	*Explanation*
{00-23}{00-59}	Hour of Day/Minute of Hour Format

NI - Number of intervals

nn - The remaining number of intervals over which performance monitoring is to be reported. If this parameter is CT, the performance monitoring schedule will remains in effect until the schedule is canceled using another "Schedule PM Report" command.

nn	*Explanation*
{01-96}	Finite number of scheduled reports
CT	Continuous reports until cancelled

parameter

- The parameter for which reporting is being scheduled.

parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSS	Path Controlled Slip Seconds
UAS	Path Unavailable Seconds
ALLPAR	All listed parameters

LV - Level

lllllllll

- The discriminating level for the requested parameter.

lllllllll	*Explanation*
{000000000-134217728}U	Discriminating Level-Up Direction
{000000000-134217728}D	Discriminating Level-Down Direction

Up - Parameters with values equal to or greater than the "discriminating level" specified are reported.

Down - Parameters with values equal to or less than the "discriminating level" specified are reported.

LOCN - Location

locn - The location being performance monitored.

locn	*Explanation*
NEND	Near-end
FEND	Far-end

AI - Accumulation interval

aaaaa - The accumulation time period for the specified parameter.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

TOF - Time offset

ttttt - The age of the requested data registers(s) at the reporting time, measured backwards in time from the end of last completed accumulation interval to the beginning of the requested interval.

ooooo - If the report interval is an integral number of accumulation intervals, this parameter specifies a range of up to four historical data registers per scheduled report.

ttttt,ooooo	*Explanation*
{0-7}{00-23}{00,15,30,45,60}	Day/Hour/Minute

If the value 7 is given for day, then Hour and Minute must be zero.

To produce reports that contain historical data of completed accumulation intervals, the scheduled report times (set up with "start time" and "report interval") usually coincide with the end of accumulation intervals, and the time offset must be an integral number of accumulation intervals.

A time offset value of 00000 or any value less than the accumulation interval produces a report that contains data from the current register.

IM - Inhibit Mode

iii - Indicates whether the reporting of performance monitoring data for the facility is currently inhibited or enabled. This information shall be omitted for the 'ALL' case.

iii	*Explanation*
ALW	Performance monitoring reporting is allowed
INH	Performance monitoring reporting is inhibited

LK - Link

p[vv]
q[vv] - Up to two administrative links to which the scheduled report output will be transmitted. The user may omit these optional parameters, specify a single link, or specify two links which will both receive all output generated by this scheduled report. If these optional parameters are omitted, the scheduled report output will by default be transmitted only to the link that the schedule command was received on.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC type error
IPNV	The parameter specified does not match with the NPC type
SNVS	Frame time is not set
IPNV	Scheduled reporting for this npc is inhibited

RTRV,PRMTR,EQPT,LOAD,TOTAL

UTILITY QUERY, LOAD

Input Message Format

Nonhierarchical

[I.52581]

```
RTRV-PRMTR-EQPT:[<xy>]::[ww]:LOAD:{[s]abc|TOTAL};
```

Hierarchical

[I.52581]

```
RTRV-PRMTR-EQPT:[<xy>]::[ww]:LOAD:{uv-m-np|TOTAL};
```

Completion Message

Nonhierarchical

If the NPC is a subrate multiplexer circuit pack:

[O.52581]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:[s]abc COMPLD
   /* [O.52581] */
   /* Subrate multiplexer type */
   "TYPE-SR100"
   /* Total time slots allocated, total time slots free */
   "ttt,vvv"
   /* Number of PEC, SEC, test access SEC blocks used */
   "ppp,eee,aa"
   /* Number of 5-channel, 10-channel, 20-channel multiplexers used */
   "ss,qq,rr"
;
```

If the NPC is a multi-junction unit circuit pack:

[O.52582]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:[s]abc COMPLD
   /* [O.52582] */
   /* MJU type */
   "TYPE-MJ100"
   /* Total time slots allocated, total time slots free */
   "ttt,vvv"
   /* Number of PEC, SEC, test access SEC blocks used */
   "ppp,eee,aa"
   /* Number of 2.4, 4.8, 9.6, 56 kb/s MJUs used */
   "jjj,kkk,lll,nnn"
;
```

Hierarchical

If the NPC is a subrate multiplexer circuit pack:

[O.52581]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:uv-m-np COMPLD
   /* [O.52581] */
   /* Subrate multiplexer type */
   "TYPE-SR100"
   /* Total time slots allocated, total time slots free */
   "ttt,vvv"
   /* Number of PEC, SEC, test access SEC blocks used */
   "ppp,eee,aa"
   /* Number of 5-channel, 10-channel, 20-channel multiplexers used */
   "ss,qq,rr"
;
```

If the NPC is a multijunction unit circuit pack:

[O.52582]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:uv-m-np COMPLD
   /* [O.52582] */
   /* MJU type */
   "TYPE-MJ100"
   /* Total time slots allocated, total time slots free */
   "ttt,vvv"
   /* Number of PEC, SEC, test access SEC blocks used */
   "ppp,eee,aa"
   /* Number of 2.4, 4.8, 9.6, 56 kb/s MJUs used */
   "jjj,kkk,lll,nnn"
;
```

Common

If the **TOTAL** keyword is specified:

[O.52583]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:TOTAL COMPLD
   /* [O.52583] */
   /* Total time slots allocated, total time slots free */
   "ttttt,vvvvv"
   /* Number of PEC, SEC, test access SEC blocks used */
   "ppppp,eeeee,aa"
   /* Number of 5-channel, 10-channel, 20-channel multiplexers used */
   "ssss,qqqq,rrrr"
   /* Number of 2.4, 4.8, 9.6, 56 kb/s MJUs used */
   "jjjj,kkkk,llll,nnnn"
;
```

Denial Message

Nonhierarchical

[O.52581.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV PRMTR EQPT:::[ww]:LOAD:{[s]abc|TOTAL} DENY
   mmmm
   /* [O.52581.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52581.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:LOAD:{uv-m-np|TOTAL} DENY
   mmmm
   /* [O.52581.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This Subrate message requests allocation information on one circuit pack or on all circuit packs in the frame.

Explanation Of Parameters

LOAD - Request information concerning resource utilization in subrate circuit packs. Current valid circuit packs are:

SR100	subrate multiplexer
MJ100	multijunction unit

NPC - Network processing circuit

Request resource information for the subrate circuit pack specified.

[s]abc
- The 3- or 4-digit nonhierarchical Subrate or Multijunction NPC number

If NPC numbers are expressed in three digits, the valid values are:

SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641        0801        0961        1121
0661        0821        0981        1141
0681        0841        1001        1161
0701        0861        1021        1181
0721        0881        1041        1201
0741        0901        1061        1221
0761        0921        1081        1241
0781        0941        1101        1261

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281        1441        1601        1761
1301        1461        1621        1781
1321        1481        1641        1801
1341        1501        1661        1821
1361        1521        1681        1841
1381        1541        1701        1861
1401        1561        1721        1881
1421        1581        1741        1901
```

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-np
- Hierarchical NPC number

Valid values are listed below:

SR and MJ NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01

TOTAL - Request summarized resource information for all subrate circuit packs.

MJU - Multipoint junction unit

ALLOCATED
- Allocated time slots

ttt - Number of time slots allocated

FREE - Free time slots

vvv - Number of free time slots

PEC - Parity channel error correctors

ppp - Number of parity channel error correctors

SEC - Subrate error correctors

eee - Number of subrate error correctors allocated to cross-connected circuits

aa - Number of subrate error correctors allocated to test access

ss - Number of 5-channel subrate multiplexer channels

qq - Number of 10-channel subrate multiplexer channels

rr - Number of 20-channel subrate multiplexer channels

jjj - Number of 2.4-kb/s Multipoint Junction Unit (MJU) channels

kkk - Number of 4.8-kb/s MJU channels

lll - Number of 9.6-kb/s MJU channels

nnn - Number of 56-kb/s MJU channels

ttttt - Total number of time slots allocated on the frame

vvvvv - Total number of free time slots allocated on the frame

ppppp - Total number of parity channel error correctors on the frame

eeeee - Total number of subrate error correctors allocated to cross-connected circuits on the frame

ssss - Total number of 5-channel subrate multiplexer channels on the frame

qqqq - Total number of 10-channel subrate multiplexer channels on the frame

rrrr - Total number of 20-channel subrate multiplexer channels on the frame

jjjj - Total number of 2.4-kb/s MJU channels on the frame

kkkk - Total number of 4.8-kb/s MJU channels on the frame

llll - Total number of 9.6-kb/s MJU channels on the frame

nnnn - Total number of 56-kb/s MJU channels on the frame

mmmm	*Explanation*
SNVS	Status, not in valid state
	NO SRM OR MJU TYPE NPC IS EQUIPPED
ENEQ	Equipage, not equipped

UNIT qq IS NOT EQUIPPED
NPC [s]abc IS NOT EQUIPPED

IDNV Input, data not valid

NPC [s]abc IS NOT SRM OR MJU TYPE

RTRV,PRMTR,EQPT,NPC,ALL

UTILITY QUERY ALL

Input Message Format

[I.56031]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC:[ww]:<parameter>:ALL;
```

Completion Message

Nonhierarchical

[O.56031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
   /* [O.56031] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-[s]abc[&&-[t]def],TOTAL-nnnn */
   "[s]abc&&[t]def,nnnn"
>
                    .
                    .
                    .
>
```

Note: The above message applies to a Facility Terminating Module (FTM) and parameters other than ER and BER.

[O.56031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
   /* [O.56031] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-[s]abc[&&-[t]def],TOTAL-nnnn */
   "[s]abc&&[t]def,nnnn"
>
                      .
                      .
                      .
>
```

Note: The above message applies to a DS3 module (that is, a Multiplexer) and parameters other than ER and BER.

[O.56032]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:BER:ALL COMPLD
   /* [O.56032] */
   /* <parameter>:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]abc[&&-[t]def],TOTAL-nnnn */
   "[s]abc[&&[t]def],nnnn"
>
                      .
                      .
                      .
```

Note: The above message applies to a Facility Terminating Module (FTM) and either parameter ER or BER.

[O.56032]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:BER:ALL COMPLD
   /* [O.56032] */
   /* <parameter>:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]abc[&&-[t]def],TOTAL-nnnn */
   "[s]abc[&&[t]def],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
;
```

Note: The above message applies to a DS3 module (that is, a Multiplexer) and either parameter ER or BER.

Hierarchical

[O.56031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
   /* [O.56031] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-uv-m-np[&&&-uv-m-qr],TOTAL-nnnn */
   "uv-m-np&&&-uv-m-qr,nnnn"
>
                    .
                    .
                    .
>
```

Note: The above message applies to a Facility Terminating Module (FTM) and parameter other than ER and BER.

[O.56031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
   /* [O.56031] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-uv-m-np[&&&-uv-m-qr],TOTAL-nnnn */
   "uv-m-np&&&-uv-m-qr,nnnn"
>
                        .
                        .
                        .
>
```

Note: The above message applies to a DS3 module (that is, a Multiplexer) and parameter other than ER and BER.

[O.56032]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:BER:ALL COMPLD
   /* [O.56032] */
   /* <parameter>:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-np[&&&-uv-m-qr],TOTAL-nnnn */
   "uv-m-np[&&&-uv-m-qr],nnnn"
>
                        .
                        .
                        .
>
```

Note: The above message applies to a Facility Terminating Module (FTM) and either parameter ER or BER.

[O.56032]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:BER:ALL COMPLD
   /* [O.56032] */
   /* <parameter>:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-np[&&&-uv-m-qr],TOTAL-nnnn */
   "uv-m-np[&&&-uv-m-qr],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
;
```

Note: The above message applies to a DS3 module (that is, a Multiplexer) and either parameter ER or BER.

[O.56033]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:<parameter>:ALL  COMPLD
   /* [O.56033] */
   /* TOTAL:nnnn */
   "0000"
;
```

[O.56034]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC:[ww]:BER:ALL  COMPLD
   /* [O.56034] */
   /* TOTAL:nnnn */
   "0000"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout on a specified facility performance parameter for all Network Processing Circuits (NPCs).

Explanation Of Parameters

ALL - All

parameter
- Facility performance parameter

The parameter and its period of measurement are chosen from the set below:

parameter	*Explanation*	*Period of measurement*
BER	Bit Error Rate	Total since local midnight
BPV	Bipolar Violation	Total since local midnight
COFA	Change Of Frame Alignment	Total since local midnight
CGA	Carrier Group Alarm	Total since local midnight
CRC	Cyclic Redundancy Code	Total since local midnight
ER	Error Rate (same as BER for D4 framing)	Previous 24-hour total
ERS	Errored Seconds	Previous 24-hour total
FRER	Framing Error	Total since local midnight
OOF	Out Of Frame	Total since local midnight
SERS	Severely Errored Seconds	Previous 24-hour total
SLIP	Slip count	Previous 24-hour total
SAFE	Shelf Alarm Far End count	Total since local midnight
SANE	Shelf Alarm Near End count	Total since local midnight

A message segment will be omitted for:

- Unequipped FTMs
    - DS3 modules in the case of BPV request
- Equipped FTM with no equipped NPC
- Equipped FTM with all NPCs having zero value of <parameter>
- Equipped CEPT FTM with all NPCs being PA type but with a parameter other than BER.

xxxxx - Parameter count values

Dashes ("-") will be output for NPCs that are not equipped or are provisioned with a type unapplicable to the parameter. If an entire FTM is unequipped or all its NPCs are dashes, the segment is skipped.

xx - BER states

xx	*State*
MJ	Major
MN	Minor
ER	Error
CL	Clear (a facility type NPC without errors)
--	Unequipped NPC

Unless the ED,PRMTR,EQPT,NPC,TS0 command is used to redefine the active value of bit 4 of CTS 0, the RBER values are:

RBER	*Explanation*
1	Inactive
0	Active

NPC(S)
- Network processing circuit(s)

[s]abc
- The first 3- or 4-digit nonhierarchical NPC number in a module

[t]def
- The last 3- or 4-digit nonhierarchical NPC number in a module

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number of the first NPC in a module

uv-m-qr
- Hierarchical NPC number of the last NPC in a module

uv, - Unit number
m, - Module number
np,qr - NPC number within the module

The allowable values are presented below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

The parameter value for the first NPC is listed in the first position (upper left corner) of the first line of each message segment. The value for the last NPC occurs in the last position (lower right corner).

TOTAL - Total

nnnn - Cumulative count of NPCs returning nonzero states or values

The last nnnn, the one printed out in the last message module, gives the total number of NPCs with nonzero states or values in the frame.

RESET - Reset

Indicates that one or more autonomous resets have occurred.

RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS

UTILITY QUERY, ALARM OPTION, AIS

Input Message Format

Nonhierarchical

[l.56021]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS;
```

Hierarchical

[l.56021]

```
RTRV-PRMTR-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS;
```

Completion Message

Nonhierarchical

[O.56021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "[s]abc[&&-[t]def]:nnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "[u]jkl[&&-[v]ghi]:nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
;
```

Note: The above message applies to FT units.

[O.56022]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "[s]abc[&&-[t]def]:nnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "[u]jkl[&&-[v]ghi]:nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS COMPLD
;
```

Note: The above message applies to DS3 units.

Hierarchical

[O.56021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "uv-m-np[&&&-de-f-gh]:nnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
   /* [O.56021] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "ih-k-lm[&&&-wx-k-qr]:nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
;
```

Note: The above message applies to FT units.

[O.56022]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
   /* [O.56022] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "uv-m-np[&&&-de-f-gh]:nnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
   /* [O.56022] */
   /* Alarm Options */
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   "tttt,tttt,tttt,tttt,tttt,tttt,tttt"
   /* NPC Number:Total */
   "ih-k-lm[&&&-wx-k-qr]:nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
COMPLD
;
```

Note: The above message applies to DS3 units.

Denial Message

Nonhierarchical

[O.56021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-[s]abc[&&-[v]ghi]:[ww]:ALMOPT:AIS DENY
   mmmm
   /* [O.56021.01] */
   /* <explanation of error condition code> */
[  /* UEQD */]
   /* NPC Number */
   "[t]def[&&-[u]jkl]"
;
```

Hierarchical

[O.56021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:ALMOPT:AIS \
DENY
   mmmm
   /* [O.56021.01] */
   /* <explanation of error condition code> */
[  /* UEQD */]
   /* NPC Number */
   "de-f-gh[&&&-ij-k-lm]"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests alarm indication signal (AIS) information for one or more facility terminating unit (FTU) or DS3 unit (DS3U) network processing circuits. The range can cross the unit boundary, and the two NPCs entered can be from different types of units. This message is not applicable to digital signal processing unit (DSPU) NPCs. DSPU NPCs will be skipped in the output message if they are within the range.

Explanation Of Parameters

ALMOPT
- Alarm option

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit starting nonhierarchical NPC number

[v]ghi
- The 3- or 4-digit ending nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Starting hierarchical NPC number

wx-k-qr
- Ending hierarchical NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

[t]def
- The3- or 4-digit nonhierarchical NPC number ([s]abc through [u]jkl)

[u]jkl
- The 3- or 4-digit nonhierarchical NPC number ([t]def through [v]ghi)

ed-f-gh
- Hierarchical NPC number (uv-m-np through ij-k-lm)

ij-k-lm
- Hierarchical NPC number (ed-f-gh through wx-k-qr)

ed	- Unit number (uv through wx)
f	- Module number
gh	- NPC number

nnn - Total number of alarms

TOT - Total

tttt - AIS Alarm option programmed for the NPC

tttt	*Explanation*
INFO	Information message (for all domestic NPCs)
MJ	Major alarm (for all domestic NPCs)
MN	Minor alarm (for domestic non-SLC type NPCs)
--	Unequipped

UEQD - Unequipped

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
IDNV	Invalid CEPT NPC
IDNV	Selectable AIS not valid for DS type NPC(s)
IDNV	All NPC(s) are either not valid or not grown

RTRV,PRMTR,EQPT,NPC,RT,DL

UTILITY QUERY, <parameter>, NETWORK PROCESSING CIRCUIT

Input Message Format

Nonhierarchical

[I.56041]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-[s]abc[&&-[t]def]]:[ww]:\
<parameter>:[{RT|DL}-ffff];
```

Hierarchical

[I.56041]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:\
<parameter>:[{RT|DL}-ffff];
```

Completion Message

Nonhierarchical

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   /* NPC-[s]ooo[&&-[t]ppp],TOTAL-nnnn */
   "[s]ooo[&&[t]ppp],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
;
```

Note: The above message applies to domestic Facility Terminating Modules (FTMs) and parameters other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-[s]ooo[&&-[t]ppp],TOTAL-nnnn */
   "[s]ooo[&&[t]ppp],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
;
```

Note: The above message applies to DS3 modules (i.e., a Multiplexer) and parameters other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:<parameter>:{RT|DL}-ffff  COMPLD
   /* [O.56041] */
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
   /* Mode of operation */
   "g[g]"
   /* Digroup name,NPC Number,Parameter count */
[  "DGA,[s]aaa,xxxxx"]
[  "DGB,[s]bbb,xxxxx"]
[  "DGC,[s]ccc,xxxxx"]
[  "DGD,[s]ddd,xxxxx"]
[  "DGP,[s]ppp,xxxxx"]
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:<parameter>:{RT|DL}-ffff  COMPLD
   /* [O.56041] */
   /* NPC-[s]ooo[&&-[t]ppp],TOTAL-nnnn */
   "[s]ooo[&&[t]ppp],nnnn"
   /* Mode of operation */
   "g[g]"
   /* Digroup name,NPC Number,Parameter count */
[  "DGA,[s]aaa,xxxxx"]
[  "DGB,[s]bbb,xxxxx"]
[  "DGC,[s]ccc,xxxxx"]
[  "DGD,[s]ddd,xxxxx"]
[  "DGP,[s]ppp,xxxxx"]
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:<parameter>:{RT|DL}-ffff  COMPLD
;
```

Note: The above message applies to a SLC Carrier Remote Terminal (RT) or Digital Carrier Line Unit (DCLU) and parameters other than ER and BER.
[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc:[ww]:<parameter>  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx"
;
```

Note: The above message applies to a single NPC and parameters other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc:[ww]:<parameter>  COMPLD
   /* [O.56041] */
   /* <parameter>:xx */
   "xx"
;
```

Note: The above message applies to a single North American NPC and parameter ER or BER, or for the single CEPT NPC and parameter BER.
[O.56043]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:<parameter>  \
COMPLD
   /* [O.56043] */
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
   /* TOTAL:nnnn */
   "0000"
;
```

[O.56042]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]ooo[&&-[t]ppp],TOTAL-nnnn */
   "[s]ooo[&&[t]ppp],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
;
```

Note: The above message applies to domestic Facility Terminating Module (FTM) and either parameter ER or BER.

[O.56042]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]jjj[&&-[t]kkk],TOTAL-nnnn */
   "[s]jjj[&&[t]kkk],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-[s]ooo[&&-[t]ppp],TOTAL-nnnn */
   "[s]ooo[&&[t]ppp],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-[s]abc[&&-[t]def]:[ww]:BER  \
COMPLD
;
```

Note: The above message applies to DS3 modules (i.e., a Multiplexer) and either parameter ER or BER.

Hierarchical

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
        .....          ......              .......
        .....          ......              .......
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,\
xxxxx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
;
```

Note: The above message applies to domestic Facility Terminating Modules (FTMs) and parameter other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   "xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx,xxxxx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
;
```

Note: The above message applies to DS3 modules (i.e., a Multiplexer) and parameter other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:<parameter>:{RT|DL}-ffff  COMPLD
   /* [O.56041] */
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
   /* Mode of operation */
   "g[g]"
   /* Digroup name,NPC Number,Parameter count */
[  "DGA,uv-m-aa,xxxxx"]
[  "DGB,uv-m-bb,xxxxx"]
[  "DGC,uv-m-cc,xxxxx"]
[  "DGD,uv-m-dd,xxxxx"]
[  "DGP,uv-m-pp,xxxxx"]
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:<parameter>:{RT|DL}-ffff  COMPLD
   /* [O.56041] */
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
   /* Mode of operation */
   "g[g]"
   /* Digroup name,NPC Number,Parameter count */
[  "DGA,uv-m-aa,xxxxx"]
[  "DGB,uv-m-bb,xxxxx"]
[  "DGC,uv-m-cc,xxxxx"]
[  "DGD,uv-m-dd,xxxxx"]
[  "DGP,uv-m-pp,xxxxx"]
;
```

Note: The above message applies to a SLC Carrier Remote Terminal (RT) or Digital Carrier Line Unit (DCLU) and parameters other than ER and BER.

[O.56042]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER  \
COMPLD
;
```

Note: The above message applies to domestic Facility Terminating Module (FTM) and either parameter ER or BER.

[O.56042]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER  \
COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
                          .
                          .
                          .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER\
  COMPLD
   /* [O.56042] */
   /* BER:xx */
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   "xx,xx,xx,xx,xx,xx,xx"
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:BER\
  COMPLD
;
```

Note: The above message applies to DS3 modules (i.e., a Multiplexer) and either parameter ER or BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np:[ww]:<parameter>  COMPLD
   /* [O.56041] */
   /* <parameter>:xxxxx */
   "xxxxx"
;
```

Note: The above message applies to a single NPC and parameter other than ER and BER.

[O.56041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np:[ww]:<parameter>  COMPLD
   /* [O.56041] */
   /* <parameter>:xx */
   "xx"
;
```

Note: The above message applies to a single North American NPC and parameter ER or BER, or to a single CEPT NPC and parameter BER.
[O.56043]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:<parameter>\
  COMPLD
   /* [O.56043] */
   /* NPC-uv-m-kl[&&&-uv-m-pq],TOTAL-nnnn */
   "uv-m-kl[&&&-uv-m-pq],nnnn"
   /* TOTAL:nnnn */
   "0000"
;
```

Denial Message

Nonhierarchical

[O.56041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-[s]abc[&&-[t]def]]:[ww]:
<parameter>:[{RT|DL}-ffff]  DENY
   mmmm
   /* [O.56041.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.56041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-uv-m-np[&&&-wx-k-qr]]:[ww]:
<parameter>:[{RT|DL}-ffff]  DENY
   mmmm
   /* [O.56041.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the values for a specified facility performance parameter for a single network processing circuit (NPC), a range of circuits, or a SLC® carrier remote terminal or Digital Carrier Line Unit.

These values may be cleared at any time by using the UTL,CLR,ALL command
The responses generated by this command are determined by the number of NPCs addressed in the command.

- If a single NPC is addressed in the input command then one message, either a completion or denial, will be generated for the addressed NPC. DACS II will always deny invalid commands to specifically addressed NPCs.
- If a range of NPCs is addressed in the input command, no denial response will be generated.

Explanation Of Parameters

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, the first number of a range

[t]def
- The 3- or 4-digit nonhierarchical NPC number, the last number of a range

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical NPC number the last NPC number of a range

wx-k-qr
- Hierarchical NPC number denoting end of an NPC range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

parameter

- Facility performance parameter

For domestic frames, the parameter and its period of measurement are chosen from the list below:

Parameter	*Explanation*	*Period of measurement*
BER	Bit Error Rate	Total since "local midnight"
BPV	Bipolar Violation	Total since "local midnight"
COFA	Change Of Frame Alignment	Total since "local midnight"
CRC	Cyclic Redundancy Code	Total since "local midnight"
ER	Error Rate	Previous 24-hour total (same as BER for D4 framing)
ERS	Errored Seconds	Previous 24-hour total
FRER	Framing Error	Total since "local midnight"
OOF	Out Of Frame	Total since "local midnight"
SERS	Severe Errored Seconds	Previous 24-hour total
SLIP Slip count	Previous 24-hour total	
SAFE	Shelf Alarm Far End count	Total since "local midnight"
SANE	Shelf Alarm Near End count	Total since "local midnight"

A message segment will be omitted for:

- Unequipped FTMs
- Equipped FTMs having no NPCs
- Equipped FTMs with NPCs having zero parameter values.
- DS3 modules in case of BPV request (for domestic only)
- Equipped CEPT FTM with all NPCs being PA type but with a parameter other than BER.

xxxxxx - Parameter count values

Note that dashes ("-") will be output for NPCs that are not equipped or are provisioned with a type inapplicable to the parameter. If an entire FTM is unequipped or all its NPCs are dashes, the segment is skipped.

xx - BER states

For xx representing North American BER states:

xx	*Explanation*
--	Unequipped NPC
CL	Clear (a facility type NPC without errors)
ER	Error state
MJ	Major state
MN	Minor state

[s]jjj
- The Lowest 3- or 4-digit nonhierarchical NPC number in the FTM/MXR that contains NPC [s]abc

[t]kkk
- The Highest 3- or 4-digit nonhierarchical NPC number in the FTM/MXR that contains NPC [s]abc

[s]ooo
- The Lowest 3- or 4-digit nonhierarchical NPC number in the FTM/MXR that contains NPC [t]def

[t]ppp
- The Highest 3- or 4-digit nonhierarchical NPC number in the FTM/MXR that contains NPC [t]def

uv-m-kl
- Lowest hierarchical NPC number in the FTM/MXR that contains NPC uv-m-np

uv-m-pq
- Highest hierarchical NPC number in the FTM/MXR that contains NPC uv-m-np

wx-k-fg
- Lowest hierarchical NPC number in the FTM/MXR that contains NPC wx-k-qr

wx-k-st
- Highest hierarchical NPC number in the FTM/MXR that contains NPC wx-k-qr

RESET - Reset. Indicates that one of more autonomous resets have occurred

The parameter value for the first NPC is in the first position (upper left corner); first line of the message. The parameter value for the last NPC is located in the lower right corner.

nnnn - Cumulative count of NPCs returning nonzero states or values. The last nnnn, the one printed out in the message concluding with COMPLD gives the total number of NPCs with nonzero states or values over the specified range.

If NPCs are in a single FTM, then only one 5-line message is printed.

DGA - Digroup A
DGB - Digroup B
DGC - Digroup C
DGD - Digroup D
DGP - Digroup P, the protection digroup

[s]aaa
- The 3- or 4-digit nonhierarchical digroup A NPC number

[s]bbb
- The 3- or 4-digit nonhierarchical digroup B NPC number

[s]ccc
- The 3- or 4-digit nonhierarchical digroup C NPC number

[s]ddd
- The 3- or 4-digit nonhierarchical digroup D NPC number

[s]ppp
- The 3- or 4-digit nonhierarchical digroup P NPC number

ffff - SLC carrier bank identification number (0000 through 9999)

g[g] - Mode of Operation

[g]g	*Explanation*
1	SLC 96 carrier Mode 1
3	SLC 96 carrier Mode 3
C	SLC Series 5 carrier (Feature Package C)

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
ENEQ	NPC is unequipped
SNVS	FTMI is in service but failed
SNVS	Unit type error
IDNV	Invalid CEPT NPC
SROF	NPC Failed or Out of Service
IDNV	Bank id number not found
SNVS	No SAFE alarm for DGP
IDNV	The specified parameter is not applicable to operation mode of the RT
IDNV	The parameter specified does not match with the NPC type

RTRV,PRMTR,EQPT,NPC,SCDG,STATE

UTILITY QUERY SCDG

Input Message Format

Nonhierarchical

[I.52321]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-[s]abc]:[ww]:SCDG:[STATE]:[{RT-ffff|\
DL-ffff|ALL}];
```

Hierarchical

[I.52321]

```
RTRV-PRMTR-EQPT:[<xy>]:[NPC-uv-m-np]:[ww]:SCDG:[STATE]\
:[{RT-ffff|DL-ffff|ALL}];
```

Completion Message

Nonhierarchical

[O.52321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-[s]abc]:[ww]:SCDG:[STATE]:[{RT|DL}-ffff] \
COMPLD
   /* [O.52321] */
   /* Total number of digroups */
   "mmm"
   "[DGA-[t]aaa][,DGB-[t]bbb][,DGC-[t]ccc][,DGD-[t]ddd][,DGP-[t]ppp]"
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|\
Retrofit(RTF)}] */]
[  "{RT|DL}-ffff,g[g][,{sss|NDL|RTF}]"]
;
```

[O.52322]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT:::[ww]:SCDG:[STATE]:ALL COMPLD
   /* [O.52322] */
   /* Total number of SCDG,total number of digroups for the RT/DL */
   "llll,mmm"
[  "[DGA-[t]aaa][,DGB-[t]bbb][,DGC-[t]ccc][,DGD-[t]ddd][,DGP-[t]ppp]"]
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|\
Retrofit(RTF)}] */]
[  "{RT|DL}-gggg,g[g][,{sss|NDL|RTF}]"]
[>]
[        .        .        .        .]
[        .        .        .        .]
[        .        .        .        .]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV PRMTR EQPT:::[ww]:SCDG:[STATE]:ALL COMPLD]
[  /* [O.52322] */]
[  /* Total number of SCDG,total number of digroups for the RT/DL */]
[  "llll,mmm"]
[  "[DGA-[t]aaa][,DGB-[t]bbb][,DGC-[t]ccc][,DGD-[t]ddd][,DGP-[t]ppp]"]
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|\
Retrofit(RTF)}] */]
[  "{RT|DL}-hhhh,g[g][,{sss|NDL|RTF}]"]
;
```

Hierarchical

[O.52321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-uv-m-np]:[ww]:SCDG:[STATE]:[{RT|DL}-ffff] COMPLD
   /* {[O.52321]|[O.52322]} */
   /* Total number of digroups */
   "mmm"
   "[DGA-uv-j-aa][,DGB-uv-k-bb][,DGC-uv-l-cc][,DGD-uv-m-dd][,DGP-uv-j-pp]"
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|Retrofit(RTF)}] */]
[  "{RT|DL}-ffff,g[g][,{sss|RTF}]"]
;
```

[O.52322]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-uv-m-np]:[ww]:SCDG:[STATE]:ALL COMPLD
   /* [O.52322] */
   /* Total number of SCDG,total number of digroups for the RT/DL */
   "llll,mmm"
[  "[DGA-uv-j-aa][,DGB-uv-k-bb][,DGC-uv-l-cc][,DGD-uv-m-dd][,DGP-uv-j-pp]"]
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|\
Retrofit(RTF)}] */]
[  "{RT|DL}-gggg,g[g][,{sss|NDL|RTF}]"]
[>]
[        .        .        .        .]
[        .        .        .        .]
[        .        .        .        .]
[>]
[  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV PRMTR EQPT::[NPC-wx-k-qr]:[ww]:SCDG:[STATE]:ALL COMPLD]
[  /* [O.52322] */]
[  /* Total number of SCDG,total number of digroups for the RT/DL */]
[  "llll,mmm"]
[  "[DGA-wx-j-aa][,DGB-wx-k-bb][,DGC-wx-l-cc][,DGD-wx-m-dd][,DGP-wx-j-pp]"]
[  "PLSW:xxxx,xxxx,xxxx,xxxx,----"]
[  "LLB:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  "ALST:xxxx,xxxx,xxxx,xxxx,xxxx"]
[  /* Bank id,Mode of operation[,{PWR/MISC Alarm|No Data Link|\
Retrofit(RTF)}] */]
[  "{RT|DL}-hhhh,g[g][,{sss|NDL|RTF}]"]
;
```

Denial Message

Nonhierarchical

[O.52321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-[s]abc]:[ww]:SCDG:[STATE]:[{RT-ffff|DL-ffff|\
ALL}] DENY
   mmmm
   /* [O.52321.01] */
   /* < explanation of error condition code> */
[  "UNIT-[q]q"]
[  "{RT|DL}-hhhh"]
;
```

Hierarchical

[O.52321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR EQPT::[NPC-uv-m-np]:[ww]:SCDG:[STATE]:[{RT-ffff|DL-ffff|\
ALL}] DENY
   mmmm
   /* [O.52321.01] */
   /* < explanation of error condition code> */
[  "UNIT-[q]q"]
[  "{RT|DL}-hhhh"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the list of SLC® carrier digroups (DCLU) terminated on this frame. Additionally, if the STATE option is used on the input message, the system reports the status of the digroup(s) with regard to protection switching, line loopback, and the outstanding alarm states.

For Message O.52322, the appearance order for the RTs and DLs (for digital carrier line unit) is such that the RT with the smallest identification number appears first, followed by the DL that has the same identification number.

If a DL is found without the same identification number, then the RT with the next smallest identification number appears next, and so on.

If an RT (DL) is not terminated on this frame, then the output message only includes the first line of the message with the SLC carrier or DCLU digroup value set to zero.

For Message O.52321 and if the NPC number is entered, the RT or DL id number and the operation mode number are shown in the first output line.

The power/miscellaneous (sss) option shows a SLC 96 carrier RT if it is specified in the ADD::RT command.

The retrofit (RTF) option shows a retrofit SLC carrier RT with FPC.

Explanation Of Parameters

SCDG - SLC® carrier digroup

STATE - State

Status of protection switching, line loopback, and alarms

NPC - Network processing circuit

[s]abc

- The 3- or 4-digit nonhierarchical DS-type NPC number belonging to FTU (Unit type FT)
The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np

- Hierarchical DS-type NPC number

uv - Unit number
m - Module number
np - NPC number

Valid values are listed below:

DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

RT - Remote terminal

DL - Digital carrier line unit (DCLU)

ffff - Bank identification number (0000 through 9999)

ALL - All

All SLC carrier RTs or DLs on this frame

gggg, hhhh
- Bank identification number used in the output message when the NPC number or ALL option was specified in the input message. These bank identification numbers have the same values as ffff.

MD - Mode

g[g] - Mode of operation

Mode of operation for the RT/DL SLC carrier bank

g[g]	*Explanation*
1	SLC carrier 96 Mode I
3	SLC carrier 96 Mode III
C	SLC carrier, Series 5 FPC

1111 - Total number of SLC carrier and DCLU digroups terminated on this frame

mmm - Total number of digroups terminated for this bank

sss - PWR/MISC alarm option

sss	Explanation
PMJ	The PWR/MISC alarm from the data link is a power major alarm
PMN	The PWR/MISC alarm from the data link is a power minor alarm
MMJ	The PWR/MISC alarm from the data link is a miscellaneous major
MMN	The PWR/MISC alarm from the data link is a miscellaneous minor

RTF - Retrofit

DGA - Digroup A of a SLC carrier bank
DGB - Digroup B of a SLC carrier bank
DGC - Digroup C of a SLC carrier bank
DGD - Digroup D of a SLC carrier bank
DGP - Digroup P of a SLC carrier bank

[t]aaa
- The 3- or 4-digit Nonhierarchical DGA NPC number

[t]bbb
- The 3- or 4-digit Nonhierarchical DGB NPC number

[t]ccc
- The 3- or 4-digit Nonhierarchical DGC NPC number

[t]ddd
- The 3- or 4-digit Nonhierarchical DGD NPC number

[t]ppp
- The 3- or 4-digit Nonhierarchical DGP NPC number

uv-j-aa,wx-j-aa
- Hierarchical DGA NPC number

uv-k-bb,wx-k-bb
- Hierarchical DGB NPC number

uv-l-cc,wx-l-cc
- Hierarchical DGC NPC number

uv-m-dd,wx-m-dd
- Hierarchical DGD NPC number

uv-j-pp,wx-j-pp
- Hierarchical DGP NPC number

uv,wx	- Unit number
j,k,l,m	- Module number (j=k=l=m for SLC carrier Series 5 FPC RT)
aa	- NPC number
bb	- NPC number
cc	- NPC number
dd	- NPC number
pp	- NPC number

NDL - No data link

PLSW - Protection line switch (status)

xxxx	Explanation
SWMR	Manually requested PLSW is performing
SWPR	Manually requested PLSW is pending
SWAR	Automatically requested PLSW is performing
INHB	Protection line switch for the digroup is inhibited
NORM	Protection line switch status is normal

LLB - Line loopback (status)

xxxx	Explanation
FRTA	LLB request from RT is active
FRTI	LLB request from RT is inhibited
TRTA	LLB request to RT is active
TRTI	LLB request to RT is inhibited
LBPR	LLB request to RT is pending
INHB	LLB request from and to RT is inhibited
NORM	The LLB is not active nor inhibited

ALST - Alarm status

xxxx	Explanation
MNNE	Minor alarm, location near end
MJNE	Major alarm, location near end
MNFE	Minor alarm, location far end
MJFE	Major alarm, location far end
MNCL	Minor alarm, location carrier line
MJCL	Major alarm, location carrier line
----	No alarm is active

UNIT - Unit

[q]q - Unit number (1 through 16)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
IDNV	Invalid CEPT NPC
IDNV	NPC type is not DS type
IDNV	Bank id number not found
SNVS	NPC is not added

RTRV,PRMTR,LINK

QUERY LINK STATUS AND PROTOCOL

Input Message Format

[I.55113]

```
RTRV-PRMTR-LINK:[<xy>]:j[mm][&&lnn]:[ww];
```

Completion Message

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::j:[ww] COMPLD
   /* [O.55113] */
   /* Protocol */
   "S"
   /* Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status */
   "bb:e:k:q:x:m,s,hh"
;
```

Note: The above message applies to the Snider protocol.

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::j:[ww] COMPLD
   /* [O.55113] */
   /* Protocol */
   "X"
   /*Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status*/
   "bb::k:::m,xxxx,hh"
   /* Data Link Layer Parameters:Frame address */
   "K-b,T1-eee,T3-ggg,N2-aa:{A|B}"
   /* Packet Layer Parameters */
   "T20-iii,R20-nn,DBIT-v"
   /* PVC and SVC range:PVC and SVC group number */
   "ppss:gghh"
;
```

Note: The above message applies to the X.25 protocol when virtual circuit is not specified.

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::jmm:[ww] COMPLD
   /* [O.55113] */
   /* Protocol */
   "X"
   /*Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status*/
   "bb::k:::m,xxxx,hh"
   /* Data Link Layer Parameters:Frame Address */
   "K-b,T1-eee,T3-ggg,N2-aa:{A|B}"
   /* Packet Layer Parameters */
   "W-c,P-ddd,T20-iii,T22-jjj,T23-kkk,T25-lll,T26-mmm,R20-nn,R22-p,R23-q,
    R25-r,DBIT-v"
   /* PVC and SVC range:PVC and SVC group number */
   "ppss:gghh"
;
```

Note: The above message applies to the X.25 protocol when a single virtual circuit is specified.

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::jmm&&jnn:[ww] COMPLD
   /* [O.55113] */
   /* Link:Protocol */
   "lmm:X"
   /* Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status */
   "bb::k:::m,xxxx,hh"
   /* Data Link Layer Parameters:Frame Address */
   "K-b,T1-eee,T3-ggg,N2-aa:{A|B}"
   /* Packet Layer Parameters */
   "W-c,P-ddd,T20-iii,T22-jjj,T23-kkk,T25-lll,T26-mmm,R20-nn,R22-p,R23-q,R25-r,
   DBIT-v"
[>]
                    .
                    .
                    .
[>]
[   <xy> yy-mm-dd hh:mm:ss [<link number>]]
[M  RTRV PRMTR LINK::jmm&&jnn:[ww] COMPLD]
[   /* [O.55113] */]
[   /* Link:Protocol */]
[   "lnn:X"]
[   /* Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status */]
[   "bb::k:::m,xxxx,hh"]
[   /* Data Link Layer Parameters:Frame Address */]
[   "K-b,T1-eee,T3-ggg,N2-aa:{A|B}"]
[   /* Packet Layer Parameters */]
[   "W-c,P-ddd,T20-iii,T22-jjj,T23-kkk,T25-lll,T26-mmm,R20-nn,R22-p,R23-q,R25-r,
   DBIT-v"]
;
```

Note: The above message applies to the X.25 protocol when a range of virtual circuits is specified.

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::j:[ww] COMPLD
   /* [O.55113] */
   /* Protocol */
   "M"
   /* Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status */
   "bb::k:::m,s,hh"
;
```

Note: The above message applies to the Modified Snider protocol.

[O.55113]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::j:[ww] COMPLD
   /* [O.55113] */
   /* Protocol */
   "T"
   /* Baud:Backspace:Alarm:Enq/Ack:Xon/Xoff:Mode,Software,Hardware status */
   "bb::k:::m,s,hh"
  [/* Application:Layer 2 address:Polling time */]
  ["{ASCS|ASCD}:aa:ttt"]
  ["PM:aa:ttt"]
;
```

Note: The above message applies to the TABS protocol.

Denial Message

[O.55113.01]

```
   <xy> yy-mm-dd hh:mm:ss [<link number>]
M  RTRV PRMTR LINK::j[mm][&&jnn]:[ww]: DENY
   mmmm
   /* [O.55113.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message queries the status and protocol parameters of an administrative link, including all virtual circuits of a X.25 link.

Explanation Of Parameters

j [mm] - Administrative link number
jnn - Administrative link number

j	Physical link number (1 through 6)
mm	First virtual circuit (VC) number of the VC range mm-nn (01 through 16, j must be 5 or 6)
nn	Last virtual circuit (VC) number of the VC range mm-nn (01 through 16, j must be 5 or 6)

S - Snider
X - X.25
M - Modified Snider
T - TABS

bb - Baud rate. For the physical link I alarm class.

bb	*Baud rate*
03	300 b/s
06	600 b/s
12	1200 b/s (default for CIU link)
24	2400 b/s
48	4800 b/s
96	9600 b/s
00	X.25 links

Note: X.25 links are set up to receive external timing only.

e - Backspace character echo

e	*Explanation*
0	Backspace is echoed (default)
1	Backspace is not echoed

k - Failure of the X.25 link

k	*Explanation*
1	Minor alarm (default)
2	Major alarm

q - ENQ/ACK Protocol Enable/Disable Control

q	*ENQ/ACK Protocol State*
0	Disabled
1	Enabled (default)

x - XON/XOFF Protocol Enable/Disable Control

x	*XON/XOFF Protocol State*
0	Disabled (default)
1	Enabled

m - Mode

m	*Status*
0	Idle
1	Input message in progress
2	Output message in progress

s - Status

This status applies to the Snider, modified Snider, and Tabs protocols.

s	*Explanation*
0	In service
1	Out-of-service (OOS)

xxxx - Virtual circuit (VC) status (hexadecimal). Range 0000 through FFFF.

This status applies to the X.25 protocol. A four-digit hexadecimal number will be output in the protocol field whenever a specific VC number is not entered. Each digit represents four bits and each bit is associated with a particular VC. The four hexadecimal digits therefore represent 16 VCs. The bits are assigned to VCs from right to left in increasing order of VC number. That is, bit 1 represents VC 1 and bit 16 represents virtual circuit 16. See below where VC16 marks the position of the bit representing virtual circuit 16 and VC01 similarly marks the position of the bit representing VC 1.

```
hex       binary
xxxx      bbbbbbbbbbbbbbbb
          ^               ^
          VC16        <--VC01
```

The interpretation of the value of a particular bit is given in the explanation of variable s above. Some specific examples of the output are interpreted below.

xxxx	binary expansion	Explanation
0000	0000000000000000	All 16 VCs in service
0001	0000000000000001	VC 1 OOS, all others in service
0002	0000000000000010	VC 2 OOS, all others in service
8003	1000000000000100	VCs 16 and 3 OOS, all others in service
FFFF	1111111111111111	All VCs are OOS

hh - Hardware status

hh	*Explanation*
03	Link hardware in service
04	Link hardware out of service
05	Link hardware pested for autonomous restoral

ppss - Virtual circuit range (00 through 16)

pp	Range of permanent virtual circuits (PVCs). Implies a PVC range from 00 to pp.
ss	Range of switched virtual circuits (SVCs). Implies an SVC range from pp+1 to 16.

gghh - Virtual circuit group number

gg	group number of all PVCs
hh	group number for all SVCs (00 through 15).

APPL - Application layer

ASCS - Alarm surveillance and control, summary

ASCD - Alarm surveillance and control, detailed

PM - Performance monitoring

aa - Layer 2 address

ttt - Polling time

K (b) - Maximum number of outstanding I frames (1 through 7). Default is 7

T1 (eee)
- Acknowledgment timer (2 through 20 seconds). Default is 3 seconds

T3 (ggg)
- Disconnect (or Idle channel) timer (4 through 120 seconds). Default is 26 seconds

N2 (aa)
- Maximum number of frame transmissions (2 through 16). (including original transmission). Default is 7

A - Data link layer frame address A

B - Data link layer frame address B

W (c) - Window size (1 through 7) default is 2

P (ddd)
- Packet size P (ddd) can be 128, 256, 512 octets. default is 128 octets

T20 (iii)
- Restart request response timer (10 through 180 seconds). Default is 180 seconds

T22 (jjj)
- Reset request response timer (10 through 180 seconds). Default is 180 seconds

T23 (kkk)
- Disconnect (or Idle channel) timer (10 through 180 seconds). Default is 180 seconds

T25 (lll)
- Data packet acknowledgement timer (10 through 200 seconds). Default is 200 seconds

T26 (mmm)
- Interrupt response timer (10 through 180 seconds). Default is 180 seconds

R20 (nn)
- Restart request retransmission counter (1 through 10). Default is 1

R22 (p)
- Reset request retransmission counter (1 through 3). Default is 1

R23 (q)
- Clear request retransmission counter (1 through 10). Default is 1

R25 (r)
- Data packet retransmission counter (0 through 3). Default is 0

DBIT (v) - X.25 d-bit setting.

v	*Explanation*
0	off (unset) acknowledgement done from local DTE. Default value.
1	on (set) acknowledgement done from remote DTE.

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified

RTRV,PRMTR,MACRO,ATTR,ALL

QUERY MACRO ATTRIBUTES

Input Message Format

[I.54211]

```
RTRV-PRMTR-MACRO:[<xy>]::[ww]:ATTR:[{<user id>|ALL}];
```

Completion Message

[O.54211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR MACRO:::[ww]:ATTR:[{<user id>|ALL}] COMPLD
   /* [O.54211] */
   /* User id,Macro name,Language,Parameter total,\
Macro space used,  NPC Addressing Scheme */
   "<user id>,<name>,{P|M},tt,nnn,{E|X|H}"
       ......  ......
       ......  ......
   "<user id>,<name>,{P|M},tt,nnn,{E|X|H}"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR MACRO:::[ww]:ATTR:[{<user id>|ALL}] COMPLD
   /* [O.54211] */
   /* User id,Macro name,Language,Parameter total,\
Macro space used, NPC Addressing Scheme */
   "<user id>,<name>,{P|M},tt,nnn,{E|X|H}"
       ......  ......
       ......  ......
   "<user id>,<name>,{P|M},tt,nnn,{E|X|H}"
;
```

[O.54212]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR MACRO:::[ww]:ATTR:[{<user id>|ALL}] COMPLD
   /* [O.54212] */
   "NONE"
;
```

Denial Message

[O.54211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR MACRO:::[ww]:ATTR:[{<user id>|ALL}] DENY
   mmmm
   /* [O.54211.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message queries the macro attributes associated with all personally-owned macros and any public macros. The frame administrator can query ALL the macro attributes of any macro, public or private.

For each macro, DACS II lists:

- The macro name
- The user who owns the macro
- The number of parameters in the macro
- The language used
- The amount of space used by the macro.

Explanation Of Parameters

ATTR - Attributes

user id
- Query the specified user's private and public macro attributes

User login identification is two to eight alphabetic characters.

ALL - Query all private and public macros' attributes (used by the frame administrator only)

MACRO - The keyword used to indicate that the "name" shown is a macro name. A Macro is a collection of DACS II commands that can be executed as a group.

name - The macro name which is a string of uppercase alphanumeric characters from one to seven characters long. The first character must be an alphabetic character.

A macro name start with the character "P" is a public macro. Only the frame administrator is allowed to create a public macro.

LANG - Language

M - Man-Machine Language

P - Program Documentation Standard

PRMTR - Macro parameters

tt - Total number of macro parameters used (01 - 10)

SPACE - Macro space

nnn - Macro space used by the macro in percentage of the user macro space allocation (000 - 100)

NPCAD - NPC addressing scheme

E - 3-digit extended (nonhierarchical) NPC addressing scheme

X - 4-digit extended (nonhierarchical) NPC addressing scheme

H - Hierarchical NPC addressing scheme, i.e., address the NPC by using the unit number, module number, and NPC number within the module.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,PRMTR,MACRO,MAP,SPACE,ALL

UTILITY QUERY MACRO/MAP SPACE

Input Message Format

[I.54221]

```
RTRV-PRMTR-{MACRO|MAP}:[<xy>]::[ww]:SPACE:[{<user id>|ALL|\
SYSTEM}];
```

Completion Message

[O.54221]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR {MACRO|MAP}:::[ww]:SPACE:[{<user id>|SYSTEM}] \
COMPLD
   /* [O.54221] */
   /* Space allocated, Space available */
   "nnn,xxx"
;
```

[O.54222]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR {MACRO|MAP}:::[ww]:SPACE:ALL COMPLD
   /* [O.54222] */
   /*Space allocated */
   "nnn"
   /* User name,Space available */
   "<user id>,xxx"
   "<user id>,xxx"
    ....       ....
   "<user id>,xxx"
>
   ....       ....
>
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR {MACRO|MAP}:::[ww]:SPACE:ALL COMPLD
   /* [O.54222] */
   /*Space allocated */
   "nnn"
   /* User name,Space available */
   "<user id>,xxx"
   "<user id>,xxx"
    ....       ....
   "<user id>,xxx"
;
```

Denial Message

[O.54221.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR {MACRO|MAP}:::[ww]:SPACE:[{<user id>|ALL|\
SYSTEM}] DENY
   mmmm
   /* [O.54221.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the amount of space that the user's alternate map or macro requires and how much space is still available.

The frame administrator can query for all user's macro or alternate map space requirements and for the system space requirements and allocation.

In summary, a user can query his/her own alternate map or macro space, but only the frame administrator can use the ALL and SYSTEM options of the command to query space owned by another user.

Explanation Of Parameters

MAP - Map

MACRO - Macro

USER - User

user id
- query the specified user's macro/map space status.

  User login identification is two to eight alphabetic characters.

ALL - query all users' macro/map space status.

SYSTEM
- query the system macro/map space status.

nnn - percentage of macro/map space allocated (000 to 100%). If user ID or ALL option is used, nnn is the user macro/map space allocation percentage. If SYSTEM option is used, nnn is the percentage of system macro/map space allocated, and it is always 100 (i.e., 100%).

AVAIL - Percentage of space available.

xxx - percentage of user or system macro/map space still available (000 to 100%)

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,PRMTR,MAP,ATTR,ALL

UTILITY QUERY MAP

Input Message Format

[I.54201]

```
RTRV-PRMTR-MAP:[<xy>]::[ww]:ATTR:[{ALL|<user id>|<name>}];
```

Note: Only the DACS II frame administrator can use the ALL option.

Completion Message

[O.54201]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR MAP:::[ww]:ATTR:[{ALL|<user id>|<name>}] COMPLD
   /* [O.54201] */
   /* <user id>, <map name>, <status>, <space> */
   "<user id>,<name>,bb,nnn"
                .
                .
                .
   "<user id>,<name>,bb,nnn"
;
```

[O.54202]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR MAP:::[ww]:ATTR:[{ALL|<user id>|<name>}] COMPLD
   /* [O.54202] */
   "NONE"
;
```

Denial Message

[O.54201.01]

```
   <xy> yy-mm-dd hh:mm:ss <link number>
M  RTRV PRMTR MAP:::[ww]:ATTR:[{ALL|<user id>|<name>}] DENY
   nnnnn
   /* [O.54201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the following information on the user's alternate map:

- User identifier
- Status of the map
- Amount of space used by the map.

Only the administrator can request information on other users or request ALL alternate maps on the DACS II frame.

Explanation Of Parameters

MAP - Map

ATTR - Attributes

ALL - All

USER - User

user id
- User identifier

User login identification is two to eight alphabetic characters.

The USER option is available to a regular DACS II user to query his or her own maps. Only the administrator can use the option to request information on other users or ALL alternate maps on the DACS II frame.

status
- Status of the alternate map

bb - Map Status

bb	Explanation
00	Map is valid (can be activated)
01	Map is not valid (it contains conflicting circuits and therefore cannot be activated)

SPACE - Alternate map space

nnn - Alternate Map space used by the alternate map in percentage of the user alternate map space allocation (000 - 100)

mmmm - Error condition code

mmmm	*Explanation*
SNVS	File doesn't exist/can't be accessed
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	No user is logged in on the link/vc

RTRV,PRMTR,NE

UTILITY QUERY CONFIGURE

Input Message Format

[I.51091]

```
RTRV-PRMTR-NE:[<xy>]::[ww];
```

Completion Message

[O.51091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR NE:::[ww] COMPLD
   /* [O.51091] */
   /* Frame <id>, Unique Identifier, Software Serial Number */
   "xy,<uid>,<ssn>"
   /* Total Bays, Bay Type, Total Equipped Units, CCN <id>, Height <id> */
   "aa,f-fffff,bb,c,d"
   /* Unit identification */
   "UNIT:a,a,a,a,a,a,a,a,a,a,a,a,a,a,a,a"
   /* Allowable NPC Addressing Scheme */
   "NPCAD:[E,][X,]H"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests information on the configuration of a DACS II frame.

Explanation Of Parameters

xy - Frame identifier (00 through ZZ)

uid - Unique (frame) identifier (1 to 20 alphanumeric characters)

ssn - Software serial number value (1 to 10 alphanumeric characters)

The software serial number may be assigned by the user to identify a particular software package. This would eliminate problems in an office where the user has multiple frames and more than one software package is in use.

BAY - Bay
aa - Total number of bays, in decimal (01 through 07)

f-fffff

- Bay type

f	*Explanation*
-	Not configured or the Switch Bay (Bay 2)
1	Original Interface Bay
2	Flexible Interface Bay

The corresponding bay number for each "f" and its values are shown in the table that follows. **Note that the bay numbers are listed in ascending order,** which does not represent the relative physical location of the bays. The bay numbers are positioned in the frame as shown below.

6 4 1 2 3 5 7

Bay Number	1	2	3	4	5	6	7
"f" Position	f	-	f	f	f	f	f
Valid "f" Values for Each Bay	1 2	-	- 1 2	- 2	- 2	- 2	- 2

bb - Number of equipped units, in decimal (01 through 16)

CCN - Cross-connect network

c - Cross-connect network type

c	*Explanation*
1	Multibay CCN
2	Single-bay CCN
E	ECCN

HG - Height

d - Height of bay

d	*Explanation*
0	7'0" (2133mm)
1	11'6" (3505mm)
2	7'2.6" (2200mm)

UNIT - Unit

a - Unit number

a	*Explanation*
-	Not configured
1	FTU
2	DSPU
3	DS3U
4	IFTU

NPCAD - Network processing circuit addressing

E - The 3-digit nonhierarchical (Extended) addressing scheme

X - The 4-digit nonhierarchical (Extended) addressing scheme

H - Hierarchical addressing scheme

RTRV,PRMTR,NE,ECLOC

QUERY ERROR CORRECTION LOCATION

Input Message Format

[I.51511]

```
RTRV-PRMTR-NE:[<xy>]::[ww]:ECLOC;
```

Completion Message

[O.51511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR NE:::[ww]:ECLOC COMPLD
   /* [O.51511] */
   "TYPE-{MJU|SRM}"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This Subrate message requests the current setting of the error correction location (ECLOC) functions. The ECLOC is the type of Subrate circuit pack to which all new error correction functions will be allocated. Such resources are allocated for channels requiring parity channel error correction and for circuits with Subrate error correction that do not connect to a Subrate multiplexer or a multipoint junction unit.
The ECLOC is set using the ED,PRMTR,T0,INCL,TERM or ED,PRMTR,T0,INCL,TLP commands.

Explanation Of Parameters

ECLOC - Error correction location

TYPE - Type

RTRV,PRMTR,NE,HUBID

UTILITY QUERY HUB IDENTIFIER

Input Message Format

[I.51501]

```
RTRV-PRMTR-NE:[<xy>]::[ww]:HUBID;
```

Completion Message

[O.51501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR NE:::[ww]:HUBID COMPLD
   /* [O.51501] */
   "HUBID-O-ab"
;
```

Denial Message

[O.51501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR NE:::[ww]:HUBID DENY
   mmmm
   /* [O.51501.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the current setting of the DACS II hub identification code (HUBID).

Explanation Of Parameters

HUBID - HUB Identification Code

O'ab - MJU hub identification code represented in Octal digits (O'00 through O'77)

mmmm	Explanation
SNVS	Status, not in valid state HUBID HAS NOT BEEN SET

RTRV,PRMTR,SQN

UTILITY QUERY SEQUENCE

Input Message Format

[I.51131]

```
RTRV-PRMTR-SQN:[xy]::[ww];
```

Completion Message

[O.51131]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR SQN:[xy]::[ww] COMPLD
   /* [O.51131] */
   /* Last sequence number of autonomous message */
   "nn"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to retrieve the sequence number of the last autonomous message issued by DACS II.

Explanation Of Parameters

SQN - Sequence Number

nn - two digit sequence number of the last autonomous message

RTRV,PRMTR,T0,FROM

UTILITY QUERY FROM

Input Message Format

Nonhierarchical

[I.52051]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:FROM;
```

Hierarchical

[I.52051]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:FROM;
```

Completion Message

Nonhierarchical

[O.52051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52051] */
   /* <data line for one TO channel connected to the specified FROM> */
   "[t]ghi-jjj:ppqqq:<tc>:[ CUS][,RDLD][,UTST,{TP-kk|TG-mmm}][,TERMT]"
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,ddd"
[  /*Protection Line NPC Number*/]
[  "[t]ppp"]
>
                  .
                  .
                  .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52051] */
   /* <data line for one TO channel connected to the specified FROM> */
   "[t]ghi-kkk:ppqqq:<tc>:[ CUS][,RDLD][,UTST,{TP-kk|TG-mmm}][,TERMT]"
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,eee"
[  /* Protection Line NPC Number */]
[  "[t]ppp"]
;
```

[O.52052]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52052] */
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,ddd"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
   "[CUS[,]][COND-cc][[,]<tc>]"
>
                  .
                  .
                  .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52052] */
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,eee"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
   "[CUS[,]][COND-cc][[,]<tc>]"
;
```

[O.52053]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52053] */
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,ddd"
   "NOT OCON"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52053] */
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,eee"
   "NOT OCON"
;
```

Hierarchical

[O.52051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52051] */
   /* <data line for one TO channel connected to the specified FROM> */
   "de-h-fg-jjj:ppqqq:<tc>:[CUS][,RDLD][,UTST,{TP-kk|TG-mmm}][,TERMT]"
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,ddd"
[  /*Protection Line NPC Number*/]
[  "wx-k-qr"]
>
                  .
                  .
                  .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52051] */
   /* <data line for one TO channel connected to the specified FROM> */
   "de-h-fg-jjj:ppqqq:<tc>:[CUS][,RDLD][,UTST,{TP-kk|TG-mmm}][,TERMT]"
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,kkk"
[  /*Protection Line NPC Number*/]
[  "wx-k-qr"]
;
```

[O.52052]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52052] */
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,ddd"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
   "[CUS[,]][COND-cc][[,]<tc>]"
>
                  .
                  .
                  .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52052] */
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,eee"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
   "[CUS[,]][COND-cc][[,]<tc>]"
;
```

[O.52053]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52053] */
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,ddd"
   "NOT OCON"
>
                .
                .
                .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM COMPLD
   /* [O.52053] */
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,eee"
   "NOT OCON"
;
```

Denial Message

Nonhierarchical

[O.52051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:FROM DENY
   mmmm
   /* [O.52051.01] */
   /* <explanation of error condition code> */
[  /* TYPE-mnxyz */]
[  /* Bank ID, Mode, Digroup A NPC Number */]
[  "{RT|DL}-ffff,g[g],[t]aaa"]
[  /* {UEQD|RNGIE|COND-cc} */]
;
```

Hierarchical

[O.52051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:FROM DENY
   mmmm
   /* [O.52051.01] */
   /* <explanation of error condition code> */
[  /* TYPE-mnxyz */]
[  /* Bank ID, Mode, Digroup A NPC Number */]
[  "{RT|DL}-ffff,g[g],uv-j-kl"]
[  /* {UEQD|RNGIE|COND-cc} */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query the FROM side of a one-way cross-connected circuit or a range of one-way circuits. For a SLC® carrier denial message relating to terminating digroups, the bank identification number, the mode of operation, and the digital digroup A of the network processing circuit number are reported. A completion message for SLC carrier is currently under protection; the digital digroup P option is shown.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit non-hierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are listed below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

ddd - Starting channel number
eee - Channel number denoting the end of the range.

The valid values are listed below:
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)
Conference numbers

001-085 (MB NPC)

001-500 (Virtual NPC)

mnxyz - FROM termination NPC type

Valid values are listed below:

mn *Explanation*

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

DGP - SLC carrier digroup P

[t]ppp
- The 3- or 4-digit nonhierarchical SLC carrier digroup P NPC number.

Valid values are identical to those for [s]abc.

[t]ghi
- The 3- or 4-digit nonhierarchical TO NPC number.

Valid values are identical to those for [s]abc.

wx-k-qr
- Hierarchical SLC carrier digroup P NPC number

Valid values are identical to those for uv-m-np

ed-h-fg
- Hierarchical TO NPC number

Valid values are identical to those for uv-m-np

jjj,kkk
- TO channel numbers

Valid values are identical to those for ddd.

ppqqq - TO termination NPC type

Valid values are listed below:

ppqqq	*Explanation*
MB	Digital multipoint bridge NPC
VI	Virtual NPC

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word specification.

pq is a user specified insertion word. The binary pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.

tc

TC-X---,X-cd,TRB
TC-X---,X-cd,IW-X-pq
TC-----,mnop,TRB
TC-----,mnop,IW-X-pq
TRSP,TRB
TRSP,MUX
TRSP,IW-X-pq
TRSP (DMB to DMB)

Note: If the channel being connected is an FDL (Facility Data Link), then ddd is 000 and trunk conditioning should be of type TC-----,mnop.

The FDL is not supported by the DS-type NPC.

The following insertion word options are allowed:

insertion word

IW-X-pq	The 8-bit pattern corresponding to the hexadecimal value of pq will be inserted in the downstream direction of a failure on either line.
Omitted	Will default to IW-X-FF.

RDLD - Red lined

Red lined circuit

CUS - Customer

Customer-controlled circuit

UTST - Under test

Given termination is under test

TP - Test Port

kk - Test port number (01-96)

TG - Test Group

mmm - Test group number (001-400)

TERMT - Terminate TO

Termination is in the terminate and leave state in the TO direction.

DCC - Disconnect code

RT - Remote terminal

DL - Digital carrier line unit (DCLU)

ffff - RT or DL bank identification (0000 through 9999)

MD - Mode

g[g] - RT or DL operation mode

g[g]	*Explanation*
1	SLC 96 carrier Mode I
3	SLC 96 carrier Mode III
C	SLC Series 5 carrier FPC

[t]aaa

- Nonhierarchical RT or DL digroup A NPC number with the same valid values as [s]abc.

UNEQD - Unequipped

uv-j-kl

- Hierarchical RT or DL digroup A NPC number with the same valid values as uv-m-np.

RNGIE - Range input error

cc mmmm - Error condition code

cc	mmmm	*Explanation*
15	ENEQ	NPC is unequipped
E3	SNVS	One way unassigned channel/NPC in QRY,TO
0B	IDNV	Invalid CEPT NPC
62	IDNV	Invalid channel number
63	IDNV	NPC is a DGP
7F	SNVS	NPC is not added
91	SNVS	SR NPC was specified - not allowed
F7	ENRE	Corresponding NPC for virtual channel is not provisioned
B4	IDNV	NPC is channelized type
4F	IDNV	NPC is not part of a one-way connection

RTRV,PRMTR,T0,MARK

QUERY CHANNEL MARKS

Input Message Format

Nonhierarchical

[I.52211]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-jjj[&&-kkk]:[ww]:MARK;
```

Hierarchical

[I.52211]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-jjj[&&-kkk]:[ww]:MARK;
```

Completion Message

Nonhierarchical

Note: For conference circuits message segments are limited to a maximum of 20 lines (8 overhead and 12 data).

Usage: Single channel or conference point.

[O.52211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-jjj:[ww]:MARK COMPLD
   /* [O.52211] */
   /* tnnncccrrrr  t=*(one-way),B(broadcast),blank(two-way) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
   "tjjjcccrrrr"
   /* NPC type */
   "mnxyz"
[  "FDL-t000cccrrrr"]
;
```

"FDL-t000cccrrrr" is output if this channel is an FDL.

Usage: Range of channels or conference points.

[O.52211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-jjj[&&-kkk]:[ww]:MARK COMPLD
   /* [O.52211] */
   /* tnnnccccrrrr  t=*(one-way),B(broadcast),blank(two-way) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
[   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"]
                    .
                    .
                    .
[   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"]
[   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"]
   /* NPC type,number of data fields */
   "mnxyz,xx"
[  "FDL-t000cccrrrr"]
;
```

Usage: No channel or conference point is marked.

[O.52213]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-jjj[&&-kkk]:[ww]:MARK COMPLD
   /* [O.52213] */
   "NONE"
;
```

"FDL-t000cccrrrr" is output if one of the channels is an FDL

Hierarchical

Usage: Single channel or conference point.

[O.52211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-jjj:[ww]:MARK COMPLD
   /* [O.52211] */
   "tjjjcccrrrr"
   /* NPC type */
   "mnxyz"
[  "FDL-t000cccrrrr"]
;
```

"FDL-t000cccrrrr" is output if this channel is an FDL

Usage: Range of channels or conference points.

[O.52211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-jjj[&&-kkk]:[ww]:MARK COMPLD
   /* [O.52211] */
   /* tnnncccrrrr  t=*(one-way),B(broadcast),blank(two-way) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
[   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,\
tnnncccrrrr"]
                    .
                    .
                    .
[   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,\
tnnncccrrrr"]
[   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,\
tnnncccrrrr"]
   /* NPC type,number of data fields */
   "mnxyz,xx"
   ["FDL-t000cccrrrr"]
;
```

"FDL-t000cccrrrr" is output if one of the channels is an FDL

Usage: No channel or conference is marked.

[O.52213]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-jjj[&&-kkk]:[ww]:MARK COMPLD
   /* [O.52213] */
   "NONE"
;
```

Denial Message

Nonhierarchical

[O.52211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-jjj[&&-kkk]:[ww]:MARK DENY
   mmmm
   /* [O.52211.01] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

[O.52211.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-jjj[&&-kkk]:[ww]:MARK DENY
   mmmm
   /* [O.52211.02] */
   /* <explanation of error condition code> */
[  /* Bank id,Mode of operation,DGA NPC number */]
[  "{RT|DL}-ffff,MD g[g],[t]aaa"]
;
```

Hierarchical

[O.52211.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-jjj[&&-kkk]:[ww]:MARK DENY
   mmmm
   /* [O.52211.01] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

[O.52211.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-jjj[&&-kkk]:[ww]:MARK DENY
   mmmm
   /* [O.52211.02] */
   /* <explanation of error condition code> */
[  /* Bank id,Mode of operation,DGA NPC number */]
[  "{RT|DL}-ffff,MD g[g],uvkqr"]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query a single or range of network processing circuits for the channel and conference points that are **MARK**ed as red or customer controlled circuits.

The command can be entered to request a listing for a group of channels/conference points or for a single channel/conference point. This command can be aborted before the entire printout has completed.

For a disconnected channel which was previously used in both two-way and one-way cross-connections, the CUS marking retained for the two-way cross-connection is output by default.

Outputs are skipped under the following conditions:

- An unequipped NPC
- If a channel/conference point has no red circuit or customer controlled marking.

Explanation Of Parameters

MARK - Mark

Red circuit and customer controlled MARKings

NONE - None

This keyword indicates that no channel or conference point is marked as a red and/or customer controlled circuit.

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-002   161-162   321-322   481-482   641-642   801-802
021-022   181-182   341-342   501-502   661-662   821-822
041-042   201-202   361-362   521-522   681-682   841-842
061-062   221-222   381-382   541-542   701-702   861-862
081-082   241-242   401-402   561-562   721-722   881-882
101-102   261-262   421-422   581-582   741-742   901-902
121-122   281-282   441-442   601-602   761-762   921-922
141-142   301-302   461-462   621-622   781-782   941-942
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641-0642	0801-0802	0961-0962	1121-1122
0661-0662	0821-0822	0981-0982	1141-1142
0681-0682	0841-0842	1001-1002	1161-1161
0701-0702	0861-0862	1021-1022	1181-1182
0721-0722	0881-0882	1041-1042	1201-1202
0741-0742	0901-0902	1061-1062	1221-1222
0761-0762	0921-0922	1081-1082	1241-1242
0781-0782	0941-0942	1101-1102	1261-1262

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281-1282	1441-1442	1601-1602	1761-1762
1301-1302	1461-1462	1621-1622	1781-1782
1321-1322	1481-1482	1641-1642	1801-1802
1341-1342	1501-1502	1661-1662	1821-1822
1361-1362	1521-1522	1681-1682	1841-1842
1381-1382	1541-1542	1701-1702	1861-1862
1401-1402	1561-1562	1721-1722	1881-1882
1421-1422	1581-1582	1741-1742	1901-1902

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The valid values follow:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01-02

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit      Module    NPC
99        1         01-02  (DACS II Non-CEF frames)
99        1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

jjj,
kkk - Channel or conference point numbers

Channel numbers

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-085	(MB NPC)
001-500	(Virtual NPC)

tnnnccrrrr

t - Cross-connection type

t	*Explanation*
*	One-way cross-connection
B	Broadcast cross-connection, Blank for two-way cross-connection,
D	Disconnection

nnn - Channel/conference point number (jjj through kkk)

ccc - Customer controlled marking

ccc	*Explanation*
CUS	Customer controlled
---	Not customer controlled

rrrr - Red circuit marking

rrrr	*Explanation*
RDLD	Red circuit
----	Not red circuit

xx - Total number of data fields in the segment (01 through 24)

RT - Remote terminal

SLC® carrier remote terminal

DL - Digital carrier line unit

ffff - SLC carrier RT or DCLU Bank identification number (0000 through 9999)

MD - Mode

g[g] - Mode of operation

g[g]	*Explanation*
1	SLC 96 carrier Mode I
3	SLC 96 carrier Mode III
C	SLC Series 5 carrier Feature Package C

[t]aaa
- The 3- or 4-digit nonhierarchical SLC carrier digroup A NPC number.

uv-k-qr
- Hierarchical SLC carrier digroup A NPC number.

uv	- Unit number
k	- module number
qr	- NPC number

UEQD - Unequipped

TYPE - Type

mnxyz - NPC type

mnxyz	*Explanation*
-----	Unknown NPC type
DExyz	Enhanced digroup
DSxyz	SLC carrier interface
MBxyz	Multipoint bridge
TExyz	DS3U noninterface unit
TIxyz	DS3U interface unit
VIxyz	Virtual circuit

FDL - Facility data link

COND - Condition

mmmm - Error condition code

mmmm	*Explanation*
IDRG	Invalid range for specified NPC type
IDNV	Invalid CEPT NPC
IDNV	Invalid channel number
IDNV	NPC is a DGP
SNVS	NPC is not added
SNVS	SR NPC was specified - not allowed
IDNV	CPR circuit pack specified in the command
ENRE	Corresponding NPC for virtual channel is not provisioned

RTRV,PRMTR,T0,TO

DS0 UTILITY QUERY TO

Input Message Format

Nonhierarchical

[I.52041]

```
RTRV-PRMTR-T0:[<xy>]:[s]abc-ddd[&&-eee]:[ww]:TO;
```

Hierarchical

[I.52041]

```
RTRV-PRMTR-T0:[<xy>]:uv-m-np-ddd[&&-eee]:[ww]:TO;
```

Completion Message

Nonhierarchical

[O.52041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:TO COMPLD
   /* [O.52041] */
   /* <data line for one FROM channel connected to the specified TO> */
   "<nonhierarchical_MML_data_line>"
                          .
                          .
                          .
[   /* <data line for one FROM channel connected to the specified TO> */]
[   "<nonhierarchical_MML_data_line>"]
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-ppqqq,kkk"
[   /* Protection Line NPC Number */]
[   "[t]mno"]
[>]
                          .
                          .
                          .
[>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd&&-eee:[ww]:TO COMPLD
   /* [O.52041] */
   /* <data line for one FROM channel connected to the specified TO> */
   "<nonhierarchical_MML_data_line>"
                          .
                          .
                          .
[   /* <data line for one FROM channel connected to the specified TO> */]
[   "<nonhierarchical_MML_data_line>"]
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-ppqqq,lll"
[   /* Protection Line NPC Number */]
[   "[t]mno"]
;]
```

nonhierarchical_MML_data_line may take on the following forms:

Format 1 Data Line: For One-Way, Two-Way, and Broadcast Cross-Connections:

```
[t]def-iii:ppqqq:<tc>:
[AIS,][CUS,][RDLD,][{UTST,{TP-kk|TG-mmm}|ROLL}][{ONEWAY|BCAST},][TERM{F|T|B}]
```

Format 2 Data Line: For DMB to non-DMB or VI to non-VI Cross-Connections:

```
[t]def-iii:ppqqq:fmd,tmd:snn,smm:nn:ee:<tc>:
[CUS,][RDLD,][{UTST,TP-kk|ROLL}][ONEWAY,][NTR-r,][TERM{F|T|B}]
```

Format 3 Data Line: For DMB to DMB Cross-Connections:

```
[t]def-iii:ppqqq:fmd,tmd:snn,smm:nn:ee:spp,sqq:tt:uu:<tc>:
[CUS,][RDLD,][UTST,TP-kk][NTR-r,][TERM{F|T|B}]
```

Format 4 Data Line: Test Access to a Cross-Connection or Unmapped Termination:

```
{TP-kk|TG-mmm}:tsm,1[vv]:<tc>:p,[s]ghi-jjj:q,[t]jkl-nnn:
[CUS,][RDLD,][{ONEWAY|BCAST},][NTR-r,][TERM{F|T|B}]
```

Format 5 Data Line: For Subrate Cross-Connections:

```
[-]-SECH-:TRSP,MUX
```

Format 6 Data Line: For Subrate Cross-Connections involving test access:

```
TP-kk:tsm,1:<accpoint>:[TERM{F|T|B}]
```

Format 7 Data Line: For TS0 to non-TS0 Cross-Connections:

```
Not applicable.
```

Note: Format 1 through 4 data lines are output as either one or two lines. The second line is output if any of its optional fields are present.

```
[0.52042]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:TO COMPLD
   /* [0.52042] */
   /* NPC number, NPC type, channel number */
   "[s]abc,TYPE-mnxyz,hhh"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
[  "[CUS,][COND-cc][,<tc>]"]
;
```

Hierarchical

[O.52041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:TO COMPLD
   /* [O.52041] */
   /* <data line for one FROM channel connected to the specified TO> */
   "<hierarchical_MML_data_line>"
                          .
                          .
                          .
[   /* <data line for one FROM channel connected to the specified TO> */]
[   "<hierarchical_MML_data_line>"]
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-ppqqq,kkk"
[   /* Protection Line NPC Number */]
[   "fe-i-gh"]
[>]
                          .
                          .
                          .
[>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd&&-eee:[ww]:TO COMPLD
   /* [O.52041] */
   /* <data line for one FROM channel connected to the specified TO> */
   "<hierarchical_MML_data_line>"
                          .
                          .
                          .
[   /* <data line for one FROM channel connected to the specified TO> */]
[   "<hierarchical_MML_data_line>"]
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-ppqqq,lll"
[   /* Protection Line NPC Number */]
[   "fe-i-gh"]
;]
```

hierarchical_MML_data_line may take on the following forms:

Format 1 Data Line: For One-Way, Two-Way, and Broadcast Cross-Connections:

```
wx-k-qr-iii:ppqqq:<tc>:\
[AIS,][CUS,][RDLD,][{UTST,{TP-kk|TG-mmm}|ROLL}][{ONEWAY|BCAST},][TERM{F|T|B}]
```

Format 2 Data Line: For DMB to non-DMB or VI to non-VI Cross-Connections:

```
wx-k-qr-iii:ppqqq:fmd,tmd:snn,smm:nn:ee:spp,sqq:tt:uu:<tc>:\
[CUS,][RDLD,][{UTST,TP-kk|ROLL}][ONEWAY,][NTR-r,][TERM{F|T|B}]
```

Format 3 Data Line: For DMB to DMB Cross-Connections:

```
wx-k-qr-iii:ppqqq:fmd,tmd:snn,smm:nn:ee:spp,sqq:tt:uu:<tc>:\
[CUS,][RDLD,][UTST,TP-kk][NTR-r,][TERM{F|T|B}]
```

Format 4 Data Line: Test Access to a Cross-Connection or Unmapped Termination:

```
{TP-kk|TG-mmm}:tsm,l[vv]:<tc>:p,ed-h-fg-jjj:q,op-j-st-nnn:\
[CUS,][RDLD,][{ONEWAY|BCAST},][NTR-r,][TERM{F|T|B}]
```

Format 5 Data Line: For Subrate Cross-Connections:

```
--SECH--:TRSP,MUX
```

Format 6 Data Line: For Subrate Cross-Connections involving test access:

```
TP-kk:tsm,l:<accpoint>:[TERM{F|T|B}]
```

Format 7 Data Line: For TS0 to non-TS0 Cross-Connections:

```
Not applicable.
```

Note: Format 1 through 4 data lines are output as either one or two lines. The second line is output if any of its optional fields are present.

```
[O.52042]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:TO COMPLD
   /* [O.52042] */
   /* NPC number, NPC type, channel number */
   "uv-m-np,TYPE-mnxyz,hhh"
   "UASGN[,UTST,{TP-kk|TG-mmm}][,DCC]"
[   "[CUS,][COND-cc,[<tc>]"]
;
```

Denial Message

Nonhierarchical

[O.52041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::[s]abc-ddd[&&-eee]:[ww]:TO DENY
   mmmm
   /* [O.52041.01] */
   /* <explanation of error condition code> */
   /* NPC type */
   /* {TYPE-mnxyz|TYPE------} */
[   /*Bank ID, Mode, Digroup A NPC Number */]
[   "{RT|DL}-ffff,g[g],[t]hij"]
[   /* {UEQD|RNGIE|COND-cc} */]
;
```

Hierarchical

[O.52041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T0::uv-m-np-ddd[&&-eee]:[ww]:TO DENY
   mmmm
   /* [O.52041.01] */
   /* <explanation of error condition code> */
   /* NPC type */
   /* {TYPE-mnxyz|TYPE------} */
[   /*Bank ID, Mode, Digroup A NPC Number */]
[   "{RT|DL}-ffff,g[g],hh-i-jj"]
[   /* {UEQD|RNGIE|COND-cc} */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests provisioning information associated with the specified `TO` termination(s) for channels. The output messages generated depend upon:

- Whether or not the termination is assigned,
- Whether or not the termination is a test port termination,
- The type of network processing circuit for this termination,
- The far-end to which the termination is mapped (if any).

For this utility command, DACS II terminations can be divided into two categories:

- Multipoint termination, which is a multipoint circuit on a real digital multipoint bridge (DMB) in the digital signaling processing unit (DSPU), or in virtual network processing circuits.
- All other terminations.

If the NPC number specified in the command is the number of a remote terminal (DL) digroup currently under protection by the protection digroup (DGP), the execution of the command will be completed and DGP with its associated NPC number appears on the output message.
For a SLC® carrier denial message, the following appears on output: the bank identification number, the mode of operation, and the digroup A network processing circuit number for that remote terminal.

Explanation Of Parameters

TO - To

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640
016A-016H     032A-032H     048A-048H     064A-064H

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
080A-080H     096A-096H     112A-112H     128A-128H

Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	**NPC**	**NPC**	**NPC**
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

ddd - Beginning range channel or conference number
eee - End range channel or conference number
kkk - Mid-range channel or conference number
lll - Mid-range channel or conference number
hhh - Typical midrange channel or conference number

Valid values are given below
Channel numbers

001 through 024

001-047 Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095 Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024 Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048 Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072 Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096 Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096 Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

Conference numbers

001-500 (Virtual NPC)

001-085 (MB NPC)

UASGN - Unassigned

DCC - Disconnect code

tc - Trunk conditioning

Represents the desired cross-connected signaling and insertion word applied when a failure occurs. A trunk conditioning specification consists of a combination of a signaling specification followed by an insertion word (IW) specification. For example, TRSP,IW X'pq (input form).

Valid values are listed below:

tc	*signaling modes*
TC-ijkl,mnop,TRB	**2-way 4-state**
TC-ijkl,mnop,IW-X-pq	**2-way 4-state**
TC-----,mnop,TRB	**1-way 4-state**
TC-----,mnop,IW-X-pq	**1-way 4-state**
TC-X-ab,X-cd,TRB	**2-way 16-state**
TC-X-ab,X-cd,IW-X-pq	**2-way 16-state**
TC-X---,X-cd,TRB	**1-way 16-state**
TC-X---,X-cd,IW-X-pq	**1-way 16-state**
TRSP,IW-X-pq	
TRSP,TRB	
TRSP	

RT - Remote terminal

DL - Data link

ffff - SLC® remote terminal (RT) or digital carrier line unit (DCLU) bank identification number (0000 through 9999)

g[g] - Mode of operation of the RT or DCLU

g[g]	*Explanation*
1	SLC 96 Carrier Mode 1
3	SLC 96 Carrier Mode 3
C	SLC Series 5 Carrier Feature Package C (FPC)

AIS - Alarm indication signal

DS1 range cross-connection with AIS specifications

accpoint
- Access point under test

accpoint Explanation

[s]abchhh — The multiplexed DS0B signal.

[s]abchhh/ee — The DS0A signal or customer ee data stream

only for a DS0B signal.

MPTM [s]abchhh/ee MJU nnnn [BRi]
The multipoint master of the circuit [s]abchhh/ee and the leg of MJU nnnn which is under test. If only "MJU nnnn" is specified, the control leg of MJU nnnn is under test. If "BRi" is specified, branch i of MJU nnnn is under test.

nnnn (0000 through 9999)
i (1 through 4)

DGP - Digroup P (protection digroup, SLC carrier bank)

[t]mno
- The 3- or 4-digit DGP nonhierarchical NPC number

[t]hij
- The 3- or 4-digit DGA (digroup A) nonhierarchical NPC number

fe-i-gh
- DGP hierarchical NPC number

hh-i-jj
- DGA (digroup A) hierarchical NPC number

[t]defiii
- Nonhierarchical FROM termination

[t]def
- The 3- or 4-digit nonhierarchical NPC number

Valid values are identical to those for [s]abc

iii - Channel number

Valid values are identical to those for ddd

ppqqq - NPC type of the FROM termination

Valid values are identical to those for mnxyz below

TYPE - Type

mnxyz - NPC Type

mnxyz	*Explanation*
DAxyz	FTU ANSI NPC type
TAxyz	DS3U ANSI NPC type
VI100	Virtual NPC

Note:
If ppqqq = MB100 or VI100, then FROM is a multipoint termination and TO is not.

CUS - Customer

The circuit is a customer controlled circuit

RDLD - Red lined

The circuit is a red circuit

UTST - Under test

The circuit is under test

ONEWAY
- One-way

The circuit is a one-way connection

BCAST - Broadcast

The circuit is a broadcast-type connection

ROLL - Roll

Bridged leg from Roll procedure

TERM - Terminate (and leave active)

F - FROM terminated
T - TO terminated
B - BOTH terminated

fmd - FROM multipoint circuit mode of the connection
tmd - TO multipoint circuit mode of the connection

For DMB circuits, there are four possible values for fmd and tmd:

fmd *tmd*	*Explanation*
SYM	For legs of a symmetrical multipoint circuit (must be a DMB channel)
BRD	For nonbackbone (tributary) legs of a broadcast multipoint circuit (must be a DMB channel)
BBL	For the backbone leg of a broadcast multipoint circuit (must be a DMB channel)
LEG	For the end that does not terminate on the multipoint circuit (must be an FTU/DS3U channel)

For virtual NPC circuits, there are three possible values for fmd and tmd:

fmd *tmd*	*Explanation*
BRD	For nonbackbone legs of a broadcast multipoint circuit (must be a virtual NPC channel)
BBL	For the backbone leg of a broadcast multipoint circuit (must be a virtual NPC channel)
LEG	For the end that does not terminate on the multipoint circuit (must be FTU/DS3U channels)

snn - Incoming gain adjust parameters for the DMB NPC
smm - Outgoing gain adjust parameters for the DMB NPC

s - Sign (+ or -)
nn - Incoming gain adjust value (-90 through +88)
mm - Outgoing gain adjust value (-90 through +88)

These are the parameters requested for the TO termination. Values are given in steps of two and the units are tenths of a db.

For type VI100 NPCs snn and smm will be output as "---"

The special value --- (three dashes) can be used for either snn or smm (but not both) when no change is to be made to that parameter. This feature allows changing only one of the two parameters if desired. Also, if the cross-connection was provisioned with the NTR (no transmit) option, the gain adjustment in the direction for which transmission is shut off MUST be ---.

nn - Noise guard setting (in dB) for the FROM/TO NPC

The following default values apply:

For Symmetrical bridges	Default: nn = -18 db
For Polling circuits	Default: nn = 0 db

Valid values are listed below:

nn (db)	
00	
06	
12	
18	
--	(For VI100 NPCs)

ee - Echo suppression setting (in dB) for the FROM/TO NPC

The following default values apply:

For Symmetrical bridges	Default: ee = -18 db
For Polling circuits	Default: ee = 0 db

Valid values are listed below:

ee
(db)

00
06
12
18
-- (For VI100 NPCs)

spp - Incoming gain adjust parameters for the TO DMB NPC
sqq - Outgoing gain adjust parameters for the FROM DMB NPC

See snn and smm above for explanation and values.

vv - Noise guard setting (in dB) for the FROM DMB NPC
tt - Noise guard setting (in dB) for the TO DMB NPC

See nn above for default values.

vv
tt
(db)

00
06
12
18

ww - Echo suppression setting (in dB) for the FROM DMB NPC
uu - Echo suppression setting (in dB) for the TO DMB NPC

See ee above for default values.

ww
uu
(db)

00
06
12
18

NTR - No transmit

r - Direction which has no transmission

r	*Explanation*
F	FROM
T	TO

TP - Test port

kk - Test port number (01 through 96)

TG - Test (access) group

mmm - Test group number (001 through 400)

tsm - Test mode

Values are listed below:

tsm	*Mode*
HUB	Hubbed
LPD	Looped
MON	Monitor
SPL	Split
TPR	Test Port Released
TGR	Test Group Released

l - Link used to access this test port (0 if mode is released)

vv - Virtual circuit number of an X.25 link used to access this test port (01 through 16)

p - Channel assignment

Valid values are listed below:

p	*Explanation*
F	FROM side of circuit under test
H	HIGH channel of hubbed test port (only for HUB test mode)

q - Channel assignment

Valid values are listed below:

q	*Explanation*
T	TO side of circuit under test
L	LOW channel of hubbed Test Port (only for HUB test mode)

Terminations cross-connection under test:

ed-h-fg
- Hierarchical FROM/HIGH

op-j-st
- Hierarchical TO/LOW

ed,op - Unit number
h,j - Module number
fg,st - NPC number within module

Valid values are identical to those for uvmnp

[s]ghi,[t]jhk
- The 3- or 4-digit nonhierarchical NPC number

Valid values are identical to those for [s]abc.

jjj,nnn
- Channel number

Valid values are identical to those for ddd above.

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
15	ENEQ	NPC is unequipped
E3	SNVS	One way unassigned channel/NPC in QRY,TO
0B	IDNV	Invalid CEPT NPC
62	IDNV	Invalid channel number
63	IDNV	NPC is a DGP
7F	SNVS	NPC is not added
91	SNVS	SR NPC was specified - not allowed
F7	ENRE	Corresponding NPC for virtual channel is not provisioned
B4	IDNV	NPC is channelized type

RTRV,PRMTR,T1,FROM

UTILITY QUERY FROM

Input Message Format

Nonhierarchical

[I.52071]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc:[ww]:FROM;
```

Hierarchical

[I.52071]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np:[ww]:FROM;
```

Completion Message

Nonhierarchical

[O.52071]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc:[ww]:FROM COMPLD
   /* [O.52071] */
   /* TO NPC And TYPE Connected To FROM NPC */
   "[t]ghi:mnxyz:AIS[,CUS][,RDLD][,UTST][,TERMT]"
   /* FROM NPC Type */
   "TYPE-mnxyz"
;
```

Hierarchical

[O.52071]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   RTRV PRMTR T1::uv-m-np:[ww]:FROM COMPLD
    /* [O.52071] */
    /* TO NPC And TYPE Connected To FROM NPC */
    "wx-k-qr:mnxyz:AIS[,CUS][,RDLD][,UTST][,TERMT]"
    /* FROM NPC Type */
    "TYPE-mnxyz"
;
```

Denial Message

Nonhierarchical

[O.52071.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   RTRV PRMTR T1::[s]abc:[ww]:FROM DENY
    mmmm
    /* [O.52071.01] */
    /* <explanation of error condition code> */
[   /* FROM NPC Type */ ]
[   "TYPE-mnxyz" ]
;
```

Hierarchical

[O.52071.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   RTRV PRMTR T1::uv-m-np:[ww]:FROM DENY
    mmmm
    /* [O.52071.01] */
    /* <explanation of error condition code> */
[   /* FROM NPC Type */ ]
[   "TYPE-mnxyz" ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests provisioning information for a specific FROM non-channelized network processing circuit of a one-way connection.

Explanation Of Parameters

FROM - From

[s]abc
- The 3- or 4-digit non-hierarchical non-channelized FROM NPC
The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	**NPC**	**NPC**	**NPC**	**NPC**	**NPC**
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	**NPC**	**NPC**	**NPC**
0001-0160	0161-0320	0321-0480	0481-0640
Unit	**Unit**	**Unit**	**Unit**
5	6	7	8
NPC	**NPC**	**NPC**	**NPC**
0641-0800	0801-0960	0961-1120	1121-1280
Unit	**Unit**	**Unit**	**Unit**
9	10	11	12
NPC	**NPC**	**NPC**	**NPC**
1281-1440	1441-1600	1601-1760	1761-1920

```
Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640
016A-016H     032A-032H     048A-048H     064A-064H

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280
080A-080H     096A-096H     112A-112H     128A-128H

Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number of non-channelized FROM NPC

uv - Unit number
m - Module number
np - NPC number within the module

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

[t]ghi
- The 3- or 4-digit nonhierarchical number of TO NPC mapped to the FROM NPC

wx-k-qr
- Hierarchical number of TO NPC mapped to the FROM NPC

TYPE - NPC type

mnxyz - NPC type of TO or FROM NPC

DExyz - FTU NPC

TExyz - DS3U NPC
----- - Unequipped NPC

AIS - Alarm indication signal is the idle code for non-channelized digital signal cross-connection.

CUS - Customer controlled circuit

RDLD - Red-lined circuit

UTST - Under test

TERMT - Terminate
Connection is terminated in TO direction

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
IDNV	Invalid CEPT NPC
IDNV	Invalid channel number
IDNV	NPC is channelized type
IDNV	NPC is not part of a one-way connection

RTRV,PRMTR,T1,MARK

UTILITY QUERY MARKINGS

Input Message Format

Nonhierarchical

[I.52201]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc[&&-[t]def]:[ww]:MARK;
```

Hierarchical

[I.52201]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np[&&&-wx-k-qr]:[ww]:MARK;
```

Completion Message

Nonhierarchical

[O.52201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc[&&-[t]def]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tnnnccrrrr  t=*(one-way),B(broadcast),blank(two-way),T\
(test-access) */
   /* D(disconnected); nnn=channel/conference; ccc=customer;\
rrrr=red lined */
   "tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,\
tnnnccrrrr"
   "tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,\
tnnnccrrrr"
   "tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,
tnnnccrrrr"
   "tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,tnnnccrrrr,\
tnnnccrrrr"
   /* NPC number,NPC type,number of data fields */
   "[t]ghi,mnxyz,xx"
   ["FDL-t000ccrrrr"]
>
                                                    .
                                                    .
                                                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc[&&-[t]def]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tcccrrrr  t=*(one-way),B(broadcast),blank(two-way),\
T(test-access) */
   /* D(disconnected); ccc=customer; rrrr=red lined */
   "tcccrrrr"
   /* NPC number,NPC type*/
   "[t]ghi,mnxyz"
>
                                                    .
                                                    .
                                                    .
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::abc[&&-def]:[ww]:MARK COMPLD
M  RTRV PRMTR T1::[s]abc[&&-[t]def]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tnnnccccrrrr  t=*(one-way),B(broadcast),blank(two-way),\
T(test-access) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,\
tnnnccccrrrr"
   /* NPC number,NPC type,number of data fields */
   "[t]ghi,mnxyz,xx"
   ["FDL-t000ccccrrrr"]
;
```

Note: The format above assumes all 24 DS0 channels in each NPC are marked. Only NPCs with markings are listed.

Hierarchical

[O.52201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np[&&&-wx-k-qr]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tnnnccccrrrr  t=*(one-way),B(broadcast),blank(two-way),\
T(test-access) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   "tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr,tnnnccccrrrr"
   /* NPC number,NPC type,number of data fields */
   "ed-h-fg,mnxyz,xx"
   ["FDL-t000ccccrrrr"]
>
                                                    .
                                                    .
                                                    .
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np[&&&-wx-k-qr]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tcccrrrr  t=*(one-way),B(broadcast),blank(two-way),\
T(test-access) */
   /* D(disconnected); ccc=customer; rrrr=red lined */
   "tcccrrrr"
   /* NPC number,NPC type*/
   "ed-h-fg,mnxyz"
>
                                                    .
                                                    .
                                                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np[&&&-wx-k-qr]:[ww]:MARK COMPLD
   /* [O.52201] */
   /* tnnncccrrrr  t=*(one-way),B(broadcast),blank(two-way),\
T(test-access) */
   /* D(disconnected); nnn=channel/conference; ccc=customer; \
rrrr=red lined */
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   "tnnncccrrrr,tnnncccrrrr,tnnncccrrrr,tnnncccrrrr"
   /* NPC number,NPC type,number of data fields */
   "ed-h-fg,mnxyz,xx"
   ["FDL-t000cccrrrr"]
;
```

Note: The format above assumes all 24 DS0 channels in each NPC are marked. Only NPCs with markings are listed.

Denial Message

Nonhierarchical

[O.52201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc:[ww]:MARK DENY
   mmmm
   /* [O.52201.01] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

[O.52201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc[&&-[t]def]:[ww]:MARK DENY
   mmmm
   /* [O.52201.02] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np:[ww]:MARK DENY
   mmmm
   /* [O.52201.01] */
   /* <explanation of error condition code> */
   /* UEQD */
;
```

[O.52201.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np[&&&-wx-k-qr]:[ww]:MARK DENY
   mmmm
   /* [O.52201.02] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query a single or a range of network processing circuits (NPCs) in a facility terminating unit, a digital signal processing unit, or a DS3 unit. This command can be aborted before the entire printout has completed.

When specifying a single NPC, the channel and conference or non-channelized circuit with markings (red circuit and/or customer controlled) are listed. The output for a channel or conference with markings is skipped. When the circuit does not contain markings, the output message indicates this with the NONE keyword. A denial message is printed when the NPC is unequipped.

When specifying a range of NPCs, the channel and conference or non-channelized circuit with markings (red circuit and/or customer controlled) are listed for each equipped NPC. The output for an unequipped or unmarked channel and conference or non-channelized NPC is skipped.

For a non-channelized with markings, a one-line output message segment is printed for each NPC marked, but the channel or conference information is not printed.

For a disconnected channel which was previously used in both two-way and one-way cross-connections, the CUS marking is retained for the two-way cross-connection in output by default.

Outputs are skipped under the following conditions:

- NPC is unequipped
- Channel or conference point has no **RDLD** or **CUS** marking.

Explanation Of Parameters

MARK - Mark

One of the following:

RDLD - Red-lined circuit
CUS - Customer-controlled circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number denoting beginning of range specification

[t]def
- The 3- or 4-digit nonhierarchical NPC number denoting end of range specification

The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

If NPC numbers are expressed in three digits, the valid values are:

MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-002	161-162	321-322	481-482	641-642	801-802
021-022	181-182	341-342	501-502	661-662	821-822
041-042	201-202	361-362	521-522	681-682	841-842
061-062	221-222	381-382	541-542	701-702	861-862
081-082	241-242	401-402	561-562	721-722	881-882
101-102	261-262	421-422	581-582	741-742	901-902
121-122	281-282	441-442	601-602	761-762	921-922
141-142	301-302	461-462	621-622	781-782	941-942

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0002   0161-0162   0321-0322   0481-0482
0021-0022   0181-0182   0341-0342   0501-0502
0041-0042   0201-0202   0361-0362   0521-0522
0061-0062   0221-0222   0381-0382   0541-0542
0081-0082   0241-0242   0401-0402   0561-0562
0101-0102   0261-0262   0421-0422   0581-0582
0121-0122   0281-0282   0441-0442   0601-0602
0141-0142   0301-0302   0461-0462   0621-0622

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0642   0801-0802   0961-0962   1121-1122
0661-0662   0821-0822   0981-0982   1141-1142
0681-0682   0841-0842   1001-1002   1161-1161
0701-0702   0861-0862   1021-1022   1181-1182
0721-0722   0881-0882   1041-1042   1201-1202
0741-0742   0901-0902   1061-1062   1221-1222
0761-0762   0921-0922   1081-1082   1241-1242
0781-0782   0941-0942   1101-1102   1261-1262

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1282   1441-1442   1601-1602   1761-1762
1301-1302   1461-1462   1621-1622   1781-1782
1321-1322   1481-1482   1641-1642   1801-1802
1341-1342   1501-1502   1661-1662   1821-1822
1361-1362   1521-1522   1681-1682   1841-1842
1381-1382   1541-1542   1701-1702   1861-1862
1401-1402   1561-1562   1721-1722   1881-1882
1421-1422   1581-1582   1741-1742   1901-1902
```

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921-1922	2081-2082	2241-2242	2401-2402
1941-1942	2101-2102	2261-2262	2421-2422
1961-1962	2121-2122	2281-2282	2441-2442
1981-1982	2141-2142	2301-2302	2461-2462
2001-2002	2161-2162	2321-2322	2481-2482
2021-2022	2181-2182	2341-2342	2501-2502
2041-2042	2201-2202	2361-2362	2521-2522
2061-2062	2221-2222	2381-2382	2541-2542

If NPC numbers are expressed in three digits, the valid values are:

SR, MJ, and CB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC	NPC	NPC	NPC	NPC	NPC
001	161	321	481	641	801
021	181	341	501	661	821
041	201	361	521	681	841
061	221	381	541	701	861
081	241	401	561	721	881
101	261	421	581	741	901
121	281	441	601	761	921
141	301	461	621	781	941

If NPC numbers are expressed in four digits, the valid values are:

SR, MJ, and CB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit 1	Unit 2	Unit 3	Unit 4
NPC	NPC	NPC	NPC
0001	0161	0321	0481
0021	0181	0341	0501
0041	0201	0361	0521
0061	0221	0381	0541
0081	0241	0401	0561
0101	0261	0421	0581
0121	0281	0441	0601
0141	0301	0461	0621

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921        2081        2241        2401
1941        2101        2261        2421
1961        2121        2281        2441
1981        2141        2301        2461
2001        2161        2321        2481
2021        2181        2341        2501
2041        2201        2361        2521
2061        2221        2381        2541
```

DACS II Non-CEF frames support two virtual NPCs using the three digit NPC numbering scheme. The valid values for Non-CEF frames are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-962
```

DACS II CEF frames support six virtual NPCs using either a three digit or four digit NPC numbering scheme. If NPC numbers are expressed in three digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
961-966
```

If NPC numbers are expressed in four digits, the valid values are:

```
VI type NPC numbers listed by unit number
Unit Type VI (Virtual)

Unit
-

NPC
9961-9966
```

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are presented below:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit       Module    NPC
01-16      1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit       Module    NPC
01-16      1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit       Module    NPC
01-16      1-8       01-02

SR, MJ, and CB NPC numbers listed by unit, module,
and NPC No.

Unit Type DP (DSPU)

Unit       Module    NPC
01-16      1-8       01

VI NPC numbers listed by unit, module, and NPC No.
Unit Type VI (Virtual)

Unit       Module    NPC
99         1         01-02  (DACS II Non-CEF frames)
99         1         01-06  (DACS II CEF frames)

DACS II Non-CEF frames support two virtual NPCs,
while DACS II CEF frames support six virtual NPCs.
```

[t]jkl

- The 3- or 4-digit NPC number in range [s]abc-[t]def, of a non-channelized NPC.

TYPE - Type

mnxyz - NPC type

mnxyz	*Explanation*
DExyz	FTU NPC
DSxyz	SLC® carrier interface
MB100	Digital Multipoint Bridge
MJ100	Multipoint Junction
TExyz	DS3U unit NPC
SR100	Subrate Multiplexer
VIxyz	Virtual circuit

xx - Total number of marked channels in the message segment

Domestic: 01 through 24

FDL - Facility data link

t - Cross-connection type

t	*Explanation*
B	For broadcast cross-connection
D	For disconnection
*	For one-way cross-connection
' '	Blank for two-way cross-connection,
T	A Facility Access Digroup (FAD) or a Test Port (TP) channel

nnn - Channel or conference number

ccc - CUS if customer controlled or --- if not customer controlled

rrrr - RDLD if red circuit or ---- if not red circuit

UEQD - Unequipped

----- - Unknown NPC type

mmmm - Error condition code

mmmm	*Explanation*
IDNV	Invalid CEPT NPC

RTRV,PRMTR,T1,TO

NON-CHANNELIZED UTILITY QUERY TO

Input Message Format

Nonhierarchical

[I.52061]

```
RTRV-PRMTR-T1:[<xy>]:[s]abc:[ww]:TO;
```

Hierarchical

[I.52061]

```
RTRV-PRMTR-T1:[<xy>]:uv-m-np:[ww]:TO;
```

Completion Message

Nonhierarchical

[O.52061]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc:[ww]:TO COMPLD
   /* [O.52061] */
  [/* FROM NPC And TYPE Connected To TO NPC */]
  [/* NPC Under Test,Facility Access Digroup,Test Access Mode,\
Link Number */]
  ["[t]ghi:mnxyz:[AIS][,CUS][,RDLD][,{UTST|ROLL}]\
  [,{ONEWAY|BCAST|UASGN[,COND-kk]}][,TERM{F|T|B}]"]
  ["[t]ghi,[u]klm:FAD,<tmode>,<link number>"]
   /* TO NPC Type */
   "TYPE-mnxyz"
;
```

Hierarchical

[O.52061]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np:[ww]:TO COMPLD
   /* [O.52061] */
  [/* FROM NPC And TYPE Connected To TO NPC */]
  [/* NPC Under Test,Facility Access Digroup,Test Access Mode,\
Link Number */]
  ["wx-k-qr:mnxyz:[AIS][,CUS][,RDLD][,{UTST|ROLL}]\
  [,{ONEWAY|BCAST|UASGN[,COND-kk]}][,TERM{F|T|B}]"
  ["wx-k-qr,gh-i-jk:FAD,<tmode>,<link number>"]
   /* TO NPC Type */
   "TYPE-mnxyz"
;
```

Denial Message

Nonhierarchical

[O.52061.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::[s]abc:[ww]:TO DENY
   mmmm
   /* [O.52061.01] */
   /* <explanation of error condition code> */
[  /* TO NPC Type */ ]
[  "TYPE-mnxyz" ]
;
```

Hierarchical

[O.52061.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T1::uv-m-np:[ww]:TO DENY
   mmmm
   /* [O.52061.01] */
   /* <explanation of error condition code> */
[  /* TO NPC Type */ ]
[  "TYPE-mnxyz" ]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests provisioning information for a specific TO non-channelized network processing circuit.

Explanation Of Parameters

TO - To

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of TO non-channelized NPC
The valid values are listed below:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit     Unit     Unit     Unit     Unit     Unit
1        2        3        4        5        6

NPC      NPC      NPC      NPC      NPC      NPC
001-160  161-320  321-480  481-640  641-800  801-960
16A-16H  32A-32H  48A-48H  64A-64H  80A-80H  96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np - Hierarchical NPC number of TO non-channelized NPC

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

[t]ghi
- The 3- or 4-digit nonhierarchical number of FROM NPC mapped to TO NPC, or FROM NPC in the test access connection (--- for unassigned NPC)

[u]klm
- The 3- or 4-digit nonhierarchical number of TO NPC in the test access connection

----- or ------- for unassigned NPC

wx-k-qr
- Hierarchical number of FROM NPC mapped to TO NPC

gh-i-jk
- Hierarchical number of FROM NPC in the test access connection.

mnxyz - NPC type of TO or FROM NPCs

DAxyz	- FTU ANSI NPC type
DExyz	- FTU NPC
TAxyz	- DS3U ANSI NPC type
TExyz	- DS3U NPC
-----	- Unequipped or unassigned NPC

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:

DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

AIS - Alarm indication signal

The idle code for non-channelized cross-connection

CUS - Customer-controlled circuit

RDLD - Red lined circuit

UTST - Circuit is under test

tmode - Test access mode

FAD - Facility access digroup

TERM - Termination

F - From termination
T - To termination
B - Both terminations

ONEWAY
- One-way connection

BCAST - Circuit is part of a broadcast connection

UASGN - Unassigned

TLA s - Connection is terminated in direction s (F-From,T-To,B-Both)

ROLL - Bridged facility from Roll procedure
mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
IDNV	Invalid CEPT NPC
IDNV	NPC is channelized type
SNVS	Broadcast unassigned channel/NPC in QRY,TO

RTRV,PRMTR,T3,LBO

QUERY DS3 LINE BUILD OUT

Input Message Format

[I.53231]

```
RTRV-PRMTR-T3:[<xy>]::[ww]:LBO;
```

Completion Message

[O.53231]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3:::[ww]:LBO COMPLD
   /* [O.53231] */
   /* UNIT Number:DS3 Number,LBO Setting */
   "UNIT-[q]q:1,bbb:2,bbb:3,bbb:4,bbb:5,bbb:6,bbb"
            .       .       .       .       .
            .       .       .       .       .
   "UNIT-[q]q:1,bbb:2,bbb:3,bbb:4,bbb:5,bbb:6,bbb"
 ;
```

The following message will be generated if no service MXR is equipped in the DACS frame.

[O.53232]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3:::[ww]:LBO COMPLD
   /* [O.53232] */
   "NONE"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message reports the line buildout (LBO) settings for the DS3 facilities on the DACS II frame. Output is printed only for DS3 units that are equipped.

Explanation Of Parameters

DS3 - Digital signal 3 (44.736 Mb/s rate)

UNIT - Unit

[q]q - Unit number (1 through 16)

LBO - The line buildout setting provisioned per DS3 facility.

bbb - LBO setting for each DS3 facility

bbb	*Explanation*
ON	Line buildout is turned on
OFF	Line build out is turned off
---	Service MXR corresponding to the DS3 is not equipped

LBO is required as shown in the following table.

734A Cabling to DSX-3	KS-19224,L2 Cabling to DSX-3	LBO
0 to 225 feet	0 to 75 feet	ON
225 to 450 feet	75 to 150 feet	OFF

RTRV,PRMTR,T3,UNIT,BERMT

UTILITY QUERY DS3 BIT ERROR RATE

Input Message Format

[I.53221]

```
RTRV-PRMTR-T3:[<xy>]:[UNIT-[q]q]:[ww]:BERMT;
```

Completion Message

[O.53221]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3::[UNIT-[q]q]:[ww]:BERMT COMPLD
   /* [O.53221] */
   /* Bit Error Rate Calculation Method : DS3-1,...,DS3-6 */
   "BERM:m1,m2,m3,m4,m5,m6"
   /* Bit Error Rate Threshold : DS3-1,...,DS3-6 */
   "BERT:t1,t2,t3,t4,t5,t6"
   /* Unit Number */
   "[q]q"
 {>|;}
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3::[UNIT-[q]q]:[ww]:BERMT COMPLD
```

[O.53222]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3::[UNIT-[q]q]:[ww]:BERMT COMPLD
   /* [O.53222] */
   "NONE"
;
```

Denial Message

[O.53221.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR T3::UNIT-[q]q:[ww]:BERMT DENY
   mmmm
   /* [O.53221.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message reports the bit error rate calculation method and the bit error rate threshold setting for the DS3 facilities in a DS3 unit or for all of the DS3 units in a DACS II frame.

Explanation Of Parameters

DS3 - Digital signal 3

UNIT - Unit

[q]q - Unit number (1 through 16)

BERM - Bit error rate calculation method

BERT - Bit error rate threshold

BERMT - Both BERM and BERT

m_1 .. m_6

- BERM setting for DS3 1 through 6

m	*Explanation*
B	Bipolar violations
P	DS3 Parity Errors
-	The Service MXR associated with the DS3 facility is unequipped

$t_1 .. t_6$

- BERT setting for DS3 1 through 6

t	*Explanation*
3	10^{-3} threshold
6	10^{-6} threshold

- The Service MXR associated with the DS3 facility is unequipped

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped

RTRV,PRMTR,TS

QUERY SUBRATE CROSS-CONNECT

Input Message Format

Nonhierarchical

[I.52521]

```
RTRV-PRMTR-TS:[<xy>]:[s]abc-ddd[-ff]:[ww];
```

Hierarchical

[I.52521]

```
RTRV-PRMTR-TS:[<xy>]:uv-m-np-ddd[-ff]:[ww];
```

Completion Message

Nonhierarchical

Usage: For a two-point circuit

[O.52521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::[s]abc-ddd[-ff]:[ww] COMPLD
   /* [O.52521] */
   /* FROM-[t]ghi-jjj-ll,RATE-rr */
   "[t]ghi-jjj-ll,rr"
[  "TERMs"]
[  "UTST"]
[  /* TO customer number */]
[  "01"]
;
```

Usage: For a multipoint circuit

[O.52522]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::[s]abc-ddd[-ff]:[ww] COMPLD
   /* [O.52522] */
[  /* TO customer number */]
[  "01"]
   "RATE-rr"
   "MPTM-[t]def-ggg-hh"
   /* MJU number:MA[,TERM][,UTST] */
   /* BR1[,TERM][,UTST]:BR2[,TERM][,UTST] */
   /* BR3[,TERM][,UTST]:BR4[,TERM][,UTST] */
   "0001:MPTM[,t][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::[s]abc-ddd[-ff]:[ww] COMPLD
   /* [O.52522] */
   /* MJU number:MA[,TERM][,UTST] */
   /* BR1[,TERM][,UTST]:BR2[,TERM][,UTST] */
   /* BR3[,TERM][,UTST]:BR4[,TERM][,UTST] */
   "ssss:tttt-u[,t][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
;
```

Hierarchical

Usage: For a two-point circuit

[O.52521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::uv-m-np-ddd[-ff]:[ww] COMPLD
   /* [O.52521] */
   /* FROM-ed-h-fg-jjj-ll,RATE-rr */
   "ed-h-fg-jjj-ll,rr"
[  "TERMs"]
[  "UTST"]
[  /* TO customer number */]
[  "01"]
;
```

Note: In the above two messages the optional TO customer number information in lines 8 and 9 only appears if the ff field is not specified in the input command.

[O.52522]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::uv-m-np-ddd[-ff]:[ww] COMPLD
   /* [O.52522] */
[  /* TO customer number */]
[  "01"]
   "RATE-rr"
   "MPTM-wx-k-qr-ggg-hh"
   /* MJU number:MA[,TERM][,UTST] */
   /* BR1[,TERM][,UTST]:BR2[,TERM][,UTST] */
   /* BR3[,TERM][,UTST]:BR4[,TERM][,UTST] */
   "0001:MPTM[,t][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::uv-m-np-ddd[-ff]:[ww] COMPLD
   /* [O.52522] */
   /* MJU number:MA[,TERM][,UTST] */
   /* BR1[,TERM][,UTST]:BR2[,TERM][,UTST] */
   /* BR3[,TERM][,UTST]:BR4[,TERM][,UTST] */
   "ssss:tttt-u[,t][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
   "<br_data>[,t][,UTST]:<br_data>[,s][,UTST]"
;
```

Note: In the above two messages the optional TO customer number information in lines 4 and 5 only appears if the ff field is not specified in the input command.

Denial Message

Nonhierarchical

[O.52521.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::[s]abc-ddd[-ff]:[ww] DENY
   mmmm
   /* [O.52521.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52521.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRMTR TS::uv-m-np-ddd[-ff]:[ww] DENY
   mmmm
   /* [O.52521.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This Subrate message requests cross-connect circuit information at the customer level.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number for FROM NPC specified in input
hhh - Channel number for TO NPC specified in input

The allowable values are presented below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

ff - Customer number of FROM NPC
ll - Customer number of TO NPC

The allowable values are presented below:

01	(DS0A at 2.4, 4.8, 9.6, or 56 kb/s)
01-20	(DS0B at 2.4 kb/s)
01-10	(DS0B at 4.8 kb/s)
01-05	(DS0B at 9.6 kb/s)

[t]ghi
- The 3- or 4-digit nonhierarchical NPC number

ed-h-fg
- Hierarchical NPC number

wx-k-qr
- Hierarchical NPC number

The above definitions apply to the multipoint circuit master leg or the FROM side of a two-point circuit. See definition of [s]abc

jjj - Channel number of multipoint circuit master leg or of FROM side of two-point circuit.

RATE - Rate

rr - Circuit rate (24, 48, 56, 96)

MJU - Multipoint junction unit

TERM - Terminate (and leave active)

t - Terminate and leave status of the two-point or MJU connection.

The "TO" direction is defined as facing toward the specified facility termination or alternatively as facing toward what is connected to the specified branch or master.

t	*Explanation*
F	FROM
T	TO
B	BOTH

UTST - Under test

For a multipoint circuit, the position of the indicator "UTST" in the output message precisely identifies the point in the circuit to which a test port is connected. When specified, the indicator "UTST" implies that the circuit is under test at some point between the TO and FROM terminations.

MPTM - Multipoint mode

BR1 - Branch 1
BR2 - Branch 2
BR3 - Branch 3
BR4 - Branch 4

[t]def
- The 3- or 4-digit nonhierarchical NPC number of the external facility termination of the multipoint master

ggg - The external facility termination channel of the multipoint master

hh - Customer number

ssss - MJU number of MJU cascaded from this branch (0002 - 9999)
tttt - MJU number connected to control leg of MJU ssss (0002 - 9999)
u - Branch number of MJU tttt (1 - 4)

br_data
- Branch leg connection data in the form:

br_data	*Explanation*
[t]ghi-jjj-ii	External facility termination number
jk-l-mn-hhh-ii	External facility termination number
MJU ssss	MJU number of MJU cascaded from this branch
UASGN	Branch is unassigned

The external facility termination number is composed of a hierarchical or nonhierarchical NPC number, channel number, and customer number.

mmmm	*Explanation*
ENEQ	*Equipage, not equipped*
	UNIT qq IS NOT EQUIPPED NPC [s]abc IS NOT EQUIPPED
IDNV	Input, data not valid
	INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd CHANNEL [s]abcddd IS A PARITY CHANNEL NPC abc IS NOT A VALID NPC NUMBER
	CUSTOMER NUMBER MUST BE SPECIFIED FOR DS-0B
IDRG	Input, data out of range
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-0A CHANNEL [s]abcddd
	CUSTOMER NUMBER ff IS OUT OF RANGE FOR DS-0B CHANNEL [s]abcddd

SNAS Status, not assigned

CHANNEL [s]abcddd/ff IS UNASSIGNED

SNVS Status, not in valid state

NPC [s]abc IS NOT PART OF AN RT
CHANNEL [s]abcddd IS NOT ESTABLISHED TO SR FEATURE

RTRV,PRVG,TERM,USER,ALL

QUERY USER|LINK SCREENING OPTION

Explanation Of Command

This command is used to query the user/administrative link for screening options, command category, and the restricted maintenance privilege. These items are set when the user accesses the link.

The frame administrator may query any one or all users and may query the screening options for any one or all administrative links.
This command can not be used to query users/administrative links provisioned for TABS or Modified Snider protocol since screening options do not apply to them.

The RMON/RMOFF option indicates that the user/administrative link is assigned the privilege or not assigned the privilege of issuing the commands restricted to the frame administrator. Default is RMOFF.

The restricted commands are:

I.37301 DLT-FPKG
I.34001 RST-EQPT::MC::CLR[,ALL];
I.34001 RST-EQPT::MC::TAPE;
I.34211 RST-EQPT::DISK::CLR;
I.34211 RST-EQPT::TAPE::CLR;
I.58001 STA-LOCL-RST::{PRI|SEC}::[CLR];
I.55701 CPY-MEM::::SEC,PRI:[{PROG|DBASE}];
I.51051 SCHED-BKUP-MEM::SEC::DATA:00-HR;

Output from this command is sent only to the link on which the command was input.

The CONVON|CONVOFF option indicates that the administrative link is utilizing the 4 digit NPC addressing conversion. NPC addressing conversion is used to interface Operational Support Systems that issue 3 digit NPC numbers and 2 digit channel number combinations and converts it to a 4 digit NPC number and 2 digit channel number. Default is conversion off, CONVOFF.

Command

[I.54001]

```
RTRV-PRVG-{TERM|USER}:[<xy>]::[ww]:{j[mm][&&jnn]|<user id>|\
ALL};
```

Completion Message

For a single link/user

[O.54001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:{j[mm]|<user id>} COMPLD
   /* [O.54001] */
   /* Language:NPC addressing:Priority level:Maintenance \
privilege */
   "{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"
;
```

For a single link (X.25 virtual circuit) provisioned as a Facility Data Link

[O.54001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG TERM:::[ww]:lmm COMPLD
   /* [O.54001] */
   /* Language:NPC addressing */
   "F:{E|X|H}"
;
```

For ALL or a range of links/users:

Note: Only the System Administrator may use the ALL keyword.

[O.54001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:{j[mm]&&p[nn]|ALL} COMPLD
   /* [O.54001] */
   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{j[mm]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{o[uu]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{g[vv]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{h[ii]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[>]
            .
            .
            .
[>]
```

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:{j[mm]&&p[nn]|ALL} COMPLD
   /* [O.54001] */
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{j[kk]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{r[tt]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{s[yy]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "{p[nn]|<user id>}:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]]
```

For a range of virtual circuits of an X.25 link:

[O.54001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:lmm[&&lnn] COMPLD
   /* [O.54001] */
   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lmm:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "luu:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lvv:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lii:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[>]
            .
            .
            .
[>]
```

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:lmm[&&lnn] COMPLD
   /* [O.54001] */
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lkk:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "ltt:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lyy:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]
[   /* {Link|User}:Language:NPC addressing:Priority level:\
Maintenance privilege */
   "lnn:{P|M}:{E|X|H}:a,b,c,d,e,f:{RMON|RMOFF}"
   /* Screening option:Screening groups:Macro screening:\
Remove link privilege */
   "n:[a,b,c,d,e,f]:{MCON|MCOFF}:{A|I}"
   /* NPC conversion */
   "{CONVON|CONVOFF}"]]
;
```

For a single link (X.25 virtual circuit) provisioned as a Facility Data Link

[O.54001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG TERM:::[ww]:{j[mm]&&p[nn]|ALL} COMPLD
   /* [O.54001] */
   /* Link:Language:NPC addressing */
   "jmm:F:{E|X|H}"
{>|;}
```

Denial Message

[O.54001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG {TERM|USER}:::[ww]:{j[mm][&&jnn]|<user id>| \
ALL}  DENY
   mmmm
   /* [O.54001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Parameters

n - Screening option number (1 - 5)

n	*Explanation*
1	Responses to input at the same link.
2	Responses to input at the same link and autonomous messages.
3	Responses to messages input at the same link and some specified sets of action verbs.
4	Responses to messages input at the same link and some specified sets of action verbs including autonomous messages.
5	Responses to input messages on all links and autonomous messages

TERM - Terminal
Link

j[mm] - Administrative link number

j - Physical link number (1 through 6)
mm - Virtual circuit number (01 through 16) for j = 5 or 6

Variable j[mm] when used in combination with p[nn] denotes a range of administrative link numbers beginning with j[mm] and ending with p[nn] In the general case j is the same value as p; that is, there is no link range. A range of links may only be specified by the Frame Administrator and may only be used for synchronous links, not the asynchronous links 1 through 4.

o[uu] - Next administrative link number in command range
g[vv] - Next administrative link number in command range
h[ii] - Next administrative link number in command range
j[kk] - Next administrative link number in command range
r[tt] - Next administrative link number in command range
s[yy] - Next administrative link number in command range
p[nn] - Administrative link number at end of command range

o,g,h,j,r,s,p Physical link numbers (1 through 6)
uu,vv,ii,kk,tt,yy,nn Virtual circuit numbers (01 through 16)
for o, g, h, j, r, s, or p = 5 or 6

user id
- User identifier

The user's login identifier (two to eight alphabetic characters). The frame administrator may use specify any user_id but an individual user is restricted to their own user_id.

ALL - All

All users or administrative links (frame administrator only)

Language

P - Program Documentation Standards (PDS)

M - Man-Machine Language (MML)

F - Facility Data Link (FDL)

This language may only be provisioned for a single virtual circuit on an X.25 link. A virtual circuit provisioned with this language provides a communication path between an Operations Support System and the ESF data link of a DA or TA type (ANSI) Network Processing Circuit. Such a virtual circuit is completely dedicated to this function and does not interact with other DACS II input/output (I/O) messages. Once the X.25 link is set up, provisioning this function only requires the user to specify the language "F" for the virtual circuit; no other I/O parameters apply, except for the NPC addressing (NPCAD) option.

NPC Addressing

E - Extended 3-digit nonhierarchical NPC addressing

X - Extended 4-digit nonhierarchical NPC addressing

H - Hierarchical NPC addressing

LEV - Level

a - Execution priority level for circuit provisioning commands
b - Execution priority level for equipment provisioning commands
c - Execution priority level for maintenance commands
d - Execution priority level for test access commands
e - Execution priority level for monitoring commands
f - Execution priority level for common commands

A table giving the command verbs associated with each of the above command sets is given below.

LEV is used in combination with the command set identifiers a through f to set the execution priority level for each command set. A priority level applies to a user or link as appropriate. Priority levels range from 0 through 3. A list of these levels and their meaning is given below for a. The list for b through f is similar to the a list.

a Explanation

0 Commands in the command set assigned this execution priority level cannot be executed.

1 Highest execution priority level. Commands in the command set assigned this execution priority level will be executed before commands with priority level 2 or 3.

2 Middle execution priority level. Commands in the command set assigned this execution priority level will be executed before commands with priority level 3

3 Lowest execution priority level. Commands in the command set assigned this execution priority level will be executed after all priority level 1 and 2 commands have been executed. Level 3 is the default priority level.

. The execution priority level of the command set assigned this execution priority level is not to be changed.

Note: The commands used to login, logoff, cross-connect, stop, and abort always have the highest priority.

A single queue is used for DACS II commands. When multiple commands arrive at the same time, they will be queued for execution according to the priority assigned to their command set. Commands with the same priority will be executed in the order of arrival, that is, first come first served. A timeout feature insures that no command will wait in the queue forever. When the timeout period has expired for a given command that command will be executed regardless of its priority level.

a **CIRCUIT PROVISIONING**	b **EQUIPMENT PROVISIONING**	c **MAINTENANCE**
ALW-SW-T1	CRTE-CNFGRN-EQPT	DGN-EQPT
CONN-BDCST-T0	CRTE-EQPT	ED-PRMTR-EQPT
CONN-CRS-T0	CRTE-LGN	ENT-EQPT
CONN-CRS-TS	DLT-LGN	INIT-SYS
CONN-CRS1-T0	DLT-MACRO	RMV-CNFGRN-EQPT
CRTE-CRS-TS	DLT-MAP	RMV-EQPT
DLT-CRS-TS	DLT-PRMTR-EQPT	RST-CNFGRN-EQPT
DISC-BDCST-T0	ED-PRMTR-EQPT	RST-EQPT
DISC-CRS-T0	ED-PRMTR-LINK	SW-DX-EQPT
DISC-CRS-TS	ED-PRMTR-NE	-
DISC-CRS1-T0	DISC-EQPT	-
INH-SW-T1	SET-PRVG-TERM	
SW-TOPROTN-T1	SET-PRVG-USER	
SW-TOWKG-T1		
d **TEST ACCESS**	e **MONITORING**	f **COMMON**
ALW-LPBK-T1	CPY-MEM	CHG-LGN
CHG-TL-T0	ED-DATE	CHG-RPATH-T0
CHG-TL-TS	INIT-LOG	ED-CNFGRN-EQPT
CONN-HUB-T0	INIT-REG	ED-CONN-TS
CONN-TACC-T0	OPR-ACO-ALL	ED-CRTE-TS
CONN-TACC-TS	RST-PASSWD	ED-OPT-T1
DISC-TACC-T0	SCHED-BKUP-MEM	ED-PRMTR-EQPT
DISC-TACC-TS	SCHED-PMREPT-ALL	ED-PRMTR-MACRO
INH-LPBK-T1	SET-ATTR-EQPT	ED-PRMTR-MAP
OPR-LPBK-T0	STA-LOCL-RST	ED-PRMTR-NE
OPR-LPBK-T1	RTRV	ED-PRMTR-T0
RLS-LPBK-T1		ED-PRMTR-TS
-	-	ENT-MACRO
-	-	ENT-MAP
-	-	EXC-MACRO
-	-	EXC-MAP
-	-	SET-PRVG-TERM
-	-	SET-PRVG-USER

RMON - Restricted maintenance privilege on
RMOFF - Restricted maintenance privilege off (default)

CONVON - 4 Digit Extended NPC Addressing conversion is on

CONVOFF
- 4 Digit Extended NPC Addressing conversion is off

Screening groups

a - Screening level for circuit provisioning commands
b - Screening level for equipment provisioning commands
c - Screening level for maintenance commands
d - Screening level for test access commands
e - Screening level for monitoring commands
f - Screening level for common commands

A table giving the command verbs associated with each of the above command sets is given in the Explanation of Message section.

The command set identifiers a through f are used to set the group screening level for each command set. Screening levels range from 0 through 1. A list of these levels and their meaning is given below for a. The list for b through f is similar to the a list.

a	Explanation
1	Output messages from other links are allowed,
0	Output messages from other links are not allowed (the screening option for commands LOGIN, LOGOFF, STOP and ABT is not changeable, and it is set to 1).

Note: Group information applies only to screening options 3 or 4; it does not appear for options 1, 2, and 5.

MCON - Macro component completion messages screening on
MCOFF - Macro component completion messages screening off

Remove link privilege

A - Allowed

I - Inhibited

A and I are used to assign to a user or link the privilege of removing a link. There is a relationship between the link privilege and the execution priority level. If c (see previous Command Sets table) in the LEV field is set to zero then the command to remove a link cannot be executed hence the remove link privilege is inhibited even if the RLK option is set to A or I.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	Cannot execute privileged command
SNVS	Command and protocol are inconsistent
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified

RTRV,PRVG,USER,LOG,ALL

QUERY LOG

Explanation Of Command

This command is used to query DACS II for the link, user identifier, and date and time of login of the user issuing the command. The frame administrator uses the **ALL** keyword to list information on all current users.

Output from this command is sent only to the link on which the command was input.

Command

[I.54011]

```
RTRV-PRVG-USER:[<xy>]:LOG:[ww]:[ALL];
```

Completion Message

[O.54011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG USER::LOG:[ww] COMPLD
   /* [O.54011] */
   /* User,Link,Log On Date,Time of Day */
   "<user id>,j[mm],yr-mo-da,hr-mn-sc"
;
```

Denial Message

[O.54011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV PRVG USER::LOG:[ww]:[ALL] DENY
   mmmm
   /* [O.54011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to query DACS II for the link, user identifier, and date and time of login of the user issuing the command. The frame administrator uses the **ALL** keyword to list information on all current users.
Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

LOG - Login

ALL - All

All user logins. Used only by the frame administrator.

USER - User

user id

- User identifier (two to eight alphabetic characters)

User login identification

LINK - Link

j [mm] - The link number the user is logged onto

j	- Administrative link number (5 or 6)
mm	- Virtual link number (1 through 16)

yr-mo-da
- Date the user logged in to DACS II (year/month/day).

yr - year (00 through 99)
mo - month (01 through 12)
da - day (01 through 31)

hr-mn-sc
- Time of day the user logged in to DACS II (hour:minute:second).

hr
- hour (00 through 23)

mn
- minute (00 through 59)

sc
- second (00 through 59)

NONE - No user is logged in to DACS II
mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	User does not exist
SNVS	Cannot execute privileged command
SNVS	Command and protocol are inconsistent

RTRV,REG,EQPT,CCN,ESR

UTILITY QUERY ERROR SOURCE REGISTER

Input Message Format

[I.55401]

```
RTRV-REG-EQPT:[<xy>]:CCN-a:[ww]:ESR;
```

Completion Message

[O.55401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::CCN-s:[ww]:ESR  COMPLD
   /* [O.55401] */
   /* MAIN,CCB:abcdef,ghijkl */
   "abcdef,ghijkl"
   /* FTMI:abcd,efgh,ijkl,mnop,qrst,uvwx */
   "abcd,efgh,ijkl,mnop,qrst,uvwx"
   /* TSI:a,b,c,d,e,f */
   "<tsi a>,<tsi b>,<tsi c>,<tsi d>,<tsi e>,<tsi f>"
;
```

Denial Message

[O.55401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::CCN-s:[ww]:ESR  DENY
   mmmm
   /* [O.55401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the error source register for one side of a cross-connect network (CCN).

Explanation Of Parameters

ESR - Error source register

CCN - Cross-connect network

s - Cross-connect network side (0 or 1)

CCB - Cross-connect buffer

abcdef, ghijkl
- MAIN,CCB error source register information

a is set to indicate an error has occurred on the synchronizer.
b is set to indicate a parity error was detected on the address bus.
c is set to indicate a parity error was detected on the low byte of data.
d is set to indicate a parity error was detected on the high byte of data.
e is set to indicate an error was detected on the BSR (Bus Status Register). This error indicates that there was a parity error over the work written in the register.
f is set to indicate a parity error has occurred on autonomous

Switch Enable Circuit - ghijkl represents CCB 1 through 6.

FTMI - Facility terminating module interface

abcd,efgh,ijkl,mnop,qrst,uvwx
- FTMI error source register information

abcd - FTMI 1 - 4 of Unit 1 (not used)
efgh - FTMI 1 - 4 of Unit 2 (not used)
ijkl - FTMI 1 - 4 of Unit 3 (not used)
mnop - FTMI 1 - 4 of Unit 4 (not used)
qrst - FTMI 1 - 4 of Unit 5 (not used)
uvwx - FTMI 1 - 4 of Unit 6 (not used)

TSI - Time slot interchange

<tsi a>,..,<tsi f> - TSI error source register information.
Each register is six bits long. A bit set indicates the denoted entity is either out of frame or in frame but under alarm state.

tsi a - Denotes for TSI 1,1; 1,2; 1,3; 1,4; 1,5; 1,6
tsi b - Denotes for TSI 2,1; 2,2; 2,3; 2,4; 2,5; 2,6
tsi c - Denotes for TSI 3,1; 3,2; 3,3; 3,4; 3,5; 3,6
tsi d - Denotes for TSI 4,1; 4,2; 4,3; 4,4; 4,5; 4,6
tsi e - Denotes for TSI 5,1; 5,2; 5,3; 5;4; 5,5; 5,6
tsi f - Denotes for TSI 6,1; 6,2; 6,3; 6,4; 6,5; 6,6
mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service

RTRV,REG,EQPT,ECCN,ESR

QUERY ECCN ERROR SOURCE REGISTER

Input Message Format

[I.55411]

```
RTRV-REG-EQPT:[<xy>]:ECCN-s:[ww]:ESR;
```

Completion Message

[O.55411]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::ECCN-s:[ww]:ESR  COMPLD
   /* [O.55411] */
   /* CCI:ESR data */
   "CCI:wd02,wd01,wd00"
   "CCI:aaaa&bbbb&cccc&dddd,eeee&ffff&gggg&hhhh"
   "CCI:iiii&jjjj&kkkk&llll,mmmm&nnnn&oooo&pppp"
[  /* ETSIS:ESR data */]
[  "ETSI-sqq:wd05,wd04,wd03,wd02,wd01,wd00"]
                    .
                    .
                    .
[  "ETSI-sqq:wd05,wd04,wd03,wd02,wd01,wd00"]
;
```

Denial Message

[O.55411.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::ECCN-s:[ww]:ESR  DENY
   mmmm
   /* [O.55411.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the contents of the Expanded Cross-Connect Network Error Source Register.

Explanation Of Parameters

ESR - Error source register

e - Number of lines in the segment (2 through 5)

ECCN - Expanded cross-connect network

s - ECCN side (0 or 1)

qq - Unit number (01 through 16)

ETSI - Expanded Time Slot Interchanger

The ESR data for a ETSI will be shown only if the ETSI is restored. If no ETSI in the ECCN side is restored, only the ESR data of the CCI will be shown.

CCI - Clock and Control Interface

wd02, wd01, wd00 - Error source register data words for the CCI. Each word is a 4-digit hexadecimal number.

wdxx	*Definition*
wd00	CCI System Status Register
wd01	CCI Status Register
wd02	CCI Bus Status Register

Note: wd02 shows the active side; therefore, it is normal to have a non-zero value.

aaaa,
bbbb,
cccc,
dddd - CCI register for ETSI alarm information.

This 16 bit register is shown as four 4-bit binary numbers. Each bit represents one ETSI. The ETSIs are arranged by unit number in descending order from left to right. That is, the left-most bit reports alarm information for the unit 16 ETSI, while the right-most bit reports alarm information for the unit 1 ETSI.

```
Descending order-->
aaaa bbbb cccc dddd
^                   ^
|                   Unit 1 ETSI
Unit 16 ETSI
```

eeee,
ffff,
gggg,
hhhh - CCI register for ETSI equipage information

See the explanation given for aaaa-dddd above.

iiii,
jjjj,
kkkk,
llll - CCI register for ETSI ready timeout information

See the explanation given for aaaa-dddd above.

mmmm,
nnnn,
oooo,
pppp - CCI register for ETSI read high information

See the explanation given for aaaa-dddd above.

sqq - Combined ECCN side and unit number

See the definitions of s and qq above.

wd05,
wd04,
...,
wd00 - Error source register data words for the ETSI

Each word is a 4-digit hexadecimal number representing the contents of the error source register listed in the table below.

wdxx	*Definition*
wd00	Circuit Pack Summary Register
wd01	Receive Status Register
wd02	Transmit Status Register
wd03	Control RAM Status Register
wd04	Control RAM Port Alarm Register
wd05	Control RAM Data RAM Alarm Register

RTRV,REG,EQPT,MP,ESR

QUERY ERROR SOURCE REGISTER MAIN PROCESSOR

Input Message Format

[I.55111]

```
RTRV-REG-EQPT:[<xy>]:MP:[ww]:ESR;
```

Completion Message

[O.55111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::MP:[ww]:ESR  COMPLD
   /* [O.55111] */
   /* ESR:aa,bb,cc,dd,ee[,ff,gg,hh,ii] */
   "ESR:aa,bb,cc,dd,ee[,ff,gg,hh,ii]"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the 40-bit error source register (ESR) for the main processor (MP).

Explanation Of Parameters

ESR - Error source register
8888888888888
"ESR:aa,bb,cc,dd,ee[,ff,gg,hh,ii]" 8888888888888

MP - Main Processor

Variables aa, bb, cc, dd, ee, ff, gg, hh, and ii are two digit hexadecimal numbers representing error source registers. The bits in these registers are numbered as shown below:

hex hh = bbbbbbbb binary
76543210 Bit numbering

aa - Error Source Bit (ESB) group. (hexadecimal)

aa	*Function*
a0	SYNC 0 power supply ESB
a1	SYNC 1 power supply ESB
a2	CCN/ECCN 0 power supply ESB
a3	CCN/ECCN 1 power supply ESB
a4	Spare
a5	Spare
a6	Spare
a7	Spare

bb - Error Source Bit (ESB) group. (hexadecimal)

bb	*Function*
b0	UC 01 power supply ESB
b1	UC 02 power supply ESB
b2	UC 03 power supply ESB
b3	UC 04 power supply ESB
b4	UC 05 power supply ESB
b5	UC 06 power supply ESB
b6	UC 07 power supply ESB for CEF, Spare for Non-CEF
b7	Spare

cc	*Function*
c0	UC 01 ESB
c1	UC 02 ESB
c2	UC 03 ESB
c3	UC 04 ESB
c4	UC 05 ESB
c5	UC 06 ESB
c6	UC 07 ESB for CEF, Spare for Non-CEF
c7	UC 08 ESB for CEF, Spare for Non-CEF

dd - Error Source Bit (ESB) group. (hexadecimal)

dd	*Function*
d0	MC CPU ESB
d1	MC CI ESB
d2	MC SSC ESB
d3	Spare
d4	MC power supply 0 ESB
d5	MC power supply 1 ESB
d6	Spare
d7	Spare

ee - Error Source Bit (ESB) group. (hexadecimal)

ee	*Function*
e0	Parity over Low Data Byte
e1	Parity over High Data Byte
e2	Error from Side 0 Bus Extension
e3	Error from Side 1 Bus Extension
e4	ECCN side 0 circuit not present for CEF, Spare for Non-CEF
e5	ECCN side 1 circuit not present for CEF, Spare for Non-CEF
e6	Write parity error over low byte data for CEF, Spare for Non-CEF
e7	Write parity error over high byte data for CEF, Spare for Non-CEF

The following parameters (ff, gg, hh, ii) apply only to CEF frames:

ff - Error Source Bit (ESB) group. (hexadecimal)

ff	*Function*
f0	UC 08 power supply ESB
f1	UC 09 power supply ESB
f2	UC 10 power supply ESB
f3	UC 11 power supply ESB
f4	UC 12 power supply ESB
f5	Spare
f6	Spare
f7	Spare

gg - Error Source Bit (ESB) group. (hexadecimal)

gg	*Function*
g0	UC 13 power supply ESB
g1	UC 14 power supply ESB
g2	UC 15 power supply ESB
g3	UC 16 power supply ESB
g4	Spare
g5	Spare
g6	Spare
g7	Spare

hh - Error Source Bit (ESB) group. (hexadecimal)

hh	*Function*
h0	UC 09 ESB
h1	UC 10 ESB
h2	UC 11 ESB
h3	UC 12 ESB
h4	Spare
h5	Spare
h6	Spare
h7	Spare

`ii` - Error Source Bit (ESB) group. (hexadecimal)

ii	*Function*
i0	UC 13 ESB
i1	UC 14 ESB
i2	UC 15 ESB
i3	UC 16 ESB
i4	Spare
i5	Spare
i6	Spare
i7	Spare

RTRV,REG,EQPT,NPC,SIDE,ESR

UTILITY QUERY ESR FOR FTU OR SUBRATE NPC

Input Message Format

Nonhierarchical

[I.55601]

```
RTRV-REG-EQPT:[<xy>]:NPC-[s]abc:[ww]:[SIDE-s]:ESR;
```

Hierarchical

[I.55601]

```
RTRV-REG-EQPT:[<xy>]:NPC-uv-m-np:[ww]:[SIDE-s]:ESR;
```

Completion Message

Nonhierarchical

[O.55601]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-[s]abc:[ww]::ESR COMPLD
   /* [O.55601] */
   /* ESR:aa,bb,cc,dd,ee,ff,gg,hh,ii,jj */
   "ESR:aa,bb,cc,dd,ee,ff,gg,hh,ii,jj"
;
```

Note: The above message applies if the side is not specified.

[O.55602]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-[s]abc:[ww]:SIDE-s:ESR COMPLD
   /* [O.55602] */
   /* NPC type */
   "TYPE-mnxyz"
   /* bits 1-8, bits 9-16 */
   "defghijk,lmnopqrs"
;
```

Note: The above message applies if the side is specified.

Hierarchical

[O.55601]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-uv-m-np:[ww]::ESR COMPLD
   /* [O.55601] */
   /* ESR:aa,bb,cc,dd,ee,ff,gg,hh,ii,jj */
   "ESR:aa,bb,cc,dd,ee,ff,gg,hh,ii,jj"
;
```

Note: The above message applies if the side is not specified.

[O.55602]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-uv-m-np:[ww]:SIDE-s:ESR COMPLD
   /* [O.55602] */
   /* NPC type */
   "TYPE-mnxyz"
   /* bits 1-8, bits 9-16 */
   "defghijk,lmnopqrs"
;
```

Note: The above message applies if the side is not specified.

Denial Message

Nonhierarchical

[O.55601.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-[s]abc:[ww]:[SIDE-s]:ESR DENY
   mmmm
   /* [O.55601.01] */
   /* <Explanation of error condition code> */
;
```

Hierarchical

[O.55601.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::NPC-uv-m-np:[ww]:[SIDE-s]:ESR DENY
   mmmm
   /* [O.55601.01] */
   /* <Explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a print out of the error source register for a particular network processing circuit (NPC) or Subrate circuit pack. Any attempt to input the command for an NPC in a DS3 unit will be denied. Instead, input the command for the error source register for a multiplexer (MXR), a multiple interface unit (MIU), or a facility line interface (FLI).

Explanation Of Parameters

ESR - Error source register

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001     161     321     481     641     801
021     181     341     501     661     821
041     201     361     521     681     841
061     221     381     541     701     861
081     241     401     561     721     881
101     261     421     581     741     901
121     281     441     601     761     921
141     301     461     621     781     941
```

If NPC numbers are expressed in four digits, the valid values are:

```
SR and MJ type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641        0801        0961        1121
0661        0821        0981        1141
0681        0841        1001        1161
0701        0861        1021        1181
0721        0881        1041        1201
0741        0901        1061        1221
0761        0921        1081        1241
0781        0941        1101        1261

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281        1441        1601        1761
1301        1461        1621        1781
1321        1481        1641        1801
1341        1501        1661        1821
1361        1521        1681        1841
1381        1541        1701        1861
1401        1561        1721        1881
1421        1581        1741        1901
```

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

SIDE - Side

s - Side number (0 or 1)

Subrate type circuit packs are duplicated; therefore, the side must be specified in order to request the contents of the error source register. The side must not be specified when the NPC is a facility terminating NPC.

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

DE, DS and DA type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

SR and MJ NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit	Module	NPC
01-16	1-8	01

Note: In the error source register listings below, the bits are each shown set individually (bit value = 1). In actual practice the bits may be set in combination. For example a value of 0C for register dd would be interpreted as follows:

X'0C = 00001100 binary

Bits 2 and 3 are set to one. An examination of the bits for register dd shows that X'0C means RAM diagnostic complete and power up ready.

aa - Hexadecimal contents of Communications Interface ESR 1

Bit	*Value*	*Bit definition*
0	1	Channel controller error
1	1	Unassigned
2	1	Chip identification parity error
3	1	Sync error
4	1	Facility processor sanity error
5	1	Hardware error
6	1	Transceiver A error
7	1	Transceiver B error

bb - Not used

Bit	*Value*	*Bit definition*
0	1	Exercise indicator
1	1	Receive data parity error
2	1	Transmit data parity error
3	1	Instruction RAM parity error
4	1	Configuration register parity error
5	1	Processor error
6	1	Sync error
7	1	Loss of clock (8 MHz)

dd - Hexadecimal contents of Hardware error data from DDC shared RAM

Bit	*Value*	*Bit definition*
0	1	Not used
1	1	Not used
2	1	RAM diagnostic complete
3	1	Power up ready
4	1	Not used
5	1	Not used
6	1	RAM diagnostic failure
7	1	ROM checksum failure

ee - Hexadecimal contents of Transceiver A ESR (framer alarms)

Bit	*Value*	*Bit definition*
0	1	Device error Remote Frame Alignment
1	1	Device error Remote Multiframe Alignment
2	1	Device error Loss of Multiframe Alignment
3	1	Device error Framing Bit Error
4	1	Not used
5	1	Not used
6	1	Not used
7	1	Not used

ff - Hexadecimal contents of Transceiver A ESR (receive sync alarms)

Bit	*Value*	*Bit definition*
0	1	STOMP block device error
1	1	ALU block device error
2	1	ALU block device error
3	1	Data link
4	1	Missing receive synchronizer sync
5	1	Signaling RAM parity error
6	1	PCM RAM parity error
7	1	E signaling bit error

gg - Hexadecimal contents of Transceiver A ESR (transmitter alarms)

Bit	*Value*	*Bit definition*
0	1	Transmit framing bit generator circuit
1	1	Transmitter SLIP
2	1	Internal parity error
3	1	Missing transmit sync
4	1	Misaligned transmit sync
5	1	Transmit SLC®-96 carrier framer device alarm
6	1	Missing SLC 96 carrier Fs superframe sync
7	1	Misaligned SLC 96 carrier Fs superframe sync

hh - Hexadecimal contents of Transceiver A ESR (framer alarms)

Values and explanations are the same as ee

ii - Hexadecimal contents of Transceiver B ESR (receive sync alarms)

Values and explanations are the same as ff

jj - Hexadecimal contents of Transceiver B ESR (transmitter alarms)

Values and explanations are the same as gg

mnxyz - NPC type

mnxyz	*Explanation*
MJ100	Multipoint junction unit
SR100	Subrate multiplexer unit

The meaning of the bits for types MJ100 and SR100 depends upon the type reported in the output message.

TYPE SR100

defghijk
- First 8 bits of Subrate circuit pack error source register

Bit	*Value*	*Fault*
d	1	Parallel interface between the DSPU processor and the SR100
e	1	Data interface between the DSPU backplane and the SR100
f	1	Data path internal to the SR100 including the Error Correction Device (ECD)
g	1	Data interface between the DSPU backplane and the SR100, or data path internal to the SR100 including the ECD, or PROM5 device
h	1	Output block of SR100, or bus feeding the output block
i	1	Internal data RAM
j	1	Multiplexer state machine, or bus feeding the output block
k	1	Clock circuitry

lmnopqrs
- Second 8 bits of Subrate circuit pack error source register

Bit	*Value*	*Fault*
l	1	Built-in self test on ECD
m-s	0	Unused

TYPE MJ100

defghijk
- First 8 bits of Subrate circuit pack error source register

Bit	*Value*	*Fault*
d	1	Parallel interface Device (PID), or parallel control bus
e	1	Data interface between the ETSI and the MJ100
f	1	ECD data input, or ECD
g	1	MJU control memory parity
h	1	Data path to the output block, or output data interface block, or control code state machine, or FTU time slot parity correction PROM
i	1	MJU control signal PROM
j	1	Overwrite state machine, or secondary channel state machine, or ECD control memory
k	1	Clock

lmnopqrs
- Second 8 bits of Subrate circuit pack error source register

Bit	*Value*	*Fault*
l	1	Built-in self test on ECD
m-s	0	Unused

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
SAOS	FTMI is out of service
SNVS	NPC type error
SAOS	DSPI out-of-service
SWFA	DSPI failed
IDNV	Invalid CEPT NPC
IDNV	Side specified for non-duplicated NPC
SNVS	Incorrect pack type in slot
IDMS	SIDE must be specified for subrate NPC

RTRV,REG,EQPT,SYNC,STR

UTILITY QUERY, SYNCHRONIZER

Input Message Format

[I.55201]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:STR;
```

Completion Message

[O.55201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:STR  COMPLD
   /* [O.55201] */
   /* STR:b01,b02,b03,b04,b05,b06 */
   "STR:<byte01>,<byte02>,<byte03>,<byte04>,<byte05>,<byte06>"
   /* STR:b07,b08,b09,b10,b11,b12 */
   "STR:<byte07>,<byte08>,<byte09>,<byte10>,<byte11>,<byte12>"
;
```

Denial Message

[O.55201.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:STR  DENY
   mmmm
   /* [O.55201.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout on the 12-byte status register and configuration of a synchronizer.

Explanation Of Parameters

STR - Status register

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

byte01,
...,
byte12
- Status register data bytes

Each data byte contains eight bits. These bits are labeled, in the order they appear in the output, as abcdefgh. These bits are set for the following conditions:

byte01

a	- Unused by craft
b	- Sync core hardware fault
c	- Mate sync is bad or declared out of service
d	- Time base is bad or missing
e	- TLI 1 in service without errors
f	- TLI 2 in service without errors
g	- TLI 3 in service without errors
h	- TLI 4 in service without errors

byte02

a	- Timing Extractor Timing link 1 is in service and good
b	- Timing Extractor Timing link 2 is in service and good
c	- Timing Extractor Timing link 3 is in service and good
d	- Timing Extractor Timing link 4 is in service and good
e	- Timing Extractor Timing link 5 is in service and good
f	- Timing Extractor Timing link 6 is in service and good
g	- Timing Extractor Timing link 7 is in service and good
h	- Timing Extractor Timing link 8 is in service and good

byte03

a - Sync has been reset and awaits configuration
b - Hardware error on DPLL pack. See byte06 and byte07
c - Time base has an error, see byte09
d - PLL symmetry error, see byte08
e - Problem with cross-couple timing. See byte10 and byte11
f - Problem with CRO timing. See byte12
g - Unused bit
h - Unused bit

byte04

- Sync configuration data

ab - Sync architecture:

ab	*Explanation*
00	Sync is slave in master-slave system
01	Sync is master in master-slave system

cde - Operational stratum

cde	*Explanation*
000	Domestic stratum 3
001	CEPT local exchange
010	CEPT toll exchange
011	Domestic stratum 2

fg - PLL locking mode

fg	*Explanation*
00	Normal
01	Fast
10	Holdover

h - Unused by craft

byte05

- Sync configuration data

ab - Source of timing to which Sync is presently locking

ab	*Explanation*
00	Holdover (Not locking)
01	Timing link(s)
10	Cross couple
11	CRO (Clock Reference Oscillator)

cde - Active Link: Which timing link the Sync is locking to (This field is meaningful only if byte04 ab = 00 and byte05 ab = 01)

cde	Explanation
000	TLI 1, Link 0
001	TLI 1, Link 1
010	TLI 2, Link 0
011	TLI 2, Link 1
100	TLI 3, Link 0
101	TLI 3, Link 1
110	TLI 4, Link 0
111	TLI 4, Link 1

f - Unused by craft
g - Unused by craft
h - Unused by craft

byte06

- DPLL Hardware status. If any bit equals 1, a DPLL hardware failure is indicated

a - ROM error
b - RAM error
c - Phase/Frequency latch error
d - Loss of energy on 2.048 MHz output of frequency synthesizer
e - Loss of energy on 2.048 MHz output of phase shifter
f - Loss of energy on generated sync pulse
g - Loss of energy on time base strobe signal
h - Unused by craft

byte07

- DPLL Hardware status. If any bit equals 1, a DPLL hardware failure is indicated

a	- Interrupt controller error
b	- Interrupt holding register error
c	- UART error
d	- Control data readable output latch error
e-h	- Unused bits

byte08

- PLL status

a	- PLL end of range indicator
b	- PLL excessive range error
c	- PLL real time violation
d	- Fast start timeout
e-h	- Unused bits

byte09

- Time base status

a	- Loss of energy for time base signal
b	- Time base I/O error
c	- Time base oscillator has drifted beyond its specified accuracy limit. (This condition is monitored only when the sync is the master timing source)
d	- Time base oven is cold. It must warm up for accurate holdover
e	- Unused bit
fgh	- Stratum of oscillator:

fgh	*Explanation*
000	TBS3, Domestic stratum 3
001	TBCL, CEPT local exchange
010	TBCT, CEPT toll exchange
011	TBS2, Domestic stratum 2

byte10

- Cross Couple Status

a	- Mate sync declared out-of-service by MC
b	- Mate sync hardware error
c	- Loss of energy on the 1 ms cross couple interrupt flag
d	- Loss of energy on the 30 ms cross couple interrupt flag
e	- Cross couple fast lock not working
f	- Sync's time base drifting with respect to CRO in master mode
g	- Cross couple timing problem
h	- Cross couple timing problem - mate sync's timing suspected

byte11

- Cross couple status

a - Sync clocks not aligned, cross couple network may alarm
b-h - Unused bits

byte12

- CRO status

The following bits are important only when the sync is a master timing source:

a - Timing from CRO bad or declared out of service by MC
b - CRO declared out of service by the MC
c - Loss of energy on the CRO input signal flag
d - In master mode, CRO drifting with respect to sync time bases
e-h - Unused bits

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAIN	Subject entity is pested
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SROF	Sync pack denied command

RTRV,REG,EQPT,SYNC,TLI,SSP,STR

UTILITY QUERY SSP

Input Message Format

[I.55321]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:SSP-b:STR;
```

Completion Message

Nonhierarchical

[O.55321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:TLI-m:SSP-b:STR  COMPLD
   /* [O.55321] */
   /* STATUS:aa,bb,cc,ee,ff */
   "<byte1>,<byte2>,<byte3>,<byte4>,<byte5>"
[  /*SYNC SOURCE*/ ]
[  "NPC-abc" ]
;
```

Hierarchical

[O.55321]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:TLI-m:SSP-b:STR  COMPLD
   /* [O.55321] */
   /* STATUS:aa,bb,cc,ee,ff */
   "<byte1>,<byte2>,<byte3>,<byte4>,<byte5>"
[  /*SYNC SOURCE*/ ]
[  "NPC-uvmnp" ]
;
```

Denial Message

[O.55321.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:TLI-m:SSP-b:STR  DENY
   mmmm
   /* [O.55321.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the 5-byte status register for a select synchronizer port (SSP). The port is located on a timing link interface (TLI) circuit pack of a synchronizer.

Explanation Of Parameters

STR - Status register

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

TLI - Timing link interface

m - Timing link interface number (1 through 4)

SSP - Synchronization Sync Port

b - Synchronization Sync Port number (0 or 1)

NPC - Network processing circuit

abc - Nonhierarchical NPC number

uv-m-np
- Hierarchical NPC number

  uv - Unit number
  m - Module number
  np - NPC number within the module

byte1, ... byte5
- Status register data bytes

Each data byte contains eight bits: abcdefgh. These bits are set for the following conditions:

byte1 - Overall status and configuration

- **a** - Timing link is grown
- **b** - Timing link out-of-service
- **c** - Timing link out-of-service; Timing signal from the link has serious enough errors that it will not be accepted as a source of reference clock
- **d** - TE TLI hardware problem; link will not be accepted as a source of reference clock
- **e-h** - Undefined

byte2 - Timing link priority field. This field ranges from a value of 1 (highest) to 8 (lowest) for master/slave synchronization networks and affects the choice of a link as the active timing source.

byte3 - Characteristics of the timing source

abc - Framing format (TXB1 or TXB2 TE TLIs only)

- For TXB1 TE TLIs:
  - 000 D4
  - 001 ESF
  - 010 DDS
- For TXB2 TE TLIs:
  - 000 CCS
  - 001 ERSM
  - 010 CAS0
  - 011 CAS1

de - Line format (TXB1 or TXB2 TE TLIs only)

- For TXB1 TE TLIs:
  - 00 Bipolar
  - 01 B8ZS
- For TXB2 TE TLIs:
  - 00 AMI
  - 01 HDB3

fgh - Frequency (TXUC TLIs only)

- 000 512 kHz
- 001 1.000 MHz
- 010 1.544 MHz
- 011 2.048 MHz
- 100 5.000 MHz

byte4 - Timing and line error information on the reference signal

- **a** - (TXB1, TXB2, or TXCC TE TLIs only) Carrier failure alarm/loss of signal flag
- **b** - Timing signal loss of energy
- **c** - (TXUC TE TLIs only) Autobaud failure flag: the frequency of the incoming unipolar clock is not one of the possible frequencies specified in <byte3, ghi>
- **d** - Not used
- **e** - Excessive jitter flag
- **f** - Phase step flag
- **g-h** - Not used

byte5 - Timing and line error information on the reference signal (TXB1 and TXB2 only)

- **a** - Out of frame flag
- **b** - Major framing error rate flag
- **c** - Minor framing error rate flag
- **d-h** - Not used

mmmm - Error condition code

mmmm	*Explanation*
SAIN	Subject entity is pested
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SNVS	SSP number is illegal
SNVS	(Timing Distributor) TLI is not equipped
SROF	Sync pack denied command

RTRV,REG,EQPT,SYNC,TLI,STR

UTILITY QUERY, TIMING LINK INTERFACE

Input Message Format

[I.55311]

```
RTRV-REG-EQPT:[<xy>]:SYNC-a:[ww]:TLI-m:STR;
```

Completion Message

[O.55311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:TLI-m:STR  COMPLD
   /* [O.55311] */
   /* STATUS:aa,bb,cc */
   "<byte01>,<byte02>b,<byte03>"
;
```

Denial Message

[O.55311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::SYNC-a:[ww]:TLI-m:STR  DENY
   mmmm
   /* [O.55311.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the 3-byte status register of a timing link interface (TLI) for a specific synchronizer.

Explanation Of Parameters

STR - Status register

SYNC - Synchronizer

a - Synchronizer number (0 or 1)

TLI - Timing link interface

m - Timing link interface number (1 through 4)

STATUS
- Status

aa - Status byte01

bb - Status byte02

byte01,
...,
byte03
- Status register data bytes

Each data byte contains eight bits: abcdefgh. These bits are set for the following conditions:

byte01
- Overall TLI type and configuration

abcd	TLI type
0000	TXB1, 1.544 Mb/s DS1 Extractor
0001	TXB2, 2.048 Mb/s Primary Block (120 OHM) Extractor
0010	TXCC, Composite Clock Extractor
0011	TXUC, High Level Unipolar Clock Extractor
0100	TXRF, Basic System Reference Frequency and CEPT 2.048 MHz Sine (75 OHM) Extractor
0101	TDCC, 64 kb/s Composite Clock Distributor
0110	TDS2, 2.048 MHz Sine Distributor
0111	TXCP, CEPT 2.048 MHz Sine (120 Ohm) Extractor

e - TLI is grown
f - TLI out-of-service
g - TLI hardware error
h - Unused bit

byte02

- TLI phase detector and timing monitor circuitry status

a - Hardware energy detector on the time base strobe signal has failed
b - Loss of timebase strobe signal coming from the DPLL
c - Hardware energy detector on the CRO signal has failed
d - Loss of reference clock signal coming form the CRO

Note: Bits c and d have meaning only for TDCC and TDS2 TLIs and when the SYNC is a master timing source.

For TXB1 or TXB2 TLIs:
e - Framer chip on side 0 has failed
f - Framer chip on side 1 has failed

For TXCC TLIs:
e - Out-of-lock detector on side 0 has failed
f - Out-of-lock detector on side 1 has failed

Note: Bits e and f have meaning only for TE TLIs

byte03

- Hardware status and diagnostic results for Timing Distributor (TD) type TLI only

mmmm - Error condition code

mmmm	*Explanation*
SAIN	Subject entity is pested
ENEQ	SYNC TB is not equipped
SAOS	SYNC is out of service
SNVS	(Timing Distributor) TLI is not equipped
SROF	Sync pack denied command

RTRV,REG,EQPT,UNIT,DSPI,ESR

QUERY ERROR SOURCE REGISTER

Input Message Format

[I.55531]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:DSPI:ESR;
```

Completion Message

[O.55531]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:DSPI:ESR COMPLD
   /* [O.55531] */
   /* ESR Side 0, Side 1 */
   "p1p2p3p4p5p6p7p8,p1p2p3p4p5p6p7p8"
;
```

Denial Message

[O.55531.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:DSPI:ESR DENY
   mmmm
   /* [O.55531.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message prints out the contents of the error source register for the digital signal processing interface (DSPI) in a digital signal processing unit (DSPU).

Explanation Of Parameters

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

DSPI - Digital signal processing interface

p1,..,p8
- Register data bits

Bit Position	*Error Interrupt For DSPU Circuit Packs*
p1	1
p2	2
p3	3
p4	4
p5	5
p6	6
p7	7
p8	8

reason
- Reason for denial

reason

mmmm - Error classification code

mmmm	Explanation
	explanation of error condition code
ENEQ	Equipage, not equipped UNIT [q]q IS NOT EQUIPPED
IDNV	Input, data not valid UNIT [q]q IS NOT DSPU
SNIS	Status, not in-service UNIT [q]q IS OUT-OF-SERVICE
SROF	Status, requested operation failed UNIT [q]q IS FAILED

RTRV,REG,EQPT,UNIT,ESR

UTILITY QUERY ERROR SOURCE REGISTER

Input Message Format

[I.55501]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:ESR;
```

Completion Message

[O.55501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:ESR  COMPLD
   /* [O.55501] */
   /* UNIT,ESR */
   "[q]q,aa"
;
```

Note: The above message applies to an FTU.

[O.55501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:ESR  COMPLD
   /* [O.55501] */
   /* UNIT,ESR */
   "[q]q,bbbb,cccc,dddd,eeee"
;
```

Note: The above message applies to a DS3 unit.

Denial Message

[O.55501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:ESR  DENY
   mmmm
   /* [O.55501.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message prints out the contents of the error source register for a facility terminating unit (FTU) or DS3 unit (DS3U).

Explanation Of Parameters

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

aa - FTU ESR

aa	*Explanation*
A2	Error from FTMI 1
A4	Error from FTMI 2
A5	Error from FTMI 3
A6	Error from FTMI 4

bbbb - DS3U Interrupt holding register 0.
Hexadecimal digits are numbered 3210 in left to right order.

hex digit	Bit	Value	Definition
0	0	1	Ram Parity Error
0	1	1	Internal Bus Error
0	2	1	Parallel Bus Parity Error
0	3	1	Series Bus Parity Error
1-3	4-15		Unused

cccc - DS3U Interrupt holding register 1
Hexadecimal digits are numbered 3210 in left to right order.

hex digit	Bit	Value	Definition
0	0	1	MXR1 Power Loss Interrupt
0	1	1	MXR2 Power Loss Interrupt
0	2	1	MXR3 Power Loss Interrupt
0	3	1	MXR4 Power Loss Interrupt
1	4	1	MXR5 Power Loss Interrupt
1	5	1	MXR6 Power Loss Interrupt
1	6	1	MXRP Power Loss Interrupt
1	7	1	SFLI Power Loss Interrupt
2	8	1	MIU1 Power Loss Interrupt
2	9	1	MIU2 Power Loss Interrupt
2	10	1	MIU3 Power Loss Interrupt
2	11	1	MIU4 Power Loss Interrupt
3	12	1	MIU5 Power Loss Interrupt
3	13	1	MIU6 Power Loss Interrupt
3	14	1	MIUP Power Loss Interrupt
3	15	1	PFLI Power Loss Interrupt

dddd - DS3U Interrupt holding register 2 (hexadecimal)
Hexadecimal digits are numbered 3210 in left to right order.

hex digit	Bit	Value	Definition
0	0	1	MXR1 Interrupt
0	1	1	MXR2 Interrupt
0	2	1	MXR3 Interrupt
0	3	1	MXR4 Interrupt
1	4	1	MXR5 Interrupt
1	5	1	MXR6 Interrupt
1	6	1	MXRP Interrupt
1	7	1	0FMT Power Loss Interrupt
2	8	1	MIU1 Interrupt
2	9	1	MIU2 Interrupt
2	10	1	MIU3 Interrupt
2	11	1	MIU4 Interrupt
3	12	1	MIU5 Interrupt
3	13	1	MIU6 Interrupt
3	14	1	MIUP Interrupt
3	15	1	1FMT Power Loss Interrupt

eeee - DS3U CI error source register (hexadecimal)
Hexadecimal digits are numbered 3210 in left to right order.

hex digit	Bit	Value	Definition
0	0	1	Link 1 Error
0	1	1	Link 2 Error
0	2	1	Link 3 Error
0	3	1	Link 4 Error
1	4	1	Link 5 Error
1	5	1	Link 6 Error
1	6	1	Link 7 Error
1	7	1	Link 8 Error
2	8	1	CI device ID Error
2	9	1	Address Parity Error
2	10	1	Data Strobe Error
2	11	1	Loss of Timing Error
3	12-15		Not Used

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service

RTRV,REG,EQPT,UNIT,FC,ESR

QUERY ERROR SOURCE REGISTER

Input Message Format

[I.55521]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FC-sb:ESR;
```

Completion Message

[O.55521]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FC-sb:ESR  COMPLD
   /* [O.55521] */
   /* ESR-FC:hh,ii,jj,kk,ll */
   "hh,ii,jj,kk,ll"
;
```

Denial Message

[O.55521.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FC-sb:ESR  DENY
   mmmm
   /* [O.55521.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message prints out the contents of the error source register for a format converter (FC) in a particular unit.

Explanation Of Parameters

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

FC - Format converter

s - Side (0 or 1)

b - Format converter number (1 through 4)

Note: Data bytes aa through gg must be converted from hexadecimal to binary before the tables below can be used to interpret the data byte values. Each hexdigit converts to 4 binary digits. Bits are numbered from right to left starting from 0 as follows; 76543210.

For example if aa = 01 the binary equivalent of this is 0000 0001. Using the table for aa below this indicates that there is an alarm on the Receive formatter.

Bit value	Explanation
0	Indicates NO error or alarm
1	Indicates an error or alarm

aa - Communications interface (CI) error source register 0 (ESR0) (Hexadecimal)

Bit	*Explanation*
0	Receive formatter summary (look at bytes bb, cc, dd , and ee for details)
1	Transmit formatter summary (look at byte ee for details)
2	Circuit ID error
3	Timing error
4-7	Not used

bb - Receive Formatter (RF) device ESR0 (Hexadecimal)

Bit	*Explanation*
0	Port 0 alarm
1	Port 1 alarm
2	Port 2 alarm
3	Port 3 alarm
4	Port 4 alarm
5	Port 5 alarm
6	Port 6 alarm
7	Port 7 alarm

Bit	*Explanation*
8	Port 8 alarm
9	Port 9 alarm
10	Port 10 alarm
11	Port 11 alarm
12	Port 12 alarm
13	Port 13 alarm
14	Port 14 alarm
15	Port 15 alarm

dd - RF device ESR2 (Hexadecimal)

Bit	*Explanation*
0	Port 17 alarm
1	Port 18 alarm
2	Port 19 alarm
3	Port 20 alarm
4-7	Not used

ee - RF/Transmitter Formatter (TF) device status register (Hexadecimal)

Bit	*Explanation*
0	Domestic/CEPT mode (Domestic = 0, CEPT = 1)
1	Network data error
2	Frame sync error
3	Clock error
4	Microprocessor bus error
5-7	Not used

mmmm - Error condition code

mmmm	*Explanation*
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service

RTRV,REG,EQPT,UNIT,FLI,ESR

QUERY ERROR SOURCE REGISTER FACILITY LINE INTERFACE

Input Message Format

[I.55801]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI-k:ESR;
```

Completion Message

[O.55801]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FLI-k:ESR COMPLD
   /* [O.55801] */
   /* Error Source Register:Data */
   "ESR:aa,bb,ee,dd"
;
```

Denial Message

[O.55801.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FLI-k:ESR DENY
   mmmm
   /* [O.55801.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a print out of the error source register (ESR) on one facility line interface (FLI) circuit pack.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility line interface

k - The identifier of the FLI:

k	*Explanation*
S	Service FLI
P	Protection FLI

ESR - Error source register

aa,bb,ee,dd
- The error register of the queried circuit pack

Variables aa, bb, ee, and dd are two-digit hexadecimal numbers representing error source registers. The bits in these registers are numbered as shown below:

76543210 Bit numbering

Bit values have the following meaning:

0	No error
1	Error

aa - Communication Interface (CI) ESR 1

bit	*Explanation*
0	Summary of facility line interface (FLI) ESR 1
1	Summary of FLI ESR 2
2	Chip identification parity error indicator
3	Sync absence or internal counter error indicator
4-7	Not used (set to zero)

Example:
aa = 05 (= 00000101 binary). At least one bit in the FLI ESR 1 is set, and a chip ID error has been identified.

Note: In practice, the bits may be set in combination.

bb - CI ESR 2

bit	*Explanation*
0	Address Parity Error
1-7	Not Used

ee - FLI ESR 1

Bit	*Value*	*Explanation*
0	1	The LOC alarm for DS-3 # 1 is activated
1	1	The LOC alarm for DS-3 # 2 is activated
2	1	The LOC alarm for DS-3 # 3 is activated
3	1	The LOC alarm for DS-3 # 4 is activated
4	1	The LOC alarm for DS-3 # 5 is activated
5	1	The LOC alarm for DS-3 # 6 is activated
6,7		Not Used

dd - FLI ESR 2

Bit	*Value*	*Explanation*
0	1	The LOS alarm for DS-3 # 1 is activated
1	1	The LOS alarm for DS-3 # 2 is activated
2	1	The LOS alarm for DS-3 # 3 is activated
3	1	The LOS alarm for DS-3 # 4 is activated
4	1	The LOS alarm for DS-3 # 5 is activated
5	1	The LOS alarm for DS-3 # 6 is activated
6	1	Lock and Key procedure alarm is activated
7		Not Used

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	UNIT not equipped, not in service, or failed
SAOS	FLI is out of service

RTRV,REG,EQPT,UNIT,FMT,ESR

QUERY ERROR SOURCE REGISTER FORMATTER

Input Message Format

[I.55811]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FMT-s:ESR;
```

Completion Message

[O.55811]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FMT-s:ESR COMPLD
   /* [O.55811] */
   /* Error Source Registers:Data */
   "ESR:mm,c0,c1,t0,t1,t2,t3,t4,r00,r01,r02,r10,r11,r12,r20,\
r21,r22,r30,r31,r32,r40,r41,r42"
;
```

Denial Message

[O.55811.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FMT-s:ESR DENY
   mmmm
   /* [O.55811.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the error source register (ESR) for one formatter (FMT) circuit pack.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FMT - Formatter

s - Formatter side number

s	*Side*
0	Side 0
1	Side 1

ESR - Error source register

Variables mm through r42 represent error source registers of the queried circuit pack. Interpretation of the information in these registers requires knowledge of the source code and access to the code.

mm, c0, ...,
r42 - The error register of the queried circuit pack (2-digit hexadecimal format).

mm - Maintenance Register

c0 - CI Error Source Register 0

c1 - CI Error Source Register 1

t0 - Transmit Formatter 0 (TF0) Status Register

t1, t2, t3, t4
- TF1, TF2, TF3, TF4 Status Register

r00, r01, r02
- Receive Formatter 0 (RF0) Error Source Register 0,1,2

r10, r11, r12
- Receive Formatter 1 (RF1) Error Source Register 0,1,2

r20, r21, r22
- Receive Formatter 2 (RF2) Error Source Register 0,1,2

r30, r31, r32
- Receive Formatter 3 (RF3) Error Source Register 0,1,2

r40, r41, r42
- Receive Formatter 4 (RF4) Error Source Register 0,1,2

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	UNIT not equipped, not in service, or failed
SAOS	FMT is out of service

RTRV,REG,EQPT,UNIT,FTMI,ESR

QUERY ERROR SOURCE REGISTER FTMI

Input Message Format

[I.55511]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-d:ESR;
```

Completion Message

[O.55511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FTMI-d:ESR  COMPLD
   /* [O.55511] */
   /* ESR-FTMI:aa,bb,cc,dd,ee,ff,gg */
   "aa,bb,cc,dd,ee,ff,gg"
;
```

Denial Message

[O.55511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:FTMI-d:ESR  DENY
   mmmm
   /* [O.55511.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the error source register for a facility terminating module interface in a unit.

Explanation Of Parameters

ESR - Error source register

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

d - Facility terminating module interface number (1 through 4)

Note: Data bytes aa through gg must be converted from hexadecimal to binary before the tables below can be used to interpret the data byte values. Each hex digit converts to 4 binary digits. Bits are numbered from right to left starting from 0 as follows; 76543210.

For example if aa = 01 the binary equivalent of this is 0000 0001. Using the table for aa below this indicates that there is an alarm on the Communications interface device C.

Bit value	Explanation
0	Indicates NO error or alarm
1	Indicates an error or alarm

aa - FTMI error status register

Bit	*Explanation*
0	Error summary bit from Communications interface device C (CIC) (look at bytes bb and ee for details)
1	Error summary bit from CIB (look at bytes bc and ff for details)
2	Error summary bit from CIA (look at bytes dd and gg for details)
3	Bus error alarm
4-7	Not used

bb - Communications interface (CI) device A error source register

Bit	*Explanation*
0	Chip identification comparison failed
1	Address parity error was detected
2	Data Strobe signal was not presented
3	Loss of timing alarm on the device
4-7	Not used

Bit	*Explanation*
0	Chip identification comparison failed
1	Address parity error was detected
2	Data Strobe signal was not presented
3	Loss of timing alarm on the device
4-7	Not used

dd - CI device C error source register

Bit	*Explanation*
0	Chip identification comparison failed
1	Address parity error was detected
2	Data Strobe signal was not presented
3	Loss of timing alarm on the device
4-7	Not used

ee - CI device B error source register

Bit	*Explanation*
0	Error summary bit, Link 1
1	Error summary bit, Link 2
2	Error summary bit, Link 3
3	Error summary bit, Link 4
4	Error summary bit, Link 5
5	Error summary bit, Link 6
6	Error summary bit, Link 7
7	Error summary bit, Link 8

ff - CI device A error source register

Bit	*Explanation*
0	Error summary bit, Link 1
1	Error summary bit, Link 2
2	Error summary bit, Link 3
3	Error summary bit, Link 4
4	Error summary bit, Link 5
5	Error summary bit, Link 6
6	Error summary bit, Link 7
7	Error summary bit, Link 8

gg - CI device C error source register

Bit	*Explanation*
0	Error summary bit, Link 1
1	Error summary bit, Link 2
2	Error summary bit, Link 3
3	Error summary bit, Link 4
4	Error summary bit, Link 5
5	Error summary bit, Link 6
6	Error summary bit, Link 7
7	Error summary bit, Link 8

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
ENEQ	Unit is not equipped
SAOS	UC is out of service

RTRV,REG,EQPT,UNIT,MIU,ESR

QUERY ERROR SOURCE REGISTER MULTIPLEXER INTERFACE UNIT

Input Message Format

[I.55831]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MIU-c:ESR;
```

Completion Message

[O.55831]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:MIU-c:ESR COMPLD
   /* [O.55831] */
   /* Error Source Registers : Data */
   "ESR:aa,bb"
;
```

Denial Message

[O.55831.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:MIU-c:ESR DENY
   mmmm
   /* [O.55831.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the error source register (ESR) for one Multiplexer Interface Unit (MIU) circuit pack.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MIU - Multiplexer interface unit

c - The number of the MIU within the unit (1 through 6,P)

ESR - Error source register

aa,bb - The error register of the queried circuit pack. (Hexadecimal format)

aa - EMIU ESR

The two hexadecimal digits of aa or bb may be converted to an eight-bit binary word. The eight bits of this word are interpreted as shown below. Bit numbering is as follows: 76543210 (left to right)

Bit	*Value*	*Bit definition*
0	1	EMIU interrupt from Unit Controller
1-2		Not Used
3	1	Reset in progress
4	1	The EMIU was reset
5	1	Facility threshold exception
6	1	ESF data link message response received
7	1	Hardware and firmware error

bb - EMIU error code (set only when bit 7 of the ESR is set)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	MIU is not equipped
SAOS	MIU is out of service

RTRV,REG,EQPT,UNIT,MXR,ESR

QUERY ERROR SOURCE REGISTER MULTIPLEXER

Input Message Format

[I.55821]

```
RTRV-REG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MXR-c:ESR;
```

Completion Message

[O.55821]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:MXR-c:ESR COMPLD
   /* [O.55821] */
   /* Error Source Registers : Data */
   "ESR:aa,bb,dd,ee,ff"
;
```

Denial Message

[O.55821.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::UNIT-[q]q:[ww]:MXR-c:ESR DENY
   mmmm
   /* [O.55821.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of the error source register (ESR) for one multiplexer (MXR) circuit pack.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MXR - Multiplexer

c - The number of the MXR within the unit (P,1 ≤ c ≤ 6)

ESR - Error source register

aa,bb,dd,ee,ff
- The error register of the queried circuit pack. (Hexadecimal format)

aa - MXR ESR 1

Bit	*Value*	*Bit definition*
0	1	DS3 LOS / OOF detected
1	1	CC device #7 Error
2	1	CC device #6 Error
3	1	CC device #5 Error
4	1	CC device #4 Error
5	1	CC device #3 Error
6	1	CC device #2 Error
7	1	CC device #1 Error

bb - MXR ESR 2

Bit	*Value*	*Bit definition*
0	1	Facility Processor detected Hardwared Error
1	1	CC device #14 Error
2	1	CC device #13 Error
3	1	CC device #12 Error
4	1	CC device #11 Error
5	1	CC device #10 Error
6	1	CC device #9 Error
7	1	CC device #8 Error

dd - MXR ESR 3

Bit	*Value*	*Bit definition*
0	1	Facility Processor detected Facility Error
1	1	MXR Reset
2	1	PIF Bus Parity Error
3	1	LOC DS3 Clock from the unselected FLI
4	1	LOC DS3 N Rail from the unselected FLI
5	1	LOC DS3 P Rail from the unselected FLI
6	1	45 MHz Clock Out of Lock
7		Not Used

ee - Hardware summary byte 1

Bit	*Value*	*Bit definition*

0	1	HSCC error
1	1	Firmware failure
2	1	PIF I/O error
3	1	M13 error
4	1	XCVR error
5	1	Program error
6	1	RAM error
7	1	ROM error

ff - Hardware summary byte 2

Bit	*Value*	*Bit definition*
0-5		Not Used
6	1	Logic Cell Array error
7	1	Queue overflow

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	The MXR is not grown
SAOS	MXR is out of service
ENEQ	The pair MXR is not equipped

RTRV,REG,EQPT,XC,STR

UTILITY QUERY, STATUS REGISTER

Input Message Format

[I.55191]

```
RTRV-REG-EQPT:[<xy>]:XC-a:[ww]:STR;
```

Completion Message

[O.55191]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XC-a:[ww]:STR  COMPLD
   /* [O.55191] */
   /* STR:bq,rs */
   "STR:bq,rs"
;
```

Denial Message

[O.55191.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XC-a:[ww]:STR DENY
   /* [O.55191.01] */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of a status register for side 0 or side 1 of a cross-connect network.

Explanation Of Parameters

STR - Status register

XC - Cross-connect network

a - Cross-connect network side (0 through 1).

pq - Cross connect status register byte 1 (hexadecimal, all bits = 0)

rs - Cross connect status register byte 0 (hexadecimal)

rs	*Explanation*
01	In service
05	Active, in service
08	Out of service
0A	Out of service, Pested and Failed
0D	Active, but pested

RTRV,REG,EQPT,XCSB,UNIT

QUERY CROSS-CONNECT STATUS BUS

Input Message Format

[I.55181]

```
RTRV-REG-EQPT:[<xy>]:XCSB:[ww]:[UNIT-[q]q];
```

Completion Message

Nonhierarchical

[O.55183]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55183] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* Unmatch:Side number in Database */
   "UM:DB-s"
   /* NPCs in the module */
   "[s]abc&&[t]def"
   /* Inconsistent NPCs numbers in the FTM */
   "[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl"
   "[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl"
   "[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl"
   "[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl,[s]ghi&&[t]jkl"
{;I>}
```

```
[O.55183]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55183] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* [Unmatch:]Side number in Database */
   "[UM:]DB-s"
   /* NPCs in the module:Completion condition code */
   "[s]abc&&[t]def:COND-kk"
{;|>}
```

Hierarchical

```
[O.55183]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55183] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* Unmatch:Side number in Database */
   "UM:DB-s"
   /* NPCs in the module */
   "uv-m-np&&&-uv-m-qr"
   /* Unmatch NPC numbers in the FTM */
   "uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl"
   "uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl"
   "uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl"
   "uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl"
   "uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl,uv-m-hi&&&-uv-m-kl"
{;|>}
[O.55183]

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55183] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* [Unmatch:]Side number in Database */
   "[UM:]DB-s"
   /* NPCs in the module:Completion condition code */
   "uv-m-np&&&-uv-m-qr:COND-kk"
{;|>}
```

Common

[O.55181]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55181] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* [Unmatch:]Side number in Database:Completion condition code */
   "[UM:]DB-s:COND-kk"
;
```

[O.55182]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55182] */
[  /* Unit number */]
[  "UNIT-[q]q"]
   /* Unmatch:Side number in Database:Multiplexer:Unmatch MXR numbers */
   "UM:DB-s:MXR:a,b,c,d,e,f,g"
;
```

[O.55184]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] COMPLD
   /* [O.55184] */
   /* [Unmatch:]Side number in Database */
   "[UM:]DB-s"
   /* {Cross-Connect Network|Clock & Control} Interface:side 0,side 1 */
   "{CCNI|CCI}:h,j"
;
```

Denial Message

[O.55181.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV REG EQPT::XCSB:[ww]:[UNIT-[q]q] DENY
   mmmm
   /* [O.55181.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests a check of the side switch consistency between the hardware entities and the data base. Depending on the result of the cross-connect consistency check, DACS II will respond with different outputs as specified in the following sections.

If the entities of a unit are either all consistent or all inconsistent with the data base, a single line output will be generated. The field "DB s", which indicates the active side recorded in the data base (DB), will always be shown, while the keyword "UM" (Unmatch) will be shown only if all entities of the unit are inconsistent with the data base.

Note: For an FTU, if some but not all of its DDCs are consistent with the data base, four output message segments will be generated. Each segment will report the side status for NPCs in one Facility Terminating Module (FTM). If all NPCs in an FTM have the same status, the segment for the FTM will have only one line; otherwise, it will be a five-line segment.
When this command is entered, the side selection configuration register on each dual digroup circuit of the facility terminating units and each multiplexer of the DS3 units is compared with the information stored in the data base. In addition, the configuration register on each cross-connect network interface or clock and control interface (CCNI/CCI) is also checked against the status of the data base.

This command can be entered to request the status of the whole frame or of a particular unit. If the status of the whole frame is requested, DACS II will output the result for each unit in ascending order from units 01 through 16. Unequipped units or digital signal processing units will not be checked and reported. If the unit number is specified on input, it must be an FTU or DS3U ; otherwise, the command will be denied.

After the unit-related results are reported, DACS II will output the result for the CCNI/CCI. If all DDCs/MXRs of an FTU/DS3U are marked pass, DACS II will generate the completion output (O.55181) showing the active side indicated in the data base, that is, showing "DB s". If all of them are marked fail, the "UM" keyword will also be shown to indicate that the side selected by the entities does not match the side recorded in the data base.

For a DS3U, if all its MXRs do not have the same marking, output message O.55182 will be generated. This message will give the MXR number of the MXR(s) marked fail. MXR(s) that is (are) pested, out-of-service, or marked pass will show a dash (-) in place of the MXR number.

For an FTU, if all its DDCs do not have the same marking, output message O.55183 will be generated. This message will give the NPC number of the NPC(s) marked fail. NPCs that are pested, out-of-service, or marked pass will show dashes (---) in place of the NPC number. Since the two NPCs of a DDC will always have the same status, the two NPC numbers will either both be shown or both be represented by dashes. For the CCNIs/CCIs, if the side status for one or both packs does not agree with the data base, the key word "UM" will be output in the output message O.55184. A pack that has failed is identified by its side number whereas a pack that has passed is identified by a dash "-".
The execution of this command and the output of messages in response to its execution can be aborted by use of the ABT-CMD command.

Explanation Of Parameters

XCSB - Cross-Connect Status Bus

UNIT - Unit

[q]q - Unit number (1 through 16)

[s]abc
- The 3- or 4-digit nonhierarchical FTU NPC number of the first NPC in an FTM

[t]def
- The 3- or 4-digit nonhierarchical FTU NPC number of the last NPC in an FTM

[s]ghi
- The 3- or 4-digit nonhierarchical odd FTU NPC number ([s]abc through [t]def)

[t]jkl
- The 3- or 4-digit nonhierarchical even FTU NPC number ([t]jkl = [s]ghi + 1)

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560

uv-m-np
- Hierarchical FTU NPC number of the first NPC in an FTM

uv-m-qr
- Hierarchical FTU NPC number of the last NPC in an FTM

uv-m-hi
- Hierarchical odd FTU NPC number (uvmnp through uvmkl)

uv-m-kl
- Hierarchical even FTU NPC number (uvmkl = uvmhi + 1)

uv - Unit number
m - Module number
np,qr,hi,kl
- NPC number

The valid values are:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

UM - Unmatched

This keyword indicates there are entities selecting a side different from the side recorded in the database.

DB - Database

s - Cross-connect side (0 or 1)

MXR - Multiplexer

a,
...,
g - Multiplexer status

The assignment of multiplexers to variables a through g is shown below.

a b c d e f g Variable
P 1 2 3 4 5 6Multiplexer identification

The multiplexer identification appears if the multiplexer has failed. The appearance of a dash (-) in place of a multiplexer identification indicates that the particular multiplexer passed.

CCNI - Cross-connect network interface (NonCEF)

CCI - Clock and control interface (CEF)

h - CCNI/CCI 0 status
j - CCNI/CCI 1 status

The assignment of CCNIs/CCIs to variables h and j is shown below.

h j	Variable
0 1	CCNI/CCI identification

The CCNI/CCI identification appears if the CCI has failed. The appearance of a dash in place of a CCNI/CCI identification indicates that the particular CCNI/CCI passed.

kk - Completion condition code (hexadecimal)

To interpret values of kk use the table of cc values below.

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SAIN	Subject entity is pested
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
SAOS	FTMI is out of service
SNVS	FTMI is in service but failed
SNVS	Unit type error

RTRV,ROLL,T0,NPC,ALL,UNIT

UTILITY QUERY ROLL DS0

Input Message Format

Nonhierarchical

[I.52081]

```
RTRV-ROLL-T0:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww];
```

Hierarchical

[I.52081]

```
RTRV-ROLL-T0:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww];
```

Completion Message

Nonhierarchical

The output message in nonhierarchical MML form will span one output segment per NPC. If the 3- or 4-digit nonhierarchical NPC number is used, the output will be six channels per line as shown below:

[O.52081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T0::{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52081] */
   /* rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj
   /* rr = OS for Original Service leg, NS for New Service leg, */
   /*      OB for Original Bridged leg, and NB for New Bridged leg. */
   /* --------- for no Service or Bridged leg. */
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   /* NPC Number */
   "[s]abc"
>

        .                .                .
        .                .                .
        .                .                .

[M  RTRV ROLL T0::{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52081] */
   /* rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj
   /* rr = OS for Original Service leg, NS for New Service leg, */
   /*      OB for Original Bridged leg, and NB for New Bridged leg. */
   /* --------- for no Service or Bridged leg. */
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   "rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj rr[u]ghijjj"
   /* NPC Number */
   "[t]def"
>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T0::{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww] COMPLD
```

Hierarchical

The output message in hierarchical MML form will span one output segment per NPC. If a hierarchical NPC number is used, the output will be four channels per line as shown below:

[O.52081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T0::{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52081] */
   /* rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj */
   /* rr = OS for Original Service leg, NS for New Service leg, */
   /*      OB for Original Bridged leg, and NB for New Bridged leg. */
   /* ------------ for no Service or Bridged leg. */
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   /* NPC Number */
   "uv-m-np"
>
```

```
        .                .                .
        .                .                .
        .                .                .
```

```
[M  RTRV ROLL T0::{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52081] */
   /* rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj */
   /* rr = OS for Original Service leg, NS for New Service leg, */
   /*      OB for Original Bridged leg, and NB for New Bridged leg. */
   /* ------------ for no Service or Bridged leg. */
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   "rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj rrgh-i-kljjj"
   /* NPC Number */
   "wx-k-qr"
>]
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T0::{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww] COMPLD
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request a report on the roll status of all of the channels in a network processing circuit (NPC). The roll status request may be for a single NPC, a range of NPCs, all NPCs in a unit, or all NPCs in the DACS II frame.

The output message shows the correspondence between the bridge and service legs of the Roll procedure. Original Service and Original Bridged leg refer to the service and bridged leg designations created by the Bridge step of the Roll procedure. New Service and New Bridged leg refer to the service and bridged leg designations created by the Roll step of the Roll procedure.

The output message displays the roll status of each of the 24 channels of an NPC. The top left position corresponds to channel one of the NPC and the bottom right position corresponds to channel twenty-four of the NPC. All dashes are displayed if there is neither a Service leg nor a Bridged leg associated with a channel. The display is repeated for each NPC in the range. If there are no rolled channels on an NPC within a range, then no roll status output will be generated for that NPC.

Note: The processing time to query the roll status of a fully equipped frame could exceed 9 minutes.

The specified NPC range can cross a unit boundry and is applicable to facility terminating unit (FTU) and DS3 unit (DS3U) types.

Explanation Of Parameters

[s]abc
- 3- or 4-digit nonhierarchical NPC number, the first number of a range or a single NPC number.

[t]def
- 3- or 4-digit nonhierarchical NPC number, the last number of a range.

ALL - All

Keyword indicating that all NPCs in the frame are being queried for Roll status.

UNIT - Unit

[q]q - Unit number (1 through 16)

Keyword used to limit query to all NPCs in a Unit.

[u]ghi

- The 3- or 4-digit nonhierarchical NPC number of the Service or Bridged channel associated with the queried NPC.

gh-i-kl

- Hierarchical NPC number of the Service or Bridged leg associated with the queried NPC

jjj - Channel number of the Service or Bridged leg associated with the queried NPC

rr - The Roll status of a channel interpreted as follows:

rr	*Type of Leg*
OS	Indicates that channel [u]ghijjj or gh-i-kljjj is the Original Service leg and the corresponding channel is the Original Bridged leg.
NS	Indicates that channel [u]ghijjj or gh-i-kljjj is the New Service leg and the corresponding channel is the New Bridged leg.
OB	Indicates that channel [u]ghijjj or gh-i-kljjj is the Original Bridged leg and the corresponding channel is the Original Service leg.
NB	Indicates that channel [u]ghijjj or gh-i-kljjj is the New Bridged leg and the corresponding channel is the New Service leg.
--	Indicates that the channel is not a Service or Bridged leg.

uv-m-np

- Hierarchical NPC number, the first number of a range or a single NPC number

wx-k-qr

- Hierarchical NPC number, the last number of a range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

Note: Valid NPC types for DS0 Roll are DExyz (except DE9y9), TExyz (except TE9y9), DAxyz (except DAxy9), and TAxyz (except TAxy9).

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in hierarchical form, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

RTRV,ROLL,T1,NPC,ALL,UNIT

UTILITY QUERY ROLL DS1

Input Message Format

Nonhierarchical

[I.52091]

```
RTRV-ROLL-T1:[<xy>]:{NPC-[s]abc[&&-[t]def]|ALL[,UNIT-[q]q]}:[ww];
```

Hierarchical

[I.52091]

```
RTRV-ROLL-T1:[<xy>]:{NPC-uv-m-np[&&&-wx-k-qr]|ALL[,UNIT-[q]q]}:[ww];
```

Completion Message

Nonhierarchical

The output message in nonhierarchical MML form will span one output segment per FTM for FTU NPC ranges, one output segment per DS3 for DS3U NPC, and one data line for a single FTU or DS3U NPC.

If the 3- or 4-digit nonhierarchical NPC number in an FTU range is used, the output will be ten NPCs per line as shown below:

[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-[s]abc&&-[t]def|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52091] */
   /* rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi\
rr[u]ghi rr[u]ghi rr[u]ghi */
   /*rr = OS for Original Service facility, NS for New Service facility,*/
   /*OB for Original Bridged facility, and NB for New Bridged facility.*/
   /* ------ for no Service or Bridged facility. */
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi \
rr[u[ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi \
rr[u]ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi \
rr[u]ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi \
rr[u]ghi rr[u]ghi rr[u]ghi"
   /* Unit Type, NPC Range */
   "FTU,[a]aaa&&-[b]bbb"
>
```

```
        .                .                .
        .                .                .
        .                .                .
```

```
[>]
 <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-[s]abc&&-[t]def|ALL[,UNIT-[q]q]}:[ww] COMPLD
;
```

If the 3- or 4-digit nonhierarchical NPC number in a DS3U range is used, the output will be seven NPCs per line as shown below:

[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-[s]abc&&-[t]def|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52091] */
   /* rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi */
   /*rr = OS for Original Service facility, NS for New Service facility,*/
   /*OB for Original Bridged facility, and NB for New Bridged facility.*/
   /* ------ for no Service or Bridged facility. */
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi"
   "rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi rr[u]ghi"
   /* Unit Type, NPC Range */
   "DS3U,[a]aaa&&-[b]bbb"
>
```

```
        .                .                .
        .                .                .
        .                .                .

[>]
 <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-[s]abc&&-[t]def|ALL[,UNIT-[q]q]}:[ww] COMPLD
;
```

If a single 3- or 4-digit nonhierarchical NPC number in an FTU or DS3U is used, the output will be one line as shown below:
[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::NPC-[s]abc:[ww] COMPLD
   /* [O.52091] */
   /* rr[u]ghi */
   /* rr = OS for Original Service facility, NS for New Service facility, */
   /*      OB for Original Bridged facility, and NB for New Bridged facility. */
   /* ------ for no Service or Bridged facility. */
   "rr[u]ghi"
   /* Unit Type */
   "{FTU|DS3U}"
;
```

Hierarchical

The output message in hierarchical MML form will span two output segments per FTM for FTU NPC ranges, one output segment per DS3 for DS3U NPC ranges, and one data line for a single FTU or DS3U NPC.

If the hierarchical NPC number in an FTU range is used, the output will be five NPCs per line as shown below:
[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-uv-m-np&&&-wx-k-qr|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52091] */
   /* rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl  */
   /* rr = OS for Original Service facility, NS for New Service facility, */
   /*      OB for Original Bridged facility, and NB for New Bridged facility. */
   /* --------- for no Service or Bridged facility. */
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   /* Unit Type, NPC Range */
   "FTU,bc-d-ef&&&-ed-h-fg"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-uv-m-np&&&-wx-k-qr|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52091] */
   /* rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl  */
   /* rr = OS for Original Service facility, NS for New Service facility,*/
   /* OB for Original Bridged facility, and NB for New Bridged facility.*/
   /* --------- for no Service or Bridged facility. */
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   /* Unit Type, NPC Range */
   "FTU,fh-j-rk&&&-st-x-yz"
>
        .                .                .
        .                .                .
        .                .                .

[>]
 <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-uv-m-np&&&-wx-k-qr|ALL[,UNIT-[q]q]}:[ww] COMPLD
;
```

If the hierarchical NPC number in a DS3U range is used, the output will be seven NPCs per line as shown below:
[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-uv-m-np&&&-wx-k-qr|ALL[,UNIT-[q]q]}:[ww] COMPLD
   /* [O.52091] */
   /* rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl */
   /* rr = OS for Original Service facility, NS for New Service facility, */
   /*      OB for Original Bridged facility, and NB for New Bridged facility.
   /* --------- for no Service or Bridged facility. */
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   "rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl rrgh-i-kl"
   /* Unit Type, NPC Range */
   "DS3U,bc-d-ef&&&-st-x-yz"
>
```

```
        .                .                .
        .                .                .
        .                .                .

[>]
 <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::{NPC-uv-m-np&&&-wx-k-qr|ALL[,UNIT-[q]q]}:[ww] COMPLD
;
```

If a single hierarchical NPC number in an FTU or DS3U is used, the output will be one line as shown below:
[O.52091]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV ROLL T1::NPC-uv-m-np:[ww] COMPLD
   /* [O.52091] */
   /* rrgh-i-kl */
   /* rr = OS for Original Service facility, NS for New Service facility, */
   /*      OB for Original Bridged facility, and NB for New Bridged facility. */
   /* --------- for no Service or Bridged facility. */
   "rrgh-i-kl"
   /* Unit Type */
   "{FTU|DS3U}"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request a report on the roll status of DS1 facilities.

The roll status request may be for a single network processing circuit (NPC), a range of NPCs, all NPCs in a unit, or all NPCs in the DACS II frame.

The output message shows the correspondence between the bridge and service facilities of the Roll procedure. Original Service and Original Bridged facility refer to the service and bridged facility designations created by the Bridge step of the Roll procedure. New Service and New Bridged facility refer to the service and bridged facility designations created by the Roll step of the Roll procedure.

The output message displays the roll status of each of the NPCs in a Facility Terminating Module (FTM) or DS3. The top left position corresponds to the first NPC in the FTM or DS3 and the bottom right position corresponds to the last NPC in that FTM or DS3. All dashes are displayed if there is neither a Service facility nor a Bridged facility associated with an NPC. The display is repeated for each FTM or DS3 in the range.

If the range queried in the input message is a subset of an FTM or DS3, all NPCs of that FTM or DS3 will still be displayed. If there are no rolled channels in an FTM or DS3, then no roll status output will be generated for that FTM or DS3.

The specified NPC range can cross a unit boundary and is applicable to facility terminating unit (FTU) and DS3 unit (DS3U) types.

If only one NPC is queried, then the output display will be one line with the roll status information for the requested NPC.

Explanation Of Parameters

[s]abc
- 3- or 4-digit nonhierarchical NPC number, the first number of a range or a single NPC number.

[t]def
- 3- or 4-digit nonhierarchical NPC number, the last number of a range.

ALL - All

Keyword indicating that all NPCs in the frame are being queried for Roll status.

UNIT - Unit

[q]q - Unit number (1 through 16)

Keyword used to limit query to all NPCs in a Unit.

[q]q - The 1- or 2-digit Unit number

[a]aaa
- 3- or 4-digit nonhierarchical NPC number, the first NPC number of an FTM or DS3.

[b]bbb
- 3- or 4-digit nonhierarchical NPC number, the last NPC number of an FTM or DS3.

[u]ghi
- The 3- or 4-digit nonhierarchical NPC number of the Service or Bridged facility associated with the queried NPC.

gh-i-kl
- Hierarchical NPC number of the Service or Bridged facility associated with the queried NPC.

rr - NPC Roll status interpreted as follows:

rr	*Type of Facility*
OS	Indicates that NPC [u]ghi or gh-i-kl is the Original Service facility and the corresponding NPC is the Original Bridged facility.
NS	Indicates that NPC [u]ghi or gh-i-kl is the New Service facility and the corresponding NPC is the New Bridged facility.
OB	Indicates that NPC [u]ghi or gh-i-kl is the Original Bridged facility and the corresponding NPC is the Original Service facility.
NB	Indicates that NPC [u]ghi or gh-i-kl is the New Bridged facility and the corresponding NPC is the New Service facility.
--	Indicates that the NPC is not a Service or Bridged facility.

bc-d-ef

- Hierarchical NPC number, the first NPC number of an FTM or DS3.

ed-h-fg

- Hierarchical NPC number, the last NPC number of an FTM output segment.

fh-j-rk

- Hierarchical NPC number, the first NPC number of an FTM output segment.

st-x-yz

- Hierarchical NPC number, the last NPC number of an FTM or DS3.

uv-m-np

- Hierarchical NPC number, the first NPC number of a range or a single NPC number.

wx-k-qr

- Hierarchical NPC number, the last NPC number of a range.

uv,wx,bc,st,fh,ed
- Unit number

m,k,d,x,j,h
- Module number

np,qr,ef,yz,rk,fg
- NPC number within the module

Note: Valid NPC types for DS1 Roll are DExyz, DAxyz, TExyz and TAxyz.

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in hierarchical form, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

RTRV,STATE,COM,ALL

UTILITY QUERY ALL COMMON EQUIPMENT

Input Message Format

[I.53104]

```
RTRV-STATE-COM:[<xy>]::[ww]:ALL;
```

Completion Message

[O.53104]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:ALL COMPLD
   /* [O.53104] */
   "OOS:g,h,i,j,k,l,m,n,o,p"
   "FAIL:g,h,i,j,k,l,m,n,o,p"
   "PEST:g,h,i,j,k,l,m,n,o,p"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:ALL COMPLD
   /* [O.53104] */
   "SYNC:ofp,rst"
   "CRO:ofp"
   "TLI:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,rst,rst,rst,rst,rst,rst,rst,rst"
   "TLI:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:ALL COMPLD
   /* [O.53104] */
   /*TSI:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst*/
   "TSI:11,ofp,rst:12,ofp,rst:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   "TSI:21,ofp,rst:22,ofp,rst:23,ofp,rst:24,ofp,rst:25,ofp,rst:26,ofp,rst"
   "TSI:31,ofp,rst:32,ofp,rst:33,ofp,rst:34,ofp,rst:35,ofp,rst:36,ofp,rst"
   "TSI:41,ofp,rst:42,ofp,rst:43,ofp,rst:44,ofp,rst:45,ofp,rst:46,ofp,rst"
   "TSI:51,ofp,rst:52,ofp,rst:53,ofp,rst:54,ofp,rst:55,ofp,rst:56,ofp,rst"
   "TSI:61,ofp,rst:62,ofp,rst:63,ofp,rst:64,ofp,rst:65,ofp,rst:66,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,00,ff,pp"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:ALL COMPLD
   /* [O.53104] */
   /* ETSI:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst */
   "ETSI:01,ofp,rst:02,ofp,rst:03,ofp,rst:04,ofp,rst"
   "ETSI:05,ofp,rst:06,ofp,rst:07,ofp,rst:08,ofp,rst"
   "ETSI:09,ofp,rst:10,ofp,rst:11,ofp,rst:12,ofp,rst"
   "ETSI:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,00,ff,pp"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:ALL COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests reports on any one or on all of the following parameters:

EQD	Equipage
PEST	Pest states
FAIL	Failed components
OOS	Out-of-service components

These reports may be on the entire DACS II frame or on the common equipment of the frame.

Explanation Of Parameters

ALL - All

COM - Common entities

OOS - Out of service

FAIL - Fail

PEST - Pest

The keyword PEST is used to indicate that error reporting is disabled. Out-of-service (OOS) entities and entities related to a side that is out of service are pested to prevent error messages from being reported to the main controller. Error reporting is undesirable if an entity is OOS since it would interrupt normal operations by repeatedly interrupting the microprocessor.

For the OOS, FAIL and PEST indications, each entity in the DACS II frame is represented by a single character variable. This variable can have the value of 1, 0 or "-" indicating the following status:

Value	*OOS*	*FAIL*	*PEST*	
1	out of service		failed	pested
0	in service	not failed	unpested	
-	not applicable		not applicable	not applicable

A hyphen (-) indicates the parameter is not applicable to the particular entity. For example, an unequipped circuit would display a "-" for its OOS, FAIL and PEST indicators.

The DACS II entities and their status fields are as follows:

g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (cross-connect 0)
n - XC1 (cross-connect 1)
o - CCNI/CCI 0 (cross-connect network interface 0 for non-CEF frame) (clock and control interface 0 for CEF frame)
p - CCNI/CCI 1 (cross-connect network interface 1 for non-CEF frame) (clock and control interface 1 for CEF frame)

SYNC - Synchronizer

	Side0	Side1
OOS	o	r
FAIL	f	s
PEST	p	t

CRO - Clock reference oscillator

OOS o
FAIL f
PEST p

TLI - Timing link interface

[MML FORMAT]

```
"TLI:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,rst,rst,rst,rst,rst,rst,rst,rst"
"TLI:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p"
```

TLI source for priority is listed in the following order:

```
a = TLI 1, SSP 0, Side 0
b = TLI 1, SSP 1, Side 0
c = TLI 2, SSP 0, Side 0
d = TLI 2, SSP 1, Side 0
e = TLI 3, SSP 0, Side 0
f = TLI 3, SSP 1, Side 0
g = TLI 4, SSP 0, Side 0
h = TLI 4, SSP 1, Side 0
i = TLI 1, SSP 0, Side 1
j = TLI 1, SSP 1, Side 1
k = TLI 2, SSP 0, Side 1
l = TLI 2, SSP 1, Side 1
m = TLI 3, SSP 0, Side 1
n = TLI 3, SSP 1, Side 1
o = TLI 4, SSP 0, Side 1
p = TLI 4, SSP 1, Side 1
```

For each TLI, SSP:

	Side0	Side1 PDS	Side1 MML
OOS	o	d	r
FAIL	f	f	s
PEST	p	p	t

a, b, ..., p is the source for priority of each individual TLI. This field ranges in value from 0 through 8:

0 = Average over all SSPs
1 = HIGHEST priority
8 = LOWEST priority

TSIS - Time slot interchanges

f - FROM unit (1 through 6)
t - TO Unit (1 through 6)
ETSIS - Expanded time slot interchangers

	Side0	Side1 PDS	Side1 MML
OOS	o	ó	r
FAIL	f	f	s
PEST	p	ṕ	t

tt - Total number of equipped TSIs/ETSIs

oo - Total number of out-of-service TSIs/ETSIs.

ff - Total number of failed TSIs/ETSIs.

pp - Total number of pested TSIs/ETSIs.

RTRV,STATE,COM,EQPD

UTILITY QUERY EQUIPAGE, COMMON

Input Message Format

[I.53109]

```
RTRV-STATE-COM:[xy]::[ww]:EQPD;
```

Completion Message

[O.53109]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:EQPD COMPLD
   /* [O.53109] */
   /* Equipped entities */
   "g,h,i,j,k,l,m,n,o,p"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:EQPD COMPLD
   /* [O.53109] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:EQPD COMPLD
   /* [O.53109] */
   /* TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y */
   "TSI:11,x,y:12,x,y:13,x,y:14,x,y:15,x,y:16,x,y"
   "TSI:21,x,y:22,x,y:23,x,y:24,x,y:25,x,y:26,x,y"
   "TSI:31,x,y:32,x,y:33,x,y:34,x,y:35,x,y:36,x,y"
   "TSI:41,x,y:42,x,y:43,x,y:44,x,y:45,x,y:46,x,y"
   "TSI:51,x,y:52,x,y:53,x,y:54,x,y:55,x,y:56,x,y"
   "TSI:61,x,y:62,x,y:63,x,y:64,x,y:65,x,y:66,x,y"
   /* Total-tt */
   "tt"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:EQPD COMPLD
   /* [O.53109] */
   /* ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y */
   "ETSI:01,x,y:02,x,y:03,x,y:04,x,y"
   "ETSI:05,x,y:06,x,y:07,x,y:08,x,y"
   "ETSI:09,x,y:10,x,y:11,x,y:12,x,y"
   "ETSI:13,x:14,x:15,x:16,x"
   /* Total-tt */
   "tt"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
```

```
M  RTRV STATE COM:::[ww]:EQPD COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests reports on the equipage of common equipment in the frame.

In the output message each entity is represented by a single character alphabetic variable.
The value of this variable gives the equipage status of the entity represented by the variable.

Explanation Of Parameters

EQPD - Equipped

The equipage status of an entity is given as follows:

1	Equipped
0	Unequipped

The DACS II entities and their status fields are as follows:

g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (Cross-connect 0)
n - XC1 (Cross-connect 1)
o - CCNI/CCI 0 (Cross-connect network interface 0 for non-CEF frame) (Clock and control interface 0 for CEF frame)
p - CCNI/CCI 1 (Cross-connect network interface 1 for non-CEF frame) (Clock and control interface 1 for CEF frame)

TLI - Timing link interface

x - Side 0

y - Side 1

The TLI entities are listed, in the messages, from left to right in the following order.

```
TLI 1, SSP 0
TLI 1, SSP 1
TLI 2, SSP 0
TLI 2, SSP 1
TLI 3, SSP 0
TLI 3, SSP 1
TLI 4, SSP 0
TLI 4, SSP 1

TLI 1, SSP 0
TLI 1, SSP 1
TLI 2, SSP 0
TLI 2, SSP 1
TLI 3, SSP 0
TLI 3, SSP 1
TLI 4, SSP 0
TLI 4, SSP 1
```

TSIS - Time slot interchanges NonCEF
ETSIS - Expanded time slot interchangers CEF

f - FROM unit (1 through 6)

t - TO Unit (1 through 6)

SYNC - Synchronizer

x - Side 0 synchronizer equipage status

y - Side 1 synchronizer equipage status

CRO - Clock reference oscillator

x - CRO equipage status

tt - Total number of equipped TSIs/ETSIs.

RTRV,STATE,COM,PEST,FAIL,OOS

UTILITY QUERY STATUS COMMON EQUIPMENT

Input Message Format

[I.53105]

```
RTRV-STATE-COM:[<xy>]::[ww]:{PEST|FAIL|OOS};
```

Completion Message

[O.53105]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53105] */
   "OOS:g,h,i,j,k,l,m,n,o,p"
   "FAIL:g,h,i,j,k,l,m,n,o,p"
   "PEST:g,h,i,j,k,l,m,n,o,p"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53105] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53105] */
   /* TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y */
   "TSI:11,x,y:12,x,y:13,x,y:14,x,y:15,x,y:16,x,y"
   "TSI:21,x,y:22,x,y:23,x,y:24,x,y:25,x,y:26,x,y"
   "TSI:31,x,y:32,x,y:33,x,y:34,x,y:35,x,y:36,x,y"
   "TSI:41,x,y:42,x,y:43,x,y:44,x,y:45,x,y:46,x,y"
   "TSI:51,x,y:52,x,y:53,x,y:54,x,y:55,x,y:56,x,y"
   "TSI:61,x,y:62,x,y:63,x,y:64,x,y:65,x,y:66,x,y"
   /* Total TSIs-tt, Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53105] */
   /* ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y */
   "ETSI:01,x,y:02,x,y:03,x,y:04,x,y"
   "ETSI:05,x,y:06,x,y:07,x,y:08,x,y"
   "ETSI:09,x,y:10,x,y:11,x,y:12,x,y"
   "ETSI:13,x,y:14,x,y:15,x,y:16,x,y"
   /* Total ETSIs-tt, Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE COM:::[ww]:{PEST|FAIL|OOS} COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to request reports on one of the following parameters:

PEST Pest states
FAIL Failed components
OOS Out-of-service components

The output message reports the status of the requested parameter on common equipment of the frame.

Explanation Of Parameters

PEST - Pested

FAIL - Failed

OOS - Out of service

For the PEST, FAIL and OOS indications, each entity in the DACS II frame is represented by a single character variable. This variable can have the value of 1, 0 or "-" indicating the following status:

Value	*OOS*	*FAIL*	*PEST*
1	out of service	failed	pested
0	in service	not failed	unpested
-	not applicable	not applicable	not applicable

A hyphen (-) indicates the parameter is not applicable to the particular entity. For example, an unequipped circuit displays a "-" for its OOS, FAIL and PEST indicators.

The DACS II entities and their status fields are as follows:

g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (cross-connect 0)
n - XC1 (cross-connect 1)
o - CCNI/CCI 0 (cross-connect network interface 0 for non-CEF frame) (clock and control interface 0 for CEF frame)
p - CCNI/CCI 1 (cross-connect network interface 1 for non-CEF frame) (clock and control interface 1 for CEF frame)

SYNC - Synchronizer

CRO - Clock reference oscillator

TLI - Timing link interface

x - TLI status, side 0
ẋ - TLI status, side 1

TLI information is listed in the message from left to right, starting with status information for TLI 1, SSP 0, Side 0 in the first position and ending with status information for TLI 4, SSP1, Side 1 in the last position. The entities for which status is reported are listed below in the order they appear in the output message.

The status is represented by the variable x or ẋ. The value of the variable is interpreted as follows.

x	*Explanation (PEST, FAIL, or OOS will be indicated in message)*
0	Unpested, in-service, or not failed
1	Pested, out-of-service, or failed

Side 0

```
TLI 1, SSP 0
TLI 1, SSP 1
TLI 2, SSP 0
TLI 2, SSP 1
TLI 3, SSP 0
TLI 3, SSP 1
TLI 4, SSP 0
TLI 4, SSP 1
```

Side 1

```
 TLI 1, SSP 0
TLI 1, SSP 1
TLI 2, SSP 0
TLI 2, SSP 1
TLI 3, SSP 0
TLI 3, SSP 1
TLI 4, SSP 0
TLI 4, SSP 1
```

TSI - Time slot interchange

f - FROM unit (1 through 6)
t - TO Unit (1 through 6)
ETSI - Expanded time slot interchanger

x - Status indication for the entity or for the side 0 entity if duplicated.

y - Status indication for side 1 entity.

tt - Total number of equipped TSIs/ETSIs.

nn - Total number of equipped TSIs/ETSIs having the requested status.

RTRV,STATE,EQPT,ACO

UTILITY QUERY STATE ALARM CUT OFF

Input Message Format

[I.54340]

```
RTRV-STATE-EQPT:[<xy>]::[ww]:ACO;
```

Completion Message

[O.54340]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ACO COMPLD
   /* [O.54340] */
   /* MODE */
   "<mode>"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message queries for the active or inactive status of the alarm cutoff.

Explanation Of Parameters

STATE - State

ACO - Alarm cut off

mode - Alarm mode

Current state of alarm cut off

mode	*Explanation*
ACTIVE	Alarm cutoff is active
INACT	Alarm cutoff is inactive

RTRV,STATE,EQPT,ETSI,EQPD

UTILITIES, ETSIS

Input Message Format

[I.53022]

```
RTRV-STATE-EQPT:[<xy>]:ETSI:[ww]:EQPD;
```

Completion Message

[O.53022]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:[<xy>]:ETSI:[ww]:EQPD COMPLD
   /* [O.53022] */
   /* Number of equipped ETSI circuit packs */
   "0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq"
   "0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq:0qq,1qq"
   /* Total ETSI:tt */
   "tt"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests equipage information for all expanded time slot interchange circuit packs.

Explanation Of Parameters

ETSI - Request information on ETSI circuit pack

EQPD - Request equipage status

tt - Total number of equipped ETSIs (00 through 32)

qq - Unit number (01 through 16)

If the ETSI pack is not equipped, the number "00" shall be shown in the "qq" field. The "0" or "1" shown before the "qq" is the side number.

RTRV,STATE,EQPT,MIU,EQPD

QUERY EQUIPPED MULTIPLEXER INTERFACE UNITS

Input Message Format

[I.53201]

```
RTRV-STATE-EQPT:[<xy>]:MIU:[ww]:EQPD;
```

Completion Message

[O.53201]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::MIU:[ww]:EQPD COMPLD
   /* [O.53201] */
   /* UNIT Number:MIU Number,MIU Type:Total in unit */
   "UNIT-[q]q:P,mnxyz:1,mnxyz:2,mnxyz:3,mnxyz:4,mnxyz:5,mnxyz:6,mnxyz:\
   TOTAL-a"
                .
                .
                .
   "UNIT-[q]q:P,mnxyz:1,mnxyz:2,mnxyz:3,mnxyz:4,mnxyz:5,mnxyz:6,mnxyz:\
   TOTAL-a"
   /* Total number of equipped MIU on frame */
   "ttt"
;
```

[O.53202]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::MIU:[ww]:EQPD COMPLD
   /* [O.53202] */
   /* TOTAL */
   "000"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message queries the equipage of the Multiple Interface Units (MIUs) in a DACS II frame.
This message queries the equipage of the Multiplexer Interface Units (MIUs) in a DACS II frame.

Explanation Of Parameters

EQPD - Equipped state

MIU - Multiplexer interface unit

Only units that are equipped as DS3 units will have corresponding output lines.

ttt - Total number of equipped MIUs in the DACS frame (001 through 112) (including protection MIUs)

UNIT - Unit

[q]q - Unit number (1 through 16)

TOTAL - Total

a - The number of equipped MIUs in a unit (1 through 7)

mnxyz - NPC-type identifier

mnxyz	Explanation
MI100	Multiplexer interface unit
-----	Unequipped

Variable xyz will always have the value 100.

RTRV,STATE,EQPT,MXR,EQPD

UTILITIES, QUERY,EQUIPPED,MULTIPLEXERS

Input Message Format

[I.53211]

```
RTRV-STATE-EQPT:[<xy>]:MXR:[ww]:EQPD;
```

Completion Message

[O.53211]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::MXR:[ww]:EQPD COMPLD
   /* [O.53211] */
   /* UNIT Number:MXR Number,MXR Type:Total in Unit */
   "UNIT-[q]q:1,mnxyz:2,mnxyz:3,mnxyz:4,mnxyz:5,mnxyz:\
6,mnxyz:TOTAL-a"
                .
                .
                .
   "UNIT-[q]q:1,mnxyz:2,mnxyz:3,mnxyz:4,mnxyz:5,mnxyz:\
6,mnxyz:TOTAL-a"
   /* Total number of equipped service MXR */
   "tt"
;
```

[O.53212]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::MXR:[ww]:EQPD COMPLD
   /* [O.53212] */
   /* TOTAL */
   "00"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message queries the equippage of the Multiplexers (MXRs) in the DS3 Unit Service slots of the DACS II frame.

Explanation Of Parameters

MXR - Service Multiplexers

EQPD - Equipped state

Only units that are equipped as DS3 Units will have corresponding output lines.

tt - total number of equipped MXRs in the DACS frame (01 through 96) (not including Protection MXRs)

a - the number of equipped Service MXRs in a unit (1 through 6)

mnxyz - The DS3 format processed by the MXR:

mn	*Explanation*
MX	the original R4.0 DS3 facility type supported by the Multiplexer (MXR) circuit pack
EX	the enhanced R6.0 DS3 facility type supported by the Enhanced Multiplexer (EMXR) circuit pack
	Default is the MX type for backward compatibility.

MX/EX-type xyz fields

x - the DS3 framing format
1 - M13 format (default)
2 - C-bit parity format

y - not assigned (the only valid value is 0)

z - not assigned (the only valid value is 0)

Note: If a particular MXR is not equipped, five hyphens(-----) will occupy the mnxyz field.

RTRV,STATE,EQPT,NPC

UTILITY QUERY STATE

Input Message Format

Nonhierarchical

[I.56311]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

Hierarchical

[I.56311]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww];
```

Completion Message

Nonhierarchical

[O.56311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww] COMPLD
   /* [O.56311] */
   /* OOS,FAIL,PEST,CGA,OOF  ,SLIP */
   "  a  ,b   ,c   ,d  ,wwwww,fff"
   /* BER,ERS  ,SERS ,COFA ,CRC  ,BPV  ,FRER [,SANE ,SAFE] */
   "  st ,ccccc,bbbbb,yyyyy,fffff,kkkkk,ggggg[,uuuuu,vvvvv]"
   "THRESHOLDS:mmm,nnn:p,q:ttttt:sss:ttt,uuu[:xxxxx:zzzzz]"
   "OPTIONS   :e  ,f  :g,h:i    :j  :k  ,l  [:p    :q]"
   "TYPE-mnxyz,IW-X-pq"
   /* NPC number */
   "[t]ghi"
;
```

Note:: The above message applies to FTU units.

[O.56312]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc:[ww] COMPLD
   /* [O.56312] */
   /* TYPE-mnxyz */
   /* OOS :FAIL:PEST */
   "  a,a:b,b:c,c"
   /* NPC number */
   "[t]ghi"
;
```

Note:: The above message applies to DSP units.

Hierarchical

[O.56311]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww] COMPLD
   /* [O.56311] */
   /* OOS,FAIL,PEST,CGA,OOF  ,SLIP */
   "  a  ,b   ,c   ,d  ,wwwww,fff"
   /* BER,ERS  ,SERS ,COFA ,CRC  ,BPV  ,FRER [,SANE ,SAFE] */
   "  st ,ccccc,bbbbb,yyyyy,fffff,kkkkk,ggggg[,uuuuu,vvvvv]"
   "THRESHOLDS:mmm,nnn:p,q:ttttt:sss:ttt,uuu[:xxxxx:zzzzz]"
   "OPTIONS   :e  ,f  :g,h:i    :j  :k  ,l  [:p    :q]"
   "TYPE-mnxyz,IW-X-pq"
   /* NPC number */
   "ed-h-fg"
;
```

Note:: The above message applies to FTU units.

[O.56312]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np:[ww] COMPLD
   /* [O.56312] */
   /* TYPE-mnxyz */
   /* OOS:FAIL:PEST */
   "a,a:b,b:c,c"
   /* NPC number */
   "uv-m-np"
;
```

Note:: The above message applies to DSP units.

Denial Message

Nonhierarchical

[O.56311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.56311.01] */
   /* <explanation of error condition code> */
   /* UEQD */
   /* NPC number */
   "[t]ghi"
;
```

[O.56311.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   mmmm
   /* [O.56311.02] */
   /* <explanation of error condition code> */
   /* NPC number */
   "[t]ghi"
;
```

Hierarchical

[O.56311.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww] DENY
   mmmm
   /* [O.56311.01] */
   /* <explanation of error condition code> */
   /* UEQD */
   /* NPC number */
   "ed-f-hg"
;
```

[O.56311.02]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np[&&-wx-k-qr]:[ww] DENY
   mmmm
   /* [O.56311.02] */
   /* <explanation of error condition code> */
   /* NPC number */
   "ed-f-hg"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the provisioning and status information of a single Network Processing Circuit (NPC) or range of NPCs for one or more Facility Terminating Units (FTU) or DS3 Units (DS3U) or for a single Digital Signal Processing Unit (DSPU).
If the type of NPC specified is either DS1yz or DS6yz SLC carrier, the complete output message will be printed. If any other NPC type is specified, the second segment of the output format will not be printed.

In the output message, the "PREVIOUS SHORT INTERVAL" data should be ignored for the first 15 minutes following the execution of the ED-OPT-T1 NPC (Message I.38201) or ED-PRMTR-EQPT NPC (Message I. 38221) command. These ED commands clear the stored data, which results in a value of zero being printed for the interval count.

Note: If the accumulated count of a parameter reaches or exceeds its programmed threshold, an autonomous alarm message is generated.

If an NPC range is specified in the input command, the following floating window rules apply:

- Unequipped NPCs within the requested range will be skipped.
- If a CEPT gap is within the requested range, the NPCs in the gap will be skipped.
- If an endpoint of the requested range is in a CEPT gap, then the NPCs in the portion of the range which is in the gap will be denied.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit starting nonhierarchical NPC number

[t]def
- The 3- or 4-digit ending nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

uv-m-np

- Starting hierarchical NPC number

wx-k-qr

- Ending hierarchical NPC number defined for uv-m-np

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

MB type NPC numbers listed by unit, module, and NPC No.

Unit Type DP (DSPU)

Unit      Module    NPC
01-16     1-8       01
```

[t]ghi
- The 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]def)

ed-f-gh
- Hierarchical NPC number (uv-m-np through wx-k-qr)

ed	- Unit number (uv through wx)
f	- Module number (m through k)
gh	- NPC number (np through qr)

TYPE - Type
mnxyz - NPC-type identifier

mn	*Explanation*
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC
TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC

MB	Digital multipoint bridge NPC
MJ	Multipoint junction unit NPC
SR	Subrate multiplexer unit NPC

DE-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3†	ZBTSI - Zero-bit time-slot interchanger
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DE-type clear-DS1 NPC.
† Only valid with ESF (x = 2 or 3)

Note:
DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

DS-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	Not assigned
4	Not assigned
5	Not assigned
6	SLC® 96 carrier Fs
7	SLC 5 carrier ESF with data link
8-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	Zero code suppression (ZCS)
1	No zero code suppression (NZCS)
2	Bipolar with 8 zero substitution (B8ZS)
3-9	Not assigned

z - Counting sequence format

z	*Explanation*
0	SLC 96 carrier Mode III D4 counting sequence
1	SLC 96 carrier Mode III D1D counting sequence
2	SLC 96 carrier Mode I D1D counting sequence
3	SLC Series 5 carrier D4 counting sequence
4-9	Not assigned

TE-type xyz fields

x - Multiframe format

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-8	Not assigned
9	No framing format, transparent (TRSP), clear-DS1

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TE-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field is 4 (DDS framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	No channel numbering format, clear-DS1

MB-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

SR- and MJ-type xyz fields

x - Fixed at 1

y - Fixed at 0

z - Fixed at 0

RESET - Indicates that one or more autonomous resets have occurred.

IW - Insertion word

pq - Insertion word value (Hexadecimal)

Also referred to as the Disconnect Code (DCC) or idle code. This value is inserted in the transmit direction on unassigned channels. DCC is

not applicable to clear-DS1 NPCs, and is not printed. Some common disconnect codes are:

pq	*Explanation*
7F	Unassigned Channel code (UAC), the default value
18	Unassigned Multiplex Code (UMC), should only be used with type DE4yz, for a T1DM formatted facility.
FF	Per channel all ones code, needed for not connected channels in SLC® carrier and CPI applications.

OOS - Out-of-Service

a - Out of Service flag, applies to FTU NPCs and DSP NPCs on Side 0

_a - Out of Service flag, applies to DSP NPCs on Side 1

a _a	Explanation
1	Out-of-service
0	Not Out-of-service

FAIL - Fail

b - Failed flag, applies to FTU NPCs and DSP NPCs on Side 0

_b - Failed flag, applies to DSP NPCs on Side 1

b _b	Explanation
1	Failed
0	Not failed

PEST - Pest

c - Pested flag, applies to FTU NPCs and DSP NPCs on Side 0

_c - Pested flag, applies to DSP NPCs on Side 1

c _c	Explanation
1	Pested
0	Not pested

CGA - Carrier group alarm

d - Carrier Group Alarm flag

d	*Explanation*
0	No CGA
A	Alarm Indication Signal (AIS) CGA (non-alarmed)
B	Both Yellow and Red CGA (SLC Series 5 NPCs only)
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
R	Red CGA
Y	Yellow CGA

Note: The facility monitoring parameters accumulated by the NPC are described below. If the queried NPC can not be accessed for some reason, for example because the Facility Terminating Module is not equipped or the FTMI or Unit Controller is out of service, then the NPC's parameter count fields are printed as a string of dashes to indicate that the counts are not available. The parameter thresholds and options are still correctly output in this case.

In addition, some parameters are not applicable to all NPCs. **Certain parameters may or may not be collected based on NPC type,** whether the NPC is equipped in a Facility Terminating Unit (DE type NPC) or

a DS3 Unit (TE type NPC) and whether the NPC carries a Clear or Channelized facility. In the cases where specific parameters do not apply to the queried NPC, the respective parameter count fields, threshold values and threshold options are all displayed as a string of dashes.

OOF - Out-of-Frame

wwwww - Out-of-Frame count

SLIP - Slip

fff - Slip count

mmm - Slip major alarm threshold (0 through 255)

The value zero indicates that Slip major threshold crossing alarms are disabled.

e - Slip major alarm option selection (0 through 3)

nnn - Slip minor alarm threshold (0 through 255)

nnn=000 indicates that the Slip minor threshold crossing alarms are disabled. The Slip minor alarm threshold can not be set to zero unless the Slip major alarm threshold is first set to zero. When the slip minor and major thresholds are not disabled, the major threshold must be greater than the minor threshold.

f - Slip minor alarm option selection (0 through 3)

BER - Bit error rate

st - BER alarm status

st	*Explanation*
CL	BER alarm cleared
ER	Error Rate
MJ	Major Bit Error Rate
MN	Minor Bit Error Rate

p - BER major alarm threshold, (1E-p, p can range from 3 through 6*)
q - BER minor alarm threshold, (1E-q, q can range from 3 through 6*)

Note:: * p can range to 7 on T1DM and Fe framing
q ranges from 4 for TG80B or TG186 circuit pack provisioned as

clear-DS1

g - BER major alarm option selection (0 through 3)

h - BER minor alarm option selection (0 through 3)

Note:: Major thresholds may not be equal to minor thresholds.

ERS - Errored Seconds

ccccc - ERS count

ttttt - ERS threshold

i - ERS option selection (0 through 3)

SERS - Severely Errored Seconds

bbbbb - SERS count

sss - SERS threshold (1 through 255)

j - SERS option selection (0 through 3)

COFA - Change of frame alignment

yyyyy - COFA count

ttt - COFA major alarm threshold (1 through 511)

k - COFA major alarm option selection (0 through 3)

uuu - COFA minor alarm threshold (1 through 255)

l - COFA minor alarm option selection (0 through 3)

Note:: Major thresholds may not be equal to minor thresholds.

BPV - Bipolar violation

kkkkk - BPV count
Note:: This field will be filled with ----- for a TE type NPC.

SANE - Shelf alarm near end

uuuuu - SANE count

xxxxxx - SANE threshold (1 through 65535)

p - SANE alarm option selection (0 through 3)

SAFE - Shelf alarm far end
Note: The SAFE parameter is not applicable for the Digroup P (DGP) of SLC 96 RTs. Therefore, dashes ("-") are used in the SAFE count (vvvvv), threshold (zzzzz), and option (q) fields for NPCs provisioned as SLC 96 DGPs.

vvvvv - SAFE count

zzzzz - SAFE threshold (1 through 65535)

q - SAFE alarm option selection (0 through 3)
mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions
SAOS	Subject entity is out of service
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
IDNV	Invalid CEPT NPC
SROF	NPC Failed or Out of Service
SROF	MXR is failed
SROF	MIU is failed
SAOS	FMT is out of service
SAOS	MXR is out of service
SAOS	MIU is out of service

RTRV,STATE,EQPT,NPC

UTILITY QUERY NPC STATE

Input Message Format

Nonhierarchical

[I.56314]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww];
```

Hierarchical

[I.56314]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww];
```

Completion Message

Nonhierarchical

[O.56314]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww] COMPLD
   /* [O.56314] */
   /* OOS:FAIL:PEST:CGA:LOS:NE-STATUS:FE-STATUS */
   "q:r:s:t:u:furyatlo:fumcablo"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Counts) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Counts) */
   "jjjjjjjjj:kkkkk:lllll:mmmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Counts) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Counts) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* COND-kk */
   "TYPE-mnxyz[,IW-X-pq]"
   /* NPC number */
   "[t]ghi"
;
```

Hierarchical

[O.56314]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww] COMPLD
   /* [O.56314] */
   /* OOS:FAIL:PEST:CGA:LOS:NE-STATUS:FE-STATUS */
   "q:r:s:t:u:furyatlo:fumcablo"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Daily Near-End Counts) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Thresholds) */
   "aaaaaaaaa:bbbbb:ccccc:ddddd:eeeee:fffff:ggggggggg:hhhhh:iiiii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Daily Far-End Counts) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Thresholds) */
   "jjjjjjjjj:kkkkk:lllll:mmmmm:nnnnn:ooooo:ppppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (15 Minute Near-End Counts) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Thresholds) */
   "aaaaaaa:bbb:ccc:ddd:eee:fff:ggggggg:hhh:iii"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:CVL:ESL:SESL (Options) */
   "a:b:c:d:e:f:g:h:i"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (15 Minute Far-End Counts) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Thresholds) */
   "jjjjjjj:kkk:lll:mmm:nnn:ooo:ppp"
   /* CVP:ESP:SESP:SEFS:CSSP:UASP:ESL (Options) */
   "j:k:l:m:n:o:p"
   /* COND-kk */
   "TYPE-mnxyz[,IW-X-pq]"
   /* NPC number */
   "ed-h-fg"
;
```

Denial Message

Nonhierarchical

[O.56314.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww] DENY
   /* [O.56314.01] */
   mmmm
   /* <explanation of error condition code> */
   /* NPC number */
   "[t]ghi"
;
```

Hierarchical

[O.56314.01]

```
    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M   RTRV STATE EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww] DENY
    /* [O.56314.01] */
    mmmm
    /* <explanation of error condition code> */
    /* NPC number */
    "ed-h-fg"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the provisioning and status information of a single Network Processing Circuit (NPC) or range of NPCs. The output format shown in this message applies to DA and TA type NPCs in one or more Facility Terminating Unit(s) (FTU) or DS3 Units (DS3U).

Similar information for other domestic and international NPC types are retrieved using message 56311.

If an NPC range is specified in the input command, the following floating window rules apply:

- Unequipped NPCs within the requested range will be skipped.
- For gateway frames, if a CEPT gap is within the requested range, the NPCs in the gap will be skipped.
- For gateway frames, if an endpoint of the requested range is in a CEPT gap, then the NPCs in the portion of the range which is in the gap will be denied.

Note: Similar information for other NPC types are given by message 56311.

Explanation Of Parameters

NPC - Network Processing Circuit

[s]abc
- The first 3- or 4-digit nonhierarchical NPC Number of a range

[t]def
- The last 3- or 4-digit nonhierarchical NPC Number of a range

[t]ghi
- A 3- or 4-digit nonhierarchical NPC number ([s]abc through [t]def)

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
16A-16H 32A-32H 48A-48H 64A-64H 80A-80H 96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920
144A-144H     160A-160H     176A-176H     192A-192H

Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
208A-208H     224A-224H     240A-240H     256A-256H
```

uv-m-np
- The first hierarchical NPC number of a range

wx-k-qr
- The last hierarchical NPC number of a range

ed-h-fg
- A 3- or 4-digit hierarchical NPC number (uv-m-np through wx-k-qr)

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mnxyz - NPC type

DAxyz - FTU ANSI NPC

TAxyz - DS3U ANSI NPC

DA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2*	B8ZS - Bipolar with 8 zero substitution
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6	B8ZS/DMI - Bipolar with 8 zero substitution/DMI signaling
7-9	Not assigned

*Only options 1 and 2 are applicable to DA-type clear-DS1 NPC.

Note: DMI signaling cannot be specified in the y field if the x field

is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

DA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a DA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time,

specifying an unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the DA

NPC type. If an unframed Clear DS1 cross-connection is desired on an NPC in a DACS II FTU, the NPC must be provisioned as NPC type DE9y9.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the DA NPC type. If ZBTSI is desired on an NPC in a DACS II FTU, the NPC must be provisioned as a DE NPC type with its "y" option selecting ZBTSI (DEx3z).

TA-type xyz fields

x - Multiframe format for the digroup

x	*Explanation*
0	Not assigned
1	D4
2	ESF - Voice
3	ESF - Data
4	DDST (T1DM - R bit connection via channel 24)
5-9	Not assigned

y - Line and signaling format

y	*Explanation*
0	ZCS - Zero code suppression
1*	NZCS - No zero code suppression
2	Not assigned
3	Not assigned
4	ZCS/DMI - Zero code suppression/DMI signaling
5	NZCS/DMI - No zero code suppression/DMI signaling
6-9	Not assigned

*Only option 1 is applicable to TA-type clear-DS1 NPCs.

Note: DMI signaling cannot be specified in the y field if the x field

is 4 (DDST framing).

z - Channel numbering format

z	*Explanation*
0	D4 channel bank channel numbering
1	D2 channel bank channel numbering
2	D1D channel bank channel numbering
3-8	Not assigned
9	Unchannelized 193-bit Clear DS1 Cross-connection

TA type NPCs provide Clear DS1 performance monitoring capability. This feature is enabled by provisioning a TA NPC with both a valid framing format (D4,ESF,T1DM) using the "x" field and at the same time, specifying an

unchannelized Clear DS1 cross-connection using the "z" field.

The DACS II Release 4.0 unframed Clear DS1 cross-connection which provides no path performance monitoring is not supported by the TA NPC type. If an

unframed Clear DS1 cross-connection is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as NPC type TE919.

Zero Byte Time Slot Interchange (ZBTSI) encoding is not supported by the

TA NPC type. If ZBTSI is desired on an NPC in a DACS II DS3U, the NPC must be provisioned as a TE NPC type with its "y" option selecting ZBTSI (TEx3z).

IW - Insertion Word

pq - Hexadecimal value of the DCC (disconnect code)

This value is inserted in the transmit direction on unassigned channels.

DCC is not applicable to Clear-DS1 NPCs, and is not printed. Although any 2-digit hexadecimal code may be specified, the following are commonly used codes:

pq	*Explanation*
7F	UAC (Unassigned Channel code), the default value.
18	UMC (Unassigned Multiplex Code), should only be used with types DA4yz and TA4yz, for a T1DM formatted facility.

OOS - Out-of-Service
q - Out-of-service indicator

q	*Explanation*
1	NPC is out-of-service
0	NPC is not out-of-service

FAIL - Failed
r - Failed indicator

r	*Explanation*
1	NPC is failed
0	NPC is not failed

PEST - Pested
s - Pested indicator

s	*Explanation*
1	NPC is pested
0	NPC is not pested

CGA - Carrier group alarm
t - Carrier group alarm indicator

t	*Explanation*
A	Alarm Indication Signal (AIS) CGA
L	LMA - Local Multiframe Alarm
M	RMA - Remote Multiframe Alarm
O	No CGA
R	Red CGA
Y	Yellow CGA

LOS - Loss of signal
u - Loss of signal indicator

u	*Explanation*
1	LOS alarm
0	No LOS alarm
-	Not applicable

Note: The LOS alarm indicator is displayed as a dash for ANSI NPCs

which are equipped in a DS3 Unit (TA type NPCs) because the LOS alarm does not apply to them.

TA type NPCs can not monitor DS1 line

failures (LOS) because the line signal is at the DS3 rate.

NE-STATUS
- Near-end Circuit Status

furyatlo
- The bits in the near-end byte identify the following alarm/status conditions:

Field	*Explanation*
f	f = 1, if u or r or y or a or t or l or o = 1
u	u = 1, if an unavailable signal status exists
r	r = 1, if a Red-CGA exists
y	y = 1, if a Yellow-CGA exists
a	a = 1, if an AIS-CGA exists
t	t = 0, (unused)
l	l = 1, if a payload loopback or test signal is active
o	o = 0, (unused)

FE-STATUS

- Far-end Circuit Status

fumcablo

- The bits in the far-end byte identify the following alarm/status conditions:

Field	*Explanation*
f	f = 1, if u or m or c or a or b or l or o = 1
u	u = 1, if a far-end unavailable signal status exists
m	m = 1, if no ANSI PRMs or RAI has been received for 4.5 seconds
c	c = 1, if loopback retention code is being received
a	a = 1, if a far-end AIS-CGA or Red-CGA exists
b	b = 1, if loopback retention code is being transmitted
l	l = 1, if a far-end payload loopback is active
o	o = 0, (unused)

Parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds

Note: If the queried NPC can not be accessed for some reason, for example because the Facility Terminating Module is not equipped or the FTMI or Unit Controller is out of service, then the NPC's parameter count fields are printed as a string of dashes to indicate that the counts are not available. The parameter thresholds and options will still be correctly output.

In addition, certain parameters do not apply to ANSI NPCs depending on whether the NPC is equipped in a Facility Terminating Unit (DA type NPCs) or a DS3 Unit (TA type NPCs) and whether the NPC is using ESF framing or not. In the cases where specific parameters do not apply to the queried NPC, the respective parameter count fields, threshold values and threshold options are all displayed as a string of dashes. Specifically:

For Channelized and Clear-DS1 DA type NPCs with ESF framing, all of the Near-end and Far-end parameters are valid.

For Channelized and Clear-DS1 DA type NPCs with D4 or T1DM framing, all of the Near-end parameters are valid, but the only valid Far-end parameter is Unavailable Seconds.

For Channelized and Clear-DS1 TA type NPCs with ESF framing, all of the Near-end Path parameters are valid, but the Near-End Line parameters are invalid. All of the Far-end parameters are valid.

For Channelized and Clear-DS1 TA type NPCs with D4 or T1DM framing, the Near-end Path parameters are valid, but the Near-End Line parameters are invalid. The only valid Far-end parameter is Unavailable Seconds.

CVP (Path Coding Violations)

aaaaaaa[aa] - **CVP NE 15 Minute/Daily interval count**
jjjjjjj[jj] - **CVP FE 15 Minute/Daily interval count**
aaaaaaa[aa]
- CVP NE 15 Minute/Daily interval threshold

jjjjjjj[jj]
- CVP FE 15 Minute/Daily interval threshold

a - CVP NE 15 Minute/Daily interval threshold option (0 to 3)
j - CVP FE 15 Minute/Daily interval threshold option (0 to 3)

ESP (Path Errored Seconds)

bbb[bb] - **ESP NE 15 Minute/Daily interval count**
kkk[kk] - **ESP FE 15 Minute/Daily interval count**
bbb[bb]
- ESP NE 15 Minute/Daily interval threshold

kkk[kk]
- ESP FE 15 Minute/Daily interval threshold

b - ESP NE 15 Minute/Daily interval threshold option (0 to 3)
k - ESP FE 15 Minute/Daily interval threshold option (0 to 3)

SESP (Path Severely Errored Seconds)

ccc[cc] - **SESP NE 15 Minute/Daily interval count**
lll[ll] - **SESP FE 15 Minute/Daily interval count**
ccc[cc]
- SESP NE 15 Minute/Daily interval threshold

lll[ll]
- SESP FE 15 Minute/Daily interval threshold

c - SESP NE 15 Minute/Daily interval threshold option (0 to 3)
l - SESP FE 15 Minute/Daily interval threshold option (0 to 3)

SEFS (Severely Errored Framing Seconds)

ddd[dd] - **SEFS NE 15 Minute/Daily interval count**
mmm[mm] - **SEFS FE 15 Minute/Daily interval count**
ddd[dd]
- SEFS NE 15 Minute/Daily interval threshold

mmm[mm]
- SEFS FE 15 Minute/Daily interval threshold

d - SEFS NE 15 Minute/Daily interval threshold option (0 to 3)
m - SEFS FE 15 Minute/Daily interval threshold option (0 to 3)

CSSP (Path Controlled Slip Seconds)

eee[ee] - **CSSP NE 15 Minute/Daily interval count**
nnn[nn] - **CSSP FE 15 Minute/Daily interval count**
eee[ee]
- CSSP NE 15 Minute/Daily interval threshold

nnn[nn]
- CSSP FE 15 Minute/Daily interval threshold

e - CSSP NE 15 Minute/Daily interval threshold option (0 to 3)
n - CSSP FE 15 Minute/Daily interval threshold option (0 to 3)

UASP (Path Unavailable Seconds)

fff[ff] - **UASP NE 15 Minute/Daily interval count**
ooo[oo] - **UASP FE 15 Minute/Daily interval count**
fff[ff]
- UASP NE 15 Minute/Daily interval threshold

ooo[oo]
- UASP FE 15 Minute/Daily interval threshold

f - UASP NE 15 Minute/Daily interval threshold option (0 to 3)
o - UASP FE 15 Minute/Daily interval threshold option (0 to 3)

CVL (Line Coding Violations)

ggggggg[gg] - **CVL NE 15 Minute/Daily interval count**
ggggggg[gg]
- CVL NE 15 Minute/Daily interval threshold

g - CVL NE 15 Minute/Daily interval threshold option (0 to 3)

ESL (Line Errored Seconds)

hhh[hh] - **ESL NE 15 Minute/Daily interval count**
ppp[pp] - **ESL FE 15 Minute/Daily interval count**
hhh[hh]
- ESL NE 15 Minute/Daily interval threshold

ppp[pp]
- ESL FE 15 Minute/Daily interval threshold

h - ESL NE 15 Minute/Daily interval threshold option (0 to 3)
p - ESL FE 15 Minute/Daily interval threshold option (0 to 3)

SESL (Line Severely Errored Seconds)

iii[ii] - **SESL NE 15 Minute/Daily interval count**
iii[ii]
- SESL NE 15 Minute/Daily interval threshold

i - SESL NE 15 Minute/Daily interval threshold option (0 to 3)

kk - Hexadecimal completion condition code

uv-m-np
- The first hierarchical NPC number of a range.

wx-k-qr
- The last hierarchical NPC number of a range.

ed-h-fg
- A 3- or 4-digit hierarchical NPC number, where (uv-m-np ≤ ed-h-fg ≤ wx-k-qr)

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

COND - Condition

kk - Hexadecimal completion condition code
cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
04	SAOS	Subject entity is out of service
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
14	SAOS	FTMI is out of service
0B	IDNV	Invalid CEPT NPC
46	SROF	NPC Failed or Out of Service
AE	SROF	MXR is failed
AF	SROF	MIU is failed
B1	SAOS	FMT is out of service
B2	SAOS	MXR is out of service
CF	SAOS	MIU is out of service

RTRV,STATE,EQPT,NPC,EQPD,TOTAL

UTILITY QUERY EQUIPPED NPCS

Input Message Format

[I.53041]

```
RTRV-STATE-EQPT:[<xy>]:NPC:[ww]:EQPD[,TOTAL]:[UNIT-[q]q];
```

Completion Message

Nonhierarchical

Output message fragment for NPCs in one DS1 FTM:

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:[c]ccc,mnxyz */
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   /* Total FTU NPCs Equipped */
   "tt"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:[c]ccc,mnxyz */
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   "[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:[c]ccc,mnxyz:\
[c]ccc,mnxyz"
   /* Total FTU NPCs Equipped */
   "tt"
>
```

Output message fragment for NPCs in one DS3 FTM (Multiplexer):

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:[d]ddd,mnxyz */
   "[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:\
[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz"
   "[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:\
[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz"
   "[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:\
[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz"
   "[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz:\
[d]ddd,mnxyz:[d]ddd,mnxyz:[d]ddd,mnxyz"
   /* Total DS3U NPCs Equipped */
   "tt"
>
```

Output message fragment for NPCs in one DSP unit:

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:[a]aaa,mnxyz */
   "[a]aaa,mnxyz:[a]aaa,mnxyz:[a]aaa,mnxyz:[a]aaa,mnxyz"
   "[a]aaa,mnxyz:[a]aaa,mnxyz:[a]aaa,mnxyz:[a]aaa,mnxyz"
   /* Total DSPU NPCs Equipped */
   "tt"
>
```

Overall completion message:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
;
```

Hierarchical

Output message fragment for NPCs in one DS1 FTM:

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:uv-m-np,mnxyz */
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   /* Total FTU NPCs Equipped */
   "tt"
>

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:uv-m-np,mnxyz */
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:\
uv-m-np,mnxyz"
   /* Total FTU NPCs Equipped */
   "tt"
>
```

Output message fragment for NPCs in one DS3 FTM (Multiplexer):

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:uv-m-np,mnxyz */
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   /* Total DS3U NPCs Equipped */
   "tt"
>
```

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:uv-m-np,mnxyz */
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   /* Total DS3U NPCs Equipped */
   "tt"
>
```

Output message fragment for NPCs in one DSP unit:

[O.53041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53041] */
   /* NPC:uv-m-np,mnxyz */
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   "uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz:uv-m-np,mnxyz"
   /* Total DSPU NPCs Equipped */
   "tt"
>
```

Common

Output message when the TOTAL keyword is specified:

[O.53042]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC:[ww]:EQPD,TOTAL COMPLD
   /* [O.53042] */
   /* FTU-NPC:Total on frame,Total on each FTU (16 sets of numbers) */
   "FTU:nnnn,fff,fff,fff,fff,fff,fff,fff,fff,fff,fff,fff,fff,\
fff, fff,fff,fff"
   /* DS3U-NPC:Total on frame,Total on each DS3U (16 sets of number) */
   "DS3U:hhhh,ggg,ggg,ggg,ggg,ggg,ggg,ggg,ggg,ggg,ggg,ggg,ggg,\
ggg,ggg,ggg,ggg"
   /* DSPU-NPC:Total on frame,Total on each DSPU (16 sets of number) */
   "DSPU:pppp,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,qqq,\
qqq,qqq,qqq"
;
```

Output message when there are no equipped NPCs on the frame:

[O.53043]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
   /* [O.53043] */
   /* [FTU-NPCS][,DS3U-NPCS][,DSPU-NPCS] */
   "[0000][,0000][,000]"
;
```

Overall completion message:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV-STATE-EQPT::NPC:[ww]:EQPD:[UNIT-[q]q] COMPLD
;
```

Denial Message

[O.53041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC:[ww]:EQPD:UNIT-[q]q  DENY
   mmmm
   /* [O.53041.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command reports the equipage state for each of the network processing circuits (NPCs) on the DACS II frame and can provide the total number of circuits that are equipped in the facility terminating units (FTU), DS3 units (DS3U), and digital signal processing units (DSPU).
The results of the output message are in fragment sequence starting with the lowest unit number and ending with the highest NPC number.

Within a fragment, the information is listed in NPC number sequence, starting with the lowest number at the top left and increasing to the right. The next line starts with the next highest NPC number.

The output of a partially equipped frame should conform to these rules:

- Omit the output message fragments for half of a DS1 facility terminating module (FTM) for which there are no equipped NPCs.
- In nonhierarchical addressing, omit the output message fragment for one DS3 FTM (multiplexer) for which there are no equipped NPCs.
- In hierarchical addressing, omit the output message fragment for half a DS3 FTM (multiplexer) for which there are no equipped NPCs.
- Unequipped unit or module will not be reported
- The output will report on NPCs in increasing unit number order, regardless of whether the units are equipped as FTU, DS3U, or DSPU.
- If there are no DSPUs, the DSPU part is omitted.
- If there are no equipped FTUs, DS3Us, and DSPU NPCs, the output is given in message 53043.
- The DS3U keyword will only be generated in message 53043 if the DS3 feature bit is enabled in the software.
- The range of NPCs in one DS1 FTM will be spanned in two output segments.
- The range of nonhierarchical NPCs in one DS3 FTM will be spanned in one output segment.
- The range of hierarchical NPCs in one DS3 FTM will be spanned in two output segments.
- The range of NPCs in one DSPU will be spanned by one output segment.

Explanation Of Parameters

EQPD - Equipped

Request equipage status

NPC - Network processing circuit

Request information on NPCs

UNIT - Unit

[q]q - Unit number (1 through 16)

TOTAL - Total

Request summary information

tt - Total number of NPCs in a segment

mnxyz - The equipage state and type of the NPCs

----- - Not equipped

mn - The type of NPC

Valid values are listed below:

mn	Explanation
DA	Dual digroup ANSI NPC
DE	Dual digroup NPC
DS	SLC® carrier NPC
MB	Digital multipoint bridge NPC
MJ	Multipoint junction unit NPC
SR	Subrate multiplexer unit NPC
TA	DS3U ANSI NPC
TE	DS3U Noninterface unit NPC

xyz - The parameters used to provision the NPC.

See GRTH,NPC,TYPE and GRTH,NPC,TYPE,OPTS,IW,X,AIS,INFO,MJ,MN for values.

[a]aaa

- The 3- or 4-digit nonhierarchical NPC number for DSPU NPCs

Valid values are listed below (or ---).

uv-m-np

- Hierarchical NPC number

On either DS1 FTM, DS3 FTM, or DSP unit.

uv - Unit number
m - Module number
np - NPC number within the module

Valid values are listed below (or -----, -------).

```
DE, DS and DA type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit        Module     NPC
01-16       1-4        01-40

TE and TA NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit        Module     NPC
01-16       1-6        01-28
```

nnnn - Total number of FTU NPCs on the frame.

Dashes (----) will be shown if no unit is grown.

fff - Total number of NPCs on each FTU.

Dashes (---) will be shown if the unit is not grown or is not grown as an FTU.

pppp - Total number of DSPU NPCs on the frame.

Dashes (----) will be shown if no unit is equipped.

qqq - Total number of NPCs on each DSPU.

Dashes (---) will be shown if the unit is not grown or is not grown

as a DSPU.

[c]ccc

- The 3- or 4-digit nonhierarchical NPC number for domestic DS1 FTM

Valid values are listed below (or ---).

If NPC numbers are expressed in three digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE, DS and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

[d]ddd

- The 3- or 4-digit nonhierarchical NPC number for DS3U NPCs

Valid values are listed below (or ---).

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

hhhh - Total number of DS3U NPCs on the frame.

Dashes (----) will be shown if no unit is grown.

ggg - Total number of NPCs on each DS3U.

Dashes (---) will be shown if the unit is not grown or is not grown as a DS3U.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped

RTRV,STATE,EQPT,NPC,TSIG

QUERY ANSI NPC TEST SIGNAL

Input Message Format

Nonhierarchical

[l.53161]

```
RTRV-STATE-EQPT:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:TSIG;
```

Hierarchical

[l.53161]

```
RTRV-STATE-EQPT:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:TSIG;
```

Completion Message

Nonhierarchical

[O.53161]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc&&-[t]def:[ww]:TSIG COMPLD
   /* [O.53161] */
   /* NPC Test signal state */
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   /* MODULE'S FIRST NPC:MODULE'S LAST NPC */
   "[u]ghi:[u]jkl"
   /* Total Number of NPCs in the FTM in loopback state */
   "nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc&&-[t]def:[ww]:TSIG COMPLD
   /* [O.53161] */
   /* NPC Test signal state */
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   /* MODULE'S FIRST NPC:MODULE'S LAST NPC */
   "[v]mno:[v]pqr"
   /* Total Number of NPCs in the FTM in loopback state */
   "nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc&&-[t]def:[ww]:TSIG COMPLD
;
```

[O.53162]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc:[ww]:TSIG COMPLD
   /* [O.53162] */
   /* NPC Test signal state */
   "pp/dd"
;
```

Hierarchical

[O.53161]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np&&&-wx-k-qr:[ww]:TSIG COMPLD
   /* [O.53161] */
   /* NPC Test signal state */
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   /* MODULE'S FIRST NPC:MODULE'S LAST NPC */
   "uv-m-aa:uv-m-bb"
   /* Total Number of NPCs in the FTM in loopback state */
   "nnn"
>
                    .
                    .
                    .
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np&&&-wx-k-qr:[ww]:TSIG COMPLD
   /* [O.53161] */
   /* NPC Test signal state */
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   "pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd,pp/dd[,pp/dd,pp/dd,pp/dd]"
   /* MODULE'S FIRST NPC:MODULE'S LAST NPC */
   "wx-k-aa:wx-k-bb"
   /* Total Number of NPCs in the FTM in loopback state */
   "nnn"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np&&&-wx-k-qr:[ww]:TSIG COMPLD
;
```

[O.53162]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np:[ww]:TSIG COMPLD
   /* [O.53162] */
   /* NPC Test signal state */
   "pp/dd"
;
```

Denial Message

Nonhierarchical

[O.53161.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-[s]abc[&&-[t]def]:[ww]:TSIG DENY
   mmmm
   /* [O.53161.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.53161.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:TSIG DENY
   mmmm
   /* [O.53161.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message queries whether a single or range of Network Processing Circuits (NPCs) are transmitting Payload or ESF data link test signals. Only ANSI (DA/TA-type) NPCs provide this capability.

The response is formatted on a module by module basis. The response indicates whether or not any Payload and/or Data Link Test Signals are currently active for each NPC in the addressed range. An NPC may have both a Payload and a Data Link Test Signal active simultaneously.

Explanation Of Parameters

TSIG - Test signal

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number, start of NPC range

[t]def
- The 3- or 4-digit nonhierarchical NPC number, end of NPC range

[u]ghi
- Lowest numbered NPC in the FTM that contains NPC [s]abc

[v]mno
- Lowest numbered NPC in the FTM that contains NPC [t]def

[u]jkl
- Highest numbered NPC in the FTM that contains NPC [s]abc

[v]pqr
- Highest numbered NPC in the FTM that contains NPC [t]def

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number for beginning of NPC range

wx-k-qr
- Hierarchical NPC number for end of NPC range

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

The range of NPCs in the denial messages will be given either as module or unit boundaries depending upon the reason for the denial.

uv-m-aa

- Lowest numbered NPC in the FTM that contains NPC uv-m-np

The parameter value for NPC aa is in the first position, first line of the message.

uv-m-bb

- Highest numbered NPC in the FTM that contains NPC uv-m-np

The parameter value for NPC bb is just before EOM.

wx-k-aa

- Lowest numbered NPC in the FTM that contains NPC wx-k-qr

wx-k-bb

- Highest numbered NPC in the FTM that contains NPC wx-k-qr

pp/dd - ANSI Payload/Data Link Test Signal Types

Values of "pp/dd" are presented in NPC order, grouped within messages by Facility Terminating Module (FTM). For FTM's in Facility Terminating

Units, each row of output contains 10 values. For FTM's in DS3 Units, each row of output contains 7 values.

pp	*Explanation*
YL	Yellow Test Signal in D4/T1DM framing mode
HD	High Density Test Signal
LD	Low Density Test Signal
QR	Quasi-Random Test Signal
NN	No Payload Test Signal active
00	NPC not specified in input range command
--	NPC not equipped, not in service, or not ANSI (DA,TA) type

dd	*Explanation*
YL	Yellow Test Signal in ESF framing mode
LR	Loopback Retention Signal
NN	No Data Link Test Signal active
00	NPC not specified in input range command
--	NPC not equipped, not in service, or not ANSI (DA,TA) type

nnn - Total Number of NPCs in the module that are in the loopback state

COND - Condition

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	FTMI is out of service
SNVS	FTMI is in service but failed
SNVS	NPC type error
SAOS	The selected MXR associated with the NPC is Out-Of-Service
SNVS	The selected MXR associated with the NPC is In-Service but failed

RTRV,STATE,EQPT,SYNC

UTILITY QUERY

Input Message Format

[I.56301]

```
RTRV-STATE-EQPT:[<xy>]:SYNC:[ww];
```

Completion Message

[O.56301]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::SYNC:[ww] COMPLD
   /* [O.56301] */
   /* CFR:STRATUM:MODE:SOURCE */
   "<arch>:<stratum>:<pllop0>,<pllop1>:<source0>,<source1>"
   /* IN SERVICE-DPLL:TB:SOURCE */
   "a,b:c,d:e,f"
   /* ACTIVE-LINK:PLL:ERROR */
   "gh,ij:PLL:k,l"
;
```

Denial Message

[O.56301.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::SYNC:[ww] DENY
   mmmm
   /* [O.56301.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the state of the synchronizer.

Explanation Of Parameters

SYNC - Synchronizer

CFR - Configure

arch - {MASTER | SLAVED}

STRATUM
- Stratum

stratum
- {STR2 | STR3 | CEPT TOLL | CEPT LOCAL}

MODE - Mode

pllop0
- {HOLDOVER | FAST | NORMAL} for side 0

pllop1
- {HOLDOVER | FAST | NORMAL} for side 1

SOURCE
- Source

source0
- {HOLDOVER | TLI | MATE | CRO} for side 0

source1
- {HOLDOVER | TLI | MATE | CRO} for side 1

DPLL - Digital phase-locked loop

a - Digital Phase-Locked Loop, side 0
1 = in service
0 = out of service

b - Digital Phase-Locked Loop, side 1
1 = in service
0 = out of service

TB - Time base

c - Time Base, side 0
1 = in service
0 = out of service

d - Time Base, side 1
1 = in service
0 = out of service

SOURCE
- Timing source

e - Timing Source status, side 0
1 = At least one SSP on side 0 is in service
0 = No SSP on side 0 is in service

f - Timing Source status, side 1
1 = at least one SSP on side 1 is in service
0 = No SSP on side 1 is in service

gh, ij
- Active SSP number, or -- if no active SSP is present for SYNC 0 and SYNC 1, respectively

g,i - Timing link interface number of active SSP
h,j - Synchronizer synchronization port (SSP) number

PLL - Phase locked loop

k - Phase-locked loop timing error, side 0
1 = PLL error exists
0 = no errors)

l - Phase-locked loop timing error, side 1
- 1 = PLL error exists
0 = no errors

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	SYNC TB is not equipped

RTRV,STATE,EQPT,SYNC,EQPD

UTILITY QUERY, SYNCHRONIZER

Input Message Format

[I.53001]

```
RTRV-STATE-EQPT:[<xy>]:SYNC:[ww]:EQPD;
```

Completion Message

[O.53001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::SYNC:[ww]:EQPD COMPLD
   /* [O.53001] */
   /* Data following contains TB TYPEs, TLI TYPEs
   , and SRCs values of SYNC equipped */
   "TB:mnxyz,mnxyz"
   "TLI:pqxyz,rsxyz,pqxyz,rsxyz,pqxyz,rsxyz,pqxyz,rsxyz"
   "SRC:p,p,p,p,p,p,p,p"
   "SRCNPC:<xxx>,<xxx>,<xxx>,<xxx>,<xxx>,<xxx>,<xxx>,<xxx>"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to request information on the provisioning of the synchronizer unit.

Explanation Of Parameters

SYNC - Synchronizer

EQPD - Equipped

Request for provisioning information

TB - Time base

mnxyz - SYNC time base type

mnxyz	*Explanation*
-----	Not equipped
TB0yz	Domestic Stratum 3
TB3yz	Domestic Stratum 2

TLI - Timing link interface

pqxyz - TLI type provisioned on synchronizer synchronization port (SSP) 0
rsxyz - TLI type provisioned on SSP 1

pqxyz *rsxyz*	*Explanation*
-----	Not equipped
TCxyz	64 kb/s composite clock timing extractor
TD1yz	64 kb/s composite clock timing distributor
TD2yz	Sinusoidal 2.048 MHz timing distributor
TExyz	DS1 timing extractor (xyz should be same as for DExyz NPCs)
TUxyz	Unipolar clock timing extractor
TRxyz	Basic system reference frequency timing extractor

For CRO applications in MASTER mode, TLI 3 is equipped with a Time Base circuit pack. In this case, "pqxyz" = "mnxyz", showing the Time Base type in the TLI 3 and TLI 4 positions.

SRC - Source

p - Source for priority for the given TLI/SSP

p	*Explanation*
-	Not equipped.
1-8	1 is the HIGHEST priority, 8 is the LOWEST priority

SRCNPC
- Source NPC

NPC - Network processing circuit

xxx - Source NPC number

The NPC used as a source of synchronization from within the frame.

xxx is the NPC number if equipped
xxx is "-----" if not equipped

mmmm - Error condition code

mmmm	*Explanation*
NCON	No conditions

RTRV,STATE,EQPT,TSI,EQPD

UTILITY QUERY EQUIPPED

Input Message Format

[I.53021]

```
RTRV-STATE-EQPT:[<xy>]:TSI:[ww]:EQPD;
```

Completion Message

[O.53021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::TSI:[ww]:EQPD COMPLD
   /* [O.53021] */
   /* Number of equipped TSI circuit packs */
   "ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft"
   "ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft"
   "ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft,ft"
   /* Total TSI:tt */
   "tt"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout for all the equipped time slot interchange (TSI) circuit packs.

A fully equipped frame shows the following TSI equipage status:

```
11 12 13 14 15 16   41 42 43 44 45 46
21 22 23 24 25 26   51 52 53 54 55 56
31 32 33 34 35 36   61 62 63 64 65 66
```

Explanation Of Parameters

TSI - Request information on TSI circuit packs

EQPD - Request equipage status

tt - Total number of equipped TSIs on the in-service side. The total number of equipped TSIs in the frame is twice this number.

ft - TSI equipage status:

ft	*Explanation*
00	Unequipped
TSI No.	Equipped

RTRV,STATE,EQPT,UNIT,ALL

QUERY ALL

Input Message Format

[I.53101]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:ALL;
```

Completion Message

Nonhierarchical

For RTRV-STATE-EQPT::::ALL the output will start with:

[O.53101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   "OOS:g,h,i,j,k,l,m,n,o,p"
   "FAIL:g,h,i,j,k,l,m,n,o,p"
   "PEST:g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   "SYNC:ofp,rst"
   "CRO:ofp"
   "TLI:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,rst,rst,rst,rst,rst,rst,rst,rst"
   "TLI:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /*TSI:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst*/
   "TSI:11,ofp,rst:12,ofp,rst:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   "TSI:21,ofp,rst:22,ofp,rst:23,ofp,rst:24,ofp,rst:25,ofp,rst:26,ofp,rst"
   "TSI:31,ofp,rst:32,ofp,rst:33,ofp,rst:34,ofp,rst:35,ofp,rst:36,ofp,rst"
   "TSI:41,ofp,rst:42,ofp,rst:43,ofp,rst:44,ofp,rst:45,ofp,rst:46,ofp,rst"
   "TSI:51,ofp,rst:52,ofp,rst:53,ofp,rst:54,ofp,rst:55,ofp,rst:56,ofp,rst"
   "TSI:61,ofp,rst:62,ofp,rst:63,ofp,rst:64,ofp,rst:65,ofp,rst:66,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,oo,ff,pp"
>
```

For DACS II CEF frames, the next segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* ETSI:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst */
   "ETSI:01,ofp,rst:02,ofp,rst:03,ofp,rst:04,ofp,rst"
   "ETSI:05,ofp,rst:06,ofp,rst:07,ofp,rst:08,ofp,rst"
   "ETSI:09,ofp,rst:10,ofp,rst:11,ofp,rst:12,ofp,rst"
   "ETSI:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,oo,ff,pp"
>
```

Next the output segment is generated for the common equipment in each equipped unit. The output segment for each unit type is shown below:

Output segment for common equipment in an FTU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FTMI-ofp,ofp,ofp,ofp[:CCB-ofp,ofp]"
   "FC-ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FLI-ofp,ofp:FMT-ofp,ofp[:CCB-ofp,ofp]"
   "MXR-ofp,ofp,ofp,ofp,ofp,ofp,ofp:MIU-ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

For a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-aaa:DSPI-bbb[:CCB-rrr,sss]"
>
```

Next, the information regarding individual NPCs will be generated. For each FTM/MXR/DSPU, one output message will be printed. If an FTM/MXR/DSPU is not equipped, or if it is equipped and has no NPCs, then the line will not appear.

The output segment for NPCs in a DS1 domestic FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-[a]aaa[&&-[b]bbb],OOS,FAIL,PEST */
   "[a]aaa&&[b]bbb,oo,ff,pp"
>
```

The output segment for NPCs in a DS3U MXR:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-[a]aaa[&&-[b]bbb],OOS,FAIL,PEST */
   "[s]aaa&&[t]bbb,oo,ff,pp"
>
```

The output segment for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   /* DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst */
   "DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst"
   "DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst"
>
```

The following segment will replace the above NPC related output for an equipped FTM/MXR/DSPU if no NPC in that FTM/MXR/DSPU is in the FAIL, PEST, or OOS condition:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* {FTU|DS3U|DSPU},NPC-[a]aaa[&&-[b]bbb],tt */
   "[s]aaa&&[t]bbb,00,00,00"
>
```

The following segment is output to complete the message:

[O.53101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
;
```

For RTRV-STATE-EQPT::UNIT-[q]q::ALL the following output segments will be generated:

Output segment for common equipment in an FTU:

[O.53101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FTMI-ofp,ofp,ofp,ofp[:CCB-ofp,ofp]"
   "FC-ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [o.53101] */
   /* Unit [q]q */
   "UC-ofp:FLI-ofp,ofp:FMT-ofp,ofp[:CCB-ofp,ofp]"
   "MXR-ofp,ofp,ofp,ofp,ofp,ofp,ofp:MIU-ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [o.53101] */
   /* Unit [q]q */
   "UC-aaa:DSPI-bbb[:CCB-rrr,sss]"
>
```

Next, the information regarding individual NPCs will be generated. For each FTM/MXR/DSPU, one output message will be printed. If an FTM/MXR/DSPU is not equipped, or if it is equipped and has no NPCs, then the line will not appear.

The output segment for NPCs in a DS1 domestic FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [o.53101] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-[a]aaa[&&-[b]bbb],OOS,FAIL,PEST */
   "[a]aaa&&[b]bbb,oo,ff,pp"
>
```

The output segment for NPCs in a DS3U MXR:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [o.53101] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-[a]aaa[&&-[b]bbb],OOS,FAIL,PEST */
   "[s]aaa&&[t]bbb,oo,ff,pp"
>
```

The output segment for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   /* DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst */
   "DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst"
   "DSPU-NPC:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst:[z]zzz,ofp,rst"
>
```

The following segment will replace the above NPC related output for an equipped FTM/MXR/DSPU if no NPC in that FTM/MXR/DSPU is in the FAIL, PEST, or OOS condition:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* {FTU|DS3U|DSPU},NPC-[a]aaa[&&-[b]bbb],tt */
   "[s]aaa&&[t]bbb,00,00,00"
>
```

The following segment is output to complete the message:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
;
```

Hierarchical

For RTRV-STATE-EQPT::::ALL the output will start with:

[O.53101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   "OOS:g,h,i,j,k,l,m,n,o,p"
   "FAIL:g,h,i,j,k,l,m,n,o,p"
   "PEST:g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   "SYNC:ofp,rst"
   "CRO:ofp"
   "TLI:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,rst,rst,rst,rst,rst,rst,rst,rst"
   "TLI:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* TSI:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst:ft,ofp,rst */
   "TSI:11,ofp,rst:12,ofp,rst:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   "TSI:21,ofp,rst:22,ofp,rst:23,ofp,rst:24,ofp,rst:25,ofp,rst:26,ofp,rst"
   "TSI:31,ofp,rst:32,ofp,rst:33,ofp,rst:34,ofp,rst:35,ofp,rst:36,ofp,rst"
   "TSI:41,ofp,rst:42,ofp,rst:43,ofp,rst:44,ofp,rst:45,ofp,rst:46,ofp,rst"
   "TSI:51,ofp,rst:52,ofp,rst:53,ofp,rst:54,ofp,rst:55,ofp,rst:56,ofp,rst"
   "TSI:61,ofp,rst:62,ofp,rst:63,ofp,rst:64,ofp,rst:65,ofp,rst:66,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,oo,ff,pp"
>
```

For DACS II CEF frames, the next segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* ETSI:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst:qq,ofp,rst */
   "ETSI:01,ofp,rst:02,ofp,rst:03,ofp,rst:04,ofp,rst"
   "ETSI:05,ofp,rst:06,ofp,rst:07,ofp,rst:08,ofp,rst"
   "ETSI:09,ofp,rst:10,ofp,rst:11,ofp,rst:12,ofp,rst"
   "ETSI:13,ofp,rst:14,ofp,rst:15,ofp,rst:16,ofp,rst"
   /* TOTAL,OOS,FAIL,PEST */
   "tt,oo,ff,pp"
>
```

Next the message segments for the common equipment in each equipped unit are output. The output segment for each unit type is shown below:

Output segment for common equipment in an FTU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FTMI-ofp,ofp,ofp,ofp[:CCB-ofp,ofp]"
   "FC-ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FLI-ofp,ofp:FMT-ofp,ofp[:CCB-ofp,ofp]"
   "MXR-ofp,ofp,ofp,ofp,ofp,ofp,ofp:MIU-ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-aa:DSPI-bb[:CCB-rr,ss]"
>
```

Next, the information regarding individual NPCs is generated. For each FTM/MXR/DSPU, one output message will be printed. If an FTM/MXR/DSPU is not equipped, or if it is equipped and has no NPCs, then the line will not appear.

The output segment for NPCs in a domestic FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-uv-m-np[&&&-ux-k-qr],OOS,FAIL,PEST */
   "uv-m-np&&&-ux-k-qr,oo,ff,pp"
>
```

The output segment for NPCs in a DS3U MXR:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-uv-m-np[&&&-ux-k-qr],OOS,FAIL,PEST */
   "uv-m-np&&&-ux-k-qr,oo,ff,pp"
>
```

The output segment for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   /* DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst */
   "DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst"
   "DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst"
>
```

The following message will replace the above NPC related output for an equipped FTM/MXR/DSPU if no NPC in that FTM/MXR/DSPU is in the FAIL, PEST, or OOS condition:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
   /* [O.53101] */
   /* {FTU|DS3U|DSPU},NPC-uv-m-np[&&&-ux-k-qr],tt */
   "uv-m-np&&&-ux-k-qr,00,00,00"
>
```

The following segment is output to complete the message:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:ALL COMPLD
;
```

For RTRV-STATE-EQPT::UNIT-[q]q::ALL the following output segments will be generated:

Output message for common equipment in an FTU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FTMI-ofp,ofp,ofp,ofp[:CCB-ofp,ofp]"
   "FC-ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-ofp:FLI-ofp,ofp:FMT-ofp,ofp[:CCB-ofp,ofp]"
   "MXR-ofp,ofp,ofp,ofp,ofp,ofp,ofp:MIU-ofp,ofp,ofp,ofp,ofp,ofp,ofp"
>
```

Output segment for common equipment in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   "UC-aaa:DSPI-bbb[:CCB-rtr,sss]"
>
```

Next, the information regarding individual NPCs will be generated. For each FTM/MXR/DSPU, one output message will be printed. If an FTM/MXR/DSPU is not equipped, or if it is equipped and has no NPCs, then the line will not appear.

The output segment for NPCs in a domestic FTM:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "FTU-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-uv-m-np[&&&-ux-k-qr],OOS,FAIL,PEST */
   "uv-m-np&&&-ux-k-qr,oo,ff,pp"
>
```

The output segment for NPCs in a DS3U MXR:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   "DS3U-NPC:ofp,ofp,ofp,ofp,ofp,ofp,ofp"
   /* NPC-uv-m-np[&&&-ux-k-qr],OOS,FAIL,PEST */
   "uv-m-np&&&-ux-k-qr,oo,ff,pp"
>
```

The output segment for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* Unit [q]q */
   /* DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst */
   "DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst"
   "DSPU-NPC:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst:uv-m-np,ofp,rst"
>
```

The following message will replace the above NPC related output for an equipped FTM/MXR/DSPU if no NPC in that FTM/MXR/DSPU is in the FAIL, PEST, or OOS condition:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
   /* [O.53101] */
   /* {FTU|DS3U|DSPU},NPC-uv-m-np[&&&-ux-k-qr],tt */
   "uv-m-np&&&-ux-k-qr,00,00,00"
>
```

The following segment is output to complete the message:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL COMPLD
```

Denial Message

[O.53101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:ALL DENY
   mmmm
   /* [O.53101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests reports on any one or on all of the following parameters:

EQD	Equipage
PEST	Pest states
FAIL	Failed components
OOS	Out-of-service components

These reports may be for the entire DACS II frame, the common equipment of the frame, or the equipment in a specific unit.

The text of the output message varies depending on the input message format and follows immediately after the input format.
For DSPU units, the span refers to the odd DSPU circuit pack NPCs,
and the total is the number of NPC pairs equipped.
Note: The odd and even DSPU NPCs do not have independent service states.

Explanation Of Parameters

To aid referencing the parameters listed for a given message the line containing the parameters is listed below just before the explanation of that particular set of parameters is given.

ALL - All

UNIT - Unit

[q]q - Unit number (1 through 16)

The UNIT option is specified to query that unit. The UNIT field will be null when the command is used for the entire frame. If the UNIT option is specified, only the information related to the equipment in that unit will be generated.

OOS - Out of service

FAIL - Fail

PEST - Pest

The keyword PEST is used to indicate that error reporting is disabled. Out-of-service (OOS) entities and entities related to a side that is out of service are pested to prevent error messages from being reported to the main controller. Error reporting is undesirable if an entity is OOS since it would interrupt normal operations by repeatedly interrupting the microprocessor.

For the OOS, FAIL and PEST indications, each entity in the DACS II frame is represented by a single character variable. This variable can have the value of 1, 0 or "-" indicating the following status:

Value	*OOS*	*FAIL*	*PEST*	
1	out of service		failed	pested
0	in service	not failed	unpested	
-	not applicable		not applicable	not applicable

A hyphen (-) indicates the parameter is not applicable to the particular entity. For example, an unequipped circuit displays a "-" for its OOS, FAIL and PEST indicators.

```
OOS  g h i j k l  m n  o p   (message line for reference)
```

The DACS II entities and their status fields are as follows:

g	- Link 1
h	- Link 2
i	- Link 3
j	- Link 4
k	- Link 5
l	- Link 6
m	- XC0 (Cross-Connect 0)
n	- XC1 (Cross-Connect 1)
o	- CCNI 0 (Cross-Connect Network Interface 0) NonCEF
p	- CCNI 1 (Cross-Connect Network Interface 1) NonCEF
o	- CCI 0 (Clock and Control Interface 0) CEF
p	- CCI 1 (Clock and Control Interface 1) CEF

```
"SYNC:ofp,rst"  (message line for reference)
```

SYNC - Synchronizer

ofp	- Side 0 sync status
rst	- Side 1 sync status

o, r	- OOS
f, s	- FAIL
p, t	- PEST

```
"CRO:ofp"
```

CRO - Clock reference oscillator

o	- OOS
f	- FAIL
p	- PEST

The following line is a message line for reference.

```
"TLI:ofp,ofp,ofp,ofp,ofp,ofp,ofp,ofp,rst,rst,rst,rst,rst,rst,rst,rst"
"TLI:a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p"
```

a through p
- TLI identifiers

Variables a through p each represent a particular timing link interface, synchronizer synchronization port, and side. The value of each of these variables is the source for priority for the entity represented by the variable.

The variables are assigned as follows:

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
SIDE	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
SSP	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
TLI	1	1	2	2	3	3	4	4	1	1	2	2	3	3	4	4

There are 16 variables on each of the two message lines above. The first ofp applies to a, the first variable on the second line, the second ofp applies to b, the second variable on the second line, and so on until the last rst applies to p. The value of **o, f, p, o, f, and p** is the same as listed for them under the explanation of PEST above.

ofp - Side 0 sync status
rst - Side 1 sync status

o, r - OOS
f, s - FAIL
p, t - PEST

The value of a through p is the source for priority of each individual TLI. This field ranges in value from 0 through 8.

*a**	*Explanation*
0	Average over all SSPs
1	HIGHEST priority
8	LOWEST priority

* This table applies to b through p as well.

"tt,oo,ff,pp" (message line for reference)

tt - Total number of equipped ETSIs
oo - Total number of equipped but out-of-service TSIS
ff - Total number of equipped but failed TSIS
pp - Total number of equipped but pested TSIS

TSI - Time slot interchanger NonCEF

f - FROM unit (1 through 6)NonCEF
t - TO Unit (1 through 6) NonCEF

The following line is a message line for reference.

```
"UC-ofp:FTMI-ofp,ofp,ofp,ofp[:CCB-ofp,ofp]"
```

UC - Unit controller

FTMI - Facility terminating module interface

FC - Format converter

FTMI and FC positions represent successive FTMs within a unit.

```
          FTMI ofp ofp ofp ofp
FTM number    1   2   3   4
          FC   ofp ofp  ofp ofp  ofp ofp          ofp ofp
```

CCB - Cross-connect buffer NonCEF

ofp - Side 0 sync status
rst - Side 1 sync status

o, r - OOS
f, s - FAIL
p, t - PEST

The following line is a message line for reference.

```
"MXR-ofp,ofp,ofp,ofp,ofp,ofp,ofp:MIU-ofp,ofp,ofp,ofp,ofp,ofp,ofp"
```

MIU - Multiplexer interface unit

MXR - Multiplexer

The MXRs and MIUs may be identified as follows where P stands for Protection MXR/MIU:

```
          MXR ofp ofp ofp ofp ofp ofp ofp
          MIU ofp ofp ofp ofp ofp ofp ofp
MXR/MIU No.  P   1   2   3   4   5   6
```

ofp - Service FLI
rst - Protection FLI

o, r - OOS
f, s - FAIL
p, t - PEST

UC-aaa:DSPI-bbb[:CCB-rrr,sss] **(message line for reference)**

DSPI - Digital signal processing interface

a,b,r,s
- OOS
a,b,r,s - FAIL
a,b,r,s - PEST

[a]aaa
- The first 3- or 4-digit nonhierarchical NPC number of an FTM or MXR.

[b]bbb
- The last 3- or 4-digit nonhierarchical NPC number of an FTM or MXR.

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit	Unit	Unit	Unit	Unit	Unit
1	2	3	4	5	6
NPC	NPC	NPC	NPC	NPC	NPC
001-160	161-320	321-480	481-640	641-800	801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640


Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280


Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920


Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
MB, SR, MJ, and CB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001       161       321       481       641       801
021       181       341       501       661       821
041       201       361       521       681       841
061       221       381       541       701       861
081       241       401       561       721       881
101       261       421       581       741       901
121       281       441       601       761       921
141       301       461       621       781       941
```

If NPC numbers are expressed in four digits, the valid values are:

```
MB, SR, MJ, and CB type NPC numbers listed by unit number

Unit Type DP (DSPU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001        0161        0321        0481
0021        0181        0341        0501
0041        0201        0361        0521
0061        0221        0381        0541
0081        0241        0401        0561
0101        0261        0421        0581
0121        0281        0441        0601
0141        0301        0461        0621
```

Unit 5	Unit 6	Unit 7	Unit 8
NPC	NPC	NPC	NPC
0641	0801	0961	1121
0661	0821	0981	1141
0681	0841	1001	1161
0701	0861	1021	1181
0721	0881	1041	1201
0741	0901	1061	1221
0761	0921	1081	1241
0781	0941	1101	1261

Unit 9	Unit 10	Unit 11	Unit 12
NPC	NPC	NPC	NPC
1281	1441	1601	1761
1301	1461	1621	1781
1321	1481	1641	1801
1341	1501	1661	1821
1361	1521	1681	1841
1381	1541	1701	1861
1401	1561	1721	1881
1421	1581	1741	1901

Unit 13	Unit 14	Unit 15	Unit 16
NPC	NPC	NPC	NPC
1921	2081	2241	2401
1941	2101	2261	2421
1961	2121	2281	2441
1981	2141	2301	2461
2001	2161	2321	2481
2021	2181	2341	2501
2041	2201	2361	2521
2061	2221	2381	2541

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

[z]zzz

- The 3- or 4-digit nonhierarchical DSPU NPC number, the span refers to

the odd DSPU circuit pack NPCs, and the total is the number of NPC pairs equipped.

uv-m-np

- The first hierarchical NPC number of an FTM, MXR, or DSPU

ux-k-qr

- The last hierarchical NPC number of an FTM, MXR, or DSPU

DE and DS type NPC numbers listed by unit, module, and NPC No.
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

tt - Total number of equipped NPCs

oo - Total number of equipped but out-of-service NPCs

ff - Total number of equipped but failed NPCs

pp - Total number of equipped but pested NPCs

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped

RTRV,STATE,EQPT,UNIT,EQPD

UTILITIES, EQUIPAGE STATUS

Input Message Format

[I.53011]

```
RTRV-STATE-EQPT:[<xy>]:UNIT:[ww]:EQPD;
```

Completion Message

[O.53011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT:[ww]:EQPD COMPLD
   /* [O.53011] */
   /* Units:01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16 */
   "UNITS:aa,bb,cc,dd,ee,ff,gg,hh,ii,jj,kk,ll,mm,nn,oo,pp"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message requests a printout of all units that are equipped.

Explanation Of Parameters

UNIT - Request information on unit

EQPD - Request equipage status

aa - Equipage status of Unit number 01
bb - Equipage status of Unit number 02
dd - Equipage status of Unit number 04
ee - Equipage status of Unit number 05
ff - Equipage status of Unit number 06
gg - Equipage status of Unit number 07
hh - Equipage status of Unit number 08
ii - Equipage status of Unit number 09
jj - Equipage status of Unit number 10
kk - Equipage status of Unit number 11
ll - Equipage status of Unit number 12
mm - Equipage status of Unit number 13
nn - Equipage status of Unit number 14
oo - Equipage status of Unit number 15
pp - Equipage status of Unit number 16

If the unit is equipped, the unit number will be shown in its corresponding position. If the unit is not equipped, the number "00" will be shown.

RTRV,STATE,EQPT,UNIT,EQPD

UTILITY QUERY ENTITY EQUIPAGE

Input Message Format

[I.53108]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:EQPD;
```

Completion Message

Nonhierarchical

If the unit number is not entered, the following output messages will be generated:

The output starts with:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Equipped entities */
   "g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* TSI:ft,x:ft,x:ft,x:ft,x:ft,x:ft,x */
   "TSI:11,x:12,x:13,x:14,x:15,x:16,x"
   "TSI:21,x:22,x:23,x:24,x:25,x:26,x"
   "TSI:31,x:32,x:33,x:34,x:35,x:36,x"
   "TSI:41,x:42,x:43,x:44,x:45,x:46,x"
   "TSI:51,x:52,x:53,x:54,x:55,x:56,x"
   "TSI:61,x:62,x:63,x:64,x:65,x:66,x"
   /* TOTAL-tt */
   "tt"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* ETSI:qq,x:qq,x:qq,x:qq,x */
   "ETSI:01,x:02,x:03,x:04,x:05,x:06,x:07,x:08,x"
   "ETSI:09,x:10,x:11,x:12,x:13,x:14,x:15,x:16,x"
   /* TOTAL-tt */
   "tt"
>
```

Next, the output will continue to report the equipped common entity of each equipped unit. Data for up to 4 units will be output in one segment in the ascending order. If more than 4 units are equipped, multiple segments will be output. Those messages will not be output if no unit is equipped.

[O.53108]

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 1st equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 2nd equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 3rd equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 4th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 5th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 6th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 7th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 8th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 9th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 10th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 11th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 12th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 13th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 14th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 15th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 16th equipped unit >"]
[>]
```

The two lines of information for a DS1 FTU:

```
"UC-a:FTMI-b,c,d,e[:CCB-r,s]"
"FC-f,g,h,j,k,m,p,q"
```

The two lines of information for a DS3U:

```
"UC-a:FLI-b,c:FMT-1,m[:CCB-r,s]"
"MXR-d,e,f,g,h,j,k:MIU-n,o,p,q,u,v,w"
```

The one line of information for a DSPU:

```
"UC-a:DSPI-b[:CCB-r,s]"
```

Next, the information regarding individual NPCs will be output. For each FTM/MXR/DSPU one output segment will be printed. If an FTM is not equipped, or if it is equipped but has no NPCs, then the line will not appear.

The output message for a DS1 FTM:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   /* NPC-[a]aaa[&&-[b]bbb],Total EQD */
   "[a]aaa[&&[b]bbb],tt"
>
```

The output message for a DS3U MXR:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   /* NPC-[a]aaa[&&-[b]bbb],Total EQD */
   "[a]aaa[&&[b]bbb],tt"
>
```

The output message for a DSPU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   /* DSPU-NPC:[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz */
   "DSPU-NPC:[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
;
```

If the unit number is specified in the input, the following output messages will be generated.

Output message for an FTU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:FTMI-b,c,d,e[:CCB-r,s]"
   "FC-f,g,h,j,k,m,p,q"
>
```

The message will then be followed by up to 4 output segments shown below for equipped NPCs in each FTM. If an FTM is not equipped, or if it is equipped but has no NPCs, then the segment will not appear.

The output message for a DS1 FTM:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "FTU-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   /* NPC-[a]aaa[&&-[b]bbb],Total EQD */
   "[a]aaa[&&[b]bbb],tt"
>
```

Output message for a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:FLI-b,c:FMT-1,m[:CCB-r,s]"
   "MXR-d,e,f,g,h,j,k:MIU-n,o,p,q,u,v,w"
>
```

The message will then be followed by up to 7 output segments shown below for equipped NPCs in each MXR. If a MXR is not equipped, or if it is equipped but has no NPCs, then the segment will not appear.

The output message for a DS3U MXR:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   "DS3U-NPC:[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx,[x]xxx"
   /* NPC-[a]aaa[&&-[b]bbb],Total EQD */
   "[a]aaa[&&[b]bbb],tt"
>
```

Output message for a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:DSPI-b[:CCB-r,s]"
>
```

The message will continue to report the NPC equipage in the DSPU. If no NPC is equipped, the segment will not be output.

Output message for NPCs of a DSPU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   /* DSPU-NPC:[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz */
   "DSPU-NPC:[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz,[z]zzz"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
;
```

Hierarchical

If the unit number is not entered, the following output messages will be generated:

The output starts with:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Equipped entities */
   "g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* TSI:ft,x:ft,x:ft,x:ft,x:ft,x:ft,x */
   "TSI:11,x:12,x:13,x:14,x:15,x:16,x"
   "TSI:21,x:22,x:23,x:24,x:25,x:26,x"
   "TSI:31,x:32,x:33,x:34,x:35,x:36,x"
   "TSI:41,x:42,x:43,x:44,x:45,x:46,x"
   "TSI:51,x:52,x:53,x:54,x:55,x:56,x"
   "TSI:61,x:62,x:63,x:64,x:65,x:66,x"
   /* TOTAL-tt */
   "tt"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* ETSI:qq,x:qq,x:qq,x:qq,x */
   "ETSI:01,x:02,x:03,x:04,x:05,x:06,x:07,x:08,x"
   "ETSI:09,x:10,x:11,x:12,x:13,x:14,x:15,x:16,x"
   /* TOTAL-tt */
   "tt"
>
```

Next, the output will continue to report the equipped common entity of each equipped unit Data for up to 4 units will be output in one segment in the ascending order. If more than 4 units are equipped, multiple segments will be output. Those messages will not be output if no unit is equipped.

[O.53108]

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 1st equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 2nd equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 3rd equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 4th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 5th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 6th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 7th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 8th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 9th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 10th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 11th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 12th equipped unit >"]
[>]
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:EQPD COMPLD]
[   /* [O.53108] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 13th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 14th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 15th equipped unit >"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for the common equipment on the 16th equipped unit >"]
[>]
```

The two lines of information for a DS1 FTU:

```
"UC-a:FTMI-b,c,d,e[:CCB-r,s]"
"FC-f,g,h,j,k,m,p,q"
```

The two lines of information for a DS3U:

```
"UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
"MXR-d,e,f,g,h,j,k:MIU-n,o,p,q,u,v,w"
```

The one line of information for a DSPU:

```
"UC-a:DSPI-b[:CCB-r,s]"
```

Next, the information regarding individual NPCs will be output. For each FTM/MXR/DSPU one output segment will be printed. If an FTM is not equipped, or if it is equipped but has no NPCs, then the line will not appear.

The output message for a DS1 FTM:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
xx-x-xx,xx-x-xx"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total EQD */
   "uv-m-np[&&&-ux-k-qr],tt"
>
```

The output message for a DS3U MXR:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total EQD */
   "uv-m-np[&&&-ux-k-qr],tt"
>
```

The output message for a DSPU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   /* DSPU-NPC:uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np */
   "DSPU-NPC:uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:EQPD COMPLD
;
```

If the unit number is specified in the input, the following output messages will be generated.

Output message for an FTU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:FTMI-b,c,d,e[:CCB-r,s]"
   "FC-f,g,h,j,k,m,p,q"
>
```

The message will then be followed by up to 4 output segments shown below for equipped NPCs in each FTM. If an FTM is not equipped, or if it is equipped but has no NPCs, then the segment will not appear.

The output message for a DS1 FTM:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* FTU-NPC, Unit [q]q, FTMI r */
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
    xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
    xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
    xx-x-xx,xx-x-xx"
   "FTU-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,
    xx-x-xx,xx-x-xx"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total EQD */
   "uv-m-np[&&&-ux-k-qr],tt"
>
```

Output message for a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
   "MXR-d,e,f,g,h,j,k:MIU-n,o,p,q,u,v,w"
>
```

The message will then be followed by up to 7 output segments shown below for equipped NPCs in each MXR. If a MXR is not equipped, or if it is equipped but has no NPCs, then the segment will not appear.

The output message for a DS3U MXR:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* DS3U-NPC, Unit [q]q, MXR r */
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   "DS3U-NPC:xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx,xx-x-xx"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total EQD */
   "uv-m-np[&&&-ux-k-qr],tt"
>
```

Output message for a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   "UC-a:DSPI-b[:CCB-r,s]"
>
```

The message will continue to report the NPC equipage in the DSPU. If no NPC is equipped, the segment will not be output.

Output message for NPCs of a DSPU:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
   /* [O.53108] */
   /* Unit [q]q */
   /* DSPU-NPC:uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np */
   "DSPU-NPC:uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np,uv-m-np"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53108]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQPD COMPLD
;
```

Denial Message

[O.53108.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:EQD DENY
   mmmm
   /* [O.53108.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to retreive the state information associated with equipment.

The UNIT option is specified only when the EQPT modifier is used to query that unit. The UNIT field will be null when the command is used to query the whole frame.

Explanation Of Parameters

EQPD - Equipped

UNIT - Unit

[q]q - Unit number (1 through 16)

The UNIT option is specified to query that unit. The UNIT field will be null when the command is used for the entire frame. If the UNIT option is specified, only the information related to the equipment in that unit will be generated.

For the equipped query, each entity in the DACS II frame is represented by a single character variable. This variable can have a value of 1 or 0 indicating the following status:

Value	EQD or EQPD
1	equipped
0	unequipped

The DACS II entities and their status fields are as follows:

g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (cross-connect 0)
n - XC1 (cross-connect 1)
o - CCNI/CCI 0 (cross-connect network interface 0 for non-CEF frame) (clock and control interface 0 for CEF frame)
p - CCNI/CCI 1 (cross-connect network interface 1 for non-CEF frame) (clock and control interface 1 for CEF frame)

SYNC - Synchronizer

CRO - Clock reference oscillator

TLI - Timing link interface

The TLI entities are reported in the following order:

```
TLI 1, SSP 0, Side 0
TLI 1, SSP 1, Side 0
TLI 2, SSP 0, Side 0
TLI 2, SSP 1, Side 0
TLI 3, SSP 0, Side 0
TLI 3, SSP 1, Side 0
TLI 4, SSP 0, Side 0
TLI 4, SSP 1, Side 0

TLI 1, SSP 0, Side 1
TLI 1, SSP 1, Side 1
TLI 2, SSP 0, Side 1
TLI 2, SSP 1, Side 1
TLI 3, SSP 0, Side 1
TLI 3, SSP 1, Side 1
TLI 4, SSP 0, Side 1
TLI 4, SSP 1, Side 1
```

TSIS - Time slot interchangers NonCEF
ETSIS - Expanded time slot interchangers CEF

f - FROM unit (1 through 6)

t - TO Unit (1 through 6)

x - Equipage indication of an entity or of a side 0 entity if duplicated.

y - Equipage indication of a side 1 entity.

UC - Unit controller

FTMI - Facility terminating module interface

FC - Format converter

FLI - Facility line interface

FMT - Formatter

MXR - Multiplexer

MIU - Multiple interface unit

DSPI - Digital signal processing interface

[a]aaa

- The first 3- or 4-digit nonhierarchical NPC number of an FTM/MXR/DSPU.

[b]bbb

- The last 3- or 4-digit nonhierarchical NPC number of an FTM/MXR/DSPU.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H
```

```
Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

[z]zzz

- The 3- or 4-digit nonhierarchical DSPU NPC number, the span refers to

the odd DSPU circuit pack NPCs, and the total is the number of NPC pairs equipped.

uv-m-np

- The first hierarchical NPC number of an FTM/MXR/DSPU or a hierarchical

DSPU NPC number.

ux-k-qr

- The last hierarchical NPC number of an FTM/MXR/DSPU

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

tt - Total number of equipped NPCs

For FTU Entities:

a - Status for UC

b - Status for FTMI 1 of specified Unit
c - Status for FTMI 2 of specified Unit
d - Status for FTMI 3 of specified Unit
e - Status for FTMI 4 of specified Unit

f - Status for FC 01 of specified Unit
g - Status for FC 11 of specified Unit
h - Status for FC 02 of specified Unit
j - Status for FC 12 of specified Unit
k - Status for FC 03 of specified Unit
m - Status for FC 13 of specified Unit
p - Status for FC 04 of specified Unit
q - Status for FC 14 of specified Unit

CCB - Cross-connect buffer NonCEF

r - Status for CCB 0q in CCN 0 for specified Unit q

s - Status for CCB 1q in CCN 1 for specified Unit q

For DS3U Entities:

a - Status for UC

l - Status for FMT 0 of specified DS3 Unit

m - Status for FMT 1 of specified DS3 Unit

b - Status for service FLI of specified DS3 Unit

c - Status for protection FLI of specified DS3 Unit

d - Status for protection MXR of specified DS3 Unit

e - Status for MXR 1 of specified DS3 Unit

f - Status for MXR 2 of specified DS3 Unit

g - Status for MXR 3 of specified DS3 Unit

h - Status for MXR 4 of specified DS3 Unit

j - Status for MXR 5 of specified DS3 Unit

k - Status for MXR 6 of specified DS3 Unit

n - Status for protection MIU of specified DS3 Unit

o - Status for MIU 1 of specified DS3 Unit

p - Status for MIU 2 of specified DS3 Unit

q - Status for MIU 3 of specified DS3 Unit

u - Status for MIU 4 of specified DS3 Unit

v - Status for MIU 5 of specified DS3 Unit

w - Status for MIU 6 of specified DS3 Unit

For DSPU Entities:

a - Status for UC

b - Status of DSPI for specified unit

[x]xxx

- The 3- or 4-digit nonhierarchical FTU/DS3U NPC number ([a]aaa through [b]bbb)

xx-x-xx

- Hierarchical FTU/DS3U NPC number (uv-m-np through ux-k-qr)

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped

RTRV,STATE,EQPT,UNIT,FTMI

UTILITY QUERY EQUALIZATION, IMPEDANCE

Input Message Format

[I.53071]

```
RTRV-STATE-EQPT:[<xy>]:UNIT-[q]q:[ww]:FTMI-b;
```

Completion Message

[O.53071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:FTMI-b  COMPLD
   /* [O.53071] */
   /* FTMI-b:EQL-1,r */
   "FTMI-b:EQL-1,r"
;
```

Denial Message

[O.53071.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:FTMI-b  DENY
   mmmm
   /* [O.53071.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the equalization values for a facility terminating module interface (FTMI) in a facility terminating unit (FTU).

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FTMI - Facility terminating module interface

b - FTMI number (1 through 4)

EQL - Equalization

l - Left half shelf equalization value (first 10 Dual Digroup Circuits)
r - Right half shelf equalization value (second 10 Dual Digroup Circuits)

If either half is not to be used, a dash ("-") should be entered for the appropriate halfs' value. For the right half shelf the dash is not allowed if the FTMI has already been grown.

Equalization option values for 255AS/24 gauge cable

l / r	*Explanation*
1	000 to 100 feet
2	100 to 200 feet
3	200 to 300 feet
4	300 to 400 feet
5	400 to 500 feet
-	Not equipped

Equalization option values for 600 series/22 gauge cable

l / r	*Explanation*
1	000 to 133 feet
2	133 to 267 feet
3	267 to 400 feet
4	400 to 533 feet
5	533 to 655 feet
-	Not equipped

Equalization option values for 1249/26 gauge cable

l *r*	*Explanation*
1	000 to 090 feet
2	090 to 180 feet
3	180 to 270 feet
4	270 to 360 feet
5	360 to 450 feet
-	Not equipped

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
ENEQ	Unit is not equipped
SNVS	NPC type is inconsistent with FTMI type
ENEQ	NPC not equipped

RTRV,STATE,EQPT,UNIT,PEST,FAIL

UTILITY QUERY STATUS OF ENTITIES/EQUIPMENT

Input Message Format

[I.53103]

```
RTRV-STATE-EQPT:[<xy>]:[UNIT-[q]q]:[ww]:{PEST|FAIL|OOS};
```

Completion Message

Nonhierarchical

If the unit number is not entered, the following output segments will be generated:

The output starts with:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   "{PEST|FAIL|OOS}:g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y */
   "TSI:11,x,y:12,x,y:13,x,y:14,x,y:15,x,y:16,x,y"
   "TSI:21,x,y:22,x,y:23,x,y:24,x,y:25,x,y:26,x,y"
   "TSI:31,x,y:32,x,y:33,x,y:34,x,y:35,x,y:36,x,y"
   "TSI:41,x,y:42,x,y:43,x,y:44,x,y:45,x,y:46,x,y"
   "TSI:51,x,y:52,x,y:53,x,y:54,x,y:55,x,y:56,x,y"
   "TSI:61,x,y:62,x,y:63,x,y:64,x,y:65,x,y:66,x,y"
   /* Total TSIs-tt,Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y */
   "ETSI:01,x,y:02,x,y:03,x,y:04,x,y"
   "ETSI:05,x,y:06,x,y:07,x,y:08,x,y"
   "ETSI:09,x,y:10,x,y:11,x,y:12,x,y"
   "ETSI:13,x,y:14,x,y:15,x,y:16,x,y"
   /* Total TSIs-tt,Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

The output then continues with information about the common equipment in the units. The data line will only appear for units that are equipped. If more than four units are equipped, the output for the equipage of the units will be divided into multiple messages.

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[   /* [O.53103] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the first equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the second equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the third equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the fourth equipped unit>"]
>
```

```
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fifth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the sixth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the seventh equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the eighth equipped unit>"]
>
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the ninth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the tenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the eleventh equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the twelfth equipped unit>"]
>
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the thirteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fourteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fifteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the sixteenth equipped unit>"]
>
```

The two lines of data for a DS1 FTU:

```
"UC-a:FTMI-b,c,d,e[:CCB-r,s]"
"FC-f,g,h,j,k,m,p,q"
```

The two lines of data for a DS3U:

```
"UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
"MXR-d,e,f,g,h,i,j,k:MIU-n,o,p,q,u,v,w"
```

The one line of data for a DSPU:

```
"UC-a:DSPI-b[:CCB-r,s]"
```

The output then continues with the output message segment below for NPCs in an FTM. If an FTM is not equipped, the segment for this FTM will not be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* FTU-NPC, Unit [q]q, FTMI a */
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   /* NPC-[a]aaa[&&-[b]bbb],Total NPCs,Total {PEST|FAIL|OOS} */
   "[a]aaa[&&[b]bbb],tt,nn"
>

The output then continues with the output message segment below for NPCs in a DS3U
MXR. If an MXR is not equipped, the segment for this MXR will not be output:

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* DS3U-NPC, Unit [q]q, MXR d */
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   /* NPC-[a]aaa[&&-[b]bbb],Total NPCs,Total {PEST|FAIL|OOS} */
   "[a]aaa[&&[b]bbb],tt,nn"
>
```

The output then continues with the output message segment below for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* UNIT [q]q */
   /* DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y */
   "DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y"
   "DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y"
>
```

Output message for an equipped FTM/MXR/DSPU with no NPC having the PEST, FAIL, or OOS status:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* {FTU|DS3U|DSPU},NPC-[a]aaa[&&-[b]bbb],tt */
   "[a]aaa[&&[b]bbb],00,00,00"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
;
```

If the unit number is specified, the following output segments will be generated:

Output message for an FTU:

[O.53013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [o.53103] */
   /* Unit [q]q */
   "UC-a:FTMI-b,c,d,e[:CCB-r,s]"
   "FC-f,g,h,j,k,m,p,q"
>
```

Up to four segments of the output message shown below will then be generated for NPCs in each FTM. If an FTM is not equipped, the segment for this FTM will not be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [o.53103] */
   /* FTU-NPC, Unit [q]q, FTMI a */
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   /* NPC-[a]aaa[&&-[b]bbb],Total NPCs,Total {PEST|FAIL|OOS} */
   "[a]aaa[&&[b]bbb],tt,nn"
>
```

Output message for a DS3U:

[O.53013]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [o.53103] */
   /* Unit [q]q */
   "UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
   "MXR-d,e,f,g,h,i,j,k:MIU-n,o,p,q,u,v,w"
>
```

Up to seven segments of the output message shown below will be output for NPCs in each DS3U MXR. If an MXR is not equipped, the segment for this MXR will not be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* DS3U-NPC, Unit [q]q, MXR d */
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   /* NPC-[a]aaa[&&-[b]bbb],Total NPCs,Total {PEST|FAIL|OOS} */
   "[a]aaa[&&[b]bbb],tt,nn"
>
```

Output message for a DSPU:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* Unit [q]q */
   "UC-a:DSPI-b[:CCB-r,s]"
>
```

The output then continues with the output message segment below for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* Unit [q]q */
   /* DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y */
   "DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y"
   "DSPU-NPC:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y:[z]zzz,x,y"
>
```

Output message for an equipped FTM/MXR/DSPU with no NPC having the PEST, FAIL, or OOS status:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* {FTU|DS3U|DSPU},NPC-[a]aaa[&&-[b]bbb],tt */
   "[a]aaa[&&[b]bbb],00,00,00"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
;
```

Hierarchical

If the unit number is not entered, the following output segments will be generated:

The output starts with:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   "{PEST|FAIL|OOS}:g,h,i,j,k,l,m,n,o,p"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   "SYNC:x,y"
   "CRO:x"
   "TLI:x,x,x,x,x,x,x,x,y,y,y,y,y,y,y,y"
>
```

For DACS II Non-CEF frames, the next segment describes the CCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* TSI:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y:ft,x,y */
   "TSI:11,x,y:12,x,y:13,x,y:14,x,y:15,x,y:16,x,y"
   "TSI:21,x,y:22,x,y:23,x,y:24,x,y:25,x,y:26,x,y"
   "TSI:31,x,y:32,x,y:33,x,y:34,x,y:35,x,y:36,x,y"
   "TSI:41,x,y:42,x,y:43,x,y:44,x,y:45,x,y:46,x,y"
   "TSI:51,x,y:52,x,y:53,x,y:54,x,y:55,x,y:56,x,y"
   "TSI:61,x,y:62,x,y:63,x,y:64,x,y:65,x,y:66,x,y"
   /* Total TSIs-tt,Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

For DACS II CEF frames, the segment describes the ECCN hardware:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* ETSI:qq,x,y:qq,x,y:qq,x,y:qq,x,y */
   "ETSI:01,x,y:02,x,y:03,x,y:04,x,y"
   "ETSI:05,x,y:06,x,y:07,x,y:08,x,y"
   "ETSI:09,x,y:10,x,y:11,x,y:12,x,y"
   "ETSI:13,x,y:14,x,y:15,x,y:16,x,y"
   /* Total TSIs-tt,Total {PEST|FAIL|OOS}-nn */
   "tt,nn"
>
```

The output then continues with information about the common equipment in the units. The data line will only appear for units that are equipped. If more than four units are equipped, the output for the equipage of the units will be divided into multiple messages.

```
[   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[   /* [O.53103] */]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the first equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the second equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the third equipped unit>"]
[   /* Unit [q]q */]
[   "<1 or 2 line message for common equipment on the fourth equipped unit>"]
>
```

```
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fifth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the sixth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the seventh equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the eighth equipped unit>"]
>
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the ninth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the tenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the eleventh equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the twelfth equipped unit>"]
>
[    <xy> yy-mm-dd hh:mm:ss LINK-n[vv]]
[M   RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD]
[    /* [O.53103] */]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the thirteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fourteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the fifteenth equipped unit>"]
[    /* Unit [q]q */]
[    "<1 or 2 line message for common equipment on the sixteenth equipped unit>"]
>
```

The two lines of data for a DS1 FTU:

```
"UC-a:FTMI-b,c,d,e[:CCB-r,s]"
"FC-f,g,h,j,k,m,p,q"
```

The two lines of data for a DS3U:

```
"UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
"MXR-d,e,f,g,h,i,j,k:MIU-n,o,p,q,u,v,w"
```

The one line of data for a DSPU:

```
"UC-a:DSPI-b[:CCB-r,s]"
```

The output then continues with the output message segment below for NPCs in an FTM. If an FTM is not equipped, the segment for this FTM will not be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* FTU-NPC, Unit [q]q, FTMI a */
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total NPCs,Total {PEST|FAIL|OOS} */
   "uv-m-np[&&&-ux-k-qr],tt,nn"
>

The output then continues with the output message segment below for NPCs in a DS3U
MXR.  If an MXR is not equipped, the segment for this MXR will not be output:

   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* DS3U-NPC, Unit [q]q, MXR d */
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   "DS3U-NPC:x,x,x,x,x,x,x"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total NPCs,Total {PEST|FAIL|OOS} */
   "uv-m-np[&&&-ux-k-qr],tt,nn"
>
```

The output then continues with the output message segment below for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* UNIT [q]q */
   /* DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y */
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y"
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y"
>
```

Output message for an equipped FTM/MXR/DSPU with no NPC having the PEST, FAIL, or OOS status:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* {FTU|DS3U|DSPU},NPC-uv-m-np[&&&-ux-k-qr],tt */
   "uv-m-np[&&&-ux-k-qr],00,00,00"
>
```

After the above information is output, the following message will be generated to complete the response:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT:::[ww]:{PEST|FAIL|OOS} COMPLD
;
```

If the unit number is specified in the input, the following output messages will be generated:

Output message for an FTU:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* Unit [q]q */
   "UC-a:FTMI-b,c,d,e[:CCB-r,s]"
   "FC-f,g,h,j,k,m,p,q"
>
```

The output then continues with the output message segment below for NPCs in an FTM. Up to four FTM segments can be generated. If an FTM is not equipped, the segment for this FTM will not be output:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* FTU-NPC, Unit [q]q, FTMI a */
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   "FTU-NPC:x,x,x,x,x,x,x,x,x,x"
   /* NPC-uv-m-np[&&&-ux-k-qr],Total NPCs,Total {PEST|FAIL|OOS} */
   "uv-m-np[&&&-ux-k-qr],tt,nn"
>
```

Output message for a DS3U:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* Unit [q]q */
   "UC-a:FLI-b,c:FMT-l,m[:CCB-r,s]"
   "MXR-d,e,f,g,h,i,j,k:MIU-n,o,p,q,u,v,w"
>
```

The output then continues with the output message segment below for NPCs in a DS3U MXR. Up to seven MXR segments can be generated. If an MXR is not equipped, the segment for this MXR will not be output:

```
  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
  /* [O.53103] */
  /* DS3U-NPC, Unit [q]q, MXR d */
  "DS3U-NPC:x,x,x,x,x,x,x"
  "DS3U-NPC:x,x,x,x,x,x,x"
  "DS3U-NPC:x,x,x,x,x,x,x"
  "DS3U-NPC:x,x,x,x,x,x,x"
  /* NPC-uv-m-np[&&&-ux-k-qr],Total NPCs,Total {PEST|FAIL|OOS} */
  "uv-m-np[&&&-ux-k-qr],tt,nn"
>
```

Output message for a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* Unit [q]q */
   "UC-a:DSPI-b[:CCB-r,s]"
>
```

The output then continues with the output message segment below for NPCs in a DSPU:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* UNIT [q]q */
   /* DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y */
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y"
   "DSPU-NPC:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y:uv-m-np,x,y"
>
```

Output message for an equipped FTM/MXR/DSPU with no NPC having the PEST, FAIL, or OOS status:

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
   /* [O.53103] */
   /* {FTU|DS3U|DSPU},NPC-uv-m-np[&&&-ux-k-qr],tt */
   "uv-m-np[&&&-ux-k-qr],00,00,00"
;
```

After the above information is output, the following message will be generated to complete the response:

[O.53103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} COMPLD
;
```

Denial Message

[O.53103.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:{PEST|FAIL|OOS} DENY
   mmmm
   /* [O.53103.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests reports on any one of the following parameters:

PEST
FAIL
OOS

These reports may be on the entire DACS II frame or on the common equipment of the frame.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

The UNIT option is specified to query that unit. The UNIT field will be null when the command is used for the entire frame. If the UNIT option is specified, only the information related to the equipment in that unit will be generated.

OOS - Out of service

Pest States

FAIL - Failed

Failed Components

PEST - Pested

Out of Service Components

For the OOS, FAIL and PEST indications, each entity in the DACS II frame is represented by a single character variable. This variable can have the value of 1, 0 or "-" indicating the following status:

Value	*OOS*	*FAIL*	*PEST*	
1	out of service		failed	pested
0	in service	not failed	unpested	
-	not applicable		not applicable	not applicable

A hyphen (-) indicates the parameter is not applicable to the particular entity. For example, an unequipped circuit displays a "-" for its OOS, FAIL and PEST indicators.

The DACS II entities and their status fields are as follows:

g - Link 1
h - Link 2
i - Link 3
j - Link 4
k - Link 5
l - Link 6
m - XC0 (cross-connect 0)
n - XC1 (cross-connect 1)
o - CCNI/CCI 0 (cross-connect network interface 0 for non-CEF frame) (clock and control interface 0 for CEF frame)
p - CCNI/CCI 1 (cross-connect network interface 1 for non-CEF frame) (clock and control interface 1 for CEF frame)

SYNC - Synchronizer

CRO - Clock reference oscillator

TLI - Timing link interface

The order of the TLI presented in the output is shown below:

```
TLI 1, SSP 0, Side 0
TLI 1, SSP 1, Side 0
TLI 2, SSP 0, Side 0
TLI 2, SSP 1, Side 0
TLI 3, SSP 0, Side 0
TLI 3, SSP 1, Side 0
TLI 4, SSP 0, Side 0
TLI 4, SSP 1, Side 0

TLI 1, SSP 0, Side 1
TLI 1, SSP 1, Side 1
TLI 2, SSP 0, Side 1
TLI 2, SSP 1, Side 1
TLI 3, SSP 0, Side 1
TLI 3, SSP 1, Side 1
TLI 4, SSP 0, Side 1
TLI 4, SSP 1, Side 1
```

TSIS - Time slot interchanges NonCEF

f - FROM unit (1 through 6)NonCEF
t - TO Unit (1 through 6) NonCEF
ETSIS - Expanded time slot interchangers

x - Status of the entity or the side 0 entity if the entity is duplicated

x - Status of the side 1 entity

tt - Total number of equipped entities

nn - Total number of entities having the requested status

UC - Unit controller

FTMI - Facility terminating module interface

FC - Format converter

CCB - Cross-connect buffer

For an FTU equipment output, the definition of each character is given below:

a	- status of UC
b	- status of FTMI 1
c	- status of FTMI 2
d	- status of FTMI 3
e	- status of FTMI 4
f	- status of FC 01
g	- status of FC 11
h	- status of FC 02
j	- status of FC 12
k	- status of FC 03
m	- status of FC 13
p	- status of FC 04
q	- status of FC 14
r	- status of side 0 CCB
s	- status of side 1 CCB

FLI - Facility line interface

FMT - Formatter

MXR - Multiplexer

MIU - Multiple interface unit

For a DS3U equipment output, the definition of each character is given below:

a - status of UC

b - status of service FLI
c - status of protection FLI

d - status of protection MXR
e - status of MXR 1
f - status of MXR 2
g - status of MXR 3
h - status of MXR 4
j - status of MXR 5
k - status of MXR 6

l - status of side 0 FMT
m - status of side 1 FMT

n - status of protection MIU
o - status of MIU 1
p - status of MIU 2
q - status of MIU 3
u - status of MIU 4
v - status of MIU 5
w - status of MIU 6

r - status of side 0 CCB
s - status of side 1 CCB

DSPI - Digital signal processing interface

For a DSPU equipment output, the definition of each character is as below:

a - status of UC

b - status of DSPI

r - status of side 0 CCB
s - status of side 1 CCB

[a]aaa

- The first 3- or 4-digit nonhierarchical NPC number of an FTM/MXR/DSPU.

[b]bbb

- The last 3- or 4-digit nonhierarchical NPC number of an FTM/MXR/DSPU.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

[z]zzz

- The 3- or 4-digit nonhierarchical DSPU NPC number, the span refers to

the odd DSPU circuit pack NPCs, and the total is the number of NPC pairs equipped.

uv-m-np

- The first hierarchical NPC number of an FTM/MXR or a hierarchical DSPU NPC number.

uv-m-qr

- The last hierarchical NPC number of an FTM/MXR or a hierarchical DSPU NPC number.

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped

RTRV,STATE,EQPT,UNIT,PROTN

QUERY UNIT PROTECTION STATE

Input Message Format

[I.56511]

```
RTRV-STATE-EQPT:[<xy>]:UNIT-[q]q:[ww]:PROTN;
```

Completion Message

[O.56511]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:PROTN COMPLD
   /* [O.56511] */
   /* Service FLI Maintenance Status, Protection FLI \
   Maintenance Status */
   "<vvv>,<vvv>"
   /* Service FLI Selection Status, Protection FLI \
   Selection Status */
   "<zzzz>,<zzzz>"
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:PROTN COMPLD
   /* [O.56511] */
   /* MXR Number,MXR Maintenance Status: */
   "P,<xxxx>:1,<xxxx>:2,<xxxx>:3,<xxxx>:4,<xxxx>:5,<xxxx>\
:6,<xxxx>"
   /* MIU Number,MIU Maintenance Status: */
   "P,<yyyy>:1,<yyyy>:2,<yyyy>:3,<yyyy>:4,<yyyy>:5,<yyyy>\
:6,<yyyy>"
   /* MMFG Number,Protection MMFG Selection:Service MMFG \
Protection Status */
   "P,<bbbb>:1,<aaaaa>:2,<aaaaa>:3,<aaaaa>:4,<aaaaa>:5,<aaaaa>\
:6,<aaaaa>"
   /* MMFG Number,Availability of Protection in case of \
failure */
   "P,ccc:1,ccc:2,ccc:3,ccc:4,ccc:5,ccc:6,ccc"
;
```

Denial Message

[O.56511.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE EQPT::UNIT-[q]q:[ww]:PROTN DENY
   mmmm
   /* [O.56511.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message reports the maintenance and protection state for the facility line interface (FLI) circuit pack and for the multiplexer multiple-line interface functional group (MMFG) pack in a DS3 unit.

Explanation Of Parameters

PSTATE
- Protection state

UNIT - Unit

[q]q - Unit number (1 through 16)

PROTN - Protection

S - Service

P - Protection

FLI - Facility line interface

vvv - FLI maintenance state

vvv	*Explanation*
IS	In-service
ISF	In-service failed or pested
OOS	Out-of-service

zzzz - FLI protection state

zzzz	*Explanation*
SLT	Selected (designated to carry service)
USLT	Unselected (not designated to carry service)

MMFG - Multiplexer-multiplexer interface unit functional group

xxxx - Multiplexer (MXR) maintenance state

xxxx	*Explanation*
IS	In service
ISF	In service Failed/Pested
OOS	Out of service
UEQD	Not equipped (not possible for a protection MXR)

yyyy - Multiplexer interface unit maintenance state

yyyy	*Explanation*
IS	In service
ISF	In service failed/pested
OOS	Out of service
UEQD	Not equipped

aaaaa - Service MMFG protection state

aaaaa *Explanation*	
SALW	The service MMFG is selected to carry service, and protection switching is ALLOWED
SINH	The service MMFG is selected to carry service, and AUTOMATIC protection switching is INHIBITED. Manual switching will occur.
MPALW	The facility on this MMFG is being served by the protection pack as a result of a manual switch command, and automatic switchback is ALLOWED
APALW	The facility on this MMFG is being served by the protection pack as a result of an automatic switch, and automatic switchback is ALLOWED
MPINH	The facility on this MMFG is being served by the protection pack as a result of a manual switch command, and automatic switchback is INHIBITED
APINH	The facility on this MMFG is being served by the protection pack as a result of an automatic switch, and automatic switchback is INHIBITED
-----	The service MXR is not equipped

bbbb - Selection status of the protection MMFG

bbbb *Explanation*	
SLT	Selected (designated to carry service)
USLT	Unselected (not designated to carry service)

ccc - Availability of protection switch in case of failure:

ccc	*Explanation*
AVL	Protection switch available
NVL	Protection switch not available (if the aaaa field is SINH, MPINH or APINH, this field will always be NVL)
---	The MMFG is not selected

COND - Condition

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped

RTRV,STATE,T3,UNIT,DS3

QUERY STATE UNIT DS3

Input Message Format

[I.56361]

```
RTRV-STATE-T3:[<xy>]:UNIT-[q]q:[ww]:DS3-c[&&-d];
```

Completion Message

[O.56361]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE T3::UNIT-[q]q:[ww]:DS3-c[&&-d] COMPLD
   /* [O.56361] */
   /* Protection State,OOS,FAIL,PEST,OOF,LOS,HBER,AIS,IDLE,BERM,BERT,LBO */
   "aaaaa-ccc,z,b,p,d,e,f,y,i,m,t,l"
   /* DS3 Facility Number:TYPE[:Condition code] */
   "DS3-a:TYPE-mnxyz[:COND-cc]"
;
```

Denial Message

[O.56361.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE T3::UNIT-[q]q:[ww]:DS3-c[&&-d] DENY
   ENEQ
   /* [O.56361.01] */
   /* DS3 Facility not equipped */
   /* DS3 Facility Number */
   "a"
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the alarm status, facility parameter threshold, and protection switching status of a DS3 facility or a range of DS3 facilities within a DS3 unit.

Either a completion or denial output message is generated for each DS3 facility.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

DS3 - DS3 facility

c,d - The number of the DS3 facility within the unit (1 through 6)

mnxyz - The DS3 format processed by the MXR:

mn	*Explanation*
MX	the original R4.0 DS3 facility type supported by the Multiplexer (MXR) circuit pack
EX	the enhanced R6.0 DS3 facility type supported by the Enhanced Multiplexer (EMXR) circuit pack
	Default is the MX type for backward compatibility.

MX/EX-type xyz fields

x - the DS3 framing format
1 - M13 format (default)
2 - C-bit parity format

y - not assigned (the only valid value is 0)

z - not assigned (the only valid value is 0)

PSTATE
- Protection state

aaaaa - Protection state of the service MMFG where aaaaa can be:

SALW The Service MMFG is selected to carry service, and protection switching is ALLOWED

SINH The Service MMFG is selected to carry service, and protection switching is INHIBITED

MPALW The facility is being served by the Protection pack as a result of a manual switch command, and automatic switchback is ALLOWED

APALW the facility is being served by the Protection pack as a result of an automatic switch, and automatic switchback is ALLOWED

MPINH The facility is being served by the Protection pack as a result of a manual switch command, and automatic switchback is INHIBITED

APINH The facility is being served by the Protection pack as a result of an automatic switch, and automatic switchback is INHIBITED

ccc - Availability of protection switch in case of failure:

AVL = Protection Switch available
NVL = Protection Switch not available (if the aaaaa field is SINH, MPINH or APINH, this field will always be NVL)

OOS - Out-of-service

z - "Selected" MMFG in service status:
1 - the MMFG is in service
0 - the MMFG is out-of-service

FAIL - Failed

b - "Selected" MMFG failure status:
1 - the MMFG is failing
0 - the MMFG is not failing

PEST - Pested

p - "Selected" MMFG pest status:
1 - the MMFG is pested
0 - the MMFG is not pested

If this field is 1, the OOF, LOS, High BER and AIS field will be filled with a hyphen (-)

OOF - Out of frame

d - Out-of-frame status for the facility:
1 - Out-of-Frame alarm for the facility is active
0 - Out-of-Frame alarm for the facility is idle
- - The facility is pested or OOS, or UC OOS or failed.

LOS - Loss of signal

e - Loss-of-signal status for the facility:
- **1** - Loss-of-signal alarm for the facility is active
- **0** - Loss-of-signal alarm for the facility is idle
- **-** - The facility is pested or OOS, or UC OOS or failed.

HBER - High bit error rate

f - High-bit-error-rate status for the facility:
- **1** - High-bit-error-rate alarm for the facility is active
- **0** - High-bit-error-rate alarm for the facility is idle
- **-** - The facility is pested or OOS, or UC OOS or failed.

AIS - Alarm indication signal

y - Alarm indication signal status for the facility:
- **1** - Alarm indication signal alarm for the facility is active
- **0** - Alarm indication signal alarm for the facility is idle
- **-** - The facility is pested or OOS, or UC OOS or failed.

IDLE - Idle signal

i - Idle signal status for the facility:
- **1** - Idle signal alarm for the facility is active
- **0** - Idle signal alarm for the facility is idle
- **-** - The facility is pested or OOS, or UC OOS or failed.

BERM - Bit error rate method

m - The BER calculation method
- B = Bipolar violations
- P = DS3 Parity Errors

BERT - Bit error rate threshold

t - The BER threshold:
- **3** - Corresponding to threshold of 1E-3
- **6** - Corresponding to threshold of 1E-6

LBO - Line buildout

l - The LBO setting:
- **ON** - The line buildout is turned on.
- **OFF** - The line buildout is turned off.

a - The number of the DS3 within the range of c and d

cc **mmmm** - Error condition code

cc	**mmmm**	*Explanation*
00	NCON	No conditions
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
B2	SAOS	MXR is out of service

RTRV,STATE,TS

UTILITY QUERY

Input Message Format

Nonhierarchical

[I.52501]

```
RTRV-STATE-TS:[<xy>]:[s]abc-ddd[&&-eee]:[ww];
```

Hierarchical

[I.52501]

```
RTRV-STATE-TS:[<xy>]:uv-m-np-ddd[&&-eee]:[ww];
```

Completion Message

Nonhierarchical

[O.52501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE TS::[s]abc-ddd[&&-eee]:[ww] COMPLD
   /* [O.52501] */
   /* Channel: Established Channel Type: Error Correction Type */
   "ddd:<es_type>:<err_cor>"
[  "hhh:<es_type>:<err_cor>"]
               .
               .
               .
[  "eee:<es_type>:<err_cor>"]
;
```

Hierarchical

[O.52501]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE TS::uv-m-np-ddd[&&-eee]:[ww] COMPLD
   /* [O.52501] */
   /* Channel: Established Channel Type: Error Correction Type */
   "ddd:<es_type>:<err_cor>"
[  "hhh:<es_type>:<err_cor>"]
                .
                .
                .
[  "eee:<es_type>:<err_cor>"]
;
```

Denial Message

Nonhierarchical

[O.52501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE TS::[s]abc-ddd[&&-eee]:[ww] DENY
   mmmm
   /* [O.52501.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.52501.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV STATE TS::uv-m-np-ddd[&&-eee]:[ww] DENY
   mmmm
   /* [O.52501.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests data or information on an established channel or range of channels.

Data is printed out for the following types of channels.

- An unestablished channel.
- A DS0B channel capable of multiplexing 5, 10, or 20 Subrate customers.
- A DS0A channel (at any rate) without error correction.
- A Subrate DS0A channel with Subrate dataport error correction.
- A 56 kb/s channel with parity channel error correction.
- A DS0B channel capable of multiplexing 5, 10, or 20 Subrate customers and parity channel error correction.
- A parity channel.

Explanation Of Parameters

[s]abc

- The 3- or 4-digit nonhierarchical NPC number
The allowable values are presented below:

If NPC numbers are expressed in three digits, the valid values are:

DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DS type NPC numbers listed by unit number
Unit Type FT (IFTU/FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np

- Hierarchical NPC number

uv - Unit number
m - Module number
np - NPC number within the module

The allowable values are presented below:

```
DE and DS type NPC numbers listed by unit, module,
and NPC No.
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module,
and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number
eee - Channel number denoting end of range specification

The allowable values are presented below:

001 through 024

001-047	Odd only (SLC 96® Carrier, Mode 3, DGA)
049-095	Odd only (SLC 96 Carrier, Mode 3, DGC)
001-024	Odd and Even (SLC 96 Carrier, Mode 1, DGA)
025-048	Odd and Even (SLC 96 Carrier, Mode 1, DGB)
049-072	Odd and Even (SLC 96 Carrier, Mode 1, DGC)
073-096	Odd and Even (SLC 96 Carrier, Mode 1, DGD)
001-024	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGA)
025-048	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGB)
049-072	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGC)
073-096	Odd and Even (SLC Series 5 Carrier, Feature Package C, DGD)

hhh - Channel number (ddd through eee)

es_type

- Establish type

es_type	*Explanation*
NOT_EST	Channel is not established
DS0A rr	DS0A channel established at rate rr (24, 48, 96, 56)
DS0B nn	DS0B channel established with subrate multiplexer type nn (5, 10, 20)
PCH	Parity channel

err_cor

- Error correction

err_cor	*Explanation*
SEC	Subrate error correction
PCH ppp	Parity channel error correction with parity channel ppp
DCH ggg	Data channel ggg
---	No error correction

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Equipage, not equipped
	UNIT qq NOT EQUIPPED NPC [s]abc IS NOT EQUIPPED
IDNV	Input, data not valid
	INVALID CHANNEL NUMBER FOR CHANNEL [s]abcddd NPC [s]abc IS NOT A VALID NPC NUMBER
SNVS	Status, not in valid state
	NPC [s]abc IS NOT PART OF AN RT
IDRG	Input, data out of range
	[s]abcddd-fff IS AN INVALID RANGE OF CHANNELS

RTRV,SYSID

QUERY TAPE FOR SYSTEM INFORMATION

Input Message Format

[I.51181]

```
RTRV-SYSID:[<xy>]::[ww];
```

Completion Message

[O.51181]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV SYSID:::[ww] COMPLD
   /* [O.51181] */
   /* MEMORY_TYPE,ID_BLOCK,SYSTEM_TYPE,SOFTWARE_RELEASE,\
FEATURE_PACKAGE_ID, */
   /* SERIAL_NUMBER,FRAME,UID,DATE,TIME,TAPE_CYCLE_COUNT */
   "SEC,PROG,DACS II,<sr>,<fpkg>,,,,,,"
   "SEC,DBASE,DACS II,<sr>,<fpkg>,<sn>,<xy>,<uid>,<dt>,<tm>,<cnt>"
;
```

Denial Message

[O.51181.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV SYSID:::[ww] DENY
   mmmm
   /* [O.51181.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to retrieve information about the system program and database stored on the tape and in working memory.
This information is used for tape validation.

Explanation Of Parameters

nnnnn - Error condition code

nnnnn	*Explanation*
SROF	No valid executable or database from generic 6.0.3 or later
SNVS	TAPE is not present
SNVS	TAPE unit is not restored

RTRV,TACC,T0,NPCTG

UTILITY QUERY TEST-ACCESS GROUP NPC

Input Message Format

[I.53091]

```
RTRV-TACC-T0:[<xy>]:NPCTG-rrr[&&-sss]:[ww];
```

Completion Message

Nonhierarchical

[O.53091]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-[s]abc"
   /* TG:width,east or west bundle,channel(s) assigned */
  "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"
["TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
          .
          .
["TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr[&&-sss]:UEQD"
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-[s]abc,UASGN"
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-[t]def"
   /* TG:width,east or west bundle,channel(s) assigned */
 "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"
["TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
          .
          .
["TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
;
```

Hierarchical

[O.53091]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-uv-m-np"
   /* TG:width,east or west bundle,channel(s) assigned */
   "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"
[  "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
          .
          .
[  "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr[&&-sss]:UEQD"
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-uv-m-np,UASGN"
>
          .
          .
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] COMPLD
   /* [O.53091] */
   "NPCTG-rrr:NPC-wx-k-qr"
   /* TG:width,east or west bundle,channel(s) assigned */
   "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"
[  "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
          .
          .
[  "TG-mmm:NN,{E|W},aa&&bb[ TG-mmm:NN,{E|W},aa&&bb][ TG-mmm:NN,{E|W},aa&&bb]"]
;
```

Denial Message

[O.53091.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::NPCTG-rrr[&&-sss]:[ww] DENY
   mmmm
   /* [O.53091.01] */
   /* <explanation of error condition code> */
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to request information regarding one or more network processing circuits used for test-access groups (NPCTGs). the following information will be provided for each designated NPCTG:

1. All test-access groups (TGs)
2. TG width
3. The bundle being supported (east or west)
4. the channel assignment on the NPCTG

The TGs are listed in the order of bandwidth assignment.

Explanation Of Parameters

TG - Test (access) group

mmm - TG number (001 through 400)

NPCTG - NPC (for) test group

rrr - TG number (001 through 400)

sss - TG number (001 through 400, must be greater than rrr)

Variable sss is used to specify the end of an NPCTG range

[s]abc - 3- or 4-digit non-hierarchical NPC number designated as NPCTG rrr

[t]def - 3- or 4-digit non-hierarchical NPC number designated as NPCTG sss

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number designated as NPCTG rrr

wx-k-qr

- Hierarchical NPC number designated as NPCTG sss

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

E - East

East bundle of the TG

W - West

West bundle of the TG

UEQD - Unequipped

UASGN - Unassigned

No TG assigned to this NPCTG

mmmm - Four-character error condition code

NN - TG width (01 through 24)

aa - Starting channel for the bundle (01 through 24)

bb - Ending channel for the bundle (02 through 24);
for NN = 1, bb is '--'

mmmm - Error condition code

mmmm	*Explanation*
SROF	None of the designated NPCTG(s) are equipped

RTRV,TACC,T0,TG

UTILITY QUERY TEST-ACCESS GROUP

Input Message Format

[I.53081]

```
RTRV-TACC-T0:[<xy>]:TG-mmm[&&-nnn]:[ww];
```

Completion Message

Nonhierarchical

[O.53081]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::TG-mmm[&&-nnn]:[ww] COMPLD
   /* [O.53081] */
   /* TG:east-NPCTG,starting-channel,west-NPCTG,starting-channel,width,mode*/
   "mmm:NPCTG-rrr,[s]abc-eee,NPCTG-sss,[t]def-www,NN,<mode>"
   "mmm:NPCTG-rrr,[s]abc-eee,NPCTG-sss,[t]def-www,NN,<mode>"
          .
          .
   "nnn:NPCTG-rrr,[s]abc-eee,NPCTG-sss,[t]def-www,NN,<mode>"
{>|;}

or

   "UEQD:mmm[&&nnn]"
{>|;}
```

Hierarchical

[O.53081]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::TG-mmm[&&-nnn]:[ww] COMPLD
   /* [O.53081] */
   /* TG:east-NPCTG,starting-channel,west-NPCTG,starting-channel,width,mode*/
   "mmm:NPCTG-rrr,uv-m-np-eee,NPCTG-sss,wx-k-qr-www,NN,<mode>"
   "mmm:NPCTG-rrr,uv-m-np-eee,NPCTG-sss,wx-k-qr-www,NN,<mode>"
          .
          .
   "nnn:NPCTG-rrr,uv-m-np-eee,NPCTG-sss,wx-k-qr-www,NN,<mode>"
{>|;}

or

   "UEQD:mmm[&&nnn]"
{>|;}
```

Denial Message

[O.53081.01]

```
   xy yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T0::TG-mmm[&&-nnn]:[ww] DENY
   mmmm
   /* [O.53081.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message is used to get a listing of one or a range of Nx64Kbit/s Test-access Groups (TGs). The maximum range is 1-400, it can be used to retrieve a listing of ALL TGs.

Explanation Of Parameters

TG - Test-access Group

mmm - Test-access Group number (001 through 400)

nnn - End of TG range number (001 through 400)

NPCTG - TG network processing circuit

rrr - NPCTG number supporting the east bundle (001 through 400)

sss - NPCTG number supporting the west bundle, may be same as rrr

[s]abc
- 3- or 4-digit non-hierarchical NPC number designated as NPCTG rrr

[t]def
- 3- or 4-digit non-hierarchical NPC number designated as NPCTG sss

If NPC numbers are expressed in three digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit         Unit         Unit         Unit
1            2            3            4

NPC          NPC          NPC          NPC
0001-0160    0161-0320    0321-0480    0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

If NPC numbers are expressed in three digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit    Unit    Unit    Unit    Unit    Unit
1       2       3       4       5       6

NPC     NPC     NPC     NPC     NPC     NPC
001-160 161-320 321-480 481-640 641-800 801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H
```

```
Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np

- Hierarchical NPC number designated as NPCTG rrr

wx-k-qr

- Hierarchical NPC number designated as NPCTG sss

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are listed below:

```
DE type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

eee - Starting channel for east bundle

www - Starting channel for west bundle

mode - Test access mode

mode	*Explanation*
MON	Monitor
SPL	Split
HUB	Hub
LPD	Looped
IDLE	Idle

UEQD - Unequipped

mmmm - Four-character error condition code

NN - TG width (01 through 24)

NN - TG width (01 through 31)
mmmm - Error condition code

mmmm	*Explanation*
SROF	None of the designated TG(s) are equipped

RTRV,TACC,T1

UTILITY QUERY, TEST PORTS

Input Message Format

[I.53061]

```
RTRV-TACC-T1:[<xy>]::[ww];
```

Completion Message

Nonhierarchical

[O.53061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53061] */
   /* Test port group, NPC number, test port mode */
   "n,[s]abc,<md01>,<md02>,.....,<md12>"
   "n,[s]abc,<md13>,<md14>,.....,<md24>"
   "n,[s]abc,<md25>,<md26>,.....,<md36>"
   "n,[s]abc,<md37>,<md38>,.....,<md48>"
   "n,[s]abc,<md49>,<md50>,.....,<md60>"
   "n,[s]abc,<md61>,<md62>,.....,<md72>"
   "n,[s]abc,<md73>,<md74>,.....,<md84>"
   "n,[s]abc,<md85>,<md86>,.....,<md96>"
   /* Total testports-kk */
   "kk"
```

[O.53061]

```
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53061] */
   /* Non-channelized test NPC number and mode */
   "[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:\
[s]abc,<tmode>:[s]abc,<tmode>"
   "[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:\
[s]abc,<tmode>:[s]abc,<tmode>"
   "[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:\
[s]abc,<tmode>:[s]abc,<tmode>"
   "[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:[s]abc,<tmode>:\
[s]abc,<tmode>:[s]abc,<tmode>"
   /* Total number of non-channelized test NPCs in segment */
   "kk"
                                                .
                                                .
                                                .

>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
;
```

[O.53062]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53062] */
   /* Test ports,NPCs */
   "00,[0]000"
;
```

Hierarchical

[O.53061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53061] */
   /* Test port group, NPC number, test port mode */
   "n,uv-m-np,<md01>,<md02>,.....,<md12>"
   "n,uv-m-np,<md13>,<md14>,.....,<md24>"
   "n,uv-m-np,<md25>,<md26>,.....,<md36>"
   "n,uv-m-np,<md37>,<md38>,.....,<md48>"
   "n,uv-m-np,<md49>,<md50>,.....,<md60>"
   "n,uv-m-np,<md61>,<md62>,.....,<md72>"
   "n,uv-m-np,<md75>,<md74>,.....,<md84>"
   "n,uv-m-np,<md85>,<md86>,.....,<md96>"
   /* Total testport-kk */
   "kk"
```

[O.53061]

```
>
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53061] */
   /* Non-channelized test NPC number and mode */
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   "uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>:uv-m-np,<tmode>"
   /* Total number of non-channelized test NPCs in segment*/
   "kk"
                                          .
                                          .
                                          .
>
  <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
;
```

[O.53062]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  RTRV TACC T1:[xy]::[ww] COMPLD
   /* [O.53062] */
   /* Test ports,NPCs */
   "00,00000"
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This command reports the network processing circuits (NPCs) used for test ports, their designation, and the test modes of each equipped test port. The report includes the DS0 test port and non-channelized test NPCs.

Not listed are any test ports that are unequipped with numbers less than that of the highest equipped test port **within** a network processing circuit for test ports (NPCTP) since in each NPC they must be grown in numerical order starting with the lowest numbered test port within each NPCTP (01, 13, 25, etc.).

All non-channelized test NPCs or Facility Access Digroups (FADs) will be listed together in one or more segments. Each FAD number is the same as the NPC number, and is given with its test mode.

Explanation Of Parameters

TPS - Test ports

kk - Total number of test ports equipped or total number of equipped non-channelized test NPCs in segment

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number of test NPC

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical NPC number of test NPC

uv - Unit number
m - Module number
np - NPC number within the module

The valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

NPCTP - NPC for test ports

FAD - Facility access digroup

Non-channelized test NPC

n - 64Kbit/s NPCTP number (1 through 8)

md01-md96
- Mode of 64Kbit/s Test Port number nn (01 through 96)

mdnn	*Definition*
TPR	Test Port Released
MON	Monitor
SPL	Split
HUB	Hubbed
LPD	Looped
---	Not equipped

tmode - Test mode of non-channelized test NPC

tmode	*Definition*
MONE	Monitor E (FROM)
MONF	Monitor F (TO)
MONEF	Monitor E and F
SPLTA	Split A
SPLTB	Split B
SPLTAB	Split A and B
SPLTE	Split E
SPLTF	Split F
SPLTEF	Split E and F
LOOPE	Loop E
LOOPF	Loop F
LPBKT	Loopback Test
HUB	Hub

SAVE

SAVE COMPONENT COMMANDS

Input Message Format

[I.19081]

```
SAVE[:[<xy>]::[ww]:];
```

Completion Message

[O.19081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SAVE:::[ww] COMPLD
   /* [O.19081] */
   /* Save <macro name>:Space allocated sss,Space used \
uuu */
;
```

Denial Message

[O.19081.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SAVE:::[ww] DENY
   mmmm
   /* [O.19081.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to save the contents of a macro while in the macro session.

Explanation Of Parameters

macro name
- The name of the macro to be saved

sss - Number representing the percent of total disk space allocated to macro storage

uuu - Number representing the percent of the allocated disk space (sss) being used to store macros

mmmm - Error condition code

mmmm	*Explanation*
SNVS	User macro/map space is full
SNVS	System macro/map space is full
SNVS	Command invalid while backup in progress
SNVS	No edit session active
SNVS	File is empty

SCHED,BKUP,MEM,SEC,DATA,HR

UTILITIES, CANCEL BACKUP MEMORY TRANSFER

Input Message Format

[I.51051]

```
SCHED-BKUP-MEM:[<xy>]:SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc];
```

Note: If the link/user has RMON privilege, the system will respond:

"ARE YOU SURE? (YES/NO)"

Otherwise, denial message O.01131 will be given.

Completion Message

[O.51051]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED BKUP MEM::SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc] COMPLD
```

Denial Message

[O.51051.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED BKUP MEM::SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc] DENY
   mmmm
   /* [O.51051.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This message requests the autonomous backup of memory from disk to tape. The backup may be designated to occur periodically. This schedule may be retrieved via the **RTRV-BKUPSCHED MEM** command. The predesignated autonomous schedule can be removed (cleared) by entering **00-HR** at the **{00|24}-HR** parameter block.

Clearing the BKUP SCHED is a restricted command and requires RMON privilege.

Explanation Of Parameters

CLR - Clear

BMTR - Back up memory transfer

00-HR - Cancel the daily BMTR from disk to tape
24-HR - Set the time for the daily BMTR from disk to tape

hr-mn-sc
- The starting time of the BMTR

mmmm - Error condition code

mmmm	*Explanation*
SROF	No Memory Backup Has Been Scheduled

SCHED,PMREPT,ALL,CFA,FAC,X

SET TIME OF DAY OR REPORT TIME

Input Message Format

[I.51011]

```
SCHED-PMREPT-ALL:[<xy>]::[ww]:[hr-mn-sc],\
{CFA|FAC-X-abcdef|PRIM-X-ghij|MONDAT};
```

Completion Message

[O.51011]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT ALL:::[ww]:[hr-mn-sc],\
{CFA|FAC-X-abcdef|PRIM-X-ghij|MONDAT} COMPLD
  [/* [O.51011] */]
  [/* FAC-X-abcdef: 'abcdef' is the hex value of FAC params */]
  [/* PRIM-X-ghij: 'ghij' is the hex value of PRIM params */]
;
```

Denial Message

[O.51011.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT ALL:::[ww]:[hr-mn-sc],\
{CFA|FAC-X-abcdef|PRIM-X-ghij|MONDAT} DENY
   mmmm
   /* [O.51011.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used for the following purposes:

- To set the DACS II clock
- To set the time for the daily facility alarms report

SETTING THE DACS II CLOCK

To set the DACS II clock specify only the time to which the clock is to be set (TOD).

SETTING THE TIME FOR THE DAILY FACILITY ALARMS REPORT

The facility alarms report is output daily at the default time of midnight. To output the report at a different time the user must redefine midnight. This redefined midnight is sometimes referred to as "local midnight". The "local midnight" is set by jointly specifying the time of day and the parameters to be reported. Once a "local midnight" has been set the facility alarms report will be output daily at the new "midnight".
A "local midnight" can be set for a gateway frame by specifying

TOD hr-mn-sc and either CFA or FAC X'abcdef

OR

TOD hr-mn-sc and either CFA or PRIM X'ghij.

SETTING THE PARAMETERS TO BE REPORTED

To report only CGA and ERS alarms use the CFA keyword. To report other parameters, including CGA and ERS, use the FAC keyword and select the appropriate value of abcdef from the tables below. The CFA and FAC keywords cannot be used together. They are mutually exclusive.

Gateway offices require using either both or neither of the FAC and PRIM keywords since the domestic and international sides of the machine must be treated separately.
In a gateway frame the CFA and PRIM keywords cannot be used together. They are also mutually exclusive.

There are six common parameters. When any of the common parameters are selected, they should be enabled in both **abcdef** and **ghij**. These common parameters are listed below.

CGA or PBA
SLIP or CSS
ERS or ES
SERS or SES
CRC
FRER

To disable all reports specify zeros for each digit in the variable abcdef.

The CGA alarms report defaults to midnight if this command is not used to alter the report time or parameters.

Explanation Of Parameters

hr-mn-sc
- Time specification

hr - hours (00 through 23)
mn - minutes (00 through 59)
sc - seconds (00 through 59)

When the time of day is used with the MONDAT keyword mn and sc are restricted to certain values listed in the explanation of MONDAT.

MONDAT
- Monitored daily time

When the MONDAT keyword is entered, "hr-mn-sc" is used to specify the starting time for the daily accumulation interval for PA type NPCs. In this case, "mn" is limited to 00, 15, 30 or 45, and "sc" is limited to 00. The default daily monitor starting time is midnight. At midnight DACS II will report the facility alarms and the counts for all selected daily for the daily interval just ended and clear all current counts and threshold crossing alarms to start a new daily interval. The report time specified with the MONDAT keyword is not applicable to other NPC types. Likewise, the midnight report time entered without the MONDAT keyword is not applicable to PA type NPCs.

Note: If the MONDAT keyword is entered, the MDNT keyword will not be output.

CFA - Carrier failure alarm

This is a commonly used shorthand method to request that the daily facility report include only carrier group alarms and errored seconds. The report will be output at the specified time, which, if not specified, defaults to midnight. See below the complete description of facility monitoring alarms that the user may include in the daily facility alarms report.

FAC - Facility

Request that the reporting of alarms specified by abcdef be enabled. This will cause only a subset of the daily facility report to be output.

abcdef
- Facility performance alarm reports enable (hexadecimal)

This variable represents a six-digit hexadecimal number. Each hexadecimal digit represents 4 bits and each bit corresponds to a particular facility parameter. To enable alarm reports for a facility parameter the bit corresponding to that parameter is set to 1 using the tables below. To disable the alarm report the bit is set to 0.

Note: In a gateway office the FAC parameter cannot be used alone but must be used with the international parameter PRIM.

The following tables should be used to set or interpret the hexadecimal values of digit identifiers a through f.

a - Digit identifier (Unassigned)

b - Digit identifier

b	*Facility parameter alarm report enabled*
F	DS3 ALM, SAFE, SANE
E	DS3 ALM, SAFE
D	DS3 ALM, SANE
C	DS3 ALM
B	SAFE, SANE
A	SAFE
9	SANE
8	Not assigned
7	DS3 ALM, SAFE, SANE
6	DS3 ALM, SAFE
5	DS3 ALM, SANE
4	DS3 ALM
3	SAFE, SANE
2	SAFE
1	SANE
0	DS3 ALM, SAFE, SANE alarm reports disabled

DS3 ALM - DS3 alarm
SAFE - Shelf alarm far end
SANE - Shelf alarm near end

c - Digit identifier (Unassigned)

d - Digit identifier

d	*Facility parameter alarm report enabled*
F	FRER, BPV
E	FRER
D	BPV
C	Not assigned
B	FRER, BPV
A	FRER
9	BPV
8	Not assigned
7	FRER, BPV
6	FRER
5	BPV
4	Not assigned
3	FRER, BPV
2	FRER
1	BPV
0	FRER, BPV alarm reports disabled

FRER - Frame errors
BPV - Bipolar violations

e - Digit identifier

e	*Facility parameter alarm report enabled*
F	CRC, COFA, SERS, ERS
E	CRC, COFA, SERS
D	CRC, COFA, ERS
C	CRC, COFA
B	CRC, SERS, ERS
A	CRC, SERS
9	CRC, ERS
8	CRC
7	COFA, SERS, ERS
6	COFA, SERS
5	COFA, ERS
4	COFA
3	SERS, ERS
2	SERS
1	ERS
0	CRC, COFA, SERS, ERS alarm reports disabled

CRC - Cyclic redundancy code
COFA - Change of frame alignment
SERS - Severely errored seconds
ERS - Errored seconds

f - Digit identifier

f *Facility parameter alarm report enabled*

F BER, SLIP, OOF, CGA, LOS
E BER, SLIP, OOF
D BER, SLIP, CGA, LOS
C BER, SLIP
B BER, OOF, CGA, LOS
A BER, OOF
9 BER, CGA, LOS
8 BER
7 SLIP, OOF, CGA, LOS
6 SLIP, OOF
5 SLIP, CGA, LOS
4 SLIP
3 OOF, CGA, LOS
2 OOF
1 CGA, LOS
0 BER, SLIP, OOF, CGA, LOS alarm reports disabled

BER - Bit error rate
SLIP - Slip
OOF - Out of frame
CGA - Carrier group alarm
LOS - Loss of signal

Some examples of the available choices for X'abcdef are shown below:

X'00000A BER and OOF alarm reporting enabled
X'000000 alarm reports disabled for all parameters
X'000001 CGA and LOS alarm reporting enabled

X'0C0511 DS3, BPV, ERS, CGA, and LOS alarm reporting enabled

PRIM - Primary

Request that reporting of alarms specified by ghij be enabled. This will cause only a subset of the daily facility report to be output.

ghij - Primary Alarm or Parameter-count reports enable (hexadecimal)

This variable is a four-digit hexadecimal number. To enable alarm or parameter-count reports for a particular facility parameter, set the appropriate bit of ghij to 1. A bit set to 0 will disable the alarm report for the particular parameter.

There are two sets of parameters for ghij.

1. PA NPC parameters
2. PB or PC NPC parameters

Note: In a gateway office the PRIM parameter cannot be used alone but must be used with the domestice parameter FAC.

PA NPC parameters

The following tables should be used to set or interpret the hexadecimal values of digit identifiers g through j.

g - Digit identifier

g	Facility parameter alarm report enabled
F	FEBE, FES, FSES, FUAS
E	FEBE, FES, FSES
D	FEBE, FES, FUAS
C	FEBE, FES
B	FEBE, FSES, FUAS
A	FEBE, FSES
9	FEBE, FUAS
8	FEBE
7	FES, FSES, FUAS
6	FES, FSES
5	FES, FUAS
4	FES
3	FSES, FUAS
2	FSES
1	FUAS
0	FEBE, FES, FSES, FUAS alarm reports disabled

FEBE - Far end block error
FES - Far end errored seconds
FSES - Far end severley errored seconds
FUAS - Far end unavailable seconds

h - Digit identifier

h	Facility parameter alarm report enabled
F	UATC, BER, FRER, MER
E	UATC, BER, FRER
D	UATC, BER, MER
C	UATC, BER
B	UATC, FRER, MER
A	UATC, FRER
9	UATC, MER
8	UATC
7	BER, FRER, MER
6	BER, FRER
5	BER, MER
4	BER
3	FRER, MER
2	FRER
1	MER
0	UATC, BER, FRER, MER alarm reports disabled

UATC - Unavailable time count
BER - Minor bit error rate; for NPCs with MBER feature
FRER - Framing errors
MER - Multiframe errors

i - Digit identifier

i	Facility parameter alarm report enabled
F	CRC, CV, SES, ES
E	CRC, CV, SES
D	CRC, CV, ES
C	CRC, CV
B	CRC, SES, ES
A	CRC, SES
9	CRC, ES
8	CRC
7	CV, SES, ES
6	CV, SES
5	CV, ES
4	CV
3	SES, ES
2	SES
1	ES
0	CV, SES, ES alarm reports disabled

CRC - CRC4 check block errors
CV - Degraded minutes
SES - Severely errored seconds
ES - Errored seconds

`j` - Digit identifier

j	Facility parameter alarm report enabled
F	UAS, CSS, OFS, PBA
E	UAS, CSS, OFS
D	UAS, CSS, PBA
C	UAS, CSS
B	UAS, OFS, PBA
A	UAS, OFS
9	UAS, PBA
8	UAS
7	CSS, OFS, PBA
6	CSS, OFS
5	CSS, PBA
4	CSS
3	OFS, PBA
2	OFS
1	PBA
0	UAS, CSS, OFS, PBA alarm reports disabled

UAS - Unavailable seconds
CSS - Controlled slip seconds
OFS - Out-of-frame seconds
PBA - Primary block alarms; default

Note: Enter 0 for an unassigned digit identifier

PB or PC NPC parameters

The following tables should be used to set or interpret the hexadecimal values of digit identifiers g through j.

`g` - Digit identifier (unassigned)

h - Digit identifier

h	Facility parameter alarm report enabled
F	BER, FRER, MER
E	BER, FRER
D	BER, MER
C	BER
B	FRER, MER
A	FRER
9	MER
8	unassigned
7	BER, FRER, MER
6	BER, FRER
5	BER, MER
4	BER
3	FRER, MER
2	FRER
1	MER
0	BER, FRER, MER alarm reports disabled

BER - Bit error rate
FRER - Frame errors
MER - Multiframe alignment errors

i - Digit identifier

i	Facility parameter alarm report enabled
F	CRC, DM, SERS, ERS
E	CRC, DM, SERS
D	CRC, DM, ERS
C	CRC, DM
B	CRC, SERS, ERS
A	CRC, SERS
9	CRC, ERS
8	CRC
7	DM, SERS, ERS
6	DM, SERS
5	DM, ERS
4	DM
3	SERS, ERS
2	SERS
1	ERS
0	CRC, DM, SERS, ERS alarm reports disabled

CRC - Cyclic redundancy code
DM - Degraded minutes
SERS - Severely errored seconds
ERS - Errored seconds

j - Digit identifier

j	Facility parameter alarm report enabled
F	US, SLIP, LOFA, PBA
E	US, SLIP, LOFA
D	US, SLIP, PBA
C	US, SLIP
B	US, LOFA, PBA
A	US, LOFA
9	US, PBA
8	US
7	SLIP, LOFA, PBA
6	SLIP, LOFA
5	SLIP, PBA
4	SLIP
3	LOFA, PBA
2	LOFA
1	PBA
0	US, SLIP, LOFA, PBA alarm reports disabled

US - Unavailable seconds
SLIP - Slip
LOFA - Loss of frame alignment
PBA - Primary block alarms

mmmm - Error condition code

mmmm	*Explanation*
IIFM	Bad FAC value entered
IDNV	Bad PRIM X'efgh values
IDNV	PRIM keyword is invalid for this feature
IDNV	The common bit(s) is(are) not set in both FAC & PRIM
IDMS	Both FAC and PRIM values(keywords) are required
SNVS	Boot in progress, can't service request

SCHED,PMREPT,T1,NPC

SCHEDULE DS1 PERFORMANCE MONITORING REPORT

Input Message Format

Nonhierarchical

[I.51141]

```
SCHED-PMREPT-T1:[<xy>]:NPC-[s]abc[&&-[t]def]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]];
```

Hierarchical

[I.51141]

```
SCHED-PMREPT-T1:[<xy>]:NPC-uv-m-np[&&&-wx-k-qr]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]];
```

Completion Message

Nonhierarchical

[O.51141]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT T1::NPC-[s]abc[&&-[t]def]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]] COMPLD
;
```

Hierarchical

[O.51141]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]] COMPLD
;
```

Denial Message

Nonhierarchical

[O.51141.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT T1::NPC-[s]abc[&&-[t]def]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]] DENY
   mmmm
   /* [O.51141.01] */
   /* <explanation of error condition code> */
;
```

Hierarchical

[O.51141.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SCHED PMREPT T1::NPC-uv-m-np[&&&-wx-k-qr]:[ww]:rrrrr,ssss,nn,\
<parameter>,lllllllll,locn,aaaaa,ttttt[&&-ooooo]:[p[vv][&q[vv]]] DENY
   mmmm
   /* [O.51141.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command schedules or cancels previously scheduled reporting of DS1 performance monitoring data. This command results in periodic reporting of performance monitoring data with the REPT-PM-T1 message. Periodic performance monitoring reporting can be suspended with the INH-PMREPT-T1 command. However, performance data continues to accumulate and can be retrieved by using the RTRV-PM-T1 command. The inhibit command (INH-PMREPT-T1) retains the current schedule and reporting can be resumed with the ALW-PMREPT-T1 command.

The scheduling of a PM report will be denied if it is identical to an already existing schedule. Two schedules are said to be identical if all fields match, with the exception of the NUMBER OF INTERVAL and the START TIME fields.
This command will handle NPC addressing in the input command as follows: If only a single NPC is addressed in the input command, then either a completion START TIME fields. always deny invalid commands to specifically addressed NPCs.

If a range of NPCs are addressed and the featue applies to one or more NPCs within the range, DACS II will perform the command on the NPCs in the range that support the requested feature, but skip the NPCs which do not support the requested feature. DACS II provides a variety of line termination types which support different features and can be randomly mixed within the frame. If at least one of the NPCs in the addressed range supports the requested feature, DACS II will generate a completion response for the overall addressed range; individual denial responses will not be generated for NPCs within the range which do not support the feature. If *none* of the NPCs in the addressed range support the requested feature, DACS II will generate a range denial response.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc - The 3- or 4-digit nonhierarchical starting NPC number
[t]def - The 3- or 4-digit nonhierarchical ending NPC number

The valid values are:

If NPC numbers are expressed in three digits, the valid values are:

DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical starting NPC number

wx-k-qr
- Hierarchical ending NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The valid values are:

```
DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

RI - Report interval

rrrrr - The interval between performance monitoring reports

rrrrr	*Explanation*
{0001-1440}M	Report interval in minutes
{0001-0024}H	Report interval in hours
{0001-0007}D	Report interval in days

ST - Start time

ssss - The starting time for the performance monitoring reporting schedule. If the value entered for the starting time is less than (previous to) the current time of day on the DACS II clock, the performance monitoring reports will be scheduled to begin "tomorrow".

ssss	*Explanation*
{00-23}{00-59}	Hour of day/Minute of Hour Format
CURT	Current time of day

NI - Number of intervals

nn - The number of intervals over which performance monitoring is reported. If this parameter is CT, the performance monitoring schedule remains in effect until the schedule is canceled. A value of zero cancels any performance monitor reporting that was previously scheduled.

nn	*Explanation*
00	Cancel a previously scheduled report
{01-96}	Finite number of scheduled reports
CT	Continuous reports until canceled

parameter
- The parameter for which reporting is being scheduled.

parameter	*Explanation*
CVP	Path Coding Violations
CVL	Line Coding Violations
ESP	Path Errored Seconds
ESL	Line Errored Seconds
SESP	Path Severely Errored Seconds
SESL	Line Severely Errored Seconds
SEFS	Path Severely Errored Framing Seconds
CSSP	Path Controlled Slip Seconds
UASP	Path Unavailable Seconds
ALLPAR	All listed parameters

Note that all listed parameters are valid near-end parameters. All listed parameters except line coding violations (CVL) and line severely errored seconds (SESL) are valid far-end parameters.

LV - Level

1111111111
- The discriminating level for the requested parameter. This parameter is used to restrict reported output to include only values which are above/below a defined level.

lllllllll	*Explanation*
{000000000-134217728}U	Discriminating Level-Up Direction
{000000000-134217728}D	Discriminating Level-Down Direction

Up - Parameters with values equal to or greater than the "discriminating level" specified are reported.

Down - Parameters with values equal to or less than the "discriminating level" specified are reported.

LOCN - Location

locn - The location being performance monitored.

locn	*Explanation*
NEND	Near-end
FEND	Far-end

AI - Accumulation interval

aaaaa - The accumulation time period for the specified parameter.

aaaaa	*Explanation*
15MIN	Parameter count from a 15-minute accumulator
DAILY	Parameter count from a daily accumulator

TOF - Time offset

ttttt - The age of the requested data registers(s) at the reporting time, measured backwards in time from the end of last completed accumulation interval to the beginning of the requested interval.

ooooo - If the report interval is an integral number of accumulation intervals, this parameter may be entered as a range to specify up to four historical data registers.

ttttt,ooooo	*Explanation*
{0-7}{00-23}{00,15,30,45,60}	Day/Hour/Minute

If the value 7 is given for day, then Hour and Minute must be zero.

To produce reports that contain historical data of completed accumulation intervals, the scheduled report times (set up with "start time" and "report interval") usually coincide with the end of accumulation intervals, and the time offset must be an integral number of accumulation intervals.

A time offset value of 00000 or any value less than the accumulation interval produces a report that contains data from the current register.

The following examples illustrate the use of time offset.

Given start time = 1205
report interval = 0001H
number of intervals = 03
accumulation interval = 15MIN
time offset = 00015-00060

The first report is generated at 12:05. Each hourly report contains the four most recent 15 minute totals of the monitored parameter. The most recent accumulation interval contains data for the period beginning 15 minutes before (time offset = 00015) the most recently completed accumulation period (12 noon). That is, the accumulation interval had a beginning time of 11:45 am, and covered between 11:45 AM and 12 noon. The range of time offsets also provides 15 minute totals from the three previous quarter hours in the report. There will be a total of three reports, one hour apart. The last report will occur at 2:05.

As a second example:

Given start time = 0015
report interval = 0015M
number of intervals = 96
accumulation interval = DAILY
time offset = 00000

The first report is generated fifteen minutes after midnight. Since the time offset is 00000, the contents of the current daily accumulator are contained in the report. The data in the first report is the total accumulation over the first 15 minutes of the day. The second report is generated 15 minutes later at 12:30 AM. The second report contains the accumulation total over the first 30 minutes of the day. Subsequent reports provide the daily accumulation total, sampled every 15 minutes throughout the day. A total of 96 reports will be generated, the last one occurring at midnight.

LK - Link

p[vv]
q[vv] - Up to two administrative links to which the scheduled report output will be transmitted. These parameters take the form of a physical administrative link number followed by a virtual circuit number, if applicable. The user may omit these optional parameters, specify a single link, or specify two links which will both receive all output generated by this scheduled report. If these optional parameters are omitted, the scheduled report output will by default be transmitted only to the link that the schedule command was received on. At the time of report, no PM report shall be sent to a link if it is out of service, or has screening option 1 and the schedule command was not received on that link.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	NPC is unequipped
SNVS	NPC type error
IPNV	The parameter specified does not match with the NPC type
SNVS	Frame time is not set
IDRG	First and Last NPCs are outside unit boundary
IDRG	First and Last NPCs are outside a module boundary
IDRG	OFFSET range is invalid
IDRG	Only up to 4 historical data registers are allowed
IDRG	Command did not execute for any entity specified in the command
SARB	Exceeded allowed limit of reports with accum. interval of 15 min. or less
SARB	Exceeded maximum limit of PM reports
SNVS	Report already exists
IPNV	Scheduling report could not be found
IIDT	Report interval is not an integral number of accumulation interval

SET,ATTR,EQPT,ALM

UTILITIES, ALARM REPORTING

Input Message Format

[I.51101]

```
SET-ATTR-EQPT:[<xy>]::[ww]:ALM-a;
```

Completion Message

[O.51101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SET ATTR EQPT:::[ww]:ALM-a COMPLD
;
```

Denial Message

Not applicable.

Autonomous Message

Not applicable.

Explanation Of Message

This message sets the DACS II audio/visual alarm reporting method to either remote only (**a = 2**) or to local and remote (**a = 3**).

Explanation Of Parameters

INIT - Initialize

ALM - Alarm

a - Alarm reporting method

a	Explanation
2	Remote
3	Local and Remote

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAIS	Subject entity is in service
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	NPC is unequipped
SNVS	FTMI is in service but failed
IDNV	Invalid CEPT NPC
SAIS	NPC not IU/TI type

SET,PRVG,TERM,USER,INCL,SCR,GR

CHANGE USER/LINK SCREENING

Input Message Format

[I.38401]

```
SET-PRVG-{TERM|USER}:[<xy>]::[ww]:{1[mm][,INCL]|<user id>}:\
[SCR-n[,GR-a&-b&-c&-d&-e&-f]]:[{MCON|MCOFF}]:[INIT];
```

Completion Message

[O.38401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SET PRVG {TERM|USER}:::[ww]:{1[mm][,INCL]|<user id>}:\
[SCR-n[,GR-a&-b&-c&-d&-e&-f]]:[{MCON|MCOFF}]:[INIT] COMPLD
;
```

Denial Message

[O.38401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SET PRVG {TERM|USER}:::[ww]:{1[mm][,INCL]|<user id>}:\
[SCR-n[,GR-a&-b&-c&-d&-e&-f]]:[{MCON|MCOFF}]:[INIT] DENY
   mmmm
   /* [O.38401.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command assigns the output message screening for a user or administrative link, including all virtual circuits in a X.25 link, on the DACS II system.

The command can also assign default values to the link options.

The function is denied if the user identification does not exist.
Output from this command is sent only to the link on which the command was input.

Explanation Of Parameters

USER - User

user id
- User identifier (two to eight alphabetic characters)

User login identification

LINK - Link

j[mm] - Administrative link number

j - Physical link number (1 through 6)
mm - Virtual circuit number (01 through 16, for l = 5 or 6)

If mm is specified, pp must be specified as 01.

INCL - Include

Include virtual circuits of links 5 and 6. The INCL keyword can only be entered with X.25 links 5 and 6, and no virtual circuit number is allowed when this keyword is used. That is, "mm" and "INCL" are mutually exclusive. In addition, the INCL keyword is also mutually exclusive with the "<user id>". When the INCL keyword is entered, it means that all provisioning data specified in this command, for example, SCR n, GR(a,b,c,d,e,f), and MCON/MCOFF, will be applied to all virtual circuits of the link (5 or 6).

SCR - Screening

n - Screening option number (1 through 5)

The screening option is used to limit responses on a given administrative link to one of the sets given in the table below. The set to be received is selected by the use of variable "n".

n	*Explanation*
1	Responses to input at the same link.
2	Responses to input at the same link and autonomous messages. This is the default value.
3	Responses to messages input at the same link and some specified sets of action verbs.
4	Responses to messages input at the same link and some specified sets of action verbs including autonomous messages.
5	Responses to input messages on all links and autonomous messages

GR - Group

a,b,c,d,e,f
- Screening groups a through f (0 or 1)

The entry of the screening group option is allowed only if n = 3 or 4 was entered for the screening option number. The screening group option will not apply for n = 2; the default screening option. The restricted commands are not categorized by group and are always assigned the screening group value "1".

*a**	*Explanation*
0	Messages in the message group represented by variable a will not be sent to the link or user specified in this command.
1	Messages in the message group represented by variable a will also be sent to the link or user specified in this command.
.	Do not change the screening group option for variable a.

* This table applies also to variables b through f.

DACS II has six groups of action verbs represented in this message by variables a, b, c, d, e, and f. The following table defines the variables assigned to each action verb.

a Circuit Prov.	b Equipment Prov.	c Maintenance	d Test Access	e Monitoring	f Common
CONN-CRS	CRTE-EQPT	RMV-EPQT	CONN-TACC	RTRV-AUD	ED-PRMTR
CONN-CRS1	DISC-EQPT	RST-EQPT	DISC-TACC	RTRV	ED
CONN-BDCST	ED-PRMTR-EQPT	DGN-EQPT			EXC
DISC-CRS	DLT	CNFGRN			ACT
DISC-CRS1					ADD
DISC-BDCST					DELETE
CONN-CONF					LIST
DISC-CONF					TOTAL

MCON - Macro on

Macro completion message screening ON. MCON is the default value.

MCOFF - Macro off

Macro completion message screening OFF

The MCON/MCOFF options are used to turn on or off the completion messages of the component commands inside a macro during its execution.

INIT - Initialize

Initialize the link or user options; all parameters are set to their default values except those specified in the command.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	User does not exist
SNVS	Cannot execute privileged command
SNVS	Command and protocol are inconsistent
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified
IDNV	Invalid keyword(s) combination specified
SNVS	Language "F" provisioned for this channel
SNVS	Language is not allowed

SET,PRVG,USER,TERM,ALL,INCL,LANG,P,M,F

ADD USER/LINK LANGUAGE, NPC ADDRESSING AND PRIORITY

Explanation Of Command

This command *is used by the DACS II frame administrator* to assign to a user or link or all users and links any of the following attributes:

- The language with which users converse with the DACS II machine
- The type of addressing used to specify a network processing circuit
- The execution priority level assigned to a given message category
- The ability to remove a link
- The ability to convert a 3 digit NPC address on a 4 digit link.

The command can also be used to initialize these attributes, except for the language and NPC addressing type attributes, to their default values.

To change the type of addressing the frame administrator must issue this command and then logout and login again.

Command

[I.36103]

```
SET-PRVG-{USER|TERM|ALL}:[<xy>]::[ww]:{<user id>|l[mm][,INCL]}:\
[LANG-{P|M|F}]:[NPCAD-{E|X|H}]:[LEV-a&-b&-c&-d&-e&-f]\
:[{RMON|RMOFF}]:[RLK-{A|I}]:[{CONVON|CONVOFF}]:[INIT];
```

Completion Message

[O.36103]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SET PRVG {USER|TERM|ALL}:::[ww]:{<user id>|l[mm][,INCL]}:\
   [LANG-{P|M|F}]:[NPCAD-{E|X|H}]:[LEV-a&-b&-c&-d&-e&-f]\
   :[{RMON|RMOFF}]:[RLK-{A|I}]:[{CONVON|CONVOFF}]:[INIT] COMPLD
;
```

Denial Message

[O.36103.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SET PRVG {USER|TERM|ALL}:::[ww]:{<user id>|l[mm][,INCL]}:\
   [LANG-{P|M|F}]:[NPCAD-{E|X|H}]:[LEV-a&-b&-c&-d&-e&-f]\
   :[{RMON|RMOFF}]:[RLK-{A|I}]:[{CONVON|CONVOFF}]:[INIT] DENY
   mmmm
   /* [O.36103.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Parameters

USER - User

user id
- User identifier

The users login identifier (two to eight alphabetic characters). The command is denied if the user identifier does not exist.

TERM - Terminal

j[mm] - Administrative link number

j	Physical link number (1 through 6)
mm	Virtual circuit number (01 through 16) for l = 5 or 6

INCL - Inclusive

Include virtual circuits of links 5 and 6. The INCL keyword can only be entered with X.25 links 5 and 6, and no virtual circuit number is allowed when this keyword is used. That is, "mm" and "INCL" are mutually exclusive. In addition, the INCL keyword is also mutually exclusive with the "user id" and the keyword "ALL". When INCL is entered, it means that all provisioning data specified in this command, for example, LANG, NPCAD, LEV(a,b,c,d,e,f), RMON/RMOFF and RLK, will be applied to all virtual circuits of the link (5 or 6).

ALL - All

All users and links (including virtual circuits). The ALL keyword can only be used together with the NPCAD option. When used, it will change the NPC addressing scheme for ALL users and links including virtual circuits. There is a single exception: the ALL keyword does not affect the NPC addressing scheme for a virtual circuit that is provisioned with the facility data link communication protocol, "F".

However, if a link is provisioned with CONVON and the NPC addressing is changed to other than 4 digit addressing, CONVON will be disabled.

LANG - Language

The LANG keyword specifies the language used by a link communicating with the DACS II system. All languages cannot be used on all links. The protocol determines what languages are permissible. Three languages are available and they are listed below. See the table below for permissible combinations of protocol and language.

protocol	*language*
Snider	PDS or MML
X.25	PDS, MML, or FDL
TABS	Not applicable
Modified Snider	Not applicable

The language defaults to *PDS* if LANG is not specified.

P - Program Documentation Standards (PDS)

M - Man-Machine Language (MML)

F - Facility Data Link (FDL) Communication Protocol

This language may only be provisioned for a single virtual circuit on an X.25 link. A virtual circuit provisioned with this language provides a communication path between an Operations Support System and the ESF data link of a DA or TA type (ANSI) Network Processing Circuit. Such a virtual circuit is completely dedicated to this function and does not interact with other DACS II input/output (I/O) messages. Once the X.25 link is set up, provisioning this function only requires the user to specify the language "F" for the virtual circuit; no other I/O parameters affect this channel, except the NPC addressing option.

NPCAD - Network processing circuit addressing

E - Extended 3-digit nonhierarchical NPC addressing

If the 3-digit nonhierarchical NPC addressing scheme is allowed in the configuration file, it will be used as the default NPC addressing scheme.

X - Extended 4-digit nonhierarchical NPC addressing

If the 3-digit nonhierarchical NPC addressing scheme is not allowed in the configuration file, the 4-digit scheme is used as the default NPC addressing scheme.

H - Hierarchical NPC addressing

To place a new addressing scheme into effect the frame administrator must first request the new addressing scheme with this command and then logout and login again.

LEV - Level

a - Execution priority level for circuit provisioning commands
b - Execution priority level for equipment provisioning commands
c - Execution priority level for maintenance commands
d - Execution priority level for test access commands
e - Execution priority level for monitoring commands
f - Execution priority level for common commands

A table giving the command verbs associated with each of the above command sets is given below.

LEV is used in combination with the command set identifiers a through f to set the execution priority level for each command set. A priority level applies to a user or link as appropriate. Priority levels range from 0 through 3. A list of these levels and their meaning is given below for a. The list for b through f is similar to the a list.

a	*Explanation*
0	Commands in the command set assigned this execution priority level cannot be executed.
1	Highest execution priority level. Commands in the command set assigned this execution priority level will be executed before commands with priority level 2 or 3.
2	Middle execution priority level. Commands in the command set assigned this execution priority level will be executed before commands with priority level 3
3	Lowest execution priority level. Commands in the command set assigned this execution priority level will be executed after all priority level 1 and 2 commands have been executed. Level 3 is the default priority level.
.	The execution priority level of the command set assigned this execution priority level is not to be changed.

Note: The commands used to login, logoff, cross-connect, stop, and abort always have the highest priority.

A single queue is used for DACS II commands. When multiple commands arrive at the same time, they will be queued for execution according to the priority assigned to their command set. Commands with the same priority will be executed in the order of arrival, that is, first come first served. A timeout feature insures that no command will wait in the queue forever. When the timeout period has expired for a given command that command will be executed regardless of its priority level.

a CIRCUIT PROVISIONING	b EQUIPMENT PROVISIONING	c MAINTENANCE
ALW-SW-T1	CRTE-CNFGRN-EQPT	DGN-EQPT
CONN-BDCST-T0	CRTE-EQPT	ED-PRMTR-EQPT
CONN-CRS-T0	CRTE-LGN	ENT-EQPT
CONN-CRS-TS	DLT-LGN	INIT-SYS
CONN-CRS1-T0	DLT-MACRO	RMV-CNFGRN-EQPT
CRTE-CRS-TS	DLT-MAP	RMV-EQPT
DLT-CRS-TS	DLT-PRMTR-EQPT	RST-CNFGRN-EQPT
DISC-BDCST-T0	ED-PRMTR-EQPT	RST-EQPT
DISC-CRS-T0	ED-PRMTR-LINK	SW-DX-EQPT
DISC-CRS-TS	ED-PRMTR-NE	
DISC-CRS1-T0	DISC-EQPT	
INH-SW-T1	SET-PRVG-TERM	
SW-TOPROTN-T1	SET-PRVG-USER	
SW-TOWKG-T1		

d TEST ACCESS	e MONITORING	f COMMON
ALW-LPBK-T1	CPY-MEM	APPEND
CHG-TACC-T0	ED-DATE	CHG-LGN
CHG-TACC-T1	INIT-LOG	CHG-RPATH-T0
CHG-TACC-TS	INIT-REG	ED-CNFGRN-EQPT
CHG-TL-T0	OPR-ACO-ALL	ED-CONN-TS
CHG-TL-TS	RST-PASSWD	ED-CRTE-TS
CONN-HUB-T0	RTRV	ED-OPT-T1
CONN-TACC-T0	SCHED-BKUP-MEM	ED-PRMTR-EQPT
CONN-TACC-TS	SCHED-PMREPT-ALL	ED-PRMTR-MACRO
DISC-TACC-T0	SET-ATTR-EQPT	ED-PRMTR-MAP
DISC-TACC-TS	STA-LOCL-RST	ED-PRMTR-NE
INH-LPBK-T1		ED-PRMTR-T0
OPR-LPBK-T0		ED-PRMTR-TS
OPR-LPBK-T1		ENT-MACRO
RLS-LPBK-T1		ENT-MAP
		EXC-MACRO
		EXC-MAP
		SET-PRVG-TERM
		SET-PRVG-USER

RMON - Restricted maintenance privilege ON

The RMON keyword is used to assign to a user the privilege of issuing the commands normally restricted to the Frame Administrator.

The following commands are restricted to the Frame Administrator.

RST-EQPT::MC::TAPE;	(I.34001)
RST-EQPT::MC::FRC;	(I.34001)
CPY-MEM::::SEC,PRI:[{PROG|DBASE|INSTL}];	(I.55701)
RST-EQPT::DISK::CLR;	(I.34211)
SCHED-BKUP-MEM::SEC::DATA:00-HR;	(I.51051)
CPY-MEM::::SEC,PRI:[{PROG|DBASE}];	(I.55701)
STA-LOCL-RST::{PRI|SEC}::[CLR];	(I.58001)

RMOFF - Restricted maintenance privilege OFF

The RMOFF keyword is used to eliminate a user's privilege to issue the commands restricted to the Frame Administrator. RMOFF is the default value.

RLK - Remove Link

A - Allowed

A is the default value.

I - Inhibited

RLK is used to assign to a user or link the privilege of removing a link. There is a relationship between the link privilege and the execution priority level. If c (see previous Command Sets table) in the LEV field is set to zero then the command to remove a link cannot be executed hence the remove link privilege is inhibited even if the RLK option is set to A or I.

INIT - Initialize

INIT is used to assign the default values to the link/user parameters LEV, RMON/RMOFF and RLK. Parameters specified in the command will take on the specified values.

CONVON - 4 Digit Extended NPC Addressing conversion is on

CONVOFF
- 4 Digit Extended NPC Addressing conversion is off

mmmm - Error condition code

mmmm	*Explanation*
SNVS	Command is Frame administrator (DAX) only.
SNVS	Cannot create any more users
SNVS	User has been created
SNVS	User does not exist
SNVS	Incorrect or missing password
SNVS	Cannot remove Frame administrator
SNVS	No zeros allowed for DAX privilege
SNVS	Command and protocol are inconsistent
IDNV	Invalid FPI value
SNVS	NPC addressing scheme selected is not allowed in the configuration file
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified
IDNV	Invalid keyword(s) combination specified
IDNV	Invalid NPC addressing scheme specified
SNVS	No user/link needs to be changed
SNVS	Not valid for frame administrator
SNVS	Only one channel allowed to have this language
SNVS	Language "F" provisioned for this channel
SNVS	Language is not allowed

MCON - Macro on

Macro completion message screening ON. MCON is the default value.

MCOFF - Macro off

Macro completion message screening OFF

The MCON/MCOFF options are used to turn on or off the completion messages of the component commands inside a macro during its execution.

INIT - Initialize

Initialize the link or user options; all parameters are set to their default values except those specified in the command.

mmmm - Error condition code

mmmm	*Explanation*
SNVS	User does not exist
SNVS	Cannot execute privileged command
SNVS	Command and protocol are inconsistent
IDNV	Virtual circuit is not specified for X.25 link
IDNV	Invalid link number specified
IDNV	Invalid keyword(s) combination specified
SNVS	Language "F" provisioned for this channel
SNVS	Language is not allowed

SSC,STARTUP,STF,ATP

STARTUP

Input Message Format

Not applicable.

Completion Message

Not applicable.

Denial Message

Not applicable.

Autonomous Message

[O.01231]

```
SSC STARTUP {STF|ATP}
```

Explanation Of Message

The main processor has checked the status of the secondary storage controller and has

reported the results as some tests failed or all tests passed.

Explanation Of Parameters

SSC - Secondary storage controller

STARTUP
- Startup

Indicates startup status check

STF - Some tests failed

ATP - All tests passed

STA,LOCL,RST,PRI,SEC,CLR

UTILITY BOOT

Input Message Format

[I.58001]

```
STA-LOCL-RST:[<xy>]:{PRI|SEC}:[ww]:[CLR];
```

Completion Message

[O.58001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  STA LOCL RST::{PRI|SEC}:[ww]:[CLR]  COMPLD
;
```

[O.58002]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  STA LOCL RST::[ww] IN_PROGRESS
;
```

Denial Message

[O.58001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  STA LOCL RST::{PRI|SEC}:[ww]:[CLR]  DENY
   nnnnn
   /* [O.58001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

Executing this command with the tape option requires a DACS II superuser privilege.

This message requests the transfer of the data base from the primary memory (disk) to the random access memory (RAM) or from the secondary memory (tape) to the RAM. This utility message, rather than a BOOT command, updates the frame from the selected data base.

The optional CLR keyword is unnecessary but it is allowed for compatibility with older software releases. CLR can only be used with the PRI keyword.

Note that the SEC option requires DACS II Restricted Maintenance privileges, and the SEC option may only be executed in the Maintenance Condition (MCOND). When the SEC option is specified, DACS II will respond with: ARE YOU SURE? (YES/NO).

Explanation Of Parameters

CLR - Clear

The optional CLR keyword is unnecessary but it is allowed for compatibility with older software releases.
CLR can only be used with the PRI keyword.

PRI - Primary memory, the disk.

SEC - Secondary memory, the tape.

mmmm - Error condition code

mmmm	*Explanation*
SROF	Failed to boot CONF file
SROF	Failed to boot DB
SROF	Failed to boot journal
SROF	Failed to boot unit
SROF	Failed to boot CI
SROF	General boot failure (vanilla flavor)
ENEQ	DSPI not equipped, not in service, or failed
SNVS	FPI on tape does not match one on disk
SNVS	Database is empty
SNVS	Can't mount or unmount tape
SNVS	Can't mount or unmount disk
SNVS	TAPE is not present
SNVS	TAPE unit is not restored

SW,BDCST,T0,INCL

DS0 CIRCUIT ROLL - BRIDGE COMMAND

Input Message Format

Nonhierarchical

[I.14021]

```
SW-BDCST-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]
```

Hierarchical

[I.14021]

```
SW-BDCST-T0:[xy]:uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]
```

Completion Message

Nonhierarchical

[O.14021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL] COMPLD
;
```

Hierarchical

[O.14021]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T0::uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL] DENY
   mmmm
   /* [O.14021.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.14021.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T0::uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL] DENY
   mmmm
   /* [O.14021.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command is used to perform the Bridge step of the DS0 Roll operation.
Test signals may exist on the new DS0. If allowed to remain they will overwrite the signal transferred from the old DS0.

The DS0 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new DS0 as well as the old DS0.

2. Roll

   This step rolls the service by switching the receive data from the old DS0 to the new DS0.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old DS0.

Note: The user should limit the number of subrate channels established to a digroup using D4-type framing. When the unassigned multiplex code (UMC) is present on too many channels it simulates a yellow alarm. A limit of 10 channels is safe for an AT&T D-bank. This problem only exists when the DS0Bs are establiished but not connected.

Explanation Of Parameters

BCAST - Broadcast

OLD - Old

The bridge step does not need the OLD NPC or the OLD NPC hierarchy to be in service, however the roll step does. Therefore, it is possible that the bridge step will be allowed when the subsequent roll step will be denied.

NEW - New

[s]abc
- The 3- or 4-digit nonhierarchical OLD NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical NEW NPC number

Note: Valid types for old and new NPC's are DExyz and DAxyz (except DE9y9 and DA9y9) and TExyz and TAxyz (except TE9y9 and TA9y9).

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit	Module	NPC
01-16	1-4	01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit	Module	NPC
01-16	1-6	01-28

ddd, jjj
- Channel numbers for beginning of channel range

eee, kkk
- Channel numbers for end of channel range

To connect a range of channels, use the optional fields eee and kkk.

INCL - Inclusive

A circuit designated as a customer controlled circuit or a red circuit cannot be modified without using the inclusive keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the INCL keyword is given in the remove message.

mmm - The OLD channel number involved in denial (ddd through eee).

nnn - The NEW channel number involved in denial (jjj through kkk).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAIN	Subject entity is pested
ERLC	Customer control or red circuit exists
SNVS	NPC type error
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIDT	Trunk conditioning is invalid
SNVS	Termination is under test
SNVS	Termination is a test port
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SROF	NPC Failed or Out of Service
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
IDNV	AIS invalid for cross-connection specified
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	NEW NPC already cross-connect or mapped channel(s) on new
SNVS	Mapped parity channel(s) on new
IDRG	Old and new chan on same NPC and within the range
IDNC	Old or new is a non-channelized type in a DS0 command
SNVS	The OLD or NEW NPC is already being rolled.
SNVS	One of the FAR end channels is being rolled
SNVS	Unmapped channel(s) on old
SNVS	One of the far NPC(s) is SLC
SNVS	Channel has a FAR, which is within the range
SNVS	Obsolete circuit type
SNVS	Ranges of old and new do not match
SNVS	DCTN conference channel cannot be rolled

mmmm	*Explanation*
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Parity channel cannot be within the range of a DS0 command

SW,BDCST,T1,INCL

DS1 FACILITY ROLL - BRIDGE COMMAND

Input Message Format

Nonhierarchical

[I.14061]

```
SW-BDCST-T1:[xy]:[s]abc,[t]ghi:[ww]:[INCL]
```

Hierarchical

[I.14061]

```
SW-BDCST-T1:[xy]:uv-m-np,wx-k-qr:[ww]:[INCL]
```

Completion Message

Nonhierarchical

[O.14061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T1::[s]abc,[t]ghi:[ww]:[INCL] COMPLD
;
```

Hierarchical

[O.14061]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T1::uv-m-np,wx-k-qr:[ww]:[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14061.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T1::[s]abc,[t]ghi:[ww]:[INCL] DENY
   mmmm
   /* [O.14061.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.14061.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW BDCST T1::uv-m-np,wx-k-qr:[ww]:[INCL] DENY
   mmmm
   /* [O.14061.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This input message is used to perform the Bridge step of the DS1 Roll operation. Test signals may exist on the new DS0. If allowed to remain they will overwrite the signal transferred from the old DS0.

The DS1 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new NPC as well as the old NPC.

2. Roll

   This step rolls the service by switching the receive data from the old NPC to the new NPC.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old NPC.

Note: The user should limit the number of subrate channels established to a digroup using D4-type framing. When the unassigned multiplex code (UMC) is present on too many channels it simulates a yellow alarm. A limit of 10 channels is safe for an AT&T D-bank. This problem only exists when the DS0Bs are establiished but not connected.

Explanation Of Parameters

BCAST - Broadcast

OLD - Old

The bridge step does not need the OLD NPC or the OLD NPC hierarchy to be in service, however the roll step does. Therefore, it is possible that the bridge step will be allowed but the subsequent roll step will be denied.

NEW - New

[s]abc
- The 3- or 4-digit nonhierarchical OLD NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical NEW NPC number

Note: Valid types for old and new NPC's are DExyz, DAxyz, TExyz and TAxyz.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive

A circuit designated as a customer controlled circuit or a red circuit cannot be modified without using the inclusive keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the INCL keyword is given in the remove message.

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAIN	bject entity is pested
ERLC	Customer control or red circuit exists
SNVS	NPC type error
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIDT	Trunk conditioning is invalid

mmmm	*Explanation*
SNVS	Termination is under test
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SROF	NPC Failed or Out of Service
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
IDNV	AIS invalid for cross-connection specified
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	NEW NPC already cross-connect or mapped channel(s) on new
SNVS	No mapped channel on old
IDNC	One NPC is a non-channelized type and the other is not
SNVS	The OLD or NEW NPC is already being rolled.
SNVS	One of the FAR end channels is being rolled
SNVS	One of the far NPC(s) is SLC
SNVS	Channel has a FAR, which is within the range
IDNV	Old and new are the same NPC in a DS1 command
SNVS	Obsolete circuit type
SNVS	DCTN conference channel cannot be rolled
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Termination is under test or is a test port or group.
SNVS	Parity channel cannot be within the range of a DS0 command.

SW,DISC,T0,OOS

DS0 CIRCUIT ROLL - DISCONNECT COMMAND

Input Message Format

Nonhierarchical

[I.14041]

```
SW-DISC-T0:[xy]:[s]abc-ddd[&&-eee]:[ww]:[OOS]
```

Hierarchical

[I.14041]

```
SW-DISC-T0:[xy]:uv-m-np-ddd[&&&-eee]:[ww]:[OOS]
```

Completion Message

Nonhierarchical

[O.14041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T0::[s]abc-ddd[&&-eee]:[ww]:[OOS] COMPLD
;
```

Hierarchical

[O.14041]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T0::uv-m-np-ddd[&&&-eee]:[ww]:[OOS] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T0::[s]abc-ddd[&&-eee]:[ww]:[OOS] DENY
   mmmm
   /* [O.14041.01] */
   /* <explanation of error condition code> */
[  /* mmm */]
;
```

Hierarchical

[O.14041.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T0::uv-m-np-ddd[&&&-eee]:[ww]:[OOS] DENY
   mmmm
   /* [O.14041.01] */
   /* <explanation of error condition code> */
[  /* mmm */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This input message is used to perform the Cut step of the DS0 Roll operation.

The DS0 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new DS0 as well as the old DS0.

2. Roll

   This step rolls the service by switching the receive data from the old DS0 to the new DS0.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old DS0.

Explanation Of Parameters

DISC - Disconnect

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

Note: Valid NPC types are DExyz and DAxyz (except DE9y9 and DA9y9) and TExyz and TAxyz (except TE9y9 and TA9y9).

If NPC numbers are expressed in three digits, the valid values are:

DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NPC 001-160	NPC 161-320	NPC 321-480	NPC 481-640	NPC 641-800	NPC 801-960

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd - Channel number for beginning of channel range

eee - Channel number for end of channel range

To connect a range of channels, use the optional field eee.

oos - Out Of Service

The OOS keyword is used to force a disconnect from an NPC which is out of service.

mmm - The channel number involved in denial (ddd through eee).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped

mmmm	*Explanation*
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	Improper roll command sequence
IDRG	Old and new chan on same NPC and within the range
SNVS	Old and new channels have not been paired by a BCAST command.
SNVS	DS0 channel or DS1 NPC not bridged.
SNVS	DCTN conference channel cannot be rolled
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Parity channel cannot be within the range of a DS0 command.

SW,DISC,T1,OOS

DS1 FACILITY ROLL - DISCONNECT COMMAND

Input Message Format

Nonhierarchical

[I.14081]

```
SW-DISC-T1:[xy]:[s]abc:[ww]:[OOS]
```

Hierarchical

[I.14081]

```
SW-DISC-T1:[xy]:uv-m-np:[ww]:[OOS]
```

Completion Message

Nonhierarchical

[O.14081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T1::[s]abc:[ww]:[OOS] COMPLD
;
```

Hierarchical

[O.14081]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T1::uv-m-np:[ww]:[OOS] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14081.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T1::[s]abc:[ww]:[OOS] DENY
   mmmm
   /* [O.14081.01] */
   /* <explanation of error condition code> */
[  /* mmm */]
;
```

Hierarchical

[O.14081.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW DISC T1::uv-m-np:[ww]:[OOS] DENY
   mmmm
   /* [O.14081.01] */
   /* <explanation of error condition code> */
[  /* mmm */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This input message is used to perform the Cut step of the DS1 Roll procedure.

The DS1 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new NPC as well as the old NPC.

2. Roll

   This step rolls the service by switching the receive data from the old NPC to the new NPC.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old NPC.

Explanation Of Parameters

DISC - Disconnect

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

Note: Valid NPC types are DExyz, DAxyz, TExyz, TAxyz.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)
.
Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit	Unit	Unit	Unit
1	2	3	4
NPC	NPC	NPC	NPC
0001-0160	0161-0320	0321-0480	0481-0640
016A-016H	032A-032H	048A-048H	064A-064H
Unit	Unit	Unit	Unit
5	6	7	8
NPC	NPC	NPC	NPC
0641-0800	0801-0960	0961-1120	1121-1280
080A-080H	096A-096H	112A-112H	128A-128H
Unit	Unit	Unit	Unit
9	10	11	12
NPC	NPC	NPC	NPC
1281-1440	1441-1600	1601-1760	1761-1920
144A-144H	160A-160H	176A-176H	192A-192H
Unit	Unit	Unit	Unit
13	14	15	16
NPC	NPC	NPC	NPC
1921-2080	2081-2240	2241-2400	2401-2560
208A-208H	224A-224H	240A-240H	256A-256H

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

OOS - Out of service

The OOS keyword is used to force a disconnect from an NPC which is out of service.

mmm - The channel number involved in the denial (ddd through eee).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	Improper roll command sequence
SNVS	No mapped channel on old

mmmm	*Explanation*
SNVS	Old and new channels have not been paired by a BCAST command.
SNVS	DS0 channel or DS1 NPC not bridged.
SNVS	DCTN conference channel cannot be rolled
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Parity channel cannot be within the range of a DS0 command.

SW,DX,EQPT,XC,INCL

CONFIGURE DIGROUP CIRCUITS

Input Message Format

[I.35001]

```
SW-DX-EQPT:[<xy>]:XC-s:[ww]:[INCL];
```

Completion Message

[O.35001]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW DX EQPT::XC-s:[ww]:[INCL]  COMPLD
;
```

Denial Message

[O.35001.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW DX EQPT::XC-s:[ww]:[INCL]  DENY
   mmmm
   /* [O.35001.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.35001]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT SW
   /* [O.35001] */
   /*XC-a and XC-b are active and standby cross-connect \
sides */
   "XC-a,XC-b"
   "TN-X-abcd"
;
```

Explanation Of Message

This command requests that all digroup circuits select data and clocks from the specified cross-connect network side.

Explanation Of Parameters

XC - Cross-connect

s - Cross-connect side (0 or 1)

INCL - Inclusive

a,b - The CCN side representations used for the autonomous report, with the same definition as s.

a and b each represents a CCN side. If a is 1, b must be 0, and vice versa.

TN - Transaction

abcd - transaction number (hexadecimal)

The transaction number is shown only in the autonomous output message.

mmmm - Error condition code

mmmm	*Explanation*
SAOS	CCN side s is out of service
SNVS	Unable to verify Configuration file since MP DB not loaded
IDMS	INCL keyword needed to perform this command
SNVS	Frame is not in MCOND
SNVS	Link being used is not Link 1

SNVS User login-id is not DAX

SW,ROLL,T0,INCL,FRC,OOS

DS0 CIRCUIT ROLL- ROLL COMMAND

Input Message Format

Nonhierarchical

[I.14031]

```
SW-ROLL-T0:[xy]:[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS];
```

Hierarchical

[I.14031]

```
SW-ROLL-T0:[xy]:uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS];
```

Completion Message

Nonhierarchical

[O.14031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW ROLL T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS] COMPLD
;
```

Hierarchical

[O.14031]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW ROLL T0::uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW ROLL T0::[s]abc-ddd[&&-eee],[t]ghi-jjj[&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS] DENY
   mmmm
   /* [O.14031.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.14031.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW ROLL T0::uv-m-np-ddd[&&&-eee],wx-k-qr-jjj[&&&-kkk]:[ww]:\
[INCL]:[FRC]:[OOS] DENY
   mmmm
   /* [O.14031.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This input message is used to perform the Roll step of the DS0 Roll operation.

The DS0 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new DS0 as well as the old DS0.

2. Roll

   This step rolls the service by switching the receive data from the old DS0 to the new DS0.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old DS0.

Explanation Of Parameters

ROLL - Roll

OLD - Old termination

NEW - New termination

[s]abc
- The 3- or 4-digit nonhierarchical OLD NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical NEW NPC number

Note: Valid types for old and new NPC's are DExyz and DAxyz (except DE9y9 and DA9y9) and TExyz and TAxyz (except TE9yz and TA9y9).

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

ddd, jjj
- Channel numbers for beginning of channel range

eee, kkk
- Channel numbers for end of channel range

To connect a range of channels, use the optional fields eee and kkk.

INCL - Inclusive

A circuit designated as a customer controlled circuit or a red circuit cannot be modified without using the inclusive keyword in the message.

FRC - Force

The FRC keyword is used to force a roll to an NPC which is in CGA.

OOS - Out of service

The OOS keyword is used to force a roll from an NPC which is out of service.

mmm - The OLD channel number involved in denial (ddd through eee).

nnn - The NEW channel number involved in denial (jjj through kkk).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAIN	bject entity is pested
ERLC	Customer control or red circuit exists
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SROF	NPC Failed or Out of Service
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	Improper roll command sequence
SNVS	New in CGA
IDRG	Old and new chan on same NPC and within the range
SNVS	Old and new channels have not been paired by a BCAST command.
SNVS	Ranges of old and new do not match
SNVS	DCTN conference channel cannot be rolled
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Parity channel cannot be within the range of a DS0 command.

SW,ROLL,T1,INCL,FRC,OOS,TWAY

DS1 FACILITY ROLL - ROLL COMMAND

Input Message Format

Nonhierarchical

[I.14071]

```
SW-ROLL-T1:[xy]:[s]abc,[t]ghi:[ww]:[INCL]:[FRC]:[OOS]:[TWAY]
```

Hierarchical

[I.14071]

```
SW-ROLL-T1:[xy]:uv-m-np,wx-k-qr:[ww]:[INCL]:[FRC]:[OOS]:[TWAY]
```

Completion Message

Nonhierarchical

[O.14071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW ROLL T1::[s]abc,[t]ghi:[ww]:\
[INCL]:[FRC]:[OOS]:[TWAY] COMPLD
;
```

Hierarchical

[O.14071]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW ROLL T1::uv-m-np,wx-k-qr:[ww]:\
[INCL]:[FRC]:[OOS]:[TWAY] COMPLD
;
```

Denial Message

Nonhierarchical

[O.14071.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW ROLL T1::[s]abc,[t]ghi:[ww]:\
[INCL]:[FRC]:[OOS]:[TWAY] DENY
   mmmm
   /* [O.14071.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Hierarchical

[O.14071.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW ROLL T1::uv-m-np,wx-k-qr:[ww]:\
[INCL]:[FRC]:[OOS]:[TWAY] DENY
   mmmm
   /* [O.14071.01] */
   /* <explanation of error condition code> */
[  /* mmm,nnn */]
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This input message is used to perform the Roll step of the DS1 Roll procedure.

The DS1 Roll procedure consists of three commands:

1. Bridge

   This step will bridge the transmit data by broadcasting to the new NPC as well as the old NPC.

2. Roll

   This step rolls the service by switching the receive data from the old NPC to the new NPC.

3. Cut

   This step takes down the bridge by disconnecting the transmit data from the old NPC.

Explanation Of Parameters

ROLL - Roll

OLD - Old

The old termination

NEW - New

The new termination

[s]abc
- The 3- or 4-digit nonhierarchical OLD NPC number

[t]ghi
- The 3- or 4-digit nonhierarchical NEW NPC number

Note: Valid types for old and new NPC's are DExyz, DAxyz, TExyz and TAxyz.

If NPC numbers are expressed in three digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640


Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920


Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

If NPC numbers are expressed in three digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
16A-16H   32A-32H   48A-48H   64A-64H   80A-80H   96A-96H
```

If NPC numbers are expressed in four digits, the valid values are:

```
TE and TA type NPC numbers listed by unit number

Unit Type DT (DS3U)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640
016A-016H   032A-032H   048A-048H   064A-064H

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280
080A-080H   096A-096H   112A-112H   128A-128H

Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
144A-144H   160A-160H   176A-176H   192A-192H

Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
208A-208H   224A-224H   240A-240H   256A-256H
```

uv-m-np
- Hierarchical OLD NPC number

wx-k-qr
- Hierarchical NEW NPC number

uv,wx - Unit number
m,k - Module number
np,qr - NPC number within the module

The values are listed below:

```
DE and DA type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40

TE and TA NPC numbers listed by unit, module, and NPC No.

Unit Type DT (DS3U)

Unit      Module    NPC
01-16     1-6       01-28
```

INCL - Inclusive

A circuit designated as a customer controlled circuit or a red circuit cannot be modified without using the inclusive keyword in the message. Also, an NPC which supports these circuits cannot be manually removed unless the INCL keyword is given in the remove message.

FRC - Force

The FRC keyword is used to force a roll to an NPC which is in CGA.

OOS - Out of service

The OOS keyword is used to force a roll from an NPC which is out of service.

TWAY - Two-way

The TWAY keyword is used to request a two-way Roll (Bridge and Roll combined).

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Subject entity is not equipped
SAOS	Subject entity is out of service
SAIN	bject entity is pested
ERLC	Customer control or red circuit exists
IDRG	Invalid range for specified NPC type
SWFA	Active CCN side not IS or failed or pested or hardware OOS
ENEQ	UNIT not equipped, not in service, or failed
ENEQ	CCB not eqd, not IS, or failed or inactive side CCB not eqd or not IS
ENEQ	FTMI not equipped, not in service, or failed
ENEQ	FC not eqd, not IS, or failed or inactive side FC not eqd or not IS
ENEQ	TSI not eqd, not IS, or failed or inactive side TSI not eqd or not IS
ENEQ	DSPI not equipped, not in service, or failed
IIFM	Exceeded depth limit of 6 on broadcast conference concatenation
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Required MXR not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Required MIU not equipped, not in service, or failed
SROF	NPC Failed or Out of Service
ENEQ	No DSP unit equipped
ENEQ	No CBTYPE NPC equipped
SNVS	No CBTYPE NPC capacity remaining
SNVS	Inactive side NPC out of service and inactive side in service
SOSF	All CBTYPE NPCs out of service or failed
ENEQ	ETSI not equipped, not in service, or failed
SNVS	Improper roll command sequence
SNVS	New in CGA
SNVS	No mapped channel on old
SNVS	Old and new channels have not been paired by a BCAST command.
SNVS	DCTN conference channel cannot be rolled
SNVS	Testport/testgroup channel cannot be rolled
SNVS	Channel out of bound in a bcon/v.c
SNVS	Parity channel out of bound on new
SNVS	Not first channel in a bcon/virtual conf
SNVS	Parity channel cannot be within the range of a DS0 command.

SW,TOPROTN,EQPT,UNIT,FLI

SWITCH FLI TO PROTECTION

Input Message Format

[I.35101]

```
SW-TOPROTN-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI;
```

Completion Message

[O.35101]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOPROTN EQPT::UNIT-[q]q:[ww]:FLI COMPLD
;
```

Denial Message

[O.35101.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOPROTN EQPT::UNIT-[q]q:[ww]:FLI DENY
   mmmm
   /* [O.35101.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.35101]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT SW EQPT
   /* [O.35101] */
   /* Working Entity: Switch Direction */
   "UNIT-[q]q-FLI:TOPROTN"
;
```

Explanation Of Message

This message requests and reports a switch from the selected facility line interface (FLI) on a DS3 unit. This message only covers the direction of switch from the service FLI in a DS3 unit to protection. The other direction of the FLI switch is covered in Message I.35105. The output message reports the occurrence of autonomous protection switching.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

FLI - Facility Line Interface

TOPRTN
- To protection pack

I - Information priority of action
M - Manual priority of action
A - Autonomous priority of action

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	The service FLI is out of service or pested (TOSRVC option)
SAOS	The protection FLI is out of service or pested (TOPRTN option)
SAWS	The service FLI is already selected (TOSRVC option)
SAPS	The protection FLI is already selected (TOPRTN option)

SW,TOPROTN,EQPT,UNIT,MMFG,FRC

SWITCH MMFG TO PROTECTION

Input Message Format

[I.35111]

```
SW-TOPROTN-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c:[FRC];
```

Completion Message

[O.35111]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOPROTN EQPT::UNIT-[q]q:[ww]:MMFG-c:[FRC] COMPLD
;
```

Denial Message

[O.35111.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOPROTN EQPT::UNIT-[q]q:[ww]:MMFG-c:[FRC] DENY
   mmmm
   /* [O.35111.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.35111]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT SW EQPT
   /* [O.35111] */
   /* Working Entity: Switch Direction */
   "UNIT-[q]q-MMFG-c:TOPROTN"
;
```

Explanation Of Message

This command requests and reports a switch from multiplexer-multiple interface unit functional group (MMFG) c to MMFG P on a DS3 unit. The input message can force MMFG P to serve the MMFG c facility, even though MMFG P was serving another facility which can result in that facility being out-of-service. Alarm reporting is discussed below in the case of a switch that results in that facility being out-of-service.

Alarm reporting in the case of double MMFG failures: (For example, a unit is equipped with MMFG 1, 2 and P).

1 Event : MMFG 1 fails

Automatic protection switch occurs

Message : A ff REPT SW EQPT
UNIT-q-MMFG-1:TOPRTN

MMFG 1 is autonomously removed

Message : ** ff REPT RMV EQPT
UNIT-q-MMFG-1

2 Event : MMFG 2 fails

Message : *C ff REPT RMV EQPT
UNIT-q-MMFG-2
DENY:COND-cc

3 Event : The craft decides that MMFG-2 is more important,and makes a switch

Command : SW-TOPRTN-EQPT::UNIT-q::MMFG-2:FRC;

Message : M SW TOPRTN EQPT::UNIT-q:[ww]:MMFG-2:FRC COMPLD

MMFG 1 automatically switched back to service

Message : I ff REPT SW EQPT
UNIT-q-MMFG-1:TOWKG

Notice that after the switch to protection of MMFG 2, there will be no alarm reporting associated with loss of service of MMFG 1. The alarm condition, which is escalated to critical after loss of service of MMFG 2, actually covers both failures. Note also that the autonomous switch message will precede the removal command on the first failure.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-multiplexer interface unit functional Group

c - The number of the service MMFG within the unit ($1 \leq c \leq 6$)

TOPRTN
- Protection Pack

FRC - Force the switch to protection MMFG even though it was serving another facility.

cc **mmmm** - Error condition code

cc	mmmm	*Explanation*
10	ENEQ	Unit is not equipped
11	SAOS	UC is out of service
12	SNVS	UC is in service but failed
1A	ENEQ	Required FLI not equipped, not in service, or failed
1C	ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
44	ENEQ	Service MXR is not equipped
47	SAOS	Protection MXR is out of service
48	ENEQ	Protection MIU is not equipped
49	SAOS	Protection MIU is out of service
4A	SPSW	The protection MMFG is serving another facility
4B	SAPS	The Service MMFG is already under protection

SW,TOPROTN,T1,NPC,RT,INCL

SWITCH::

Input Message Format

Nonhierarchical

[I.39401]

```
SW-TOPROTN-T1:[<xy>]:{NPC-[s]abc|xxx}:[ww]:[RT-ffff]:[INCL];
```

Hierarchical

[I.39401]

```
SW-TOPROTN-T1:[<xy>]:{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]:[INCL];
```

Completion Message

Nonhierarchical

[O.39401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOPROTN T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]\
:[INCL] COMPLD
;
```

Hierarchical

[O.39401]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOPROTN T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]\
:[INCL] COMPLD
;
```

Denial Message

Nonhierarchical

[O.39401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOPROTN T1::{NPC-[s]abc|xxx}:[ww]:[RT-ffff]:[INCL] DENY
   mmmm
   /* [O.39401.01] */
   /* <explanation of the error condition code> */
;
```

Hierarchical

[O.39401.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOPROTN T1::{NPC-uv-m-np|xxx}:[ww]:[RT-ffff]:[INCL] DENY
   mmmm
   /* [O.39401.01] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Not applicable.

Explanation Of Message

This command requests the activation (PSW), termination (USW), permission (ALW) or inhibition (INH) of protection switching on the SLC® Carrier terminated digroups. The **INCL** keyword must always be used for any digroup A switching activity such as activation, inhibition, permission, or termination. The **FRC** keyword is meaningful only when used with the **INH** option to inhibit a failed digroup from being protected.

Explanation Of Parameters

NPC - Network processing circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit        Unit        Unit        Unit
1           2           3           4

NPC         NPC         NPC         NPC
0001-0160   0161-0320   0321-0480   0481-0640

Unit        Unit        Unit        Unit
5           6           7           8

NPC         NPC         NPC         NPC
0641-0800   0801-0960   0961-1120   1121-1280


Unit        Unit        Unit        Unit
9           10          11          12

NPC         NPC         NPC         NPC
1281-1440   1441-1600   1601-1760   1761-1920
```

```
Unit        Unit        Unit        Unit
13          14          15          16

NPC         NPC         NPC         NPC
1921-2080   2081-2240   2241-2400   2401-2560
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number within the unit
np - NPC number within the module
The allowable values are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Module    NPC
01-16     1-4       01-40
```

RT - Remote terminal
ffff - RT bank identification number (0000 - 9999 inclusive)

xxx - Digroup designation

xxx	*Explanation*
DGA	Digroup A
DGB	Digroup B
DGC	Digroup C
DGD	Digroup D
ALL	All Digroups (DGA, DGB, DGC and DGD)

The "ALL" option is not applicable to the MML message.
The "DGx" in the autonomous output means DGA, DGB, DGC, or DGD.

PSW - Perform a protection switch
USW - Perform an unswitch
ALW - Allow a digroup to be protected
INH - Inhibit a digroup from protection
FRC - Force
INCL - Inclusive

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
SROF	NPC Failed or Out of Service
IDNV	NPC is a DGP
IDNV	NPC type is not DS type
SPFA	Protection switch process failed
IDNV	Bank id number not found
SNVS	NPC is not added
SNVS	DGP is protecting a primary digroup
IDNV	Digroup name and bank id don't match
SNVS	The INCL keyword is needed for DGA
SNVS	No protection switch is currently active
SAOS	Protection entity out of service or failed
ENEQ	Protection entity is unequipped
SWFA	Data link failed
SWFA	Far end failed to respond
SNVS	Protection switch existing is autonomous
SAIN	Protection switching is already inhibited
SAAL	Protection switching is already allowed
SNVS	Active CCN side is out of service
SNVS	Boot in progress, can't service request
SNVS	Line Loop Back is active
IDNV	Invalid switch request for DCLU

SW,TOWKG,EQPT,UNIT,FLI

SWITCH FLI TO SERVICE

Input Message Format

[I.35105]

```
SW-TOWKG-EQPT:[<xy>]:UNIT-[q]q:[ww]:FLI;
```

Completion Message

[O.35105]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOWKG EQPT::UNIT-[q]q:[ww]:FLI COMPLD
;
```

Denial Message

[O.35105.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOWKG EQPT::UNIT-[q]q:[ww]:FLI DENY
   mmmm
   /* [O.35105.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.35105]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT SW EQPT
   /* [O.35105] */
   /* Working Entity: Switch Direction */
   "UNIT-[q]q-FLI:TOWKG"
;
```

Explanation Of Message

This message requests and reports a switch from the protected facility line interface (FLI) on a DS3 unit to the service FLI. The output message reports the occurrence of automatic switchback.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

TOWKG - Switch to service entity

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
SAOS	The service FLI is out of service or pested (TOSRVC option)
SAWS	The service FLI is already selected (TOSRVC option)

SW,TOWKG,EQPT,UNIT,MMFG

SWITCH MMFG TO SERVICE

Input Message Format

[I.35121]

```
SW-TOWKG-EQPT:[<xy>]:UNIT-[q]q:[ww]:MMFG-c;
```

Completion Message

[O.35121]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOWKG EQPT::UNIT-[q]q:[ww]:MMFG-c COMPLD
;
```

Denial Message

[O.35121.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M  SW TOWKG EQPT::UNIT-[q]q:[ww]:MMFG-c DENY
   mmmm
   /* [O.35121.01] */
   /* <explanation of error condition code> */
;
```

Autonomous Message

[O.35121]

```
   <xy> yy-mm-dd hh:mm:ss
A  ff REPT SW EQPT
   /* [O.35121] */
   /* Working Entity: Switch Direction */
   "UNIT-[q]q-MMFG-c:TOWKG"
;
```

Explanation Of Message

This command requests and reports a switch from multiplexer-multiple interface unit functional group (MMFG) P to MMFG c on a DS3 unit. MMFG P was serving the DS3 facility associated with MMFG c. The output message also reports the occurrence of automatic switchback from protection.

Explanation Of Parameters

UNIT - Unit

[q]q - Unit number (1 through 16)

MMFG - Multiplexer-multiplexer interface unit functional group

c - The number of the service MMFG within the unit (1 through 6)

TOSRVC
- To service

Priority of action

M - Manual

A - Autonomous

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	Required FLI not equipped, not in service, or failed
ENEQ	Reqd FMT not eqd,not IS,or failed,or inact side FMT not eqd, or not IS
ENEQ	Service MXR is not equipped
SAOS	Service MXR is out of service
SAOS	Service MIU is out of service
SAWS	The Service MMFG is not under protection

SW,TOWKG,T1,NPC,RT,DL,INCL

SWITCH::

Input Message Format

Nonhierarchical

[I.39431]

```
SW-TOWKG-T1:[<xy>]:{NPC-[s]abc|DGx}:[ww]:[{RT|DL}-ffff]\
:[INCL];
```

Hierarchical

[I.39431]

```
SW-TOWKG-T1:[<xy>]:{NPC-uv-m-np|DGx}:[ww]:[{RT|DL}-ffff]\
:[INCL];
```

Completion Message

Nonhierarchical

[O.39431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOWKG T1::{NPC-[s]abc|DGx}:[ww]:[{RT|DL}-ffff]:[INCL] \
COMPLD
;
```

Hierarchical

[O.39431]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOWKG T1::{NPC-uv-m-np|DGx}:[ww]:[{RT|DL}-ffff]:[INCL] \
COMPLD
;
```

Denial Message

Nonhierarchical

[O.39431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOWKG T1::{NPC-[s]abc|DGx}:[ww]:[{RT|DL}-ffff]:[INCL] \
DENY
   mmmm
   /* [O.39431.01] */
   /* <explanation of the error condition code> */
;
```

Hierarchical

[O.39431.01]

```
   <xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M SW TOWKG T1::{NPC-uv-m-np|DGx}:[ww]:[{RT|DL}-ffff]:[INCL] \
DENY
   mmmm
   /* [O.39431.01] */
   /* <explanation of the error condition code> */
;
```

Autonomous Message

Nonhierarchical

[O.39431]

```
   <xy> yy-mm-dd hh:mm:ss
A  REPT SW TOWKG T1
   /* [O.39431] */
   /* {NPC No.|digroup name}:Bank id number */
   "{[s]abc|DGx}:{RT|DL}-ffff"
;
```

Hierarchical

[O.39431]

```
   <xy> yy-mm-dd hh:mm:ss
A  REPT SW TOWKG T1
   /* [O.39431] */
   /* {NPC No.|digroup name}:Bank id number */
   "{uv-m-np|DGx}:{RT|DL}-ffff"
;
```

Explanation Of Message

For SLC®-carrier, this command allows termination of protection switching on a digroup.

The **INCL** keyword must always be used for digroup A.

If the network processing circuit (NPC) option is used on input, the optional remote terminal (RT) or digital carrier line unit (DL) will appear. If the digroup (DGx) option is to be used, it must be accompanied by the RT or DL option.

Explanation Of Parameters

NPC - Network Processing Circuit

[s]abc
- The 3- or 4-digit nonhierarchical NPC number

If NPC numbers are expressed in three digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit      Unit      Unit      Unit      Unit      Unit
1         2         3         4         5         6

NPC       NPC       NPC       NPC       NPC       NPC
001-160   161-320   321-480   481-640   641-800   801-960
```

If NPC numbers are expressed in four digits, the valid values are:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit          Unit          Unit          Unit
1             2             3             4

NPC           NPC           NPC           NPC
0001-0160     0161-0320     0321-0480     0481-0640

Unit          Unit          Unit          Unit
5             6             7             8

NPC           NPC           NPC           NPC
0641-0800     0801-0960     0961-1120     1121-1280


Unit          Unit          Unit          Unit
9             10            11            12

NPC           NPC           NPC           NPC
1281-1440     1441-1600     1601-1760     1761-1920


Unit          Unit          Unit          Unit
13            14            15            16

NPC           NPC           NPC           NPC
1921-2080     2081-2240     2241-2400     2401-2560
```

uv-m-np
- Hierarchical NPC number

uv - Unit number
m - Module number within the unit
np - NPC number within the module
The allowable numbers are presented below:

```
DS type NPC numbers listed by unit number
Unit Type FT (FTU)

Unit       Module     NPC
01-16      1-4        01-40
```

DGx - Digroup (A,B,C,D)
RT - Remote Terminal
DL - Digital Carrier Line Unit (DCLU)
ffff - Bank identification number (0000 to 9999 inclusive)
INCL - Inclusive

mmmm - Error condition code

mmmm	*Explanation*
ENEQ	Unit is not equipped
SAOS	UC is out of service
SNVS	UC is in service but failed
ENEQ	FTMI is not equipped
ENEQ	NPC is unequipped
SROF	NPC Failed or Out of Service
IDNV	NPC is a DGP
IDNV	NPC type is not DS type
IDNV	Bank id number not found
SNVS	NPC is not added
IDNV	Digroup name and bank id don't match
SNVS	No protection switch is currently active
SNVS	Active CCN side is out of service
SNVS	Boot in progress, can't service request
SNVS	Line Loop Back is active
IDNV	Invalid switch request for DCLU

Index

A

About This Document, i
ABT,CMD, 6-1
ABT,PROC, 6-5
ALW,LPBK,T1,DGA,DGB,DGC,DGD, 6-7
ALW,PMREPT,T1,NPC,ALL, 6-9
ALW,SW,EQPT,UNIT,MMFG,PROTN, 6-15
ALW,SW,T1,NPC,RT,INCL, 6-18
APPEND,END, 6-23

B

BADVERB,CMD,BAD,SYNTAX,STOPPED, 7-1
BADVERB,CMD,INERR,STOPPED, 7-3
BOOT,FROM,DISK,TAPE, 7-6
BX2,STF,ATP, 7-7

C

CHG,ACCMD,T1,AIS,INCL, 8-1
CHG,LGN,PASSWD, 8-10
CHG,RPATH,T0,INCL, 8-13
CHG,RPATH,T1,INCL, 8-21
CHG,TACC,T0,MON, 8-27
CHG,TACC,T0,SPLT, 8-38
CHG,TACC,T0,TG,MON, 8-48
CHG,TACC,T0,TG,SPLT, 8-58
CHG,TACC,T1,INCL, 8-67
CHG,TACC,TS,MON, 8-75
CHG,TACC,TS,SPLT, 8-84
CHG,TL,T0,TERM,F,T,B,L,G,A,NOT, 8-95
CHG,TL,T0,TG,TERM,F,T,B, 8-107
CHG,TL,TS,TERM,F,T,B, 8-116
CI,ECI,RESET, 8-126
CI,ECI,STARTUP,STF,ATP, 8-128
CMD,MC,OOS,MCOND,INSERVICE, 8-130
CONN,BDCST,T0,RDLD,CUS,INCL, 8-132, 8-143
CONN,BDCST,T1,RDLD,CUS,INCL, 8-153, 8-161
CONN,CRS,T0,RDLD,CUS,INCL,AIS, 8-169
CONN,CRS,T0,RDLD,CUS,INCL,NTR, 8-181
CONN,CRS,T1,RDLD,CUS,INCL,NORM, 8-197
CONN,CRS,TS,MJU,RATE,MA,NORM, 8-204
CONN,CRS,TS,MJU,RATE,MA,TERM, 8-222
CONN,CRS,TS,RATE,NORM, 8-236, 8-247
CONN,CRS,TS,RATE,TERM, 8-260, 8-270
CONN,CRS1,T0,RDLD,CUS,INCL, 8-282, 8-293
CONN,CRS1,T1,RDLD,CUS,INCL, 8-304
CONN,HUB,T0, 8-311
CONN,HUB,T0,TG, 8-318
CONN,HUB,T1,INCL, 8-327
CONN,TACC,T0,MON, 8-333
CONN,TACC,T0,TG,MON, 8-347
CONN,TACC,T1,AIS,INCL, 8-358
CONN,TACC,TS,MON, 8-368
CONN,TACC,TS,MON,MJU, 8-380
CONN,TACC,TS,SPLT, 8-391
CONN,TACC,TS,SPLT,MJU, 8-404
COPY,EQPT,NPC, 8-415
CPY,MEM,PROG,DBASE,INSTL,INCL, 8-432
CRTE,CNFGRN,EQPT,UNIT, 8-436
CRTE,CRS,TS,DS0A,DS0B,SEC,PCH, 8-442
CRTE,CRS,TS,RATE,DP,PCH, 8-453
CRTE,EQPT,NPC, 8-463
CRTE,EQPT,NPC,IW,X, 8-469
CRTE,EQPT,NPC,IW,X,INCL,AIS, 8-481, 8-503
CRTE,EQPT,NPC,NPCTG, 8-518
CRTE,EQPT,NPC,NPCTP, 8-526
CRTE,EQPT,SYNC, 8-532
CRTE,EQPT,SYNC,TLI, 8-534
CRTE,EQPT,SYNC,TLI,SSP,SRC, 8-536
CRTE,EQPT,TG, 8-541
CRTE,EQPT,TP, 8-544
CRTE,EQPT,UNIT,FTMI,EQL, 8-548
CRTE,EQPT,UNIT,MIU, 8-551
CRTE,EQPT,UNIT,MXR,BERM,BERT, 8-553
CRTE,LGN,NEW,PASSWD,REENTER, 8-557

D

DELETE,END, 9-1
DGN,EQPT,CCB,CFT,X, 9-3
DGN,EQPT,CCI,CFT,X, 9-10
DGN,EQPT,CCNI,CFT,X, 9-14
DGN,EQPT,CI,CFT,X, 9-20
DGN,EQPT,DISK,CFT,X,VERIFY, 9-24
DGN,EQPT,ETSI,CFT,X, 9-27
DGN,EQPT,ETSIS,ECCN,ALL, 9-32
DGN,EQPT,IN,PROGRESS, 9-35

DGN,EQPT,LINK,CFT,X, 9-37
DGN,EQPT,MC,CFT,X, 9-40
DGN,EQPT,MP,CFT,X, 9-44
DGN,EQPT,NPC, 9-48
DGN,EQPT,NPC,SIDE,CFT,X, 9-55
DGN,EQPT,SSC,CFT,X, 9-73
DGN,EQPT,SYNC, 9-77
DGN,EQPT,SYNC,TLI,CRO, 9-80
DGN,EQPT,SYNC,TLI,SSP, 9-84
DGN,EQPT,TAPE,CFT,X,PROG,DBASE, 9-87
DGN,EQPT,TSI,CCN,ALL, 9-91
DGN,EQPT,TSI,CCN,UNIT, 9-95
DGN,EQPT,TSI,CFT,X, 9-99
DGN,EQPT,UNIT,DSPI,CFT,X, 9-107
DGN,EQPT,UNIT,FC,CFT,X, 9-111
DGN,EQPT,UNIT,FLI,CFT,X, 9-117
DGN,EQPT,UNIT,FMT,CFT,X, 9-121
DGN,EQPT,UNIT,FTMI,CFT,X, 9-127
DGN,EQPT,UNIT,MIU,CFT,X, 9-131
DGN,EQPT,UNIT,MXR,DEV,CFT,X, 9-135
DGN,EQPT,UNIT,UC,CFT,X, 9-140
DISC,BDCST,T0,INCL,OOS,DCC, 10-1, 10-10
DISC,BDCST,T1,INCL,OOS,CONV, 10-18, 10-25
DISC,CRS,T0,INCL,DCC,OOS, 10-32
DISC,CRS,T0,INCL,OOS,DCC, 10-45
DISC,CRS,T1,INCL,OOS, 10-54
DISC,CRS,TS,MJU,RATE, 10-61
DISC,CRS,TS,MJU,RATE,ALL, 10-76
DISC,CRS,TS,RATE, 10-91, 10-101
DISC,CRS1,T0,INCL,OOS,DCC, 10-111, 10-120
DISC,CRS1,T1,INCL,OOS, 10-130
DISC,EQPT,NPC, 10-137
DISC,EQPT,NPC,NPCTG,TGR, 10-150
DISC,EQPT,NPC,NPCTP,TPR, 10-158
DISC,EQPT,SYNC,TB, 10-164
DISC,EQPT,SYNC,TLI,SSP, 10-166
DISC,EQPT,TG, 10-171
DISC,EQPT,TP, 10-174
DISC,EQPT,UNIT, 10-177
DISC,EQPT,UNIT,FTMI, 10-183
DISC,EQPT,UNIT,MIU, 10-185
DISC,EQPT,UNIT,MXR, 10-187
DISC,TACC,T0,ALL,OOS, 10-190
DISC,TACC,T0,OOS, 10-192
DISC,TACC,T0,RLS,F,T,B,L,G,A, 10-203
DISC,TACC,T0,TG,OOS, 10-215
DISC,TACC,T0,TG,RLS,F,T,B, 10-228
DISC,TACC,T1,ALL,OOS, 10-237
DISC,TACC,T1,OOS, 10-239
DISC,TACC,TS, 10-247
DISC,TACC,TS,ALL,LINKS, 10-257
DISC,TACC,TS,RLS,F,T,B, 10-259
DLT,CRS,TS,PCH,DCC, 11-1
DLT,FPKG, 11-9
DLT,LGN, 11-13
DLT,MACRO,MAP, 11-15
DLT,PRMTR,EQPT,DGA,DGB,DGC,DGD, 11-17

E

EBX,STARTUP,STF,ATP, 12-1
ED,ADD,MAP,NPC, 12-3
ED,CNFGRN,EQPT,UNIT, 12-7
ED,CONN,TS, 12-10
ED,CONN,TS,MPTM, 12-20
ED,CRS,T0,INCL, 12-32
ED,CRTE,TS,PCH,DCC, 12-39
ED,DATE,INT, 12-49
ED,DLT,MAP,NPC, 12-51
ED,MACRO,MAP, 12-56
ED,OPT,T1,NPC,TYPE,ALL, 12-62
ED,PRMTR,EQPT,DGA,DGB,DGC,DGD, 12-74
ED,PRMTR,EQPT,NPC, 12-81
ED,PRMTR,EQPT,NPC,ALMOPT,PLOPT, 12-106
ED,PRMTR,EQPT,NPC,IW,X,INCL, 12-118, 12-129
ED,PRMTR,EQPT,NPC,RT,DL,TYPE, 12-138
ED,PRMTR,EQPT,RT,DL, 12-165
ED,PRMTR,EQPT,RT,RTF,SWMN, 12-167
ED,PRMTR,EQPT,SYNC,MASTER, 12-172
ED,PRMTR,EQPT,SYNC,STR2,STR3, 12-174
ED,PRMTR,EQPT,SYNC,TLI,SSP,SRC, 12-176
ED,PRMTR,EQPT,TYPE, 12-182

I

IN,PROGRESS, 13-1
INH,LPBK,T1,DGA,DGB,DGC,DGD, 13-2
INH,PMREPT,T1,NPC,ALL, 13-4
INH,SW,EQPT,UNIT,MMFG,PROTN, 13-9
INH,SW,T1,NPC,RT,FRC,INCL, 13-11
INIT,LOG,ERR,HWER,SWER, 13-16
INIT,REG,ALL, 13-18
INIT,REG,NPC, 13-20
INIT,REG,NPC,RT,DL, 13-26

INIT,REG,PWR,BMTRALM, 13-33
INIT,REG,T1,NPC,ALL, 13-36

M

MOVE,END, 14-1
MP,STARTUP,STF,ATP, 14-3
MTC,STF,ATP, 14-5

O

OPR,ACO,ALL, 15-1
OPR,LPBK,T0, 15-3
OPR,LPBK,T0,TG, 15-7
OPR,LPBK,T1, 15-9
OPR,LPBK,T1,DGA,DGB,DGC,DGD, 15-15
OPR,LPBK,T1,LPBKT,INCL, 15-17
OPR,TSIG,T1, 15-23

P

Purpose of Document, vii

R

REPT,ALM,EQPT,AR01,MISC,NPC, 16-1
REPT,ALM,EQPT,AR01,MISC,NPC,MJ, 16-6
REPT,ALM,EQPT,BMTR,TAPE,MN, 16-11
REPT,ALM,EQPT,BOOT,FAILED,BAD, 16-13
REPT,ALM,EQPT,CCN,MJ,IDLD,OOS, 16-14
REPT,ALM,EQPT,ECCN,MJ,IDLD,OOS, 16-16
REPT,ALM,EQPT,NPC,IDLD, 16-18
REPT,ALM,EQPT,NPC,MJ,MN,INFO, 16-23
REPT,ALM,EQPT,RESET,DATE,TOD, 16-29
REPT,ALM,EQPT,SC,ALARM,NPC,RT, 16-31
REPT,ALM,EQPT,SC,ALARM,RT,COMP, 16-36
REPT,ALM,EQPT,SC,DPLX,ALARM, 16-38
REPT,ALM,SC,ALARM,MC,UC,FTMI, 16-43
REPT,ALM,SC,ALARM,RT,DL,FE, 16-45
REPT,ALM,T3,IDLD,UNIT,DS3, 16-47
REPT,ALM,T3,UNIT,DS3, 16-49
REPT,ALMDET,EQPT,ANALYSIS, 16-51
REPT,ALMDET,EQPT,ERR,HARDWARE, 16-54
RST,CNFGRN,EQPT,UNIT,CCN,TSIS, 17-1
RST,EQPT,CCB, 17-4
RST,EQPT,CCI, 17-6
RST,EQPT,CCNI, 17-8
RST,EQPT,DISK,TAPE,CLR,CLEAN, 17-10
RST,EQPT,ETSI, 17-13
RST,EQPT,ETSIS,ECCN, 17-15
RST,EQPT,LINK, 17-18
RST,EQPT,MC,MCOND,TAPE,NOJRNL, 17-20
RST,EQPT,NPC,SIDE, 17-26
RST,EQPT,SYNC, 17-41
RST,EQPT,SYNC,TLI,SSP, 17-43
RST,EQPT,TLI,CRO, 17-45
RST,EQPT,TSI, 17-47
RST,EQPT,TSIS,CCN, 17-49
RST,EQPT,UNIT,FC, 17-52
RST,EQPT,UNIT,FLI, 17-54
RST,EQPT,UNIT,FMT, 17-56
RST,EQPT,UNIT,FTMI,DSPI, 17-58
RST,EQPT,UNIT,MIU,INCL, 17-60
RST,EQPT,UNIT,MMFG,INCL, 17-63
RST,EQPT,UNIT,UC, 17-67
RST,PASSWD, 17-69
RTRV,ALM,EQPT, 18-1
RTRV,ALM,EQPT,DBASE, 18-28
RTRV,ALM,EQPT,NPC,CFA,CGA,LOS, 18-33, 18-42, 18-52
RTRV,ALM,EQPT,RT,DL, 18-54
RTRV,ALM,T3, 18-57
RTRV,BDCST,T0, 18-61
RTRV,BDCST,T0,ALL, 18-70
RTRV,BDCST,T1,FROM, 18-76
RTRV,BKUPSCHED,MEM,SEC,DATA, 18-83
RTRV,CNFGRN,EQPT,UNIT,EQPD, 18-85
RTRV,COND,EQPT,NPC,CS, 18-87
RTRV,CRS,T1,MAP, 18-93
RTRV,CRS,T1,NPC,MAP, 18-120
RTRV,CRS,T1,RTMAP,DLMAP, 18-144
RTRV,CRS,TS, 18-162
RTRV,EQPT,TS,SRHDW, 18-169
RTRV,EVT,EQPT,NPC,BER,FTU,DS3U, 18-182
RTRV,EVT,EQPT,NPC,BER,NPCS, 18-195
RTRV,EVT,TS,SROOF,ALL, 18-197
RTRV,FPKG,NE, 18-207
RTRV,HDR, 18-210
RTRV,HDR,NE, 18-211
RTRV,LOC,EQPT, 18-215
RTRV,LOG,ERR,SWER,HWER,INT, 18-230
RTRV,MACRO, 18-241

RTRV,MACRO,COM, 18-244
RTRV,MAP,COM, 18-247
RTRV,MAP,EQPT,NPC, 18-250
RTRV,OPT,T1,NPC,ALL, 18-255
RTRV,PM,T1,NPC,ALL, 18-261
RTRV,PMREPT,SCHED,CFA,MONDAT, 18-282
RTRV,PMSCHED,T1,NPC,ALL, 18-286
RTRV,PRMTR,EQPT,LOAD,TOTAL, 18-299
RTRV,PRMTR,EQPT,NPC,ALL, 18-308
RTRV,PRMTR,EQPT,NPC,ALMOPT,AIS, 18-318
RTRV,PRMTR,EQPT,NPC,RT,DL, 18-328
RTRV,PRMTR,EQPT,NPC,SCDG,STATE, 18-348
RTRV,PRMTR,LINK, 18-358
RTRV,PRMTR,MACRO,ATTR,ALL, 18-368
RTRV,PRMTR,MACRO,MAP,SPACE,ALL, 18-372
RTRV,PRMTR,MAP,ATTR,ALL, 18-376
RTRV,PRMTR,NE, 18-379
RTRV,PRMTR,NE,ECLOC, 18-382
RTRV,PRMTR,NE,HUBID, 18-384
RTRV,PRMTR,SQN, 18-386
RTRV,PRMTR,T0,FROM, 18-388
RTRV,PRMTR,T0,MARK, 18-407
RTRV,PRMTR,T0,TO, 18-422
RTRV,PRMTR,T1,FROM, 18-439
RTRV,PRMTR,T1,MARK, 18-445
RTRV,PRMTR,T1,TO, 18-460
RTRV,PRMTR,T3,LBO, 18-468
RTRV,PRMTR,T3,UNIT,BERMT, 18-470
RTRV,PRMTR,TS, 18-473
RTRV,PRVG,TERM,USER,ALL, 18-484
RTRV,PRVG,USER,LOG,ALL, 18-496
RTRV,REG,EQPT,CCN,ESR, 18-499
RTRV,REG,EQPT,ECCN,ESR, 18-502
RTRV,REG,EQPT,MP,ESR, 18-506
RTRV,REG,EQPT,NPC,SIDE,ESR, 18-511
RTRV,REG,EQPT,SYNC,STR, 18-522
RTRV,REG,EQPT,SYNC,TLI,SSP,STR, 18-528
RTRV,REG,EQPT,SYNC,TLI,STR, 18-532
RTRV,REG,EQPT,UNIT,DSPI,ESR, 18-535
RTRV,REG,EQPT,UNIT,ESR, 18-537
RTRV,REG,EQPT,UNIT,FC,ESR, 18-541
RTRV,REG,EQPT,UNIT,FLI,ESR, 18-545
RTRV,REG,EQPT,UNIT,FMT,ESR, 18-549
RTRV,REG,EQPT,UNIT,FTMI,ESR, 18-552
RTRV,REG,EQPT,UNIT,MIU,ESR, 18-556
RTRV,REG,EQPT,UNIT,MXR,ESR, 18-558
RTRV,REG,EQPT,XC,STR, 18-562
RTRV,REG,EQPT,XCSB,UNIT, 18-564
RTRV,ROLL,T0,NPC,ALL,UNIT, 18-572
RTRV,ROLL,T1,NPC,ALL,UNIT, 18-580
RTRV,STATE,COM,ALL, 18-590
RTRV,STATE,COM,EQPD, 18-596
RTRV,STATE,COM,PEST,FAIL,OOS, 18-600
RTRV,STATE,EQPT,ACO, 18-606
RTRV,STATE,EQPT,ETSI,EQPD, 18-608
RTRV,STATE,EQPT,MIU,EQPD, 18-610
RTRV,STATE,EQPT,MXR,EQPD, 18-612
RTRV,STATE,EQPT,NPC, 18-615, 18-633
RTRV,STATE,EQPT,NPC,EQPD,TOTAL, 18-650
RTRV,STATE,EQPT,NPC,TSIG, 18-661
RTRV,STATE,EQPT,SYNC, 18-670
RTRV,STATE,EQPT,SYNC,EQPD, 18-673
RTRV,STATE,EQPT,TSI,EQPD, 18-676
RTRV,STATE,EQPT,UNIT,ALL, 18-678
RTRV,STATE,EQPT,UNIT,EQPD, 18-699, 18-701
RTRV,STATE,EQPT,UNIT,FTMI, 18-722
RTRV,STATE,EQPT,UNIT,PEST,FAIL, 18-725
RTRV,STATE,EQPT,UNIT,PROTN, 18-745
RTRV,STATE,T3,UNIT,DS3, 18-750
RTRV,STATE,TS, 18-755
RTRV,SYSID, 18-762
RTRV,TACC,T0,NPCTG, 18-764
RTRV,TACC,T0,TG, 18-774
RTRV,TACC,T1, 18-782

S

SAVE, 19-1
SCHED,BKUP,MEM,SEC,DATA,HR, 19-3
SCHED,PMREPT,ALL,CFA,FAC,X, 19-5
SCHED,PMREPT,T1,NPC, 19-21
SET,ATTR,EQPT,ALM, 19-31
SET,PRVG,TERM,USER,INCL,SCR,GR, 19-33
SET,PRVG,USER,TERM,ALL,INCL, 19-37
SSC,STARTUP,STF,ATP, 19-45
STA,LOCL,RST,PRI,SEC,CLR, 19-47
SW,BDCST,T0,INCL, 19-49
SW,BDCST,T1,INCL, 19-57
SW,DISC,T0,OOS, 19-64
SW,DISC,T1,OOS, 19-71
SW,DX,EQPT,XC,INCL, 19-78
SW,ROLL,T0,INCL,FRC,OOS, 19-81
SW,ROLL,T1,INCL,FRC,OOS,TWAY, 19-88
SW,TOPROTN,EQPT,UNIT,FLI, 19-95
SW,TOPROTN,EQPT,UNIT,MMFG,FRC, 19-97
SW,TOPROTN,T1,NPC,RT,INCL, 19-100
SW,TOWKG,EQPT,UNIT,FLI, 19-105
SW,TOWKG,EQPT,UNIT,MMFG, 19-107
SW,TOWKG,T1,NPC,RT,DL,INCL, 19-109