5ESS®-2000 Switch
Protocol Error Record Descriptions
5E10 - 5E13 Software Releases

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1. INTRODUCTION

1.1 PURPOSE

The *5ESS*®-2000 Switch Protocol Error Record Descriptions manual describes the protocol error records (PERs) that can print. This manual is a reference guide for switch support personnel. This manual is available on paper and electronic media.

The descriptions in this manual and its updates represent complete documentation for the 5E11 and later software releases.

PER descriptions give the details of error events associated with switch-detected protocol errors.

1.2 UPDATE INFORMATION

This manual is being updated to include information about new protocols, additional information for existing protocols, and additions to the INTRODUCTION section of this document.

Updated file is 07-CEP 07043-A, 07043-B.

1.2.1 SUPPORTED SOFTWARE RELEASES

In accordance with the *5ESS*®-2000 Switch Software Support Plan, the 5E11 software release will be rated Discontinued Availability (DA) as of November 13, 1999. The information supporting 5E11 and earlier is being removed over time, instead of concurrently, from all documentation.

If you are supporting offices that use a software release prior to 5E12 and you have a need for the information that is being removed, retain the associated pages as they are removed from the paper documents, or retain the earlier copy of the CD-ROM.

1.2.2 TERMINOLOGY

As of March 18, 1999, Bellcore officially changed its name to Telcordia Technologies. Not all pages of this document are being reissued to reflect this change; instead, the pages will be reissued over time, as technical and other changes are required. Customers on standing order for this document may see that, on previous-issue pages, the Bellcore name is still exclusively used.

Customers receiving new orders for this document will see the Telcordia Technologies name used as appropriate throughout the document, and the Bellcore name used only to identify items that were produced under the Bellcore name. Exceptions may exist in software-influenced elements such as input/output messages, master control center screens, and recent change/verify screens. These elements will not be changed in this document until such time as they are changed in the software code. Document updates will not be made specifically to remove historical references to Bellcore.

National ISDN is an evolving platform in which new features will continue to be introduced for new revenue opportunities, improved operational efficiencies, and for support of specific applications. NI 1, NI 2, and NI 3 represent specific features as documented in Bellcore SRs 1937, 2120, and 2457. The industry is migrating to an additional terminology to more specifically denote the availability of National ISDN features: NI 95, NI 96, etc. A feature is included in a specific version (such as, NI 96) if it is available by the switch vendors by the first quarter of the year.

As a result of the World Telecommunications Standardization Conference held March 1-12, 1993, the International Telegraph and Telephone Consultative Committee (CCITT), no longer exists as an organization under the International Telecommunication Union (ITU). According to the ITU, the CCITT is now referred to as the International Telecommunication Union - Telecommunication Standardization Sector (ITU-TS).

For new and revised Recommendations issued by the ITU-TS, the term "CCITT Recommendation X.xxx" will be replaced by the "ITU-T Recommendation X.xxx" designation. For a transition period from 1993 to 1997, if the Recommendation had a previous CCITT designation, the new name will include "(formerly CCITT Recommendation X.xxx)". Names of existing CCITT Recommendations will not change unless revised.

The following are common terms and their definitions as used in this document.

Term	Definition
discarded	deliberately removed or deleted
ignored	may still exist but is never accessed
incorrectly populated	invalid value
not populated	blank or empty

1.3 HANDLE DATE AND TIME TRANSITION TO YEAR 2000

For any time-stamp data that occurs in *5ESS*® switch operations after the time is transitioned to the year 2000 and beyond, the year 00 shall be interpreted as 2000 after 12/31/1999. The data (billing, log files, and etc.) shall continue to work even right after transition to the year 2000 from midnight 12/31 1999.

1.4 ORGANIZATION

The manual includes the following:

Introduction - explains the purpose of the manual and the organization of the material presented.

User Guidelines - contains information about the conventions used in documenting PER descriptions.

Acronym List - defines acronyms and abbreviations used in the manual and defines terms used throughout the manual.

Appendixes - contains information that is common to many areas of the document.

PER Descriptions - contains two types of descriptions:

Base Descriptions - contains the detailed description of protocol specific formats.

Key Code Descriptions - contains the specific information about individual occurrences of PERs.

The Base Descriptions and Key Code Descriptions are presented in alphanumeric order by key code range. Each range begins with a Base Description.

1.5 USER FEEDBACK

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Technical assistance for the *5ESS*®-2000 switch can be obtained by calling the North American Regional Technical Assistance Center (NARTAC) at 1-800-225-RTAC (1-800-225-7822). This telephone number is monitored 24 hours a day, 7 days a week. During regular business hours, your call will be answered by your local NARTAC. Outside of normal business hours, all calls will be answered at a centralized technical assistance center where service-affecting problems will be dispatched immediately to your local NARTAC. All other problems will be referred to your local NARTAC on the next regular business day.

1.8 REFERENCES

The other documents referenced in this manual include:

```
235-600-206     Dynamic Data Manual
235-600-400     Audits
235-600-500     Asserts
235-600-700     Input Messages
235-600-750     Output Messages
235-900-341     ISDN Basic Rate Interface Specification
235-900-342     ISDN Primary Rate Interface Specification
```

Additional references are given as needed, within individual message descriptions. An "x" or "x"s in the last three positions of a release specific document number indicate the digits that change from release to release. Refer to 235-001-001, Documentation Description and Ordering Guide for the document number associated with each

software release.

This document also contains information concerning the Compact Digital Exchange (CDX) and the Very Compact Digital Exchange (VCDX), which are switching systems based on the *5ESS*®-2000 switch. This document is a standard *5ESS*®-2000 switch document that is also applicable to the CDX and VCDX switching systems. Information applicable only to CDX or VCDX may be found in the following manuals:

```
235-120-010, Compact Digital Exchange (CDX) Reference Guide
235-120-020, Compact Digital Exchange (CDX) User's Guide
235-120-110, Very Compact Digital Exchange (VCDX) Reference Guide
235-120-120, Very Compact Digital Exchange (VCDX) User's Guide
```


2. USER GUIDELINES

2.1 INTRODUCTION

This section explains the rules to which *5ESS*®-2000 switch ALE PER descriptions must conform.

2.2 BASE FORMATS

2.2.1 01-LAPB Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb LAPB/SLP c d e y
                 ADDR=f KEY=z
```

2.2.2 02-LAPD Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb LAPB c d e y
                 TEI=f SAPI=g KEY=z
```

2.2.3 03-Q.931 Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb Q.931 c d e y
                [TEI=f] CRV=g CRF=h KEY=z
```

2.2.4 04-TMC Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb TMC c d e y
                 TEI=f CRV=g CRF=h KEY=z
```

2.2.5 05-X.25 Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb X.25 c d e f y
                [TEI=g] LCN-h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=z
                [CDADDR=n] [CGADDR=o]
```

2.2.6 06-X.75/X.75P Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f y
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=z
                [CDADDR=m] [CGADDR=n]
```

2.2.7 07-ATS Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb CEP c d e y
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=z
```

2.2.8 08-IDLC Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb IDLC c d e y
                 TEI=f g h i KEY=z
```

2.2.9 09-V.120 Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb V120 c d e y
                 TEI=f SAPI=g KEY=z
```

2.2.10 10-CESHL2 Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb CESHL2 c d e y
                 LINK=f [SHDLCI=g] [CEDLCI=h] KEY=z
```

2.2.11 11-CESHL3 Base Format

The basic format for the PER output is:

```
PER a/a bb:bb:bb CESHL3 c d e y
                 LINK=f [SHDLCI=g] [CEDLCI=h] KEY=z
```

2.3 KEY CODE

The key code is the unique identifier assigned for each occurrence of any PER. This key code allows for a more exact explanation of the circumstances surrounding the occurrence of the PER.

The key code shown on the individual description pages shows a leading zero that does not actually print as part of the PER. This digit is necessary for sorting purposes within the document.

Each protocol has its own range of key code numbers.

01000-01999 = LAPB protocol.

02000-02999 = LAPD protocol.

03000-03999 = Q.931 protocol.

04000-04999 = TMC protocol.

05000-05999 = X.25 protocol.

06000-06999 = X.75/X.75P protocol.

07000-07999 = ATS protocol.

08000-08999 = IDLC protocol.

09000-09999 = V.120 protocol.

Each range subsection begins with a BASE description. The BASE description gives the specific information about the construct of the PER message for that protocol.

2.4 PER BASE DESCRIPTIONS

The BASE description for each key code range consists of:

KEY BLOCK

RELEASE
PROTOCOL

BODY

FORMAT
EXPLANATION OF VARIABLES
REFERENCES

2.5 PER DESCRIPTIONS

Each individual key code description consists of several elements. These elements include:

KEY BLOCK

KEY CODE
RELEASE
PROTOCOL
ERROR ANALYSIS

BODY

FORMAT
EXPLANATION OF VARIABLES
CAUSE
EXTERNAL EVIDENCE
CORRECTIVE ACTION
REFERENCES

2.6 EXPLANATION OF DESCRIPTION ELEMENTS

Page Headers (Paper Only) = The header consists of two lines across the top of each page. The header on the inside of the page identifies the manual number and the issue date. The header on the outside of the page shows the name of the manual and the key code range.

Page Footers (Paper Only) = The footer on the inside of the page contains the issue number. The outside footer shows the individual key code and page number for the individual key code description.

KEY BLOCK = The key block is the block of text in the upper right corner of the description below the page headers.

For BASE descriptions, the key block includes:

RELEASE = The switch software release or range of releases associated with the message description.

PROTOCOL = The protocol associated with the description.

For individual key code descriptions, the key block includes:

KEY CODE = The key code is the unique identifier of the description.

RELEASE = The switch software release or range of releases associated with the message description.

PROTOCOL = The protocol associated with the description.

ERROR ANALYSIS = This element indicates whether or not error analysis is initiated by the PER.

For BASE descriptions, the following elements are included:

BASE FORMAT = The notational representation of a PER for this protocol.

EXPLANATION OF VARIABLES = A description of the various parameter names, parameter values, and variables shown in the BASE format.

For individual key code descriptions, the following elements are included:

FORMAT = The notational representation of the individual PER.

EXPLANATION OF VARIABLES = This section refers to the BASE description for a full explanation of all variables shown in the format.

CAUSE = This section identifies, if possible, the event(s) that triggered the PER, the expected protocol message, and the protocol message that was actually received or sent.

EXTERNAL EVIDENCE = This section attempts to identify other events that occur when the PER is triggered. It differentiates between events that always happen and those that might happen. If ERROR ANALYSIS is "Yes", this section identifies the fault recovery action. It also identifies any asserts, reports, or audits that are triggered by the same condition that initiated the PER.

This section can also indicate that there was no evidence.

CORRECTIVE ACTION = This section identifies how to prevent the PER or possible courses of action. This section may indicate that there is no corrective action that is possible or required.

All descriptions include:

REFERENCES = This section lists specific information about other documents that are referenced in the description.

2.7 PER TYPES

There are two general types of PERs, structural and logical.

Structural PERs are the type of errors that can be detected quickly and easily. They are usually associated with obvious protocol problems such as missing message components, incorrect message size, etc. Even though structural PERs are logged, essentially, in "real time", the speed of incoming messages determines whether the PER is logged with the errant message or with a subsequent message during a protocol monitoring session.

Examples of structural PERs are:

ILL-ADD = The frame contained an illegal address field.

STAT-MISS = A message was missing a mandatory call state information element (IE).

LNG-FRM = The frame exceeded the maximum total frame size.

UXP-I-FLD = The frame contained an unexpected information field.

Logical (or contextual) PERs are more difficult to determine. This type of PER involves message sequencing, interface compatibility issues, timer expirations, etc. By definition, it can not be logged in "real time" and, therefore, may not be co-located with the offending message or sequence of messages. The logical PER is logged with the last message recorded by protocol monitoring.

Examples of logical PERs are:

TIMER-EXP = A timer fired while waiting for a response.

OUT-SEQ = The frame was received out of sequence.

UXP-FRM = The frame is unexpected for current logical link state.

IDL-CHAN = The idle channel timer expired indicating idle channel.

UXP-MSG = The message was unexpected for the given state.

2.8 PER CONTENT

Each PER indicates the time that the PER was generated and for which protocol the error was recorded. The protocol state information, the message information, and error information are recorded for each error. The state of the protocol may consist of a single state, as in link access protocol B (LAPB) PERs, or two states, as in X.25 PERs. The message information consists of two components, the message/packet/frame type and the direction. The error information consists of the protocol error code (PEC) that gives specific information regarding the cause of the error event.

In addition to this information, each PER includes protocol-specific information. In general, this information indicates the protocol-specific identifiers for the protocol entity that generated the error. For the X.25 and X.75/X.75P protocols, the contents of the cause and diagnostic fields of the received or transmitted packet are provided, if possible.

2.9 PER Exhibits

PERs are shown as part of the output messages such as EXC:ALE-PER, EXC:PM, and RMV:LINE. PERs are also present in ATF files generated by the AM-based protocol monitoring translator. In any given EXC:ALE-PER output message, multiple PER formats may be present.

2.10 PER LOGGING

Protocol monitoring is a capability that records integrated services digital network (ISDN) messages that are either received or sent by the switch. The protocol monitoring tool is invoked by an input message. When the EXC:PM input message is executed, the monitoring session is started. During the protocol monitoring session, an ISDN port is monitored and the ISDN protocol messages are recorded. When the session terminates, the messages are reported either on the receive-only printer (ROP) in hex format or in a translated file in text format. The translated file is commonly referred to as an ATF file. As part of the message recording, the protocol monitoring tool also records protocol errors in the same buffer that is used for storing the ISDN messages.

The PER tool is a logging mechanism on the switch that records protocol abnormalities discovered by the switch. The logging is continuous and automatic. The PERs can be dumped to the ROP by using the EXC:ALE-PER input message.

The PERs that are logged in the PER buffer are not necessarily logged in the protocol monitoring session. PERs that are logged in the protocol monitoring sessions may not exist in the PER buffer.

Protocol monitoring logs only the PERs that occur on the same processor (SM or PH) as the protocol monitoring session. For example, a LAPD PER will not be recorded during a Q.931 protocol monitoring session because Q.931 is recorded in the SM, but LAPD is recorded in the PH.

The PER tool logs all PERs, but it has a limited storage capacity. The PER buffer is managed by an algorithm that discards old PERs and only keeps the newest PERs on a per port basis. A port with an excessive number of PERs may not have the storage capacity to retain an old PER, but the PER may still appear in the output of a protocol monitoring session because the protocol monitoring session has more capacity.

2.11 EXCESS OCCURRENCE

Under certain circumstances, a PER is not a critical issue unless it occurs in excess. The PERs that fit into this category are identified in the EXTERNAL EVIDENCE section of the individual descriptions.

3. ACRONYM LIST

3.1 INTRODUCTION

This section includes expansions for all acronyms used in this manual.

3.2 LIST

Acronym	Expansion
APDU	application protocol data unit
ASN.1	abstract syntax notation one
ATS	automatic terminal setup
BC	bearer capability
BOC	Bell operating companies -- S/B service provider
BRI	basic rate interface
CA	call appearance
CACH	call appearance call handling
CCITT	International Telegraph and Telephone Consultative Committee
CdPN	called party number
CEP	common element protocol
CLAMN	called line address modified notification
CMISE	common management information service element
CMIP	common management information protocol
CPE	customer premises equipment
CRF	call reference flag
CRV	call reference value
CSD	circuit switched data
CSV	circuit switched voice
CU	channel unit
DCBU	D-channel back-up
DCE	data circuit-terminating equipment
DDS	digital data service
DIB	DSL input buffer
DISC	disconnect
DM	disconnect mode
DN	directory number
DNA	directory number appearance
DPB	D-channel port block
DSL	digital subscriber line
DTE	data terminating equipment
EC	error control
EFIE	extended facility information element
EKTS	electronic key telephone service
EOC	embedded operations channel
FA	feature activator
FI	feature indicator
FRMR	frame reject
GFI	general format identifier
IDT-RDT	integrated digital terminal - remote digital terminal
IE	information element
ISDN	integrated services digital network
LAPB	link access procedure B
LAPD	link access protocol D
LCCB	logical channel control block
LCN	logical channel number
MCT	maximum combined throughput
MIB	maintenance input buffer
MLHG	multi-line hunt group
NFAS	non-facility associated signaling
NISDN	not-in-service directory number
ODB	on-demand B-channel
OOS	out-of-service
OSA	operator system access
OSPS	Operator Services Position system
PBG	packet business group
PDU	protocol data unit
PEC	protocol error code
PER	protocol error record
PH	protocol handler

PRI	primary rate interface
PVC	permanent virtual circuit
RC/V	recent change and verify
RDN	relative distinguished name
REJ	reject
RNR	receiver not ready
ROSE	remote operation service equipment
RPC	routine port conditioning
RR	receiver ready
RT	remote terminal
RTLB	remote terminal linkage block
SABM	set asynchronous balance mode
SABME	set asynchronous balance mode extended
SAPI	service access point identifier
SD	service discriminator
SHDN	shared directory number
SM	switching module
SMP	switching module processor
SPID	service profile identifier
STE	signaling terminal
TEI	terminal endpoint identifier
TMC	time slot management channel
TNS	transit network selection
TSNC	transit sub-network count
UA	unnumbered acknowledgement
UCD	uniform call distribution
UI	unnumbered information
VC	virtual call

4. APPENDIXES

APP:CALL-STATE

Software Release: 5E10 and later

1. Introduction

This appendix assists in interpreting the call states shown in the individual PER descriptions.

2. Description

The call state code has two parts. The beginning letter and the numeric code.

- Beginning letter:

  N = Network side.

  U = User side.

- Numeric code:

  0 = Null.

  1 = Call initiated.

  3 = Outgoing call proceeding.

  4 = Call delivered.

  6 = Call present.

  7 = Call received.

  8 = Connect request.

  9 = Incoming call proceeding.

  10 = Call active.

  11 = Disconnect request.

  12 = Disconnect indication.

  19 = Release request.

APP:CAUSE-CODE

Software Release: 5E10 and later

1. Introduction

The origin codes shown in this appendix mean:

q0 = CCITT standard.

q1 = International.

q2 = Nationally specific.

q3 = Network specific.

Cause Class: Normal Event

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCANOTALLOC	q0	0x01	1	unallocated (unassigned) number
PSCANOROUTE	q0	0x02	2	no route to specified transit network
PSCANODEST	q0	0x03	3	no route to destination
PSCABADCHAN	q0	0x06	6	channel unacceptable
PSCAAWARDED	q0	0x07	7	call awarded and delivered in an established channel
PSCAPRE0_ERR	q2	0x08	8N	prefix 0 dialed in error
PSCACALPROCD	q3	0x08	8NET	call is proceeding
PSCACLEAR	-	0x08	8	preemption
PSCAREUSE	-	0x09	9	preemption - circuit reserved for reuse
PSCAXDIG_REC	-	0x0b	11NET	excessive digits received
PSCASERVDEN	q3	0x0d	13NET	service denied
PSCANORMAL	q0	0x10	16	normal call clearing
PSCAUSERBUSY	q0	0x11	17	user busy
PSCANO_RESP	q0	0x12	18	no user responding
PSCANO_ANS	q0	0x13	19	no answer from user, user alerted
PSCACALL_REJ	q0	0x15	21	call rejected
PSCANUM_CHNG	q0	0x16	22	number changed
-	-	-	26	non-selected user clearing
PSCADST_OOO	q0	0x1b	27	destination out of order
PSCAIV_FORM	q0	0x1c	28	invalid number format (address incomplete)
-	q3	0x1c	-	"Special Intercept Announcement"
PSCAFCY_REJ	q0	0x1d	29	requested facility rejected
PSCASPIANNC	q3	0x1d	29NET	special intercept announcement undefined code
PSCAST_ENQ	q0	0x1e	30	response to STATUS ENQUIRY
-	q3	0x1e	-	special intercept announcement, number unassigned
PSCA_MISC	q0	0x1f	31	normal, unspecified
-	q3	0x1f	-	special intercept announcement, group restrict

Cause Class: Network Congestion

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCACHN_UNAV	q0	0x22	34	channel congestion or no circuit/channel available
PSCA_QUEUED	q3	0x23	35NET	call has been queued (custom interface)
-	-	-	38	network out of order
PSCATEMPFAIL	q0	0x29	41	temporary failure
PSCANET_CONG	q0	0x2a	42	network (switching equipment) congestion
PSCAUIGONE	q0	0x2b	43	access or user info IE discarded
PSCAREQCHUNV	q0	0x2c	44	requested circuit/channel not available
PSCAPRECBL	-	0x2e	46	precedence call blocked
PSRESUNV_UNS	q0	0x2f	47	(Not TMC) resource unavailable, unspecified

Cause Class: Service or Option Not Available

Mnemonic	Origin	Hex	Cause	Meaning

			Code	
-	-	-	49	quality of service not available
PSCAFAC_NS	q0	0x32	50	requested facility not subscribed
PSCAWRGCLTYP	q3	0x33	51NET	call type incompatible with service requested
PSCABCIWSR	q3	0x33	51N	call type incompatible with service requested
PSCAOUT_BAR	q0	0x34	52	outgoing calls barred
PSCASRVOPVIO	q3	0x35	53NET	service operation violated-with diagnostic
PSCAIN_BAR	q0	0x36	54	incoming calls barred
PSCABCNOAUTH	q0	0x39	57	bearer capability not authorized
PSCABCBUSY	q0	0x3a	58	bearer capability not presently available
PSCASRV_UNAV	q0	0x3f	63	service or option not available, unspecified

Cause Class: Service or Option Not Implemented

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCANO_BEAR	q0	0x41	65	bearer capability not implemented
PSCANO_CHAN	q0	0x42	66	channel type not available/implemented
PSCANO_FAC	q0	0x45	69	requested facility not implemented
-	-	-	70	only restricted digital information bearer
-	-	-	79	service or option not implemented, unspecified

Cause Class: Invalid Message

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCACREF_INV	q0	0x51	81	invalid call reference value
PSCACHAN_INV	q0	0x52	82	identified channel does not exist
-	-	-	83	a suspended call exists, but this call identity does not
-	-	-	84	no call suspended
PSCADIG_INV	q0	0x55	85	invalid digit value for number
-	-	-	86	call having the requested call identity has been cleared
PSCADEST_INC	q0	0x58	88	incompatible destination, direct call not subscribed
PSSEGMENT_ERR	q3	0x5a	90NET	segmentation error
PSCATRNS_INV	q0	0x5b	91	transit network does not exist
PSREASSBY_ERR	q3	0x5b	91NET	(BRI) reassembly error
-	q3	0x5b	-	(PRI) invalid transit network selection
-	-	-	95	invalid message, unspecified

Cause Class: Protocol Error

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCAMIE_NO	q0	0x60	96	mandatory information element is missing
PSCATYPE_INV	q0	0x61	97	message type non-existent or not implemented
PSCASTATE_INV	q0	0x62	98	message not compatible with call state
-	-	-	-	or message type non-existent or not implemented
PSCABADIE	q0	0x63	99	information element non-existent or not implemented
PSCACONT_INV	q0	0x64	100	invalid information element contents
PSCANOCOMPAT	q0	0x65	101	message not compatible with call state
PSCAREC_TIM	q0	0x66	102	recovery upon timer expiration
PSCAPCERROR	q0	0x6f	111	protocol error - unspecified

Cause Class: Interworking

Mnemonic	Origin	Hex	Cause Code	Meaning
PSCAUNKNOWN	q0	0x7f	127	interworking, unspecified
PSCAINTWRKU	-	0x7f	127	interworking, unspecified NI-1 def

APP:PEC-KEY

Software Release: 5E10 and later

1. Protocol Error Code Mnemonic/Key Code Cross Reference Appendix

PEC Mnemonic	Key Code
ABN-CLR	05006
	05009
ABN-NET-CLR	06032
	06034
	06038
	06039
ABN-NET-RESET	05044
ABN-NET-RSE	06031
	06033
	06035
	06036
ABN-RESET	05031
ABN-RST	05063
	06043
BAD-CLASS	03213
	03266
	03270
	03271
BAD-CR-LEN	04062
BC_NOT_SUPPRTD	07025
BEAR-CAP-INV	03003
	03004
	03110
	03112
	03117
	03245
	03345
	03347
	03349
	03350
BEAR-CAP-MISS	03111
	03246
	03323
	03348
BSTRUCT_APDU	07036
	07038
	07041
	07046
	07051
	07052
	08071
	08072
	08081
	08085
	08091
	08092
	08134
BYTE-CNT	02020
CAC-FAIL	03017
	03146
	03148

	03155 03157 03309
CALL-COLL	05017 05020
CALL-REF-GLOB	03227
CALL-REF-ILLE	03105
CALL-REF-MISS	03104 03208 03224 03239 03263 03364
CALL-REF-NULL	03228
CA_ID_OO_RANGE	07022
CA_NOT_SUPPORT	07019
CHAN-ID-INV	03061 03106 03107 03109 03113 03178 03179 03181 03182 03183 03185 03186 03187 03189 03278 03279 03280 03321 03322 03346 03365 03366 03370
CHAN-ID-MISS	03060 03108 03180 03184 03188
CHAN-NA	03328 03352 03353 03356 03360 03363 03367 03372 03376 03377
CHNG-ST-UXP	03201 03202 03203

	03204
CLAMN-CLR	05002
	05003
	05004
	05005
	05051
	05052
	05053
	05058
	05059
	05060
	05061
CLR-REQ	05029
COMP_LIM	08110
CON-CHAN-ID	04043
CON-SHRT	04042
CPE-MSG-UNEXP	03100
CSE-MISS	03088
	03124
	03126
	03129
	03131
	03134
	03139
	03140
	03144
	03147
	03149
	03152
	03165
	03177
	03192
	03281
	03282
	03283
	03287
	03288
	03289
	03299
	03305
	03307
	03314
	03331
	03333
DCD-PKT	05030
	05032
	05065
	05066
	05067
DCE-RESET	05012
DDA-ERR	02023
	09007
	09009
	09010
	09011
	09015

	09019 09021 09022 09023 09024 09025 09026
DDA_ERR	08058 08060 08061 08064 08067 08137
DGN-PKT	05049
DNAPP_OO_RANGE	07023
DTE-RESET	05011
DTE-RST	05068
DUP_INVOC	08073
ELEMENT_MISS	08014 08020 08021 08022 08023 08024 08025 08026 08027 08028 08029 08030 08031 08032 08033 08034 08035 08045 08046 08047 08051 08054 08055
EXP-RST-CNF	05026
FAC80CLR	05039 05041
FACL80CLR	05042 05064
FAIL_RPT_RSLTS	07031 07034
FA_FI_OO_RANGE	07021
FRM-REJ	01038 02008
I-EXP	01039 01041 01043
IDL-CHAN	01048
IGRP_NOT_SPRTD	07020
ILL-ADD	01002 01003

	01005
	01006
	01011
	01012
	01013
	01014
ILL-NUM-FORM	03012
	03014
	03016
	03018
	03052
	03063
	03064
	03065
	03066
	03067
	03068
	03300
	03330
ILLEGAL-IES	03242
	03243
ILLEGAL-SPID	03341
	03342
	03343
INC-CALL-BARR	03115
	03121
INCONSIST_SPID	07030
INFO-ELEM-MISS	03197
	03200
INFO-INV-HOOK	04067
INFO-ME-MISS	04052
INFO-SHRT	04051
INFO-TOO-LONG	03205
	03221
	03235
	03259
	04066
INFO_TOO_LONG	08125
INIT_REL	08077
INT-FAC-ERR	05007
	05008
INV-CALL-REF	03154
	03156
	03211
	03212
	03214
	03215
	03223
	03229
	03230
	03232
	03233
	03238
	03241
	03250
	03251
	03252

	03262
	03265
	03267
	03268
INV-CR	02005
	02006
INV-CR-PRE	04063
INV-CR-SUF	04064
INV-CR-VALUE	04065
INV-EBIT	09012
INV-EC	09013
INV-GFI	06017
INV-HDR	01001
	02003
	02004
	02007
	02021
INV-IE	03054
	03085
	03086
	03092
	03284
	03285
	03286
	03315
	03316
	03329
INV-IE-CONTENT	03198
	03301
	03310
	03311
INV-IE-DS	04045
INV-IE-PRE	04044
INV-MAN-IE	03256
INV-MSG	03019
	03020
	03044
	03045
	03051
	03084
	03090
	03123
	03173
	03195
	03312
	03317
INV-OBJ-INST	07045
INV-PD	03209
	03218
	03234
	03269
	04061
INV-PKT	05015
	05016
	05021
	05022
INV-SAPI	02001
	02024

	09001
	09028
INV-SRV-DOM	03313
INV-SRVC-DISCR	03087
	03091
INV-TEI	02002
	09002
	09003
	09027
INV_ATT_VAL	08015
	08016
	08017
	08018
	08019
	08037
	08039
	08043
	08050
	08101
	08106
INV_CMIP_OP	08111
INV_FILTER	08100
INV_OBJ_CLS	08003
	08008
INV_OBJ_INST	08005
	08006
	08010
	08011
	08040
	08108
INV_OP	08098
	08113
	08122
INV_SCOPE	08107
KEY-INV	03011
	03013
	03015
	03053
	03062
	03253
LCN-UNA	06018
	06021
LNG-CALL-REF	03207
	03222
	03237
	03261
LNG-FRM	01046
	02011
	09005
LNG-PKT	06049
LNK-DWN	05023
	05024
	06047
LNK-NOT-INT	06014
	06015
LNK-OOO	05070
LNK_RESP_UXP	07044
	08079
LOC-ABN-CLR	06030

LOC-ABN-RSE	06040
LOC-CLR-REQ	06003 06004 06025
LOC-ERR	05019
LOC-RSE-REQ	06008 06041
LOC-RST-REQ	06019
MCA-CONG	03324 03325 03326 03327 03369
MCA-NON-SUB	03361
MIB-REG-DEL	03008 03231 03244
MISMATCH	04014
MISS_ARG	07003
MISS_ATT	08042
MISS_ATT_VAL	08109
MSG-TYPE-INV	03174 03225 03240 03264
MSG-UNEXP	03033 03036 03079 03082 03083 03125 03130 03135 03136 03141 03145 03150 03151 03153 03158 03159 03161 03164 03172 03196 03199 03220 03272 03274 03276 03277 03302 03304 03308 03320 03371 03373

	03378
	03380
	03381
	03382
MSG-UNEXP (cont.)	04001
	04002
	04003
	04013
	04015
	04016
	04017
	04019
	04021
	04023
	04025
	04026
	04027
	04028
	04029
	04030
	04031
	04032
	04034
	04035
	04036
	04037
	04038
	04058
MSG_UNEXP	08007
	08044
	08052
	08053
MTYPE_APDU	07040
	07042
	07047
	07048
	07049
	07050
	08070
	08129
MTYPE_ARG	07053
	07054
	08075
	08126
	08131
MTYPE_PARAM	08090
	08128
	08133
MTYPE_RSLT	08084
	08095
	08127
	08132
NET-CLR	05034
	05040
	05043
	06005

	06045
NET-CONG	03009 05028 06024
NET-RESET	05010 05033 05035 05036 05037 05038 05069 06006 06046
NET-RST-IP	05025
NON_EXST_SPID	07029
NOT-EPID	03216 03247 03249
OCA-MISS	03069 03318
OP_MISMATCH	08115 08116 08117 08118 08119 08120
OUT-SEQ	02013 02014
PKT-SIZE	05001
PKTL80RST	05045
PORT-OOS	03102 03319 03354 03357 03359 03362 03368 03374
PRI-ODB-NIMP	03375
PVC-LCN-UNA	06022
PVC-OOO	05027 05050
PVC-RESET	05014 05056
RBLIM	09018
RCV-BEGIN	09014
RCV-NONBEGIN	09017
REASSEM-ERR	03089
REJ-CKT-OOS	04020
REJ-INVTRD	03255
REJ-PRETRIP	04022
REJ-PRV	03254
REJ-SEMI-PERM	04018
REL-CPRE-INV	04048
REL-INV-CAUS	04049
REL-ME-MISS	04041
RELC-INV-CAUS	04050
RELS-NO-CALL	03001 03002
REM-ABN-CLR	06013
REM-ABN-RSE	06026
REQ-SVC-NSUB	03217

	03248 03344 03355 03358
RES-LIM	03006 03093 03332 07043 07055
RESET-COLL	05013
RES_LIM	07013 07035 08001 08002 08076 08093
RTE-FAIL	05018 06044
RTRY-EXC	01047 02017 02018 02019
SAME-CRV	03007
SETUP-BCAP	04039
SETUP-INV-BCAP	04047
SETUP-SHRT	04040
SHRT-MSG	03206 03219 03236 03260 04060 09004
SHRT-PKT	05048 06016 06048
SHRT_MSG	08124
STANDBY-EOC	09008
STANDBY-TMC	04059
STAT-CALL-INV	04056 04057
STAT-CAUS-INV	04054 04055
STAT-CPRE-INV	04053
STAT-MISS	04046
SYNC_NS	08099
SYS-ERR	03101 03103 03114 03116 03118 03119 03120 03122 03351 04024 09006 09016 09020
SYS_ERR	08056

	08059
	08062
	08065
	08068
	08097
T10-2ND-EXP	05047
T10-EXP	05062
T11-EXP	05046
T12-2ND-EXP	05057
T12-EXP	05055
T13-EXP	05054
T30-EXP	06001
T301-EXP	03042
	03072
	03303
T303-EXP	03029
	03037
	03038
	03040
	03041
	03058
	03071
	03074
	03075
	03076
	03170
	03338
	04005
	04010
T305-EXP	03023
	03046
	03094
	03160
	03273
	04006
T308-EXP	03024
	03043
	03055
	03070
	03163
	03166
	03298
	04007
	04011
T310-EXP	03039
	03073
	03275
	03340
	03379
T313-EXP	03137
	04004
	04009
T32-2ND-EXP	06011
	06012
T32-EXP	06010
T320-EXP	03293
	03336
	03339

T322-EXP	04008 04012
T33-EXP	06009
T3YY-EXP	03292
TERM-MSMTCH	03210 03226
TERM-NOT-INIT	03383
TERM_NOT_INIT	07028
TNS-INV	03191 03194
TOO_FREQ_RQSTS	07032 07033
TOO_MANY_DNS	07024
TSC-EXC	06002 06037
UNA-LIN	04033
UNK-FRM	01007 01010 01015 01045 02016
UNK_ACTION	08102
UNK_ARG	08004 08012 08013 08049 08105 08121
UNK_ATT	08048
UNK_EVENT_TYPE	08009 08104
UNK_INVOKE_ID	08063 08066 08082 08086 08112
UNK_OBJ_INST	08036 08038 08041
UNK_OBJ_REF	08103
UNUSABLE_APDU	07014 07015
UREC_APDU	07037 07056 08069 08123 08130
UREC_ERR	08088 08096 08136
UREC_LNK_ID	08057 08078
UREC_OP	07001 07002 07004 07005 07006 07007 07008 07009

	07039
	08074
	08094
	08114
	08135
USR_ABT_INV_ER	07018
	07026
	07027
USR_ABT_NO_PDU	07011
	07012
USR_ABT_PDU	07017
USR_ABT_T_EXP	07016
UXP-FRM	01004
	01008
	01018
	01020
	01025
	01026
	01032
	01034
	01037
	02010
	02012
	02022
UXP-I-FLD	01009
	01016
	01017
	01019
	01021
	01022
	01023
	01024
	01027
	01028
	01029
	01030
	01031
	01033
	01035
	01036
	01040
	01042
	01044
	02009
	02015
UXP-MAN-IE	03257
	03258
UXP-MSG	03005
	03010
	03021
	03022
	03025
	03026
	03027
	03028
	03030

	03031 03032 03034 03035 03047 03048 03049 03050 03056 03057 03059 03077 03078 03080 03081 03095 03096 03097 03098 03099
UXP-MSG (cont.)	03127 03128 03132 03133 03138 03142 03143 03162 03167 03168 03169 03171 03175 03176 03190 03193 03290 03291 03294 03295 03296 03297 03306 03334 03335 03337
UXP-PKT	06007 06020 06023 06027 06028 06029 06042

UXP_CHILD_OP	08080
UXP_ERR	08087 08089
UXP_RES	08083

APP:SERV-HELD

Software Release: 5E10 and later

1. Introduction

This appendix identifies "service held" conditions.

2. Scenario

A call from a standard integrated services digital network (ISDN) customer premises equipment (CPE) established a connection with an operator or with 911. The CPE disconnected while the far end remained off-hook. This resulted in the call being "service-held". The far end re-rings the CPE by sending a SETUP message through the switch to the CPE. The CPE responds with a RELEASE message that was not expected by the switch.

This means that the call is automatically reconnected if the CPE goes back off-hook.

5. 01-LAPB

01(BASE)

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB

1. BASE FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e y
                 ADDR=f KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Logical link state associated with the error. Valid values are:

BOTH-BSY	= Both stations are busy.
FRM-REJ	= Frame rejected.
INF-TRN	= Information transfer.
LINK-DIS	= Link disconnected.
LINK-SET	= Link setup.
LOG-DIS	= Link logically disconnected.
MAN-DIS	= Link manually disconnected.
REJ-SENT	= Reject frame sent.
RMT-BSY	= Remote station is busy.
STA-BSY	= Local station is busy.
UNKNOWN	= State not known.
WAT-ACK	= Waiting acknowledgement.

d = Link access procedure B (LAPB) frame type associated with the error. Valid values are:

DISC	= Disconnect.
DM	= Disconnected mode.
FRMR	= Frame reject.
I	= Information.
REJ	= Reject.
RNR	= Receiver not ready.
RR	= Receiver ready.
SABM	= Set asynchronous balanced mode.
UA	= Unnumbered acknowledge.
UNKNOWN	= Frame type not known.

e = Direction of transmission for the LAPB frame associated with the error. Valid values are:

RCV	= Frame transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame transmitted from the switch to the CPE.

f = The logical link address corresponding to the entity to receive or transmitting the frame associated with the detected error. If no value is present, then the entity is not known.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

01001

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e INV-HDR
                 ADDR=f KEY=1001
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an invalid header in a frame received from the far end. The header was found to be of the wrong size or the address extension bit was set incorrectly in the address field of the frame. The header should be 3 bytes in length and the address extension bit should be set to 1 indicating that this is the last byte of the address field.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an invalid header.

6. REFERENCES

None.

01002

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1002
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) information frame received from the far end. The switch is acting as data terminal equipment (DTE) and is expecting a data communication equipment (DCE) command frame with the address field set to 3. The address field is either set to 1 (response frame), or it is set to an illegal value which does not translate to any valid address. The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an information frame with an illegal address field.

6. REFERENCES

None.

01003

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1003
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) information frame received from the far end. The switch is acting as a data communication equipment (DCE) and is expecting a data terminal equipment (DTE) command frame with the address field set to 1. The address field is either set to 3 (response frame), or it is set to an illegal value which does not translate to any valid address. The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an information frame with a illegal address field.

6. REFERENCES

None.

01004

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1004
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected link access procedure B (LAPB) information frame from the far end. This frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected information frame in the wrong link state.

6. REFERENCES

None.

01005

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1005
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) supervisory frame received from the far end. The switch is acting as a data terminal equipment (DTE) and is expecting a data communication equipment (DCE) command frame with the address field set to 3 or a DCE response frame with the address field set to 1.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a supervisory frame with an illegal address field.

6. REFERENCES

None.

01006

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1006
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) supervisory frame received from the far end. The switch is acting as a data communication equipment (DCE) and is expecting a data terminal equipment (DTE) command frame with the address field set to 1 or a DCE response frame with the address field set to 3.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a supervisory frame with an illegal address field.

6. REFERENCES

None.

01007

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UNK-FRM
                 ADDR=f KEY=1007
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown link access procedure B (LAPB) supervisory frame from the far end. The switch was expecting a receiver ready (RR), receiver not ready (RNR), or a reject (REJ) frame.

4. EXTERNAL EVIDENCE

The frame is either discarded or a LAPB frame reject (FRMR) is transmitted depending on the state of the link.

5. CORRECTIVE ACTION

Determine why an unknown frame was transmitted from the far end.

6. REFERENCES

None.

01008

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1008
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected link access procedure B (LAPB) supervisory frame from the far end. This frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected supervisory frame in the wrong link state.

6. REFERENCES

None.

01009

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1009
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access procedure B (LAPB) supervisory frame with an information field present from the far end. Supervisory frames should not have an information field.

4. EXTERNAL EVIDENCE

A frame reject (FRMR) is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a supervisory frame with an information field.

6. REFERENCES

None.

01010

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UNK-FRM
                 ADDR=f KEY=1010
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown link access procedure B (LAPB) supervisory frame from the far end. The switch was expecting a receiver ready (RR), receiver not ready (RNR), or a reject (REJ) frame.

4. EXTERNAL EVIDENCE

A LAPB frame reject (FRMR) is transmitted.

5. CORRECTIVE ACTION

Determine why an unknown frame was transmitted from the far end.

6. REFERENCES

None.

01011

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1011
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) unnumbered frame received from the far end. The frame was a set asynchronous balance mode (SABM) or a disconnect (DISC). The switch is acting as a data terminal equipment (DTE) and is expecting a data communication equipment (DCE) command frame with the address field set to 3.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an illegal address field.

6. REFERENCES

None.

01012

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1012
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) unnumbered frame received from the far end. The frame was a set asynchronous balance mode (SABM) or a disconnect (DISC). The switch is acting as a data communication equipment (DCE) and is expecting a data terminal equipment (DTE) command frame with the address field set to 1.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an illegal address field.

6. REFERENCES

None.

01013

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1013
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) unnumbered frame received from the far end. The frame was a disconnect mode (DM), unnumbered acknowledgment (UA), or a frame reject (FRMR). The switch is acting as a data terminal equipment (DTE) and is expecting a data communication equipment (DCE) command frame with the address field set to 3.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an illegal address field.

6. REFERENCES

None.

01014

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e ILL-ADD
                 ADDR=f KEY=1014
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an illegal address field in a link access procedure B (LAPB) unnumbered frame received from the far end. The frame was a disconnect mode (DM), unnumbered acknowledgment (UA), or a frame reject (FRMR). The switch is acting as a data communication equipment (DCE) and is expecting a data terminal equipment (DTE) response frame with the address field set to 03.

The address field is one octet in length and is the second octet in the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an illegal address field.

6. REFERENCES

None.

01015

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UNK-FRM
                 ADDR=f KEY=1015
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown link access procedure B (LAPB) unnumbered frame from the far end. The frame received was not any recognizable unnumbered frame. Valid unnumbered frames include:

```
SABM
DISC
DM
UA
FRMR
```

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why an unknown frame was transmitted by the far end.

6. REFERENCES

None.

01016

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1016
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB SABM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in disconnect or link setup.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a unnumbered frame with an information field.

6. REFERENCES

None.

01017

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1017
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB SABM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in FRMR.

4. EXTERNAL EVIDENCE

A FRMR is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a SABM frame with an information field.

6. REFERENCES

None.

01018

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1018
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB SABM` unnumbered frame from the far end. This frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

The link is initialized as requested by the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected SABM frame in the wrong link state.

6. REFERENCES

None.

01019

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1019
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB SABM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field.

4. EXTERNAL EVIDENCE

A FRMR is transmitted to the far end. PER key code 1018 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted the SABM frame with an information field.

6. REFERENCES

None.

01020

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1020
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB DISC` frame from the far end. This frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected DISC frame in the wrong link state.

6. REFERENCES

None.

01021

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1021
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DISC` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was either disconnect or link setup.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted the DISC frame with an information field.

6. REFERENCES

None.

01022

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP f g h i
                 ADDR=j KEY=1022
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DISC` unnumbered frame with a information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have a information field. The link state was in frame reject.

4. EXTERNAL EVIDENCE

A FRMR is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a DISC frame with an information field.

6. REFERENCES

None.

01023

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1023
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DISC` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a DISC frame with an information field.

6. REFERENCES

None.

01024

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1024
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in either disconnect or link setup. The link type was X.75 or X.75P.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an information field.

6. REFERENCES

None.

01025

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1025
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB DM` frame from the far end. This frame was unexpected in the current link state. The link type was either a X.75 or X.75P.

4. EXTERNAL EVIDENCE

A frame reject (FRMR) is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected unnumbered frame in the wrong link state.

6. REFERENCES

None.

01026

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1026
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB DM` frame from the far end. This frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

The link is either restarted by transmitting a set asynchronous balance mode (SABM) or disconnected by transmitting a DISC to the far end depending on the current link state.

5. CORRECTIVE ACTION

Determine why the far end transmitted the unexpected frame.

6. REFERENCES

None.

01027

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1027
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in disconnect or link setup.

4. EXTERNAL EVIDENCE

None. The frame is discarded. PER key code 1026 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a DM frame with an information field.

6. REFERENCES

None.

01028

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1028
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in frame reject.

4. EXTERNAL EVIDENCE

A frame reject (FRMR) transmitted to the far end. PER key code 1026 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a DM frame with an information field.

6. REFERENCES

None.

01029

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1029
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB DM` unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The frame is unexpected in the current link state.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1026 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an information field.

6. REFERENCES

None.

01030

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1030
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB UA` frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in either disconnect or link setup. The link type was X.75 or X.75P.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UA frame with an information field.

6. REFERENCES

None.

01031

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1031
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB UA` frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UA frame with an information field.

6. REFERENCES

None.

01032

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1032
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB UA` frame from the far end. This frame was unexpected in the current link state. The link type was either a X.75 or X.75P.

4. EXTERNAL EVIDENCE

A frame reject (FRMR) is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected UA frame in the wrong link state.

6. REFERENCES

None.

01033

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1033
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB UA` frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was in either disconnect or link setup. The link type was not X.75 or X.75P.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UA frame with an information field.

6. REFERENCES

None.

01034

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1034
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB UA` frame from the far end. This frame was unexpected in the current link state. The link type was not X.75 or X.75P, and the link state was in frame reject.

4. EXTERNAL EVIDENCE

None. The frame was discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unexpected unnumbered frame in the wrong link state.

6. REFERENCES

None.

01035

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1035
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB UA` frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The link state was FRMR and the link type was not X.75 or X.75P.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UA frame with an information field.

6. REFERENCES

None.

01036

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1036
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB UA` frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR), should not have an information field. The frame was unexpected in the current link state.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1037 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an information field.

6. REFERENCES

None.

01037

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-FRM
                 ADDR=f KEY=1037
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `LAPB UA` frame from the far end. This frame was unexpected in the current link state. The link type was not X.75 or X.75P.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the far end transmitted the unexpected frame.

6. REFERENCES

None.

01038

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e FRM-REJ
                 ADDR=f KEY=1038
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` frame from the far end because the far end detected a protocol violation.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the far end transmitted the frame reject.

6. REFERENCES

None.

01039

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e I-EXP
                 ADDR=f KEY=1039
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` frame from the far end without an information field present. The link state was either in disconnect or link setup.

4. EXTERNAL EVIDENCE

None. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame reject without an information field.

6. REFERENCES

None.

01040

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1040
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` unnumbered frame with an incorrect information field size from the far end. The FRMR information field size should be 3 bytes long.

4. EXTERNAL EVIDENCE

None. The frame is discarded. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an incorrect information field size.

6. REFERENCES

None.

01041

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e I-EXP
                 ADDR=f KEY=1041
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` frame from the far end without an information field present. The link state was in frame reject.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a FRMR without an information field.

6. REFERENCES

None.

01042

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1042
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` unnumbered frame with an incorrect information field size from the far end. The FRMR information field size should be 3 bytes long.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a FRMR frame with an incorrect information field size.

6. REFERENCES

None.

01043

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e I-EXP
                 ADDR=f KEY=1043
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` frame from the far end without an information field present.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame reject without an information field.

6. REFERENCES

None.

01044

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UXP-I-FLD
                 ADDR=f KEY=1044
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPB FRMR` unnumbered frame without an information field present from the far end. The information field size length of an FRMR should be 3 bytes long.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end. PER key code 1038 will also print.

5. CORRECTIVE ACTION

Determine why the far end transmitted a FRMR frame with an incorrect information field size.

6. REFERENCES

None.

01045

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e UNK-FRM
                 ADDR=f KEY=1045
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown link access procedure B (LAPB) unnumbered frame from the far end.

4. EXTERNAL EVIDENCE

The frame is discarded when in the link setup or disconnect states. When in any other state, an FRMR gets transmitted to the far end.

5. CORRECTIVE ACTION

Determine why an unknown frame was transmitted by the far end.

6. REFERENCES

None.

01046

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e LNG-FRM
                 ADDR=f KEY=1046
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access procedure B (LAPB) frame that was too long from the far end. The type of link will determine the maximum allowed size of the frame.

4. EXTERNAL EVIDENCE

An FRMR is transmitted to the far end when not in the link setup or disconnect states. When in the link setup or disconnect state, the frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that was too long.

6. REFERENCES

None.

01047

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e RTRY-EXC
                 ADDR=f KEY=1047
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch transmission retry count has been exceeded for a link access procedure B (LAPB) frame. The switch has attempted to transmit a frame a number of times (with each transmission waiting up to "T1" time units for a response) and got no response from the far end. When the far end has not responded in "N2" retries, the switch logs this protocol error.

Refer to the APP:TIMER appendix in the Appendixes section for additional information.

4. EXTERNAL EVIDENCE

The switch considers the link down and will attempt to re-establish the link at a later time using a link establishment request (such as, SABM). After a period of time with no response from the far end, calls will be taken down. The ADDR field is defaulted to zero (0). The displayed ADDR value of zero has no significance.

5. CORRECTIVE ACTION

Determine why there is no response from the far end.

6. REFERENCES

None.

01048

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e IDL-CHAN
                 ADDR=f KEY=1048
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has detected no activity from the far end on a link access procedure B (LAPB) link in "T3" (the idle link timer) time units. Refer to the APP:TIMER appendix in the Appendixes section for additional information.

The frame type is "UNKNOWN" because this is a timer expiration and the frame type variable is no longer available.

The ADDR field is defaulted to zero (0). The displayed ADDR value of zero has no significance.

4. EXTERNAL EVIDENCE

The switch considers the link down and will attempt to re-establish the link using a link establishment request (SABM). After a period of time with no response from the far end, calls will be taken down.

5. CORRECTIVE ACTION

Determine why there is no response from the far end.

6. REFERENCES

None.

01049

Key Code Range: 01000 - 01999
Software Release: 5E10 and later
Protocol: LAPB
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPB/SLP c d e BBYTCNT
                 ADDR=f KEY=1049
```

2. EXPLANATION OF VARIABLES

Refer to the 01(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a frame from the far end that was incomplete (that is, the frame ended in the middle of a byte).

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that ended in the middle of a byte.

6. REFERENCES

None.

6. 02-LAPD

02(BASE)-A

Key Code Range: 02000 - 02999
Software Release: 5E10 - 5E11
Protocol: LAPD

1. BASE FORMAT

```
PER a/a bb:bb:bb LAPD c d e y
                 TEI=f SAPI=g KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Logical link state associated with the error. Valid values are:

EST-WAT	= Waiting logical link establishment.
MFM-EST	= Multi-frame procedures established.
MFM-REC	= Multi-frame recovery.
MFM-REL	= Multi-frame release request.
TEI-ASGN	= TEI assigned.
TEI-CHK	= TEI check procedures initiated.
TEI-RR	= TEI check response received.
TIM-REC	= Timer recovery.
UNKNOWN	= Logical link state not known.

d = Link access protocol D (LAPD) frame type associated with the error. Valid values are:

DISC	= Disconnect.
DM	= Disconnected mode.
FRMR	= Frame reject.
I	= Information.
REJ	= Reject.
RNR	= Receiver not ready.
RR	= Receiver ready.
SABME	= Set asynchronous balanced mode extended.
UA	= Unnumbered acknowledge.
UI	= Unnumbered information.
UNKNOWN	= Frame type not known.
XID	= Exchange identification.

e = Direction of transmission for the LAPB frame associated with the error. Valid values are:

RCV	= Frame transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmitting the frame associated with the detected error (0-127). If no value is present, then the entity is not known.

g = The service access point identifier (SAPI) corresponding to the entity to receive or transmitting the frame associated with the detected error (0-127). If no value is present, then the entity is not known.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

02(BASE)-B

Key Code Range: 02000 - 02999
Software Release: 5E12 and later
Protocol: LAPD

1. BASE FORMAT

```
PER a/a bb:bb:bb LAPD c d e y
                 {TEI=f SAPI=g|DLCI=h} KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Logical link state associated with the error. Valid values are:

EST-WAT	= Waiting logical link establishment.
MFM-EST	= Multi-frame procedures established.
MFM-REC	= Multi-frame recovery.
MFM-REL	= Multi-frame release request.
TEI-ASGN	= TEI assigned.
TEI-CHK	= TEI check procedures initiated.
TEI-RR	= TEI check response received.
TIM-REC	= Timer recovery.
UNKNOWN	= Logical link state not known.

d = Link access protocol D (LAPD) frame type associated with the error. Valid values are:

DISC	= Disconnect.
DM	= Disconnected mode.
FRMR	= Frame reject.
I	= Information.
REJ	= Reject.
RNR	= Receiver not ready.
RR	= Receiver ready.
SABME	= Set asynchronous balanced mode extended.
UA	= Unnumbered acknowledge.
UI	= Unnumbered information.
UNKNOWN	= Frame type not known.
XID	= Exchange identification.

e = Direction of transmission for the LAPB frame associated with the error. Valid values are:

RCV	= Frame transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity receiving or transmitting the frame associated with the detected error (0-127). If no value is present, then the entity is not known.

g = The service access point identifier (SAPI) corresponding to the entity receiving or transmitting the frame associated with the detected error (0-127). If no value is present, then the entity is not known.

`h` = The data link connection identifier (DLCI) corresponding to the entity receiving or transmitting the frame associated with the detected error (0-1023). If no value is present, then the entity is not known.

`y` = The protocol error code (PEC) denoting the error detected.

`z` = The key code that uniquely identifies the individual occurrence of the PEC specified in '`y`'.

3. REFERENCES

None.

02001

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-SAPI
                 TEI=f SAPI=g KEY=2001
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a frame with an invalid service access point identifier (SAPI) value from the far end. Valid SAPI values are:

`0` = Call control procedures.

`1` = Reserved for packet mode communications using Q.931 call control procedures.

`16` = Packet communication conforming to X.25 level 3 procedures.

`63` = Layer 2 management procedures.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid SAPI.

6. REFERENCES

None.

02002

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-TEI
                 TEI=f SAPI=g KEY=2002
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access protocol D (LAPD) frame whose fixed terminal endpoint identifier (TEI) was invalid from the far end. The TEI was found to be greater than 63. Fixed TEIs have a valid range of 0-63.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame whose fixed TEI exceeded 63.

6. REFERENCES

None.

02003

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-HDR
                 TEI=f SAPI=g KEY=2003
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an invalid header size of 3 bytes in an information frame received from the far end. The header size should be 4 bytes for information frames.

4. EXTERNAL EVIDENCE

The frame is discarded and the link is restarted by transmitting a set asynchronous balance mode extended (SABME) to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an invalid header.

6. REFERENCES

None.

02004

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-HDR
                 TEI=f SAPI=g KEY=2004
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an invalid header size of 3 bytes in a supervisory frame received from the far end. The header size should be 4 bytes for supervisory frames.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an invalid header.

6. REFERENCES

None.

02005

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-CR
                 TEI=f SAPI=g KEY=2005
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access protocol D (LAPD) set asynchronous balance mode extended (SABME), link establishment, frame from the far end with the response bit set on a primary rate interface (PRI) port when the switch expected it to be a command.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a SABME with the response bit set.

6. REFERENCES

None.

02006

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-CR
                 TEI=f SAPI=g KEY=2006
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access protocol D (LAPD) link unnumbered acknowledgement (UA) frame from the far end with the command bit set on a primary rate interface (PRI) port when the switch expected it to be a response.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UA with the command bit set.

6. REFERENCES

None.

02007

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-HDR
                 TEI=f SAPI=g KEY=2007
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an invalid header size of 4 bytes for a link access protocol D (LAPD) unnumbered frame received from the far end. The header size for a unnumbered frame is expected to be 3 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded and the link is restarted by transmitting a set asynchronous balance mode extended (SABME) to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an invalid header.

6. REFERENCES

None.

02008

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e FRM-REJ
                 TEI=f SAPI=g KEY=2008
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPD FRMR` from the far end because the far end detected a protocol violation.

4. EXTERNAL EVIDENCE

The link is restarted by transmitting a set asynchronous balance mode extended (SABME), link establishment, to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a `LAPD FRMR`.

6. REFERENCES

None.

02009

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UXP-I-FLD
                 TEI=f SAPI=g KEY=2009
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a LAPD unnumbered frame with an information field present from the far end. Unnumbered frames, except frame rejects (FRMR) and unnumbered information (UI) frames should not have an information field. The frame type received was not a UI frame or FRMR.

4. EXTERNAL EVIDENCE

The link is restarted by transmitting a link establishment, set asynchronous balanced mode extended (SABME), to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted an unnumbered frame with an information field.

6. REFERENCES

None.

02010

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UXP-FRM
                 TEI=f SAPI=g KEY=2010
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unexpected LAPD frame from the far end. This frame was unexpected in the current link state. The frame type was either a link establishment (SABME) frame, a disconnect mode (DM) frame, or an unnumbered acknowledgement (UA) frame.

4. EXTERNAL EVIDENCE

A terminal endpoint identifier (TEI) check message is transmitted on service access point identifier (SAPI) 63, TEI 127 (the management link) to the far end.

5. CORRECTIVE ACTION

Determine why the unexpected frame was transmitted by the far end.

6. REFERENCES

None.

02011

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e LNG-FRM
                 TEI=f SAPI=g KEY=2011
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access protocol D (LAPD) frame that was too long from the far end. The type of link will determine the maximum allowed size of the frame.

4. EXTERNAL EVIDENCE

The link is restarted by transmitting a link establishment (SABME) to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame too long.

6. REFERENCES

None.

02012

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UXP-FRM
                 TEI=f SAPI=g KEY=2012
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected link access protocol D (LAPD) information frame from the far end in an unexpected link state. The link state has to be in information transfer state or in timer recovery state in order to receive a LAPD information frame.

4. EXTERNAL EVIDENCE

None. The frame was discarded.

5. CORRECTIVE ACTION

Determine why the unexpected frame was transmitted by the far end.

6. REFERENCES

None.

02013

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e OUT-SEQ
                 TEI=f SAPI=g KEY=2013
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a frame that was out of sequence from the far end. The far end "next to receive" sequence number, N(R), in the frame was incorrect.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is restarted by transmitting a link establishment set asynchronous balance mode extended (SABME) to the far end. All sequence numbers are set to zero.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame out of sequence.

6. REFERENCES

None.

02014

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e OUT-SEQ
                 TEI=f SAPI=g KEY=2014
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a frame that was out of sequence from the far end. The far end "next to receive" sequence number, N(R), in the frame was incorrect.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is restarted by transmitting a link establishment (SABME) to the far end. All sequence numbers are set to zero.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame out of sequence.

6. REFERENCES

None.

02015

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UXP-I-FLD
                 TEI=f SAPI=g KEY=2015
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a link access protocol D (LAPD) supervisory frame with an information field present from the far end. Supervisory frames should not have an information field.

4. EXTERNAL EVIDENCE

The link is restarted by transmitting a link establishment set asynchronous balance mode extended (SABME) to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a supervisory frame with an information field.

6. REFERENCES

None.

02016

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UNK-FRM
                 TEI=f SAPI=g KEY=2016
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown link access protocol D (LAPD) supervisory frame from the far end.

4. EXTERNAL EVIDENCE

The link is restarted by transmitting a link establishment set asynchronous balance mode extended (SABME) to the far end.

5. CORRECTIVE ACTION

Determine why an unknown frame was transmitted by the far end.

6. REFERENCES

None.

02017

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e RTRY-EXC
                 TEI=f SAPI=g KEY=2017
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch transmission retry count has been exceeded for a link access protocol D (LAPD) link establishment set asynchronous balance mode extended (SABME) frame. The switch has attempted to transmit the SABME a number of times (with each transmission waiting up to T200 time units for a response) and got no response from the far end. When the far end has not responded in N200 retrys, the switch logs this protocol error. The switch is expecting an unnumbered acknowledgement (UA) frame.

4. EXTERNAL EVIDENCE

The switch considers the link down and will attempt to re-establish the link at a later time using a SABME request. After a period of time with no response from the far end, calls will be taken down.

5. CORRECTIVE ACTION

Determine why there is no response from the far end.

6. REFERENCES

None.

02018

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e RTRY-EXC
                 TEI=f SAPI=g KEY=2018
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch transmission retry count has been exceeded for a link access protocol D (LAPD) link disconnect (DISC) frame. The switch has attempted to transmit the `LAPD DISC` frame a number of times (with each transmission waiting up to T200 time units for a response) and got no response from the far end. When the far end has not responded in N200 retrys, the switch logs this protocol error. The switch is expecting an unnumbered acknowledgement (UA) frame.

4. EXTERNAL EVIDENCE

None. The switch considers the link down.

5. CORRECTIVE ACTION

Determine why there is no response from the far end.

6. REFERENCES

None.

02019

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e RTRY-EXC
                 TEI=f SAPI=g KEY=2019
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch transmitted an information frame and did not receive an acknowledgement in T200 time units from the far end. The switch proceeded to poll the far end with a LAPD receiver ready (RR) or receiver not ready (RNR) frame. The RR or RNR was re-transmitted N200 times (with each RR or RNR retransmitted every T200 time units) and got no response from the far end. An RR or RNR frame should be the response.

4. EXTERNAL EVIDENCE

The switch considers the link down. It will attempt to re-establish the link at a later time using a link establishment set asynchronous balance mode extended (SABME) request. After a period of time with no response from the far end, calls will be taken down.

5. CORRECTIVE ACTION

Determine why there is no response from the far end.

6. REFERENCES

None.

02020

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e BYTE-CNT
                 TEI=f SAPI=g KEY=2020
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a frame from the far end that was incomplete. The frame ended in the middle of a byte.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that ended in the middle of a byte.

6. REFERENCES

None.

02021

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-HDR
                 TEI=f SAPI=g KEY=2021
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected an invalid header size in a frame received from the far end. The header size should be 3 bytes for unnumbered frames and 4 bytes for numbered frames (that is, frames that contain sequence numbers).

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an invalid header.

6. REFERENCES

None.

02022

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e UXP-FRM
                 TEI=f SAPI=g KEY=2022
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unexpected link access protocol D (LAPD) frame from the far end. This frame was unexpected on the broadcast logical link (TEI = 127). The switch expected a LAPD unnumbered information (UI) frame or the switch data indicates that the channel was not initialized.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the unexpected frame was transmitted by the far end.

6. REFERENCES

None.

02023

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e DDA-ERR
                 TEI=f SAPI=g KEY=2023
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch detected dynamic data that had not been initialized when it received a message from the far end.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

None. Routine audits should correct this condition if it persists.

6. REFERENCES

None.

02024

Key Code Range: 02000 - 02999
Software Release: 5E10 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-SAPI
                 TEI=f SAPI=g KEY=2024
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message with service access point identifier (SAPI) 1 on a channel other than the embedded operations channel (EOC) or time slot management channel (TMC).

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid SAPI value.

6. REFERENCES

None.

02030

Key Code Range: 02000 - 02999
Software Release: 5E12 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-DLCI
                 DLCI=h KEY=2030
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Frame Relay I-frame with a DLCI that is below the minimum range.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid DLCI value.

6. REFERENCES

None.

02031

Key Code Range: 02000 - 02999
Software Release: 5E12 and later
Protocol: LAPD
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb LAPD c d e INV-DLCI
                 DLCI=h KEY=2031
```

2. EXPLANATION OF VARIABLES

Refer to the 02(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Frame Relay I-frame with a DLCI that exceeds the maximum range.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid DLCI value.

6. REFERENCES

None.

7. 03-Q.931

03(BASE)

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931

1. BASE FORMAT

```
PER a/a bb:bb:bb Q.931 c d e y
                [TEI=f] CRV=g CRF=h KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Call state for the call associated with the error.

In some cases, the call state is associated with the customer premises equipment (CPE) download or initialization and is not the state of a possible active call.

Valid values are:
CALL-ACTIVE = Call active.
CALL-DELIVERED = Call delivered.
CALL-INITIATED = Call initiated.
CALL-PRESENT = Call present.
CALL-RECEIVED = Call received.
CONNECT-REQ = Connect request.
DIAL-TONE-SEND = Dial tone sending.
DISCONNECT-IND = Disconnect indication.
DISCONNECT-REQ = Disconnect request.
DSL-OUT-OF-SVC = Digital subscriber line out of service.
INC-CALL-PROC = Incoming call proceeding.
NON-CALL-ASSOC = Non-call associated.
NULL = Null.
OUT-CALL-PROC = Outgoing call proceeding.
OVERLAP-SEND = Overlap sending.
RELEASE = Release indication.
RELEASE-REQ = Release request.
UNKNOWN = State not known. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section.

d = Message type associated with the error. Valid values are:
ALERTING = Alerting.
ASSOCIATED = Associated.
ASSOCIATED-ACK = Associated acknowledge.
CALL-PROCEED = Call proceeding.
CONFERENCE = Conference.
CONFERENCE-ACK = Conference acknowledge.
CONFERENCE-REJ = Conference reject.
CONNECT = Connect.
CONNECT-ACK = Connect acknowledge.

DISCONNECT = Disconnect.
DROP = Drop.
DROP-ACK = Drop acknowledge.
DROP-REJECT = Drop reject.
FACILITY = Facility.
HOLD = Hold.
HOLD-ACK = Hold acknowledge.
HOLD-REJECT = Hold reject.
INFORMATION = Information.
KEYHOLD = Key hold.
KEYREL = Key release.
KEYSETUP = Key Setup.
KEYSETUPACK = Key setup acknowledge.
MGMT-INFO = Management information.
NOTIFY = Notify.
PROGRESS = Progress.
RECONNECT = Reconnect.
RECONNECT-ACK = Reconnect acknowledge.
RECONNECT-REJ = Reconnect reject.
REDIRECT = Redirect.
REGISTER = Register.
RELEASE = Release.
RELEASE-COMP = Release complete.
RESTART = Restart.
RESTART-ACK = Restart acknowledge.
RESTART-CNF = Restart confirm.
RETRIEVE = Retrieve.
RETRIEVEACK = Retrieve acknowledge.
RETRIEVEREJ = Retrieve reject.
SEGMENT = Segment.
SERVICE = Service.
SERVICE-ACK = Service acknowledge.
SETUP = Setup.
SETUP-ACK = Setup acknowledge.
STATUS = Status.
STATUS-INQ = Status inquiry.
TRANSFER = Transfer.
TRANSFER-ACK = Transfer acknowledge.
TRANSFER-REJ = Transfer reject.
UNKNOWN = Message type unknown.

e = Direction of transmission for the Q.931 message associated with the error. Valid values are:
RCV = From the customer premises equipment (CPE) to the switch.
XMT = From the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmitting the frame associated with the detected error (0-127). If the TEI is not known, this field is not present.

g = The call reference value (CRV) of the call associated with the detected error (0-32767).

h = The call reference flag (CRF) of the call associated with the detected error.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

Refer to the ISDN Basic Rate Interface Specification and ISDN Primary Rate Interface Specification manuals for additional information.

3. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-900-302 *ISDN Primary Rate Interface Specification*

03001

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RELS-NO-CALL
                [TEI=f] CRV=g CRF=h KEY=3001
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The AUcrv audit detected a mismatch between the originating call reference value (CRV) in the switch and the originating CRV in the customer premises equipment (CPE). The audit is scheduled to run after a re-synchronization, initialization or refresh of a CPE. It is also run as part of routine port conditioning (RPC) and other audit fault recovery. Refer to the CRV audit in the Audits Manual for additional information.

4. EXTERNAL EVIDENCE

No dial tone will be available in the CPE until the switch sends a `Q.931 RELEASE COMPLETE` message to clear the CRV.

5. CORRECTIVE ACTION

No manual corrective action is required. The switch will automatically correct the mismatch. If there is a persistent logging of this PER from a single CPE, investigate the cause of the mismatch between the CRV of the CPE and the switch.

6. REFERENCES

Other Manual(s):

235-600-500 *Audits Manual*

03002

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RELS-NO-CALL
                [TEI=f] CRV=g CRF=h KEY=3002
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The AUcrv audit detected a mismatch between the terminating call reference value (CRV) in the switch and the terminating CRV in the customer premises equipment (CPE). The audit is scheduled to run after a re-synchronization, initialization or refresh of a CPE. It is also run as part of routine port conditioning (RPC) and other audit fault recovery. Refer to the CRV audit in the Audits Manual for additional information.

4. EXTERNAL EVIDENCE

A call can not be terminated to the CPE until the switch sends a `Q.931 RELEASE COMPLETE` message to clear the stuck CRV.

5. CORRECTIVE ACTION

No manual corrective action is required. The switch automatically corrects this mismatch. If there is persistent logging of this PER from a single CPE, investigate the cause of the mismatch between the CRV of the CPE and the switch.

6. REFERENCES

Other Manual(s):

235-600-500 *Audits*

03003

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3003
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The user of a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) attempted to either activate, deactivate, or change the forward-to-DN of a call forwarding voice feature from the circuit switched data channel (B1, B2) using a dialed code.

4. EXTERNAL EVIDENCE

A cause information element (IE) with a cause code value of 51NET "call type incompatible with service request" is sent from the switch to the CPE in either a `Q.931 RELEASE COMPLETE` or `Q.931 DISCONNECT` message. The data call is cleared. Refer to the Cause Code appendix in the Appendixes section.

5. CORRECTIVE ACTION

Instruct the customer that they are not allowed to change a call forwarding voice feature from the data channel.

6. REFERENCES

None.

03004

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3004
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The user of a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) attempted to either activate or deactivate a call forwarding data feature from the voice channel (B1 or B2) using a dialed code.

4. EXTERNAL EVIDENCE

A cause information element (IE) with a cause code value of 51NET "call type incompatible with service request" is sent from the switch to the CPE in a `Q.931 PROGRESS` message. Reorder tone is then heard by the customer. The voice call will be cleared when the customer hangs up or the reorder tone timer expires.

5. CORRECTIVE ACTION

Instruct the customer that they are not allowed to change a call forwarding data feature from the voice channel.

6. REFERENCES

None.

03005

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3005
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the on-demand B-channel packet call was in the disconnect indication state, the switch received a `Q.931 RELEASE COMPLETE` message. The on-demand B-channel packet call is in this state after sending a `Q.931 DISCONNECT` message to the customer premises equipment (CPE). The switch was waiting for a `Q.931 RELEASE` message in this state.

4. EXTERNAL EVIDENCE

The switch will immediately clear the call.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 RELEASE COMPLETE` message in response to a `Q.931 DISCONNECT` message.

6. REFERENCES

None.

03006

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RES-LIM
                [TEI=f] CRV=g CRF=h KEY=3006
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message from the National Integrated Services Digital Network (ISDN) customer premises equipment (CPE). This message requested a terminal download. While processing the message, the switch ran out of a resource (terminal processes).

4. EXTERNAL EVIDENCE

The switch discarded the common management information service element (CMISE) message. A `Q.931 RELEASE COMPLETE` message containing a RO-Reject message with the reason of "resourceLimitation" with an application protocol data unit (APDU) or a `Q.931 RELEASE COMPLETE` message without an APDU but a cause code value of 47 "resources unavailable, unspecified" was sent to the CPE. Refer to the Cause Code appendix in the Appendixes section.

5. CORRECTIVE ACTION

If this key is only seen rarely, this problem can be ignored, because it indicates that a critical resource was momentarily exhausted; but, when the load leveled off, the resource became plentiful again.

This is a resource problem about a terminal process. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION.

6. REFERENCES

None.

03007

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SAME-CRV
                [TEI=f] CRV=g CRF=h KEY=3007
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message to queue on the maintenance input buffer (MIB), but found a `Q.931 SETUP` message in the digital subscriber line (DSL) input buffer (DIB) for the same terminal with the same call reference value (CRV). The National customer premises equipment (CPE) is requesting a download.

4. EXTERNAL EVIDENCE

The CPE download fails. The switch removes the `Q.931 SETUP` message from the DIB, discards the `Q.931 REGISTER` message, and sends a `Q.931 RELEASE COMPLETE` message to the CPE. The CPE does not automatically request a retry. The customer must reset the CPE in order to reinitiate a download. If repeated attempts to request a download fail and the PER threshold is exceeded, the port is removed from service.

5. CORRECTIVE ACTION

If the port is removed from service, investigate for possible CPE problems.

6. REFERENCES

None.

03008

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MIB-REG-DEL
                [TEI=f] CRV=g CRF=h KEY=3008
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message to queue on the maintenance input buffer (MIB), but found a `Q.932 REGISTER` message with the same call reference value (CRV) already queued. The National customer premises equipment (CPE) is requesting a download.

4. EXTERNAL EVIDENCE

The CPE download fails. The switch removes the queued `Q.932 REGISTER` message from the MIB, discards the received `Q.932 REGISTER` message, and sends a `Q.931 RELEASE COMPLETE` message to the CPE. The CPE does not automatically request a retry. The customer must reset the CPE in order to reinitiate a download. If repeated attempts to request a download fail and the PER threshold is exceeded, the port is removed from service.

5. CORRECTIVE ACTION

If the port is removed form service, investigate for possible CPE problems.

6. REFERENCES

None.

03009

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e NET-CONG
                [TEI=f] CRV=g CRF=h KEY=3009
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.932 REGISTER message to queue on the maintenance input buffer (MIB), but a APDU-RTMSGBUF tuple pair, used to queue the message information, could not be allocated. The National customer premises equipment (CPE) is requesting a download.

4. EXTERNAL EVIDENCE

The CPE download fails. The switch discards the Q.931 REGISTER message and sends a Q.931 RELEASE COMPLETE message to the CPE. The CPE will not automatically request a retry and the customer will need to reset the CPE in order to reinitiate a download. This is a temporary condition caused by link traffic overload causing an application processor data unit (APDU) resource shortage.

5. CORRECTIVE ACTION

No corrective action is possible. This should be a temporary condition that should be self clearing.

6. REFERENCES

None.

03010

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3010
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the on-demand B-channel packet call was in the release request state, the switch has received a `Q.931 DISCONNECT` message. The switch entered into this state after sending a `Q.932 RELEASE` message to the customer premises equipment (CPE). The switch was waiting for a `Q.931 RELEASE COMPLETE` message in this state.

4. EXTERNAL EVIDENCE

None. The switch will discard this message and continue to wait for a `Q.931 RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 DISCONNECT` message in response to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03011

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3011
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message that has a condition such as:

- a keypad information element (IE) and a called party number (CdPN) IE (an invalid IE combination)
- an invalid digit detected in the keypad IE. The valid digits in the keypad IE are 0 through 9, * (star) and # (pound).

The scenario is most likely a National Integrated Services Digital Network (ISDN) 2 or later call forwarding activation outside the context of a call. The `Q.931 INFORMATION` message was received while collecting a parameter (such as, the forward-to-DN).

4. EXTERNAL EVIDENCE

The call (such as, National ISDN 2 call forwarding activation attempt outside the context of a call) will fail with:

- A cause code value of 28 "invalid number format (address incomplete)" if the called party number (CdPN) and keypad IEs were both present.
- A cause code value of 100 "invalid information element contents" if an invalid digit was detected in the keypad IE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with either an invalid IE combination or an invalid digit in an IE.

6. REFERENCES

None.

03012

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3012
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 INFORMATION message with an invalid called party number (CdPN) information element (IE) from the customer premises equipment (CPE). The CdPN IE may be invalid because of an existing condition such as:

- The CdPN numbering plan and address type are an invalid combination.
- An invalid digit was detected in the CdPN.

The valid address type/numbering plan combinations are:

Numbering Plan	Address Type
ISDN	International, National, or Local
Private	Network-Specific or Abbreviated
Unknown	Unknown

The valid digits in a CdPN are 0 through 9. The * (star) and # (pound) are valid digits only if the CdPN address type is Unknown.

The scenario is most likely a National Integrated Services Digital Network (ISDN) 2 or later call forwarding activation outside the context of a call. The invalid Q.931 INFORMATION message was received while collecting a parameter (such as, the forward-to-DN).

4. EXTERNAL EVIDENCE

The call (such as, National ISDN 2 call forwarding activation attempt outside the context of a call) will fail with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE sent a Q.931 INFORMATION message with an invalid CdPN IE.

6. REFERENCES

None.

03013

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3013
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message with a condition such as:

- A keypad information element (IE) and a called party number (CdPN) IE (an invalid IE combination).
- An invalid digit detected in the keypad IE.

The valid digits in the keypad IE are 0 through 9, * (star) and # (pound).

The scenario is probably that a National Integrated Services Digital Network (ISDN) call requires a parameter such as a National ISDN call forwarding activation attempt. The invalid `Q.931 INFORMATION` message was received while collecting the parameter (such as, forward-to-DN).

4. EXTERNAL EVIDENCE

The National ISDN call will fail with:

- A cause code value of 28 "invalid number format (address incomplete)" if the CdPN and keypad IEs were both present.
- A cause code value of 100 "invalid information element contents" if an invalid digit was detected in the keypad IE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with either an invalid IE combination or an invalid digit in an IE.

6. REFERENCES

None.

03014

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3014
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message with an invalid called party number (CdPN) information element (IE) from the customer premises equipment (CPE). The CdPN IE may be invalid because of an existing condition such as:

- The CdPN numbering plan and address type are an invalid combination.
- An invalid digit was detected in the CdPN.

The valid address type/numbering plan combinations are:

Numbering Plan	Address Type
ISDN	International, National, or Local
Private	Network-Specific or Abbreviated
Unknown	Unknown

The valid digits in a CdPN are 0 through 9. The * (star) and # (pound) are valid digits only if the CdPN address type is Unknown.

The scenario is probably that a National Integrated Services Digital Network (ISDN) call requires a parameter such as a National ISDN call forwarding activation attempt. The invalid `Q.931 INFORMATION` message was received while collecting the parameter (such as, the forward-to-DN).

4. EXTERNAL EVIDENCE

The National ISDN call will fail with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with an invalid CdPN IE.

6. REFERENCES

None.

03015

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3015
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message that had an existing condition such as:

- A keypad information element (IE) and a called party number (CdPN) IE (an invalid IE combination).
- An invalid digit detected in the keypad IE.

The valid digits in the keypad IE are 0 through 9, * (star), and # (pound).

This is probably a National Integrated Services Digital Network (ISDN) call.

The invalid `Q.931 INFORMATION` message was received during digit analysis.

4. EXTERNAL EVIDENCE

The National ISDN call will fail with:

- A cause code value of 28 "invalid number format (address incomplete)" if the CdPN and keypad IEs were both present.
- A cause code value of 100 "invalid information element contents" if an invalid digit was detected in the keypad IE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with either an invalid IE combination or an invalid digit in an IE.

6. REFERENCES

None.

03016

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3016
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message with an invalid called party number (CdPN) information element (IE) from the customer premises equipment (CPE). The CdPN IE may be invalid because of an existing condition such as:

- The CdPN numbering plan and address type are an invalid combination.
- An invalid digit was detected in the CdPN.

The valid address type/numbering plan combinations are:

Numbering Plan	Address Type
ISDN	International, National, or Local
Private	Network-Specific or Abbreviated
Unknown	Unknown

The valid digits in a CdPN are 0 through 9. The * (star) and # (pound) are valid digits only if the CdPN address type is Unknown.

This is probably a National Integrated Services Digital Network (ISDN) call. The invalid `Q.931 INFORMATION` message was received during digit analysis.

4. EXTERNAL EVIDENCE

The National ISDN call will fail with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with an invalid CdPN IE.

6. REFERENCES

None.

03017

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3017
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

No response was received from the customer premises equipment (CPE) to the `Q.931 STATUS INQUIRY` message sent by the switch to the CPE. The switch was expecting a `Q.931 STATUS` message from the CPE.

4. EXTERNAL EVIDENCE

The Integrated Services Digital Network (ISDN) call will fail.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to the `Q.931 STATUS INQUIRY` message.

6. REFERENCES

None.

03018

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3018
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 INFORMATION message with an invalid called party number (CdPN) information element (IE) from the customer premises equipment (CPE).

The CdPN IE may be invalid because of an existing condition such as:

- The CdPN numbering plan and address type are an invalid combination.
- An invalid digit was detected in the CdPN.

The valid address type/numbering plan combinations are:

Numbering Plan	Address Type
ISDN	International, National, or Local
Private	Network-Specific or Abbreviated
Unknown	Unknown

The valid digits in a CdPN are 0 through 9. The * (star) and # (pound) are valid digits only if the CdPN address type is "Unknown".

The Q.931 INFORMATION message was received outside the context of a call and contained the feature activator IE (that most likely requested call forwarding activation) and a called party number IE that contained supplemental information (such as, the forward-to-DN).

NOTE: The scenario is most likely a National Integrated Services Digital Network (ISDN) 2 or later call forwarding activation outside the context of a call.

4. EXTERNAL EVIDENCE

The activation attempt fails with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE sent a Q.931 INFORMATION message with an invalid CdPN IE.

6. REFERENCES

None.

03019

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3019
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message to the switch that was missing the mandatory bearer capability information element (IE).

4. EXTERNAL EVIDENCE

The custom ISDN call fails with a cause code value of 96 "mandatory information element is missing".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 SETUP` message without the mandatory bearer capability IE.

6. REFERENCES

None.

03020

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3020
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) that was missing the mandatory cause information element (IE). The custom ISDN call was in the call active state when the switch received the `Q.931 DISCONNECT` from the CPE.

4. EXTERNAL EVIDENCE

The disconnect procedure continues normally but the disconnect cause value is not used since it was not provided.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 DISCONNECT` message without the mandatory cause IE.

6. REFERENCES

None.

03021

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3021
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) that the switch was not expecting. The call was in the "disconnect request" state and the switch was tearing down the call path before sending a `Q.931 RELEASE` message to the CPE.

4. EXTERNAL EVIDENCE

The `Q.931 RELEASE` message sent by the CPE will be ignored by the switch. The switch will tear down the call path and send a `Q.931 RELEASE` message to the CPE as it would normally do.

5. CORRECTIVE ACTION

The custom CPE may have sent a `Q.931 RELEASE` message to the switch after the CPE's timer for waiting to receive the `Q.931 RELEASE` message from the switch expired. It is difficult to determine, without further information, whether there exists a problem with the CPE.

6. REFERENCES

None.

03022

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3022
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) that the switch was not expecting. The call was in the "disconnect request" state and the switch was tearing down the call path before sending a `Q.931 RELEASE` message to the CPE.

4. EXTERNAL EVIDENCE

The `Q.931 RELEASE COMPLETE` message sent by the CPE will be ignored by the switch. The switch will tear down the call path and send a `Q.931 RELEASE` message to the CPE as it would normally do.

5. CORRECTIVE ACTION

The custom CPE may have sent a `Q.931 RELEASE COMPLETE` message to the switch after the CPE's timer for waiting to receive the `Q.931 RELEASE` message from the switch expired. It is difficult to determine, without further information, whether there exists a problem with the CPE.

6. REFERENCES

None.

03023

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                [TEI=f] CRV=g CRF=h KEY=3023
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 DISCONNECT` message to the custom integrated services digital network (ISDN) customer premises equipment (CPE) but the CPE did not respond with a `Q.931 RELEASE` message before timer T305 expired.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the custom ISDN CPE, start timer T308, and wait for receipt of the `Q.931 RELEASE COMPLETE` message from the CPE.

5. CORRECTIVE ACTION

Determine why the CPE did not respond within the switch's expected time frame.

6. REFERENCES

None.

03024

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3024
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 RELEASE` message to the custom integrated services digital network (ISDN) customer premises equipment (CPE) and was waiting for a `Q.931 RELEASE COMPLETE` from the CPE when timer T308 expired.

4. EXTERNAL EVIDENCE

If this is the first time during the call that timer T308 expired, then the switch will resend the `Q.931 RELEASE` message to the CPE and restart timer T308. If this is the second time that T308 has expired, then the switch will tear down the call without receiving the `Q.931 RELEASE COMPLETE` from the CPE.

5. CORRECTIVE ACTION

Determine why the CPE did not respond within the switch's expected time frame.

6. REFERENCES

None.

03025

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3025
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) that the switch was not expecting. For a joint-held or service-held call, the CPE has been released, the far end is still off-hook, and the CPE sends another `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE in response to the `Q.931 RELEASE` message sent to the switch. However, the call remains in a joint-held or service-held state where the call can be re-established if the CPE goes off-hook again or the far-end re-rings (or rings back).

5. CORRECTIVE ACTION

Determine why the ISDN CPE sent a message that the switch was not expecting.

6. REFERENCES

None.

03026

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3026
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) that the switch was not expecting. For a joint-held or service-held call, the CPE has been released, the far-end is still off-hook, and the CPE sends another `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The switch will ignore the `Q.931 RELEASE COMPLETE` message sent by the CPE. The call remains in a joint-held or service-held state where the call can be re-established if the CPE goes off-hook again or the far-end re-rings (or rings back).

5. CORRECTIVE ACTION

Determine why the ISDN CPE sent an unexpected message to the switch.

6. REFERENCES

None.

03027

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3027
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from a customer premises equipment (CPE) that it was not expecting. The call is service-held. The far end re-rings the CPE by sending a `Q.931 SETUP` message through the switch to the CPE. The CPE responds with a `Q.931 RELEASE` message that was not expected by the switch.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE in response to the `Q.931 RELEASE` message that it received from the CPE. The re-ring attempt by the far end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE responded to a `Q.931 SETUP` message with a `Q.931 RELEASE` message.

6. REFERENCES

None.

03028

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3028
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) that it was not expecting. For a custom Integrated Services Digital Network (ISDN) call, the CPE established a connection with an operator or with 911. The CPE then disconnected while the far end remained off-hook. This resulted in the call being service-held. The far end re-rings the CPE by sending a `Q.931 SETUP` message through the switch to the CPE. The CPE responds with a `Q.931 RELEASE COMPLETE` message that was not expected by the switch.

4. EXTERNAL EVIDENCE

The re-ring attempt by the far end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE responded to a `Q.931 SETUP` message with a `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

03029

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3029
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) did not respond to the `Q.931 SETUP` message sent by the switch before timer T303 expired. For a custom Integrated Services Digital Network (ISDN) call, the CPE established a connection with an operator or with 911. The CPE then disconnected while the far end remained off-hook. This resulted in the call being service-held. The far end re-rings the CPE by sending a `Q.931 SETUP` message through the switch to the CPE.

4. EXTERNAL EVIDENCE

The re-ring attempt by the far end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE failed to respond to a `Q.931 SETUP` message in a timely manner.

6. REFERENCES

None.

03030

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3030
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) responded to a `Q.931 SETUP` message with multiple `Q.931 CALL PROCEEDING` messages. For a custom Integrated Services Digital Network (ISDN) call, the CPE established a connection with an operator or with 911. The CPE then disconnected while the far end remained off-hook. This resulted in the call being service-held.

The far end re-rings the CPE by sending a `Q.931 SETUP` message through the switch to the CPE. The CPE responds to the `Q.931 SETUP` message by sending more than one `Q.931 CALL PROCEEDING` message. This PER key is logged for every `Q.931 CALL PROCEEDING` message except the first one.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the CPE is sending unnecessary `Q.931 CALL PROCEEDING` messages. The more the CPE logs this specific PER key the more likely it is that the CPE has a problem.

6. REFERENCES

None.

03031

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3031
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected non-clearing message in a non-clearing state from a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE). The unexpected message received by the switch may be one of the following:

```
Q.931 DISCONNECT
Q.931 CONNECT
Q.931 CALL PROCEEDING
Q.931 ALERTING
Q.931 STATUS
```

4. EXTERNAL EVIDENCE

The unexpected message will be ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent the switch an unexpected message.

6. REFERENCES

None.

03032

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3032
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message with the same call reference value (CRV) as an existing call from a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The unexpected `Q.931 SETUP` message from the custom ISDN terminal will be ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent the switch an unexpected `Q.931 SETUP` message.

6. REFERENCES

None.

03033

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3033
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPD DISCONNECT` frame on a shared call.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` to the digital subscriber line (DSL). The DSL will be taken out-of-service. The call's network path will remain up if a shared directory number (DN) associate has terminating treatment so that it may answer the call.

5. CORRECTIVE ACTION

Determine why an Integrated Services Digital Network (ISDN) layer 2 failure has occurred.

6. REFERENCES

None.

03034

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3034
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The call will be torn down.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

03035

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3035
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The call will be torn down normally.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE` message.

6. REFERENCES

None.

03036

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3036
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A custom integrated services digital network (ISDN) customer premises equipment (CPE) sent an unexpected LAPD disconnect frame to the switch.

4. EXTERNAL EVIDENCE

The call will be torn down normally.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected LAPD disconnect frame to the switch.

6. REFERENCES

None.

03037

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3037
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An Integrated Services Digital Network (ISDN) customer premises equipment (CPE), receiving a call, failed to respond before timer T303 expired.

An ISDN CPE is making a call to a custom ISDN CPE. The switch starts timer T303 and sends a `Q.931 SETUP` message to the terminator (that is, the custom ISDN terminal), however, the terminator failed to respond to the `Q.931 SETUP` message before timer T303 expired.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T303, audible tone will be applied and a `Q.931 PROGRESS` message sent to the originating ISDN party. The switch will restart timer T303 and send a second `Q.931 SETUP` message to the terminator. The switch will wait for a response from the terminator. If this is the second expiration of timer T303, the call will be cleared unless the terminator is in a shared directory number (DN) group that has a member that receives terminating treatment.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03038

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3038
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An Integrated Services Digital Network (ISDN) customer premises equipment (CPE) failed to respond to a `Q.931 SETUP` message before timer T303 expired.

A non-ISDN CPE is making a call to a custom ISDN CPE. The switch sent a `Q.931 SETUP` message to the terminating end (that is, the custom ISDN CPE), however, the terminating end failed to respond to the `Q.931 SETUP` message before timer T303 expired.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T303, audible ringing will be applied and a `Q.931 PROGRESS` message sent, if necessary, to the originator. A second `Q.931 SETUP` message will be sent to terminating custom ISDN party by the switch and timer T303 will be restarted in order to wait for a response to the `Q.931 SETUP` from the terminating end. If this is the second expiration of timer T303, the call will be cleared unless the terminating end is a shared directory number (DN) and there exists another member of shared DN group that receives terminating treatment.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03039

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                [TEI=f] CRV=g CRF=h KEY=3039
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T310 expired before the switch received a response.

An Integrated Services Digital Network (ISDN) customer premises equipment (CPE) is making a call to a custom ISDN CPE. The switch started timer T303 and sent a `Q.931 SETUP` message to the terminating end (that is, the custom ISDN CPE) and the terminating end responded with a `Q.931 CALL PROCEEDING` message. Upon receipt of the `Q.931 CALL PROCEEDING` message from the terminator, the switch started timer T310. The switch was waiting for another response (such as, a `Q.931 ALERTING` or `Q.931 CONNECT` message) to the `Q.931 SETUP` message it had sent when timer T303 expired for the first time. The switch logged a PER for timer T303 expiration and waited for a response to the `Q.931 SETUP` message from the terminator. However, timer T310 expired before the switch received a response.

4. EXTERNAL EVIDENCE

If the type of call being terminated to the custom ISDN CPE is a shared directory number (DN) circuit switched voice (CSV) call, then the call will be cleared unless there exists a CPE in the shared DN group that receives terminating treatment. All other calls will be cleared.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T310 expired.

6. REFERENCES

None.

03040

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3040
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch started timer T303 and sent a `Q.931 SETUP` message to the custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE) and the ISDN CPE responded with a `Q.931 CALL PROCEEDING` message. The switch was waiting for another response (such as, a `Q.931 ALERTING` or `Q.931 CONNECT` message from the terminator) to the `Q.931 SETUP` message it had sent when timer T303 expired for the first time.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 PROGRESS` message to the originator and ensure that the originator is receiving audible tone. The switch will continue to wait for a response.

5. CORRECTIVE ACTION

Determine why the custom ISDN CPE did not respond to the `Q.931 SETUP` message with something other than a `Q.931 CALL PROCEEDING` before timer T303 expired.

6. REFERENCES

None.

03041

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3041
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch had sent a `Q.931 SETUP` message to a shared directory number (DN) group member on a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE) but timer T303 expired before this shared DN group member responded. One or more members of the shared DN group had previously responded with a `Q.931 ALERTING` message.

4. EXTERNAL EVIDENCE

The switch will restart timer T303 and resend the `Q.931 SETUP` message to this shared DN group member and wait for a response.

5. CORRECTIVE ACTION

Determine why this shared DN group member on a custom ISDN CPE did not respond to the `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03042

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T301-EXP
                [TEI=f] CRV=g CRF=h KEY=3042
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The terminator was ringing but did not answer the call before timer T301 expired.

A call is being placed to a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE) (that is, the terminator). At this point, the terminator is alerting, however, timer T301 expired before the terminator sent a `Q.931 CONNECT` message to the switch.

4. EXTERNAL EVIDENCE

The call will be cleared. The switch will send a `Q.931 RELEASE` message with a cause code value of 102 "recovery upon timer expiration" to the terminator.

5. CORRECTIVE ACTION

None. The terminator was ringing for too long and did not answer the call.

6. REFERENCES

None.

03043

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3043
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has started timer T308 and sent a `Q.931 RELEASE` message to a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE), however, the CPE failed to respond with a `Q.931 RELEASE COMPLETE` message before timer T308 expired.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T308, then the switch will restart timer T308 and resend a `Q.931 RELEASE` message to the terminator. If this is the second expiration of timer T308, then the switch will wait for the originator to disconnect the call.

5. CORRECTIVE ACTION

Determine why the custom ISDN terminal failed to respond to the `Q.931 RELEASE` message before timer T308 expired.

6. REFERENCES

None.

03044

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3044
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 DISCONNECT` message to the switch that was missing the mandatory cause information element (IE). The National ISDN call was in the call active state when the switch received the `Q.931 DISCONNECT` from the CPE.

4. EXTERNAL EVIDENCE

The disconnect procedure will continue as normal but the disconnect cause code value will not be used since it was not provided.

5. CORRECTIVE ACTION

Determine why the National ISDN CPE sent a `Q.931 DISCONNECT` message without the mandatory cause IE.

6. REFERENCES

None.

03045

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3045
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 RELEASE` message to the switch that was missing the mandatory cause information element (IE). The National ISDN call was in the call active state when the switch received the `Q.931 RELEASE` from the CPE.

4. EXTERNAL EVIDENCE

The switch will send the National ISDN CPE a `Q.931 RELEASE COMPLETE` message with a cause code value of 96 "mandatory information element is missing". The call will be cleared normally.

5. CORRECTIVE ACTION

Determine why the National ISDN CPE sent a `Q.931 RELEASE` message without the mandatory cause IE.

6. REFERENCES

None.

03046

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                [TEI=f] CRV=g CRF=h KEY=3046
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch started timer T305 and sent a `Q.931 DISCONNECT` message to a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) but the CPE did not respond with a `Q.931 RELEASE` message to the switch before timer T305 expired.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the National ISDN CPE, start timer T308, and await receipt of the `Q.931 RELEASE COMPLETE` message from the CPE.

5. CORRECTIVE ACTION

Determine why the CPE failed to respond to the `Q.931 DISCONNECT` message that the switch sent it within the appropriate time frame.

6. REFERENCES

None.

03047

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3047
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 RELEASE` message to the switch that the switch was not expecting. The call was in the "disconnect request" state and the switch was tearing down the call path before sending a `Q.931 RELEASE` message to the CPE.

4. EXTERNAL EVIDENCE

Once the call path is torn down, the call will be cleared normally.

5. CORRECTIVE ACTION

Determine why the National ISDN CPE sent a `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03048

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3048
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch that the switch was not expecting. The call was in the "disconnect request" state and the switch was tearing down the call path before sending a `Q.931 RELEASE` message to the CPE.

4. EXTERNAL EVIDENCE

The switch will assume the call clearing procedure has been completed with the CPE and will continue tearing down the call path.

5. CORRECTIVE ACTION

Determine why the National ISDN CPE may have sent a `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03049

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3049
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 RELEASE` message to the switch that the switch was not expecting. For a joint-held or service-held call, the CPE has already been released, the far end is still off-hook, and the CPE sends another `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE in response to the `Q.931 RELEASE` message sent to the switch. However, the call remains in a joint-held or service-held state where the call can be re-established if the CPE goes off-hook again.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

03050

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3050
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch that the switch was not expecting. For a joint-held or service-held call, the CPE has already been released, the far end is still off-hook, and the CPE sends another `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The switch will ignore the `Q.931 RELEASE COMPLETE` message sent by the CPE. The call remains in a joint-held or service-held state where the call can be re-established if the CPE goes off-hook again.

5. CORRECTIVE ACTION

none.

6. REFERENCES

None.

03051

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3051
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message to the switch that was missing the mandatory bearer capability information element (IE).

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` with a cause code value of 96 "mandatory information element is missing" to the CPE. This completes the call clearing process.

5. CORRECTIVE ACTION

Determine why the standard ISDN CPE sent a `Q.931 SETUP` message without the mandatory bearer capability IE.

6. REFERENCES

None.

03052

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3052
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message to the switch that contained a feature activator information element (IE) and a called party number (CdPN) IE. The CdPN IE was invalid because of an existing condition such as:

- The CdPN numbering plan and address type were an invalid combination.
- An invalid digit was detected in the CdPN.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the National ISDN CPE it sent a `Q.931 SETUP` message with an invalid CdPN IE.

6. REFERENCES

None.

03053

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3053
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The `Q.931 SETUP` message from a National Integrated Services Digital Network (ISDN) was considered to have an invalid keypad information element (IE). The keypad IE was considered invalid because of an existing condition such as:

- A transit network selection (TNS), operator service access (OSA), or a called party number (CdPN) IE was also present in addition to the keypad IE.
- An invalid digit was detected in the keypad IE.

4. EXTERNAL EVIDENCE

If an invalid digit was detected in the keypad IE, the call will be cleared with a cause code value of 100 "invalid information element contents".

If a TNS, OSA, or CdPN was also present along with the keypad IE, the call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 SETUP` message with an invalid combination of IEs or with an invalid digit in the keypad IE.

6. REFERENCES

None.

03054

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                 [TEI=f] CRV=g CRF=h KEY=3054
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The `Q.931 SETUP` message from a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message containing a feature activator information element (IE) along with either a transit network selection (TNS) or a operator service access (OSA) IE. This is an invalid combination of IEs.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

5. CORRECTIVE ACTION

Determine why the National ISDN CPE sent a `Q.931 SETUP` message with an invalid combination of IEs.

6. REFERENCES

None.

03055

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3055
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was waiting for a `Q.931 RELEASE COMPLETE` from the National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) when timer T308 expired.

4. EXTERNAL EVIDENCE

If this is the first time during the call that timer T308 expired, the switch will restart timer T308 and resend the `Q.931 RELEASE` message to the CPE. If this is the second time that T308 has expired, the switch will clear the call without receiving the `Q.931 RELEASE COMPLETE` from the CPE.

5. CORRECTIVE ACTION

Determine why the CPE did not respond within the switch's expected time frame.

6. REFERENCES

None.

03056

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3056
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While re-ringing a service-held call, the switch received a `Q.931 RELEASE` message from a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) that it was not expecting.

Refer to the Service-held Appendix in the Appendixes section of this manual.

4. EXTERNAL EVIDENCE

The re-ring attempt by the far end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE` message responding to a `Q.931 SETUP` message.

6. REFERENCES

None.

03057

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3057
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) that it was not expecting.

4. EXTERNAL EVIDENCE

The re-ring attempt by the far end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE COMPLETE` message responding to a `Q.931 SETUP` message.

6. REFERENCES

None.

03058

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3058
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

On a service-held re-ring, the customer premises equipment (CPE) did not respond to the `Q.931 SETUP` message sent by the switch before timer T303 expired.

4. EXTERNAL EVIDENCE

The re-ring attempt by the far-end failed but the CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the CPE failed to respond to a `Q.931 SETUP` message in the switch's expected time frame.

6. REFERENCES

None.

03059

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3059
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While on service-held re-ring, the switch received more than one `Q.931 CALL PROCEEDING` message.

4. EXTERNAL EVIDENCE

Any additional `Q.931 CALL PROCEDING` messages are discarded or ignored.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending unnecessary more than one `Q.931 CALL PROCEEDING` message.

6. REFERENCES

None.

03060

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-MISS
                [TEI=f] CRV=g CRF=h KEY=3060
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National non- electronic key telephone service (EKTS) Integrated Services Digital Network (ISDN) customer premises equipment (CPE) was sent a `Q.931 SETUP` message by the switch with the B-channel populated in order to establish a call. The National non-EKTS ISDN CPE's first response was a message that did not contain the mandatory channel ID information element (IE).

4. EXTERNAL EVIDENCE

The attempt to establish the call will fail with a cause code value of 96 "mandatory information element is missing". If the `Q.931 SETUP` message sent by the switch was a re-ring attempt from an operator or 911 line to a service-held National non-EKTS ISDN CPE, then the re-ring attempt will fail with a cause code value of 96 "mandatory information element is missing" but the National non-EKTS ISDN CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the National non-EKTS ISDN CPE did not populate the channel ID IE in its first response to a `Q.931 SETUP` message.

6. REFERENCES

None.

03061

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3061
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National non- electronic key telephone service (EKTS) Integrated Services Digital Network (ISDN) customer premises equipment (CPE) was sent a `Q.931 SETUP` message by the switch with the B-channel populated in order to establish a call. The National non-EKTS ISDN CPE's first response to the `Q.931 SETUP` message included an existing condition such as:

- The B-channel was not marked as exclusive.
- The B-channel is different than the B-channel specified in the `Q.931 SETUP` message that the switch sent.

4. EXTERNAL EVIDENCE

If the B-channel was not marked as exclusive, the attempt to establish the call will fail with a cause code value of 100 "invalid information element contents".

If the channel specified by the National ISDN CPE is different than the one chosen by the switch in the `Q.931 SETUP` message, the attempt to establish the call will fail with a cause code value of 6 "channel unacceptable".

If the `Q.931 SETUP` message sent by the switch was a re-ring attempt from an operator or 911 line to a service-held National ISDN CPE, then the re-ring attempt will fail but the National ISDN CPE will remain service-held.

5. CORRECTIVE ACTION

Determine why the National non-EKTS ISDN CPE did not populate the channel ID information element (IE) in its first response to the `Q.931 SETUP` message.

6. REFERENCES

None.

03062

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3062
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message that included an existing condition such as:

- Contained both a keypad information element (IE) and a called party number (CdPN) IE.
- Contained an invalid digit in the keypad IE.

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) is receiving dial-tone.

4. EXTERNAL EVIDENCE

The call will be cleared. If both keypad and CdPN IEs were present in the `Q.931 INFORMATION` message received from the National ISDN CPE, a cause code value of 28 "invalid number format (address incomplete)" is given.

If the keypad IE contained an invalid digit, a cause code value of 100 "invalid information element contents" is given.

5. CORRECTIVE ACTION

Determine why the CPE is sending either an invalid IE combination or a keypad IE with an invalid digit.

6. REFERENCES

None.

03063

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3063
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An information element (IE) combination was considered invalid because it was in response to an information request. It was considered invalid because of an existing condition such as:

- A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) has been prompted to provide additional information through information request procedures and is receiving dial-tone.
- The National ISDN CPE sends an `Q.931 INFORMATION` message that contains a feature activator IE and a keypad or called party number (CdPN) IE.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

5. CORRECTIVE ACTION

Determine why the CPE sent an IE combination that was considered invalid.

6. REFERENCES

None.

03064

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3064
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an `Q.931 INFORMATION` message containing an invalid called party number (CdPN) information element (IE). The CdPN IE was invalid because of an existing condition such as:

- The CdPN numbering plan and address type were an invalid combination.
- An invalid digit was detected in the CdPN.

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) is receiving dial-tone.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 INFORMATION` message with an invalid CdPN IE.

6. REFERENCES

None.

03065

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3065
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 INFORMATION` message to the switch that contained a condition such as:

- Both a keypad and called party number (CdPN) information element (IE).
- An invalid digit in the keypad IE.

The `Q.931 INFORMATION` message was sent by the National ISDN CPE during digit analysis.

4. EXTERNAL EVIDENCE

If both keypad and CdPN IEs were present, then the call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

Otherwise, the call has an invalid keypad digit and the call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why both keypad and CdPN IEs were present or why an invalid keypad digit was present.

6. REFERENCES

None.

03066

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3066
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) had been prompted for additional information through information request procedures when it sent a `Q.931 INFORMATION` message to the switch that contained a condition such as:

- Both a keypad and called party number (CdPN) information element (IE).
- An invalid digit in the keypad IE.

The `Q.931 INFORMATION` message was sent by the National ISDN CPE during parameter collection (such as, collecting the forward to DN in a call forwarding activation).

4. EXTERNAL EVIDENCE

If both keypad and CdPN IEs were present, then the call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

Otherwise, the call has an invalid keypad digit and the call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why both keypad and CdPN IEs were present or why an invalid keypad digit was present in a `Q.931 INFORMATION` message.

6. REFERENCES

None.

03067

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3067
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message to the switch with a called party number (CdPN) information element (IE) with an address type of "Unknown" along with either a transit network selection (TNS) or operator service access (OSA) IE. A CdPN IE address type of "Unknown" may not be combined with either TNS or OSA IEs.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 28 "invalid number format (address incomplete)".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 SETUP` message with an invalid IE combination.

6. REFERENCES

None.

03068

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3068
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message to the switch with a transit network selection (TNS) information element (IE) whose type of network ID and network ID plan were an invalid combination.

The only valid combinations are:

- The unknown type of network with the user-specific network ID.
- The national type of network with an inter-lata carrier network ID.

The `Q.931 SETUP` message may have also contained an operator system access (OSA) and/or a called party number (CdPN) IE.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the TNS IE was incorrectly coded.

6. REFERENCES

None.

03069

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e OCA-MISS
                [TEI=f] CRV=g CRF=h KEY=3069
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with an invalid call reference. The `Q.931 SETUP` message can not be processed further because it is not known what call this message is for.

4. EXTERNAL EVIDENCE

The customer will not receive dial tone. Since there is no valid call reference, no `Q.931 RELEASE COMPLETE` message will be seen.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending in a `Q.931 SETUP` message with an invalid call reference.

6. REFERENCES

None.

03070

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3070
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 RELEASE` message to a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE), but the CPE failed to respond with a `Q.931 RELEASE COMPLETE` before timer T308 expired.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T308, then the switch will resend the `Q.931 RELEASE` message to the National ISDN CPE (the terminator) and restart timer T308. If this is the second expiration of timer T308, then the switch will wait for the originator to abandon the call.

5. CORRECTIVE ACTION

Determine why the CPE did not send a `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

03071

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3071
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch had sent a `Q.931 SETUP` message to a shared directory number (DN) group member on a National integrated services digital network (ISDN) customer premises equipment (CPE) but timer T303 expired before this shared DN group member responded. One or more members of the shared DN group had previously responded with a `Q.931 ALERTING` message.

4. EXTERNAL EVIDENCE

The switch will restart timer T303 and resend the `Q.931 SETUP` message to this shared DN group member and wait for a response.

5. CORRECTIVE ACTION

Determine why this shared DN group member on a National ISDN CPE did not respond to the `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03072

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T301-EXP
                [TEI=f] CRV=g CRF=h KEY=3072
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The T301 timer expired before the terminator sent a `Q.931 CONNECT` message to the switch. The National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) was ringing but did not answer the call before timer T301 expired.

4. EXTERNAL EVIDENCE

The call will be cleared. The switch will send a `Q.931 RELEASE` message with a cause code value of 102 "recovery on timer expiration".

5. CORRECTIVE ACTION

None. The terminator was ringing too long and did not answer the call.

6. REFERENCES

None.

03073

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                [TEI=f] CRV=g CRF=h KEY=3073
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The T310 timer expired before the switch received an expected response from the customer premises equipment (CPE).

A (National or custom) Integrated Services Digital Network (ISDN) customer premises equipment (CPE) is making a call to a National ISDN CPE. The switch started timer T303 and sent a `Q.931 SETUP` message to the National ISDN CPE. The CPE responded with a `Q.931 CALL PROCEEDING` message. The switch was waiting for another response (such as, a `Q.931 ALERTING` or `Q.931 CONNECT` message) to the `Q.931 SETUP` message it had sent when timer T303 expired for the first time. The switch logged a PER for timer T303 expiration and waited for a response to the `Q.931 SETUP` message from the CPE. However, timer T310 expired before the switch received a response.

4. EXTERNAL EVIDENCE

If the type of call being terminated to the National ISDN CPE is a shared directory number (DN) circuit switched voice (CSV) call, then the call will be cleared unless there exists a CPE in the shared DN group that receives terminating treatment. All other calls will be cleared.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T310 expired. Perhaps the CPE did respond but not quickly enough.

6. REFERENCES

None.

03074

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3074
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The T303 timer expired for the first time.

The switch had started timer T303 and sent a `Q931 SETUP` message to the National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) and the ISDN responded with a `Q.931 CALL PROCEEDING` message. Timer T310 is started. The switch was waiting for another response (such as, a `Q.931 ALERTING` or `Q.931 CONNECT` message) to the `Q.931 SETUP` message when timer T303 expired for the first time.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 PROGRESS` message to the originator and ensures that the originator is receiving audible tone. The switch will continue to wait for a response to the `Q.931 SETUP` message until timer T310 expires.

5. CORRECTIVE ACTION

Determine why the CPE did not respond with an expected message to a `Q.931 SETUP` message before timer T303 expired the first time.

6. REFERENCES

None.

03075

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3075
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The T303 timer expired while waiting for a response to a `Q.931 SETUP` message sent to a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE). The call originated with a non-ISDN CPE.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T303, then audible ringing will be applied and a `Q.931 PROGRESS` message sent to the originator. A second `Q.931 SETUP` message will be sent to the terminating National ISDN party by the switch and timer T303 will be restarted. If this is the second expiration of timer T303, then the call will be cleared unless the terminator is a shared directory number (DN) and there exists another member of the shared DN group that receives terminating treatment.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03076

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3076
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The T303 timer expired while waiting for a response to a `Q.931 SETUP` message sent to a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE). The call originated with an ISDN CPE.

4. EXTERNAL EVIDENCE

If this is the first expiration of timer T303, then audible ringing tone will be applied and a `Q.931 PROGRESS` message sent to the originator. A second `Q.931 SETUP` message will be sent by the switch to the terminator and timer T303 will be restarted. If this is the second expiration of timer T303, then the call will be cleared unless the terminator is a shared directory number (DN) and there exists another member of the shared DN group that receives terminating treatment.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to a `Q.931 SETUP` message before timer T303 expired.

6. REFERENCES

None.

03077

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3077
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected message (such as, a `Q.931 DISCONNECT`, `Q.931 CONNECT`, `Q.931 CALL PROCEEDING`, `Q.931 ALERTING`, `Q.931 STATUS`) from a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The unexpected message from the National ISDN CPE will be ignored.

5. CORRECTIVE ACTION

Determine why the unexpected message was sent by the CPE.

6. REFERENCES

None.

03078

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3078
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message with the call reference value (CRV) as the existing call from a National Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The unexpected `Q.931 SETUP` message from the National ISDN CPE will be ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent the switch an unexpected `Q.931 SETUP` message.

6. REFERENCES

None.

03079

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3079
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `LAPD DISCONNECT` frame on a shared call.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` to the digital subscriber line (DSL). The DSL will be taken out-of-service. The call's network path will remain up if there exists a shared directory number (DN) associate receiving terminating treatment that may try to answer the call.

5. CORRECTIVE ACTION

Determine why an Integrated Services Digital Network (ISDN) link access protocol D (LapD) failure has occurred.

6. REFERENCES

None.

03080

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3080
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

4. EXTERNAL EVIDENCE

The call will be cleared.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

03081

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3081
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent an unexpected `Q.931 RELEASE` message to the switch.

4. EXTERNAL EVIDENCE

The call will be cleared.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 RELEASE` message.

6. REFERENCES

None.

03082

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3082
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National Integrated Services Digital Network (ISDN) customer premises equipment (CPE) sent an unexpected LAPD disconnect frame to the switch.

4. EXTERNAL EVIDENCE

The call will be cleared.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected LAPD disconnect frame.

6. REFERENCES

None.

03083

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3083
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 HOLD` message to the standard basic rate interface (BRI) customer premises equipment (CPE) in order to place the call on soft hold. The switch was waiting for a `Q.931 HOLD REJECT` or a `Q.931 HOLD ACKNOWLEDGE` message from the CPE but instead received either a `Q.931 HOLD` or `Q.931 INFORMATION` message from the CPE.

4. EXTERNAL EVIDENCE

The `Q.931 HOLD` or `Q.931 INFORMATION` message that the standard BRI CPE sent will be ignored and the switch will continue to wait for a `Q.931 HOLD ACKNOWLEDGE` or a `Q.931 HOLD REJECT` message from the standard BRI until the appropriate timer expires.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 HOLD` or `Q.931 INFORMATION` message in response to a `Q.931 HOLD` message from the switch.

6. REFERENCES

None.

03084

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3084
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a download. During message translation, it was determined that the required extended facility information element (EFIE) was not found. The EFIE is required because it contains the service profile identifier (SPID) of the customer premises equipment (CPE) requesting the download.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 96 "mandatory information element is missing" and the download request is aborted.

5. CORRECTIVE ACTION

Determine why the EFIE was not included in the `Q.932 REGISTER` message.

6. REFERENCES

None.

03085

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3085
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a download. During message translation it was determined that the required extended facility information element (EFIE) was invalid. Either the length of the EFIE was zero or the length was coded incorrectly by the customer premises equipment (CPE). A valid EFIE is required to request a download.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" and the download request is aborted.

5. CORRECTIVE ACTION

Determine why the EFIE component of the `Q.932 REGISTER` message was invalid.

6. REFERENCES

None.

03086

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3086
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a download. The message was translated successfully but the length of the protocol data unit (PDU), recorded in the extended facility information element (EFIE), is less than the required minimum. Refer to TR-NWT-1281 for specific information. The PDU is required because it contains the service profile identifier (SPID) of the customer premises equipment (CPE) requesting the download.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" and the download request is aborted.

5. CORRECTIVE ACTION

Determine why the length of the PDU is less than the required minimum.

6. REFERENCES

None.

03087

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3087
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a download. The message was translated successfully but the service discriminator value recorded in the extended facility information element (EFIE) is invalid. The service discriminator value must equal 0x92. This value represents the common management information protocol (CMIP).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" and the download request is aborted.

5. CORRECTIVE ACTION

Determine why the service discriminator value is not 0x92.

6. REFERENCES

None.

03088

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3088
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download or responding to the switch that the download completed successfully. The `Q.931 RELEASE COMPLETE` message did not contain a cause information element. The cause field sometimes provides the reason the `Q.931 RELEASE COMPLETE` was sent.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the cause field is not populated in the `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

03089

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REASSEM-ERR
                [TEI=f] CRV=g CRF=h KEY=3089
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch requesting an abort of the download. The `Q.931 RELEASE COMPLETE` had a cause value of 0x5b (reassembly error). This abort request was made because the CPE was unable to reassemble the segmented messages that it received from the switch. The switch segments a message whenever the protocol data unit (PDU) in a message is greater than 244 bytes.

4. EXTERNAL EVIDENCE

None. If this is an abort request, the download abort will proceed normally.

5. CORRECTIVE ACTION

Determine why the CPE is unable to reassemble segmented messages.

6. REFERENCES

None.

03090

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3090
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully. After examining the `Q.931 RELEASE COMPLETE` message, it was determined that the required extended facility information element (EFIE) was not found. The EFIE is required because it contains the service profile identifier (SPID) of the CPE requesting the abort or sending the download complete.

4. EXTERNAL EVIDENCE

The download is automatically aborted as a result of the missing EFIE. PER key 7011 is also generated and the number of automatic terminal setup (ATS) failures, shown in PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the required EFIE is not present in the RELEASE COMPLETE message sent from the CPE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03091

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3091
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully. After examining the `Q.931 RELEASE COMPLETE` message, it was determined that the service discriminator (SD) value recorded in the extended facility information element (EFIE) is invalid. The SD value must equal 0x92. This value represents the common management information protocol (CMIP).

4. EXTERNAL EVIDENCE

None. If this is an abort request, the download abort will proceed normally.

5. CORRECTIVE ACTION

Determine why the SD value recorded in the EFIE is not 0x92.

6. REFERENCES

None.

03092

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3092
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully. After examining the `Q.931 RELEASE COMPLETE` message, it was determined that the length of the protocol data unit (PDU), which is recorded in the extended facility information element (EFIE), is less than the required minimum. The PDU is required because it contains the service profile identifier (SPID) of the CPE requesting the abort or sending the download complete. Please refer to TR-NWT-1281 for additional information.

4. EXTERNAL EVIDENCE

None. If this is an abort request, the download abort will proceed normally

5. CORRECTIVE ACTION

Determine why the PDU length field recorded in the EFIE is less than the required minimum.

6. REFERENCES

None.

03093

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RES-LIM
                [TEI=f] CRV=g CRF=h KEY=3093
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully. During processing, the switch was unable to obtain an application protocol data unit (APDU) tuple from the free pool. This is a result of a switch system error. The number of APDUs available is a function of the number of remote terminals (RTs) on the switching module (SM).

4. EXTERNAL EVIDENCE

None. If this is an abort request, the download abort will proceed normally

5. CORRECTIVE ACTION

No corrective action required.

6. REFERENCES

None.

03094

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                [TEI=f] CRV=g CRF=h KEY=3094
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the on-demand B-channel packet call was in the disconnect indication state, the timer T305 expired. The on-demand B-channel packet call is in this state after sending a `Q.931 DISCONNECT` message to the customer premises equipment (CPE). The switch was waiting for a `Q.931 RELEASE` message in this state.

4. EXTERNAL EVIDENCE

The switch will immediately send a `Q.931 RELEASE` message to the CPE and move the call to release request state.

5. CORRECTIVE ACTION

Determine why CPE is not sending a `Q.931 RELEASE` message in response to a `Q.931 DISCONNECT` message.

6. REFERENCES

None.

03095

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3095
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the switch was performing `LAPB DISCONNECT` procedure for an on-demand B-channel packet call, it received a `Q.931 DISCONNECT` message. The switch was not expecting any Q.931 message from the customer premises equipment (CPE) in this state.

4. EXTERNAL EVIDENCE

None. The switch will discard this message.

5. CORRECTIVE ACTION

Determine why CPE is sending a `Q.931 DISCONNECT` message in this state.

6. REFERENCES

None.

03096

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3096
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the switch was performing `LAPB DISCONNECT` procedure for an on-demand B-channel packet call, it received a `Q.931 RELEASE` message from the customer premises equipment (CPE). The switch was not expecting any Q.931 message from the CPE in this state.

4. EXTERNAL EVIDENCE

None. The switch will discard this message.

5. CORRECTIVE ACTION

Determine why CPE is sending a `Q.931 RELEASE` message in this state.

6. REFERENCES

None.

03097

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3097
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the switch was performing `LAPB DISCONNECT` procedure for an on-demand B-channel packet call, it received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE). The switch was not expecting any Q.931 message from the CPE in this state.

4. EXTERNAL EVIDENCE

None. The switch will discard this message.

5. CORRECTIVE ACTION

Determine why CPE is sending a `Q.931 RELEASE COMPLETE` message in this state.

6. REFERENCES

None.

03098

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3098
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has received an unexpected Q.931 message from the customer premises equipment (CPE) while the on-demand B-channel/D-channel packet call was in a transient state. The transient states include:

- Null state.
- Call present state.
- Call received state.
- Incoming call proceeding state.
- Connect request state.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Determine why CPE is sending the unexpected Q.931 message in this state.

6. REFERENCES

None.

03099

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3099
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has received an unexpected Q.931 message (non-clearing) from the customer premises equipment (CPE) while the on-demand B-channel packet call was in the active state (LAPB is established).

4. EXTERNAL EVIDENCE

None. The switch will discard this message.

5. CORRECTIVE ACTION

Determine why the CPE is sending the unexpected Q.931 message in the active state.

6. REFERENCES

None.

03100

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CPE-MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3100
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has received an unexpected Q.931 message (non-clearing) from the customer premises equipment (CPE) while the on-demand B-channel/D-channel packet call was in a clearing state.

4. EXTERNAL EVIDENCE

None. The switch will discard this message.

5. CORRECTIVE ACTION

Determine why the CPE is sending non-clearing Q.931 messages while the call is in the clearing state.

6. REFERENCES

None.

03101

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3101
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the attempted access of the RLPORTLA dynamic data tuple for the D-port failed.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 34 "channel congestion or no circuit/channel available" in response to the `Q.931 SETUP` message. The RIAUPORTLA assert will fire and the PORTLA audit will run. Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service. This is a transient condition that will be corrected by audits recovering the RLPORTLA dynamic data tuple.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

235-600-700 *Input Messages*

03102

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                [TEI=f] CRV=g CRF=h KEY=3102
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the D-port is not marked as in-service in the RLPORTLA dynamic data tuple.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 34 "channel congestion or circuit/channel unavailable" in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service. Manual intervention is required to restore the PRI D-channel.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

234-600-700 *Input Messages*

03103

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3103
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the attempted access of the RLPRISTAT dynamic data tuple for the PRI group failed. This is a dynamic data inconsistency.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 34 "channel congestion or circuit/channel unavailable" in response to this call setup attempt. The RIPRISTAT assert will fire and the PRISTAT audit will run. Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

None. The PRISTAT audit will recover the RLPRISTAT dynamic data tuple.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

03104

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3104
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the call reference value (CRV) information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element is missing" in response to this call setup attempt. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory CRV IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03105

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-ILLE
                [TEI=f] CRV=g CRF=h KEY=3105
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the message contained an invalid call reference value (CRV) information element (IE).

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to this call setup attempt. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the CRV IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03106

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3106
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, and the channel identification information element (IE) was populated by the CPE, but its contents were invalid. Specifically, the channel number was out of range.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 82 "identified channel does not exist" in response to this call setup attempt. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03107

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3107
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, and the channel identification information element (IE) was populated by the CPE, but its contents were invalid. Specifically, the channel selection information did not indicate that a B-channel was selected. This is invalid coding for a National ISDN PRI.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to the `Q.931 SETUP` message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03108

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-MISS
                [TEI=f] CRV=g CRF=h KEY=3108
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the channel identification information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element is missing" in response to the Q.931 SETUP message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory channel identification IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03109

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3109
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the message contained an invalid channel identification information element (IE).

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to the `Q.931 SETUP` message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03110

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3110
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the bearer capability information element (IE) was populated by the CPE, but its contents were invalid. Specifically, the bearer capability type requested by the CPE is not implemented by the switch.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 65 "bearer capability not implemented" in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the bearer capability IE correctly.

6. REFERENCES

None.

03111

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-MISS
                [TEI=f] CRV=g CRF=h KEY=3111
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the bearer capability information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element is missing" in response to the `Q.931 SETUP` message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory bearer capability IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03112

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3112
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the bearer capability information element (IE) was populated by the CPE, but its contents were invalid.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to the `Q.931 SETUP` message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the bearer capability IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03113

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3113
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification information element (IE) was populated by the CPE, but its contents were invalid. Specifically, the channel number was not included in the IE.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to the `Q.931 SETUP` message. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03114

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3114
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the attempted access of the RLPORTLA dynamic data tuple for the B-port failed.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 44 "requested circuit/channel not available" in response to the `Q.931 SETUP` message. The RIAUPORTLA assert will fire and the PORTLA audit will run. Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. This is a transient condition that will be corrected by audits recovering the RLPORTLA dynamic data tuple.

6. REFERENCES

Other Manual(s):

234-600-209 *Dynamic Data Manual*

235-600-400 *Asserts*

235-600-500 *Audits*

235-600-700 *Input Messages*

03115

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INC-CALL-BARR
                [TEI=f] CRV=g CRF=h KEY=3115
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the RLPORTLA dynamic data tuple for the B-channel selected by the CPE indicates that the B-channel is on the out-of-service blocked list.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 54 "incoming calls barred" in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. If the B-channel is out-of-service, manual intervention may be required to restore the PRI B-channel. If necessary, execute "rst:trk" on the PRI B-channel. Refer to RST:TRK in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03116

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3116
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the RLPORTLA dynamic data tuple for the B-port indicates that the B-port is out of service.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 44 "requested circuit/channel not available" in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. If the B-channel is out-of-service, execute "rst:trk" on the PRI B-channel. Refer to RST:TRK in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-700 *Input Messages*

03117

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3117
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but the wide band feature is turned off, or the message was received on a Custom PRI.

4. EXTERNAL EVIDENCE

This wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 57 "bearer capability not authorized" in response to this wide band call setup attempt.

5. CORRECTIVE ACTION

Incoming calls on this PRI are using a data rate not supported by this PRI. If wide band calls should be allowed, then verify that the wide band feature has been purchased by reviewing field "SFID 125" on RC/V View 8.22. Also, verify that the PRI has a PRI type of STD on RC/V View 5.2. If wide band calls should not be allowed, then determine why the switch received a `Q.931 SETUP` message from the CPE with an invalid bearer capability IE present in the message.

6. REFERENCES

None.

03118

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3118
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but the bearer capability IE and/or the channel identification IE in the message were coded incorrectly by the CPE. Specifically, the bearer capability requested by the CPE is inconsistent with the channels requested by the CPE.

4. EXTERNAL EVIDENCE

The wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to this wide band call setup attempt.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the bearer capability IE and/or the channel identification IE correctly.

6. REFERENCES

None.

03119

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3119
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but all of the channels requested by the CPE in the channel identification IE are not in the same trunk group.

4. EXTERNAL EVIDENCE

This wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" in response to this wide band call setup attempt. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03120

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3120
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but the RLPORTLA dynamic data tuple could not be obtained for one of the B-channels that was requested by the CPE for the call.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 34 "channel congestion or no circuit/channel available" in response to this wide band call setup attempt. The RIAUPORTLA assert will fire and the PORTLA audit will run. Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. This is a transient condition that will be corrected by audits recovering the RLPORTLA dynamic data tuple.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

235-600-700 *Input Messages*

03121

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INC-CALL-BARR
                [TEI=f] CRV=g CRF=h KEY=3121
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but the RLPORTLA dynamic data tuple for one of the B-channels requested by the CPE indicates that the B-channel is on the out-of-service blocked list.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 54 "incoming calls barred" in response to this wide band call setup attempt.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. If the B-channel is out-of-service, execute "rst:trk" on the PRI B-channel. Refer to RST:TRK in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-700 *Input Messages*

03122

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3122
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel with a bearer capability information element (IE) that indicates a wide band data rate (384, 1536, or multi-rate), but the RLPORTLA dynamic data tuple for one of the B-channels requested by the CPE indicates that the B-channel is out-of-service.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

This wide band PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 34 "channel congestion or no circuit/channel available" in response to the `Q.931 SETUP` message that it received from the CPE.

5. CORRECTIVE ACTION

Execute "op:status" on the PRI B-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the B-channel is in-service. If the B-channel is out-of-service, execute "rst:trk" on the PRI B-channel. Refer to RST:TRK in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-700 *Input Messages*

03123

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3123
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory called number information element (IE) in the message was missing, untranslatable, or too long.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of:

- 96 "mandatory information element is missing" if the IE was missing.
- 100 "invalid information element contents" if the IE was untranslatable or too long.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory called number IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03124

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3124
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will complete the disconnect protocol with the PRI CPE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03125

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3125
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. Based on the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03126

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3126
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will complete the disconnect protocol with the PRI CPE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03127

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3127
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N3 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03128

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3128
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N3 or U9 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch clears the call normally.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03129

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3129
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The call is cleared normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03130

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3130
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N3 or N9 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03131

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3131
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03132

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3132
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the network side call delivered (N4) call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03133

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3133
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N4 or U7 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch clears the call normally.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03134

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3134
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a PRI D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The call is cleared normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03135

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                 [TEI=f] CRV=g CRF=h KEY=3135
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the network side call delivered (N4) or user side call received (U7) call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03136

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3136
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N3 or U9 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03137

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T313-EXP
                [TEI=f] CRV=g CRF=h KEY=3137
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T313 expired a second time while waiting for a `Q.931 CONNECT ACKNOWLEDGE` message from the primary rate interface (PRI) customer premises equipment (CPE). The switch had sent a second `Q.931 CONNECT` message to the CPE after timer T313 had expired while waiting for a response from the CPE to the first `Q.931 CONNECT` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE with a cause code value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 CONNECT` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03138

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3138
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the user side connect request (U8) call state when the switch received the message from the CPE. Given the state of the call, the message was unexpected. The switch was expecting to receive a `Q.931 CONNECT ACKNOWLEDGE` message from the CPE.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03139

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3139
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The call is cleared normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03140

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3140
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03141

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3141
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the user side connect request (U8) call state when it received the message from the CPE. Given the state of the call, the message was unexpected. The switch was expecting to receive a `Q.931 CONNECT ACKNOWLEDGE` message from the CPE.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03142

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3142
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N10 or U10 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03143

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3143
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N10 or U10 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch clears the call normally.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03144

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3144
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The call is cleared normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03145

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                 [TEI=f] CRV=g CRF=h KEY=3145
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, `Q.931 CONNECT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N10 or U10 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03146

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3146
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 STATUS ENQUIRY` message to the primary rate interface (PRI) customer premises equipment (CPE) but timer T322 expired while the switch was waiting for the CPE to respond with a `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 102 "recovery upon timer expiration" to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 STATUS ENQUIRY` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03147

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3147
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03148

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3148
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 STATUS ENQUIRY` message to the primary rate interface (PRI) customer premises equipment (CPE) but timer T322 expired while the switch was waiting for the CPE to respond with a `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 102 "recovery upon timer expiration" to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 STATUS ENQUIRY` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03149

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3149
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03150

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3150
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the announcement processing state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 SETUP` message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03151

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3151
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the tone or announcement done state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 SETUP` message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03152

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3152
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03153

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3153
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the tone state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 SETUP message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03154

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3154
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call reference value sent by the CPE is invalid since no call existed on the PRI.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 81 "invalid call reference value".

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending a `Q.931 STATUS` message to the switch when no calls exist on the PRI.

6. REFERENCES

None.

03155

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3155
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the call activity check failed. The call activity check failed because the switch's call state and the CPE's call state as indicated in the call state information element (IE) of the `Q.931 STATUS` message were not compatible.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 31 "normal, unspecified".

5. CORRECTIVE ACTION

An inconsistency was detected in a PRI call state at each end of the interface and the call was cleared. No action is necessary.

6. REFERENCES

None.

03156

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3156
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but no call exists on the PRI that matches the call reference value (CRV) in the message. The CRV is invalid.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 81 "invalid call reference value".

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending a `Q.931 STATUS` message to the switch with an invalid CRV.

6. REFERENCES

None.

03157

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3157
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 STATUS ENQUIRY` message to the primary rate interface (PRI) customer premises equipment (CPE) to perform a routine periodic call activity check and expected a `Q.931 STATUS` message in response from the CPE. The call activity check is performed as part of the RLDALB dynamic data audit that runs periodically.

Refer to the Dynamic Data Manual for additional information.

The switch sent three `Q.931 STATUS ENQUIRY` messages to the CPE, but the CPE still did not respond with a `Q.931 STATUS` message. There were no timers waiting for the `Q.931 STATUS` message from the CPE.

On the fourth attempt to perform the call activity check, the switch did not send a `Q.931 STATUS ENQUIRY` message but cleared the call instead.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 31 "normal, unspecified".

5. CORRECTIVE ACTION

No action is necessary.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

03158

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3158
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N11 when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 SETUP` message to the switch.

6. REFERENCES

None.

03159

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3159
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

The switch had previously received a `Q.931 DISCONNECT` message and had sent a `Q.931 RELEASE` message, so this is the second `Q.931 DISCONNECT` message received by the switch from the CPE. The switch was expecting a `Q.931 RELEASE COMPLETE` message from the CPE. The call was in the N11 or the U12 when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The unexpected Q.931 message is ignored.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 DISCONNECT` message to the switch.

6. REFERENCES

None.

03160

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                [TEI=f] CRV=g CRF=h KEY=3160
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 DISCONNECT` message to the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and timer T305 expired while waiting for a `Q.931 RELEASE` message from the PRI CPE.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE with a cause code value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 DISCONNECT` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Verify that the D-channel is in-service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03161

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3161
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N12 when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE in response to the `Q.931 SETUP` message.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 SETUP` message to the switch.

6. REFERENCES

None.

03162

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3162
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The switch had previously sent a `Q.931 DISCONNECT` message to the CPE and was expecting a `Q.931 RELEASE` message in response. The call was in the N12 or the U11 when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03163

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3163
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 RELEASE` message to the PRI CPE, started timer T308, and expected a `Q.931 RELEASE COMPLETE` message. Timer T308 expired and the switch sent another `Q.931 RELEASE` message to the customer premises equipment (CPE) and started timer T308 again. The CPE still did not respond with a `Q.931 RELEASE COMPLETE` message, so timer T308 expired a second time.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE, and call and execute restart procedures on the B-port.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 RELEASE` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03164

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3164
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, `Q.931 DISCONNECT`, or `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

The switch had sent a `Q.931 RELEASE` message to the CPE and was expecting a `Q.931 RELEASE COMPLETE` message. The call was in the N19 or U19 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The unexpected message is ignored.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03165

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3165
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03166

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3166
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch had sent a `Q.931 RELEASE` message to the primary rate interface (PRI) customer premises equipment (CPE), but timer T308 had expired while waiting for a `Q.931 RELEASE COMPLETE` message from the CPE. The call was in the service-held state when timer T308 expired.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 RELEASE` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03167

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3167
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the service-held state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03168

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3168
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the service-held state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will ignore the `Q.931 RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03169

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3169
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the ring back state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03170

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3170
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch had sent a `Q.931 SETUP` message to the primary rate interface (PRI) customer premises equipment (CPE) but timer T303 expired while waiting for a response.

4. EXTERNAL EVIDENCE

The switch will send another `Q.931 SETUP` message to the CPE and start timer T303 again.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 SETUP` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel. Execute "op:status" on the PRI D-channel. Verify that the D-channel is in-service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03171

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3171
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in network (N0) or user side (U0) null call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

4. EXTERNAL EVIDENCE

The switch will ignore the `Q.931 RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03172

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3172
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 DISCONNECT`, `Q.931 CONNECT`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, `Q.931 CONNECT ACKNOWLEDGE`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

4. EXTERNAL EVIDENCE

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03173

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3173
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but either the cause information element (IE) or the call state IE had not been populated by the CPE or had been populated incorrectly by the CPE.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 100

- 96 "mandatory information element is missing" if either the cause IE or the call state IE had not been populated.
- 100 "invalid information element contents" if either the cause IE or call state IE were populated incorrectly.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the `Q.931 STATUS` message correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03174

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                [TEI=f] CRV=g CRF=h KEY=3174
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a non-existent or not implemented message type from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 97 "message type non-existent or not implemented".

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an invalid message type to the switch.

6. REFERENCES

None.

03175

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3175
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE` message to the switch.

6. REFERENCES

None.

03176

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3176
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected `Q.931 RELEASE COMPLETE` message to the switch.

6. REFERENCES

None.

03177

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3177
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03178

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3178
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the channel identification information element (IE) in the message does not match the channel identification IE from the `Q.931 SETUP` message that was sent to the CPE by the switch.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03179

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3179
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a primary rate information (PRI) D-channel and the channel identification information element (IE) in the message was populated by the CPE, but its contents were invalid. Specifically, the channel selection information was not set to "B-channel indicated".

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03180

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-MISS
                [TEI=f] CRV=g CRF=h KEY=3180
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the mandatory channel identification information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) primary rate interface (PRI), the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element missing" to clear the call. For a Custom PRI, the switch will drop the `Q.931 CALL PROCEEDING` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 96 "mandatory information element missing", and continue processing the call normally. For either the National or the Custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory channel identification IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03181

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3181
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification IE in the message was populated by the CPE, but its contents were invalid and could not be translated by the switch.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) primary rate interface (PRI), the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" to clear the call. For a Custom PRI, the switch will drop the `Q.931 CALL PROCEEDING` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents", and continue processing the call normally. For either the National or the Custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03182

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3182
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 ALERT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the channel identification information element (IE) in the message does not match the channel identification IE from the `Q.931 SETUP` message that was sent to the CPE by the switch.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03183

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3183
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 ALERT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification information element (IE) in the message was populated by the CPE, but its contents were invalid. Specifically, the channel selection information was not set to "B-channel indicated".

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03184

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-MISS
                 [TEI=f] CRV=g CRF=h KEY=3184
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 ALERT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the mandatory channel identification information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) PRI, the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element missing" to clear the call. For a custom PRI, the switch will drop the `Q.931 ALERT` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 96 "mandatory information element missing", and continue processing the call normally. For either the National or the custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory channel identification IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03185

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3185
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 ALERT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification information element (IE) in the message was populated by the CPE, but its contents were invalid and could not be translated by the switch.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) PRI, the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" to clear the call. For a custom PRI, the switch will drop the `Q.931 ALERT` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents", and continue processing the call normally. For either the National or the custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03186

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3186
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the channel identification information element (IE) in the message does not match the channel identification IE from the `Q.931 SETUP` message that was sent to the CPE by the switch.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03187

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3187
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification information element (IE) in the message was populated by the CPE, but its contents were invalid. Specifically, the channel selection information was not set to "B-channel indicated".

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

None.

03188

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-MISS
                [TEI=f] CRV=g CRF=h KEY=3188
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the mandatory channel identification information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) PRI, the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 96 "mandatory information element missing" to clear the call. For a custom PRI, the switch will drop the `Q.931 CONNECT` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 96 "mandatory information element missing", and continue processing the call normally. For either the National or the custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory channel identification IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03189

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3189
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the channel identification information element (IE) in the message was populated by the CPE, but its contents were invalid and could not be translated by the switch.

4. EXTERNAL EVIDENCE

For a National Integrated Services Digital Network (ISDN) PRI, the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents" to clear the call. For a custom PRI, the switch will drop the `Q.931 CONNECT` message, send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents", and continue processing the call normally. For either the National or the custom PRI, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not not populating the channel identification IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03190

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3190
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N6 or U1 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and proceed with call clearing.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03191

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e TNS-INV
                [TEI=f] CRV=g CRF=h KEY=3191
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message with a cause code value of 2 "no route to specified transit network" from the CPE on a PRI D-channel in response to a `Q.931 SETUP` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and proceed with call clearing.

5. CORRECTIVE ACTION

Determine why the PRI CPE does not support the transit network specified by the switch in the `Q.931 SETUP` message.

6. REFERENCES

None.

03192

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3192
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03193

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3193
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N6, N7, U1, or U4 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03194

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e TNS-INV
                [TEI=f] CRV=g CRF=h KEY=3194
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message with a cause code value of 2 "no route to specified transit network" from the CPE on a PRI D-channel in response to a `Q.931 SETUP` message.

4. EXTERNAL EVIDENCE

The switch will complete the disconnect protocol with the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE does not support the transit network specified by the switch in the `Q.931 SETUP` message.

6. REFERENCES

None.

03195

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                 [TEI=f] CRV=g CRF=h KEY=3195
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel in response to a `Q.931 SETUP` message that had been sent to the CPE by the switch. If a `Q.931 SETUP` message was received, then given the state of the call, the `Q.931 SETUP` message was unexpected. If a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message was received, then the mandatory cause value information element (IE) had not been populated by the CPE.

4. EXTERNAL EVIDENCE

If a `Q.931 SETUP` message was received, then the switch will reject the message by sending a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 31 "normal, unspecified". If a `Q.931 RELEASE` message was received, then the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE. In any case, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch or why the PRI CPE is not inserting the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03196

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3196
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CONNECT ACKNOWLEDGE` or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N6 or U1 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03197

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [TEI=f] CRV=g CRF=h KEY=3197
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory progress indicator information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

The `Q.931 PROGRESS` message is dropped. The switch will continue processing the call normally, and a `Q.931 STATUS` message will be sent to the CPE with a cause code value of 96 "mandatory information element is missing". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory progress indicator IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03198

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3198
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the contents of the progress indicator information element (IE) were invalid and could not be translated by the switch.

4. EXTERNAL EVIDENCE

The `Q.931 PROGRESS` message is dropped. The switch will continue processing the call normally, and a `Q.931 STATUS` message will be sent to the CPE with a cause code value of 100 "invalid information element contents". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the progress indicator IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03199

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3199
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, or `Q.931 CONNECT ACKNOWLEDGE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N9 or U3 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with a cause code value of:

- 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Message manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03200

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [TEI=f] CRV=g CRF=h KEY=3200
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory progress indicator information element (IE) was not populated by the CPE.

4. EXTERNAL EVIDENCE

The switch will drop the `Q.931 PROGRESS` message and a `Q.931 STATUS` message will be sent to the CPE with a cause code value of 96 "mandatory information element missing". The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not inserting the mandatory progress indicator IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03201

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHNG-ST-UXP
                [TEI=f] CRV=g CRF=h KEY=3201
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SERVICE` message was received requesting a status change for a standard primary rate interface (PRI) D-channel that does not have the D-channel back-up (DCBU) feature.

4. EXTERNAL EVIDENCE

The far end of the PRI requesting the D-channel status change will not see the `Q.931 SERVICE ACKNOWLEDGEMENT` message from the near side. The far end will time-out waiting and will send a `LAPD DISCONNECT` frame. The `Q.931 SERVICE` message is dropped.

5. CORRECTIVE ACTION

Determine why the provisioning on both sides of the PRI is not consistent. Both sides must be provisioned for non-facility associated signaling (NFAS) and DCBU features.

6. REFERENCES

None.

03202

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHNG-ST-UXP
                 [TEI=f] CRV=g CRF=h KEY=3202
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SERVICE` message was received on a standard primary rate interface (PRI) with the change status information element (IE) coded incorrectly. The change status IE can only be requested for a single channel and the status can only be changed to "in-service".

4. EXTERNAL EVIDENCE

The switch discarded the `Q.931 SERVICE ACKNOWLEDGEMENT` message. The user side of the PRI requesting the D-channel status change will not see the `Q.931 SERVICE ACKNOWLEDGEMENT` message from the network side.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 SERVICE` message with an incorrect change status IE.

6. REFERENCES

None.

03203

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHNG-ST-UXP
                [TEI=f] CRV=g CRF=h KEY=3203
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 SERVICE ACKNOWLEDGEMENT message was received on a standard primary rate interface (PRI) with the change status information element (IE) coded incorrectly. The change status IE can only be acknowledged for a single channel and the status can only be changed to "in-service".

4. EXTERNAL EVIDENCE

The switch discarded the Q.931 SERVICE ACKNOWLEDGEMENT message. The near end of the PRI requesting the D-channel status change will time-out waiting for the Q.931 SERVICE ACKNOWLEDGEMENT message from the user side. The D-channel will go to an out-of-service state and a LAPD DISCONNECT frame will be sent to the far end.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) sent a Q.931 SERVICE ACKNOWLEDGE message with an incorrectly coded change status IE.

6. REFERENCES

None.

03204

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHNG-ST-UXP
                [TEI=f] CRV=g CRF=h KEY=3204
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SERVICE ACKNOWLEDGEMENT` message was received acknowledging a D-channel status change for a standard primary rate interface (PRI) group that does not have the D-channel back-up (DCBU) feature.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

This could indicate provisioning errors for the PRI group. Both sides must have non-facility associated signaling (NFAS) and DCBU features.

6. REFERENCES

None.

03205

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-TOO-LONG
                [TEI=f] CRV=g CRF=h KEY=3205
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with a message length that exceeded 244 octets.

4. EXTERNAL EVIDENCE

None if the call reference is active. If the call reference is inactive, a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 31 "normal, unspecified". Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the Q.931 message is too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03206

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SHRT-MSG
                [TEI=f] CRV=g CRF=h KEY=3206
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with a message length less then 3 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the Q.931 message is too short.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03207

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e LNG-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3207
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with a call reference value (CRV) using more than two octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the Q.931 message is too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03208

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3208
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with either a missing call reference value (CRV) or a NULL CRV on an OSPS PRI.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the CRV is missing or NULL.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03209

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-PD
                [TEI=f] CRV=g CRF=h KEY=3209
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with an unrecognized protocol discriminator.

4. EXTERNAL EVIDENCE

None if the call reference value (CRV) is active. If the CRV is inactive, a `Q.931 RELEASE COMPLETE` message will be sent with a cause code value of 31 "normal, unspecified". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the protocol discriminator is not:

3 = Maintenance.

8 = Call control.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03210

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e TERM-MSMTCH
                [TEI=f] CRV=g CRF=h KEY=3210
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 INFO` message was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) containing a service profile identifier (SPID) information element (IE) which is invalid for these interfaces.

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the Q.931 message containing a SPID IE was received on either a custom BRI or an OSPS PRI. On a BRI, this may indicate that a standard CPE may have been plugged into a custom interface and is attempting to initialize.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03211

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INVALID-DN
                [TEI=f] CRV=g CRF=h KEY=3211
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a standard integrated services digital network (ISDN) customer premises equipment (CPE) and either of the following was the case:

- the calling party number was not present in the calling party number information element (IE) and neither the default directory number (DN) nor default service was provisioned for the port.
- a DN that was not valid on the interface port (includes invalid length) was populated in the calling party number IE and neither the default DN nor default service was provisioned for the port.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected" when the received call reference value (CRV) was a NORMAL type.

The CPE will not receive dial tone until the CPE is reprogrammed with a valid calling DN or the interface port is provisioned with a default DN or default service.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to the OP:PLNT24-PT11 output message in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

The corrective action depends on the intended operation. If the intended operation expects a valid DN, then determine why the CPE is not populating the calling party DN correctly in the IE, check programming of the CPE. Otherwise, the intent is to use a default DN or default service provisioned for this port on the interface. In this case, check the provisioning of the default DN or the default service, depending on which is intended. Refer to Views 23.2 or 23.8 in the Recent Change manual for additional information.

6. REFERENCES

Other Manual(s):

235-900-341 *National ISDN Basic Rate Interface Specification*

235-145-100 *Call Processing Description*

235-190-104 *ISDN Feature Description*

03212

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3212
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SETUP` message was received from either:

- A custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interace (PRI) containing a call reference information element (IE) with the call reference flag (CRF) coded to destination rather than origination.
- The `Q.931 SETUP` message used the global call reference value (CRV).

4. EXTERNAL EVIDENCE

If the CRV is active, the `Q.931 SETUP` message is dropped.

If the CRV is inactive, a `Q.931 RELEASE COMPLETE` with a cause code value of 81 "invalid call reference value" is sent for both a wrong CRF or use of a global CRV in a `Q.931 SETUP` message.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CRV is incorrect.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03213

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BAD-CLASS
                [TEI=f] CRV=g CRF=h KEY=3213
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 call clearing message (`Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE`) was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) with a class of the cause code value which indicated an abnormal event.

The cause code value (bits 1-7 of octet 4) contained in the call clearing message was in the range of 32-111 (integer). The cause code value is coded in one octet and consists of two parts, the class and the code.

The class of the cause is bits 5-7 of octet 4 of the cause information element (IE). The cause code is bits 1-4 of octet 4 of the cause information element (IE).

NOTE: Bit 8 of the octet containing the cause code value is an extension bit not part of the value.

The class of the cause code value for abnormal events is one of:

010 = Resource unavailable.

011 = Service or option not available.

100 = Service or option not implemented.

101 = Invalid message (that is, parameter out of range).

110 = Protocol error (that is, unknown message).

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why a call clearing message was received containing one of the listed classes.

6. REFERENCES

None.

03214

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3214
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 call clearing message (`DISCONNECT`, or `RELEASE`) was received:

- From a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) on an inactive call reference value (CRV).
- And a CRV was used in a previously sent `Q.931 SETUP` message that is awaiting processing.

4. EXTERNAL EVIDENCE

None. The message is discarded. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is using an inactive CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03215

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3215
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message other than `Q.931 SETUP`, `Q.931 DISCONNECT`, `Q.931 RELEASE`, `Q.931 RELEASE COMPLETE`, `Q.931 STATUS`, or `Q.931 STATUS ENQUIRY` was received either from a custom basic rate interface (BRI) or an operator services position system (OSPS) primary rate interface (PRI) on an inactive call reference value (CRV).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` will be sent with a cause code value of 81 "invalid call reference value". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the incorrect message was received.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03216

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e NOT-EPID
                [TEI=f] CRV=g CRF=h KEY=3216
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom basic rate interface (BRI) from customer premises equipment (CPE) that is currently initializing.

4. EXTERNAL EVIDENCE

None. A `Q.931 RELEASE COMPLETE` message with a cause code value of 88 "incompatible destination, direct call not subscribed" will be sent to the CPE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

None. This is a rare race condition. The CPE user's next attempt should complete if the customer is subscribed to the requested service.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03217

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                [TEI=f] CRV=g CRF=h KEY=3217
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom basic rate interface (BRI) from customer premises equipment (CPE) that might or might not be initialized but definitely is not bound to the service requested on this call.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message with a cause code value of 50 "requested facility not subscribed" will be sent to the CPE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Verify that the customer is subscribed to the packet or circuit features being requested. Refer to RC/V View 23.2 for additional information.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

03218

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-PD
                [TEI=f] CRV=g CRF=h KEY=3218
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with an unrecognized BRI protocol discriminator.

4. EXTERNAL EVIDENCE

The Q.931 message will be dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the protocol discriminator is not:

3 = Maintenance.

8 = Call control.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03219

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SHRT-MSG
                [TEI=f] CRV=g CRF=h KEY=3219
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with a message length less then 3 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to the REPT:PLNT24-PT11 message in the Output Messages manual for additional information.

NOTE: The PER is logged with a default call reference value of 0 and a flag value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the Q.931 message is too short.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03220

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3220
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in response to the facility invoke from the switch. The message was translated successfully but the service discriminator value recorded in the facility information element (FIE) is invalid. The service discriminator value must equal 0x11, Supplementary Service.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the service discriminator value is not 0x11.

6. REFERENCES

None.

03221

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-TOO-LONG
                [TEI=f] CRV=g CRF=h KEY=3221
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with a message length that exceeded 244 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the Q.931 message is too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03222

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e LNG-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3222
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with a call reference value (CRV) using more than two octets.

4. EXTERNAL EVIDENCE

None. The message is dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the Q.931 message is too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03223

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3223
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) where bits 5 through 8 of octet 1 of the call reference information element (IE) are not coded "0000".

4. EXTERNAL EVIDENCE

None. The message is dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent an incorrect byte.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03224

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3224
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with a missing call reference value (CRV).

4. EXTERNAL EVIDENCE

None. The message is dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CRV is missing.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03225

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                [TEI=f] CRV=g CRF=h KEY=3225
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) with an unknown message type.

4. EXTERNAL EVIDENCE

None. The message is dropped with no further action. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is sending an unknown message type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03226

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e TERM-MSMTCH
                [TEI=f] CRV=g CRF=h KEY=3226
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 MANAGEMENT INFORMATION` message was received on a standard basic rate interface (BRI). These messages are intended for custom BRI use only.

4. EXTERNAL EVIDENCE

The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Investigate CPE/switch data mismatch. Refer to RC/V View 23.2 for further information.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

03227

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-GLOB
                 [TEI=f] CRV=g CRF=h KEY=3227
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) using a global call reference value (CRV). The global call reference, a value of zero, should never be sent from the customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending a global CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03228

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-NULL
                 [TEI=f] CRV=g CRF=h KEY=3228
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard basic rate interface (BRI) using a null call reference value (CRV), however, the message was not a `Q.931 INFORMATION` message. Only the `Q.931 INFORMATION` message for the Q.931 protocol is allowed to have a null CRV.

4. EXTERNAL EVIDENCE

The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) sent a NULL CRV in a message other than an "info" message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03229

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3229
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SETUP` or `Q.932 REGISTER` message was received on a standard basic rate interface (BRI) with the call reference flag (CRF) indicating a termination instead of an origination.

4. EXTERNAL EVIDENCE

The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending a CRF other than the value of zero.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03230

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3230
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` or `Q.932 REGISTER` message on a standard basic rate interface (BRI) with a call reference value (CRV) less than 128, coded using two octets instead of only one octet.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why customer premises equipment (CPE) is using an extra octet to code a CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03231

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MIB-REG-DEL
                [TEI=f] CRV=g CRF=h KEY=3231
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 DISCONNECT, Q.931 RELEASE, or Q.931 RELEASE COMPLETE message on a standard basic rate interface (BRI) using the same call reference value (CRV) as a previously received, and as yet unprocessed, Q.932 REGISTER message requesting automatic terminal setup.

4. EXTERNAL EVIDENCE

The unprocessed Q.932 REGISTER message will be deleted from the maintenance input buffer (MIB) queue. If the call clearing message was not a Q.931 RELEASE COMPLETE, then a Q.931 RELEASE COMPLETE is sent with a cause code value of 81 "invalid call reference value". If the call clearing message was a Q.931 RELEASE COMPLETE, then no further action is taken since the Q.931 call clearing protocol is already complete. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending a call clearing message immediately after sending a Q.932 REGISTER message with a request for automatic terminal setup.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03232

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3232
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` message on a standard basic rate interface (BRI) using an unallocated call reference value (CRV).

4. EXTERNAL EVIDENCE

If the call clearing message was not a `Q.931 RELEASE COMPLETE`, then a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value". If the call clearing message was a `Q.931 RELEASE COMPLETE`, then no further action will be taken since the Q.931 call clearing protocol is already complete. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is requesting to clear an unallocated CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03233

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3233
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message other than a `Q.931 DISCONNECT`, `Q.931 RELEASE`, `Q.931 RELEASE COMPLETE`, `Q.931 SETUP`, or `Q.932 REGISTER` on a standard basic rate interface (BRI) using an unallocated call reference value (CRV).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is signaling using an unallocated CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03234

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-PD
                [TEI=f] CRV=g CRF=h KEY=3234
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) with an unrecognized PRI protocol discriminator.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the protocol discriminator is not:

8 = Call control.

43 = Maintenance.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03235

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-TOO-LONG
                [TEI=f] CRV=g CRF=h KEY=3235
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) with a message length that exceeded 244 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why PRI customer premises equipment (CPE) has sent a Q.931 message that exceeded 244 octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03236

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SHRT-MSG
                [TEI=f] CRV=g CRF=h KEY=3236
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) with a message length less then 3 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: This PER is logged with a default call reference value (CRV) of zero and a call reference flag (CRF) value of zero (origination).

5. CORRECTIVE ACTION

Determine why PRI customer premises equipment (CPE) has sent a Q.931 message with less than three octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03237

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e LNG-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3237
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) with a call reference value (CRV) using more than two octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: This PER is logged with a default call reference value (CRV) of zero and a call reference flag (CRF) value of zero (origination).

5. CORRECTIVE ACTION

Determine why PRI customer premises equipment (CPE) has sent a Q.931 message with a CRV that was too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03238

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3238
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) with an existing condition such as:

- Call reference value (CRV) whose first octet, bits 5-8, were not coded "0000".
- NULL CRV was received on this PRI.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: This PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent a Q.931 message with an existing condition such as:

- The first octet, bits 5-8, were not coded "0000".
- Including a NULL CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03239

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3239
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a standard primary rate interface (PRI) without a call reference information element (IE).

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: This PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent a Q.931 message without a call reference IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03240

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                [TEI=f] CRV=g CRF=h KEY=3240
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unrecognized Q.931 message was received on a standard primary rate interface (PRI).

4. EXTERNAL EVIDENCE

If the call reference value (CRV) is active, then the user will also receive a `Q.931 STATUS` message. If the CRV is inactive, then a `Q.931 RELEASE COMPLETE` message with a cause code value of 81 "invalid call reference value" will be sent to the user. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent an invalid Q.931 message type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03241

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3241
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the value of the mandatory precedence level in the PLI information element (IE) in the message was out of range. The valid range of enum values of the precedence level allowed on a PRI D-channel is 0 - 4. This condition may occur when a call is originated from another switch with has a precedence level other than those allowed on a PRI trunk.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents". A level 3 message error count is pegged and reported in part 11 of the 24 hour report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory precedence level in the PLI IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03242

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-IES
                [TEI=f] CRV=g CRF=h KEY=3242
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message with a NULL call reference value (CRV) on a standard basic rate interface (BRI) that contained a service profile identifier (SPID) information element (IE) for initialization but the message also contained other IE. The legal combination is a NULL CRV with a lone SPID IE.

4. EXTERNAL EVIDENCE

None. The `Q.931 INFORMATION` message is dropped. The initialization attempt is ignored. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is including extraneous IEs when attempting to initialize.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03243

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-IES
                [TEI=f] CRV=g CRF=h KEY=3243
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` message using a normal call reference value (CRV) on a standard basic rate interface (BRI) containing a service profile identifier (SPID) information element (IE). The legal combination is a NULL CRV with a lone SPID IE.

4. EXTERNAL EVIDENCE

A `Q.931 STATUS` message with a cause code value of 99 "information element non-existent or not implemented" is sent to the customer premises equipment (CPE). A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is including a SPID IE in a `Q.931 INFORMATION` message with a normal CRV when the message should have a NULL CRV for terminal initialization.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03244

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MIB-REG-DEL
                [TEI=f] CRV=g CRF=h KEY=3244
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message on a standard basic rate interface (BRI) using the same call reference value (CRV) just sent in a `Q.931 REGISTER` message on the same interface and that has not been processed.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "no circuit/channel available" is sent to the customer premises equipment (CPE). Both the `Q.931 SETUP` and unprocessed `Q.931 REGISTER` messages are discarded. The unprocessed `Q.931 REGISTER` message is discarded by deleting it from the maintenance input buffer (MIB) queue.

5. CORRECTIVE ACTION

Determine why the CPE is using the same CRV in a `Q.931 REGISTER` message requesting automatic terminal setup and then immediately sending an origination request with the same CRV.

6. REFERENCES

None.

03245

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3245
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message on a standard basic rate interface (BRI) containing an untranslatable bearer capability information element (IE).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" is sent to the customer premises equipment (CPE). A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is coding the bearer capability IE incorrectly when trying to originate a call.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03246

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-MISS
                [TEI=f] CRV=g CRF=h KEY=3246
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message on a standard basic rate interface (BRI) without a bearer capability information element (IE).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message with a cause code value of 96 "mandatory information element is missing" is sent to the customer premises equipment (CPE). A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is not including the bearer capability IE when trying to originate a call.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03247

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3247
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in response to the facility invoke from the switch. The message was translated successfully but either the facility IE is not populated or the component length in the facility information element (IE) is 0. The facility IE is a mandatory IE in the FACILITY message and should not contain a 0 length component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the facility IE is missing or the component length is 0.

6. REFERENCES

None.

03248

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                 [TEI=f] CRV=g CRF=h KEY=3248
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from a customer premises equipment (CPE) on a standard basic rate interface (BRI) requesting packet switch or circuit switch service that the BRI is not authorized to establish.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message is sent to the CPE. If the message received by the switch was a `Q.931 SETUP`, the `Q.931 RELEASE COMPLETE` message will have a cause code value of 57 "bearer capability not authorized". If the message received by the switch was other than a `Q.931 SETUP`, the `Q.931 RELEASE COMPLETE` message will have a cause code value of 21 "call rejected". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE is requesting a service that it is not authorized to have.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03249

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e NOT-EPID
                [TEI=f] CRV=g CRF=h KEY=3249
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from a customer premises equipment (CPE) on a standard basic rate interface (BRI). This CPE is not initialized and not bound to a user service order profile on this BRI.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message is sent to the CPE with a cause code value of 21 "call rejected". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why an non-itialized CPE is requesting a service that it is not authorized to have.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03250

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3250
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 SETUP` message was received from a standard primary rate interface (PRI) containing a call reference information element (IE) with an existing condition such as:

- The call reference flag (CRF) coded to destination (1) rather than origination (0).
- A call reference using the global call reference value (CRV) that has a one or two octet value of zero.

4. EXTERNAL EVIDENCE

None. The message is dropped.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI user has coded the call reference IE incorrectly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03251

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3251
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` message on a standard primary rate interface (PRI) using an unallocated call reference value (CRV).

4. EXTERNAL EVIDENCE

If the call clearing message was not a `Q.931 RELEASE COMPLETE`, then a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI user is requesting to clear an unallocated CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03252

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3252
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message on a standard primary rate interface (PRI) using an unallocated call reference value (CRV).

The message received by the switch was not:

- `Q.931 DISCONNECT`
- `Q.931 RELEASE`
- `Q.931 RELEASE COMPLETE`
- `Q.931 STATUS`
- `Q.931 STATUS INQUIRY`
- `Q.931 RESTART`
- `Q.931 RESTART ACKNOWLEDGE`
- `Q.931 SERVICE`
- `Q.931 SERVICE ACKNOWLEDGE`

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference".

5. CORRECTIVE ACTION

Determine why the PRI user is using an unallocated CRV.

6. REFERENCES

None.

03253

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e KEY-INV
                [TEI=f] CRV=g CRF=h KEY=3253
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 INFORMATION` message was received from a customer premises equipment (CPE) on a basic rate interface (BRI) with the invalid combination of both the keypad and the called party number (CdPN) information elements (IEs).

4. EXTERNAL EVIDENCE

The message is dropped if:

- There was a NULL call reference IE.
- The call reference IE must be other than NULL and the call state is not state:

  2 = Overlap sending.

  21 = Dial tone sending.

  If the call is in one of these two states, the call will be cleared with a cause code value of 28 "invalid number format" and the reorder tone is applied.

5. CORRECTIVE ACTION

Determine why CPE is coding the `Q.931 INFORMATION` message incorrectly.

6. REFERENCES

None.

03254

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REJ-PRV
                [TEI=f] CRV=g CRF=h KEY=3254
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 MANAGEMENT INFORMATION` message was received from a multi-point customer premises equipment (CPE) on an custom basic rate interface (BRI) with a reject for a protocol violation presumably in response to a switch initiated invoke.

4. EXTERNAL EVIDENCE

None. No further attempt will be made to query the CPE. If there is no record in the switch of the original invoke, PER key code 3257 will be logged.

5. CORRECTIVE ACTION

Determine why multi-point CPE is rejecting the switch initiated protocol capability audit.

6. REFERENCES

None.

03255

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REJ-INVTRD
                [TEI=f] CRV=g CRF=h KEY=3255
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 MANAGEMENT INFORMATION` message was received from a multi-point customer premises equipment (CPE) on an custom basic rate interface (BRI) with a reject for a non-synchronous operation. The reject may be in response to a switch initiated invoke.

4. EXTERNAL EVIDENCE

None. No further attempt will be made to query the CPE. If there is no record in the switch of the original invoke, PER key code 3257 will be logged.

5. CORRECTIVE ACTION

Determine why multi-point CPE is rejecting the switch initiated protocol capability audit.

6. REFERENCES

None.

03256

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MAN-IE
                [TEI=f] CRV=g CRF=h KEY=3256
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 MANAGEMENT INFORMATION` message was received from a multi-point customer premises equipment (CPE) on custom basic rate interface (BRI) with an unknown management information element (IE).

4. EXTERNAL EVIDENCE

A `Q.931 MANAGEMENT INFORMATION` message with a reject for an unrecognized operation IE will be sent to the CPE.

5. CORRECTIVE ACTION

Determine why multi-point CPE is coding the `Q.931 MANAGEMENT INFORMATION` message incorrectly.

6. REFERENCES

None.

03257

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MAN-IE
                [TEI=f] CRV=g CRF=h KEY=3257
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unexpected `Q.931 MANAGEMENT INFORMATION` message was received from a multi-point customer premises equipment (CPE) on custom basic rate interface (BRI).

4. EXTERNAL EVIDENCE

None. The `Q.931 MANAGEMENT INFORMATION` message is ignored.

5. CORRECTIVE ACTION

Determine why a multi-point CPE is sending the switch unsolicited `Q.931 MANAGEMENT INFORMATION` messages.

6. REFERENCES

None.

03258

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MAN-IE
                 [TEI=f] CRV=g CRF=h KEY=3258
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unexpected `Q.931 MANAGEMENT INFORMATION` message was received from a multi-point customer premises equipment (CPE) on custom basic rate interface (BRI).

4. EXTERNAL EVIDENCE

None. The `Q.931 MANAGEMENT INFORMATION` message is ignored.

5. CORRECTIVE ACTION

Determine why a multi-point CPE is sending the switch unsolicited `Q.931 MANAGEMENT INFORMATION` messages.

6. REFERENCES

None.

03259

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-TOO-LONG
                 [TEI=f] CRV=g CRF=h KEY=3259
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) with a message length that exceeded 244 octets.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 31 "normal, unspecified" if the call reference value (CRV) is not allocated, otherwise, the message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why PRI customer premises equipment (CPE) sent a Q.931 message that exceeded 244 octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03260

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SHRT-MSG
                [TEI=f] CRV=g CRF=h KEY=3260
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) with a message length less then 3 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why PRI customer premises equipment (CPE) sent a Q.931 message with less than 3 octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03261

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e LNG-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3261
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) with a call reference value (CRV) using more than two octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why PRI CPE has sent a Q.931 message with a CRV that was too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03262

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3262
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) with an existing condition such as:

- A call reference value (CRV) whose first octet, bits 5-8, were not coded "0000".
- A NULL CRV was received on this PRI. The NULL CRV is one octet of all zeros.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent a Q.931 message:

- whose first octet, bits 5-8, were not coded "0000".
- with a NULL CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03263

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3263
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) without a call reference information element (IE).

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

NOTE: The PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent a Q.931 message without a call reference IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03264

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                [TEI=f] CRV=g CRF=h KEY=3264
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unrecognized Q.931 message was received on a custom primary rate interface (PRI).

4. EXTERNAL EVIDENCE

If the call reference value (CRV) is active, then the user will also receive a `Q.931 STATUS` message. If the CRV is inactive, then a `Q.931 RELEASE COMPLETE` message will be sent to the user. In both cases, a level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent an invalid Q.931 message type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03265

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3265
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 SETUP message was received on a custom primary rate interface (PRI) containing a call reference information element (IE) with the call reference flag (CRF) coded to destination (1) rather than origination (0) or the Q.931 SETUP message used the global call reference value (CRV) that is a one or two byte value of zero.

4. EXTERNAL EVIDENCE

A Q.931 RELEASE COMPLETE message will be sent to the user with a cause code value of 81 "invalid call reference value". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI customer premises equipment (CPE) sent a Q.931 message with an invalid CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03266

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BAD-CLASS
                [TEI=f] CRV=g CRF=h KEY=3266
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` call clearing message was received at a custom primary rate interface (PRI) with a class of the cause code value that indicated an abnormal event.

The cause code value (bits 1-7 of octet 4) contained in the call clearing message was in the range of 32-111 (integer). The cause code value is coded in one octet and consists of two parts, the class and the code.

The class of the cause is bits 5-7 of octet 4 of the cause information element (IE). The cause code is bits 1-4 of octet 4 of the cause IE.

NOTE: Bit 8 of the octet containing the cause code value is an extension bit not part of the value.

The class of the cause code value for abnormal events is one of:

010 = Resource unavailable.

011 = Service or option not available.

100 = Service or option not implemented.

101 = Invalid message (that is, parameter out of range).

110 = Protocol error (that is, unknown message).

4. EXTERNAL EVIDENCE

If the CRV is:

1 Allocated for a call, the call will go through normal call clearing.

2 Unallocated and the call clearing message was either a `Q.931 DISCONNECT` or a `Q.931 RELEASE`, then a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value" and PER key code 3267 is also logged.

2 Unallocated and the call clearing message was a `Q.931 RELEASE COMPLETE` no message is sent.

5. CORRECTIVE ACTION

Determine why a call clearing message was received containing one of the listed classes.

6. REFERENCES

None.

03267

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3267
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 DISCONNECT`, or `Q.931 RELEASE` call clearing message has an existing conditions such as:

- The message was received from a custom primary rate interface (PRI) on an inactive call reference value (CRV).
- The same CRV was used in a previously sent `Q.931 SETUP` message that is awaiting processing.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value". If an unprocessed `Q.931 SETUP` message is found, it will be discarded.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is using an inactive CRV.

6. REFERENCES

None.

03268

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                 [TEI=f] CRV=g CRF=h KEY=3268
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message other than `Q.931 DISCONNECT`, `Q.931 RELEASE`, `Q.931 RELEASE COMPLETE`, `Q.931 SETUP`, or `Q.931 STATUS INQUIRY` was received from a custom primary rate interface (PRI) using an unallocated call reference value (CRV).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value".

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is using an inactive CRV.

6. REFERENCES

None.

03269

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-PD
                [TEI=f] CRV=g CRF=h KEY=3269
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a custom primary rate interface (PRI) with an unrecognized PRI protocol discriminator.

4. EXTERNAL EVIDENCE

None. The message is dropped.

5. CORRECTIVE ACTION

Determine why the protocol discriminator is not:

3 = Maintenance.

8 = Call control.

6. REFERENCES

None.

03270

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BAD-CLASS
                [TEI=f] CRV=g CRF=h KEY=3270
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` call clearing message is being sent by the switch with the class of the cause code value that indicates an abnormal event.

The cause code value (bits 1-7 of octet 4) contained in the call clearing message was greater than 47 (integer). The cause code value is coded in one octet and consists of two parts, the class and the code.

The class of the cause is bits 5-7 of octet 4 of the cause information element (IE). The cause code is bits 1-4 of octet 4 of the cause information element (IE).

NOTE: Bit 8 of the octet containing the cause code value is an extension bit not part of the value.

The class of the cause code value for abnormal events is one of:

011 = Service or option not available.

100 = Service or option not implemented.

101 = Invalid message (that is, parameter out of range).

110 = Protocol error (that is, unknown message).

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the class of the cause code is being generated.

6. REFERENCES

None.

03271

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BAD-CLASS
                [TEI=f] CRV=g CRF=h KEY=3271
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `Q.931 DISCONNECT`, `Q.931 RELEASE`, or `Q.931 RELEASE COMPLETE` call clearing message is being sent by the switch to the members of a shared directory number (DN) group with the class of the cause code value that indicates an abnormal event.

The cause code value (bits 1-7 of octet 4) contained in the call clearing message was greater than 47 (integer). The cause code value is coded in one octet and consists of two parts, the class and the code.

The class of the cause is bits 5-7 of octet 4 of the cause information element (IE). The cause code is bits 1-4 of octet 4 of the cause IE.

NOTE: Bit 8 of the octet containing the cause code value is an extension bit not part of the value.

The class of the cause code value for abnormal events is one of:

011 = Service or option not available.

100 = Service or option not implemented.

101 = Invalid message (that is, parameter out of range).

110 = Protocol error (that is, unknown message).

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the class of the cause code is being generated.

6. REFERENCES

None.

03272

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3272
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL ACTIVE", an unexpected `Q.931 ASSOCIATE ACKNOWLEDGE` message was received from a SHDN associate customer premises equipment (CPE). The `Q.931 ASSOCIATE ACKNOWLEDGE` message is invalid in the "CALL ACTIVE" state. The purpose of the `Q.931 ASSOCIATE ACKNOWLEDGE` is to notify the switch that an associated call has been accepted (that is, the associate CPE has responded to an `Q.931 ASSOCIATED` message). The `Q.931 ASSOCIATE ACKNOWLEDGE` is only valid in the "CALL INIT" state (that is, the associated CPE requesting call establishment). The switch was expecting a `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

None. The `Q.931 ASSOCIATE ACKNOWLEDGE` message received from the SHDN associate CPE was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected `Q.931 ASSOCIATE ACKNOWLEDGE` message to the switch.

6. REFERENCES

None.

03273

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3273
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "DISCONNECT INDICATION", the T308 timer expired while waiting for a response to a `Q.931 RELEASE` message from a specific SHDN associate customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The switch sent a `Q.931 RELEASE COMPLETE` message to the SHDN associate CPE.

5. CORRECTIVE ACTION

Determine why the `Q.931 RELEASE` message was not received.

6. REFERENCES

None.

03274

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3274
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL DELIVERED", an unexpected `Q.931 ALERT`, `Q.931 CALL PROCEEDING`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 CONNECT`, or `Q.931 ASSOCIATE ACKNOWLEDGE` message was received from a SHDN associate customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The unexpected message received from the SHDN associate CPE was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message.

6. REFERENCES

None.

03275

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                [TEI=f] CRV=g CRF=h KEY=3275
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "INCOMING CALL PROCEEDING", the T310 timer expired while waiting for a `Q.931 ALERT` or `Q.931 CONNECT` message.

4. EXTERNAL EVIDENCE

If the T310 timer expired for the first time, another `Q.931 SETUP` message was sent to the SHDN customer premises equipment (CPE). If the T310 timer expires a second time, the CPE call state is changed to NULL and a `Q.931 RELEASE COMPLETE` message is sent.

5. CORRECTIVE ACTION

Determine why the CPE did not send a `Q.931 ALERT` or `Q.931 CONNECT` message.

6. REFERENCES

None.

03276

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3276
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was in the "INCOMING CALL PROCEEDING" state, an unexpected `Q.931 ASSOCIATE ACKNOWLEDGE` or `Q.931 CONNECT ACKNOWLEDGE` message was received from a SHDN associate customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The unexpected Q.931 message was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03277

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3277
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "INCOMING CALL PROCEEDING", an unexpected `Q.931 RECONNECT` message was received from a SHDN associate customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The switch sent a `Q.931 RECONNECT REJECT` message to the SHDN associate CPE. The switch will wait for an appropriate response.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03278

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3278
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has responded to `Q931 SETUP` message with a `Q.931 CALL PROCEEDING` message with an invalid channel ID information element (IE). The channel ID IE in the `Q.931 CALL PROCEEDING` message did not match with the channel ID IE sent in the `Q.931 SETUP` message. The channel ID IE was either not populated or incorrectly populated.

This occurred during the conditional notification procedure of on-demand B-channel packet call.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Compare the outgoing channel ID against incoming channel ID. Determine why the channel ID IE is not populated or is incorrectly populated.

6. REFERENCES

None.

03279

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3279
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CPE has responded to `Q.931 SETUP` message with a `Q.931 ALERTING` message with invalid channel ID information element (IE). The channel ID IE in the `Q.931 ALERTING` message did not match with the channel ID IE sent in the `Q.931 SETUP` message. The channel ID IE was either not populated or incorrectly populated.

This occurred during the conditional notification procedure of on-demand B-channel packet call.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Compare the outgoing channel ID against incoming channel ID. Determine why the channel ID IE is not populated or is incorrectly populated.

6. REFERENCES

None.

03280

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3280
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) responded to a `Q.931 SETUP` message with a `Q.931 CONNECT` message with an invalid channel ID information element (IE). The channel ID IE in the `Q.931 CONNECT` message did not match with the channel ID IE sent in the `Q.931 SETUP` message. The channel ID IE was either not populated or incorrectly populated.

This occurred during the conditional notification procedure of on-demand B-channel packet call.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Compare the outgoing channel ID against incoming channel ID. Determine why the channel ID IE is not populated or is incorrectly populated.

6. REFERENCES

None.

03281

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3281
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 DISCONNECT` message sent by the customer premises equipment (CPE). The cause IE is mandatory in the first clearing message sent from a CPE.

This occurred during the Q.931 clearing procedure of an on-demand B-channel/D-channel packet call.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending cause IE in the first clearing message (that is, in the `Q.931 DISCONNECT` message).

6. REFERENCES

None.

03282

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3282
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 RELEASE` message sent by the customer premises equipment (CPE). The cause IE is mandatory in the first clearing message sent from a CPE.

This occurred during the Q.931 clearing procedure of an on-demand B-channel/D-channel packet call.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending cause IE in the first clearing message (that is, in the `Q.931 RELEASE` message).

6. REFERENCES

None.

03283

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3283
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 RELEASE COMPLETE` message sent by the customer premises equipment (CPE). The cause IE is mandatory in the first clearing message sent from a CPE.

This occurred during the Q.931 clearing procedure of an on-demand B-channel/D-channel packet call.

4. EXTERNAL EVIDENCE

The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending cause IE in the first clearing message (that is, in the `Q.931 RELEASE COMPLETE` message).

6. REFERENCES

None.

03284

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3284
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message containing a low layer compatibility information element (IE). This IE in the `Q.931 SETUP` message is invalid for on-demand packet establishment.

This occurred during the establishment of an on-demand B-channel setup.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the customer premises equipment (CPE) indicating the cause and proceed with the call.

5. CORRECTIVE ACTION

Determine why the CPE sent a low layer compatibility IE in the `Q.931 SETUP` message.

6. REFERENCES

None.

03285

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3285
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message that contained a high layer compatibility information element (IE). This IE in the `Q.931 SETUP` message is invalid for on-demand packet establishment.

This occurred during the establishment of an on-demand B-channel setup.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the customer premises equipment (CPE) indicating the cause and proceed with the call.

5. CORRECTIVE ACTION

Determine why the CPE sent a high layer compatibility IE in the `Q.931 SETUP` message.

6. REFERENCES

None.

03286

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3286
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message that contained a calling party subaddress information element (IE). This IE in the `Q.931 SETUP` message is invalid for on-demand packet establishment.

This occurred during the establishment of an on-demand B-channel setup.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the customer premises equipment (CPE) indicating the cause and proceed with the call.

5. CORRECTIVE ACTION

Determine why the CPE sent a calling party subaddress IE in the `Q.931 SETUP` message.

6. REFERENCES

None.

03287

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3287
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 DISCONNECT` message sent by the customer premises equipment (CPE). The cause IE is mandatory in the first clearing message sent from a CPE.

This occurred during the Q.931 clearing procedure of an on-demand B-channel packet call.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a cause IE in the first clearing message (that is, in the `Q.931 DISCONNECT`).

6. REFERENCES

None.

03288

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3288
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 RELEASE` message sent by the customer premises equipment (CPE). The cause IE is mandatory.

This occurred during the Q.931 clearing procedure of an on demand B-channel packet call.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a cause IE in the first clearing message (that is, in the `Q.931 RELEASE`).

6. REFERENCES

None.

03289

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3289
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause information element (IE) was missing in the `Q.931 RELEASE COMPLETE` message sent by the customer premises equipment (CPE). The cause IE is mandatory.

This occurred during the Q.931 clearing procedure of an on demand B-channel packet call.

4. EXTERNAL EVIDENCE

The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a cause IE in the first clearing message (that is, in the `Q.931 RELEASE COMPLETE`).

6. REFERENCES

None.

03290

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3290
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

For an on-demand B-channel packet call, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message as the first clearing message. When the call is in the active state, the first clearing message should be a `Q.931 DISCONNECT`.

4. EXTERNAL EVIDENCE

The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message first.

6. REFERENCES

None.

03291

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3291
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

For an on-demand B-channel packet call, the customer premises equipment (CPE) sent a `Q.931 RELEASE` as the first clearing message. When the call is in the active state, the first clearing message should be a `Q.931 DISCONNECT`.

4. EXTERNAL EVIDENCE

The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE` message first.

6. REFERENCES

None.

03292

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T3YY-EXP
                [TEI=f] CRV=g CRF=h KEY=3292
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While establishing the on-demand B-channel packet connection through the Q.931 procedure, the customer premises equipment (CPE) failed to establish packet layer on the B-channel [link access procedure B (LAPB)]. The switch was timing on an internal timer (T3YY), and that timer has expired. The T3YY timer is 2 minutes long and starts as soon as the switch sends the `Q.931 CONNECT` message to the CPE. The CPE had 2 minutes to establish LAPB. The timer T3YY is used because the CPE is provisioned for "No Notification."

4. EXTERNAL EVIDENCE

The attempt to establish on-demand B-channel packet connection will be terminated because of the timer expiration.

5. CORRECTIVE ACTION

Determine why the CPE is not establishing LAPB.

6. REFERENCES

None.

03293

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T320-EXP
                [TEI=f] CRV=g CRF=h KEY=3293
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While establishing the on-demand B-channel packet connection through a Q.931 procedure, the customer premises equipment (CPE) has failed to establish packet layer on the B-channel [link access procedure B (LAPB)]. The switch was timing on timer T320 and that timer has expired. The T320 timer is an office timer (range between 20 - 60 seconds) and starts as soon as the switch sends the `Q.931 CONNECT` message to the CPE. The length of time the CPE had to establish LAPB is determined by the value of the T320 timer. The timer T320 is used because the CPE is provisioned for "Conditional Notification."

4. EXTERNAL EVIDENCE

The attempt to establish on-demand B-channel packet connection will be terminated because of the timer expiration.

5. CORRECTIVE ACTION

Determine why the CPE is not establishing LAPB.

6. REFERENCES

None.

03294

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3294
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While an on-demand B-channel packet call was active, the switch received a `Q.931 HOLD` message from the customer premises equipment (CPE). This is an invalid message for on-demand packet calls.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 HOLD REJECT` message and remain in the active state.

5. CORRECTIVE ACTION

Determine why the CPE sent the `Q.931 HOLD` message for an on-demand B-channel packet call.

6. REFERENCES

None.

03295

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3295
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message while the switch was performing a layer 2 disconnect procedure (in response to a previous `Q.931 DISCONNECT` message). This is an unexpected message in this state. The customer premises equipment (CPE) sent two `Q.931 DISCONNECT` messages.

4. EXTERNAL EVIDENCE

None. The switch ignores this message.

5. CORRECTIVE ACTION

Determine why the CPE sent a second `Q.931 DISCONNECT` message.

6. REFERENCES

None.

03296

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3296
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message while the switch was performing a layer 2 disconnect procedure (in response to a `Q.931 DISCONNECT` message). This is an unexpected message in this state. The customer premises equipment (CPE) must have sent a `Q.931 DISCONNECT` message followed by a `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The switch will continue the layer 2 disconnect procedure. Upon completion of the procedure, the switch will send a `Q.931 RELEASE COMPLETE` message to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE` message immediately after the `Q.931 DISCONNECT` message.

6. REFERENCES

None.

03297

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3297
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message while the switch was performing a layer 2 disconnect procedure (in response to a `Q.931 DISCONNECT` message). This is an unexpected message in this state. The customer premises equipment (CPE) must have sent a `Q.931 DISCONNECT` message followed by a `Q.931 RELEASE COMPLETE` message.

4. EXTERNAL EVIDENCE

The switch will continue the layer 2 disconnect procedure to completion.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message immediately after the `Q.931 DISCONNECT` message.

6. REFERENCES

None.

03298

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                [TEI=f] CRV=g CRF=h KEY=3298
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the on-demand B-channel packet call was in the release request state [a `Q.931 RELEASE` message was sent to the customer premises equipment (CPE)], the timer T308 expired twice. The switch was waiting for a `Q.931 RELEASE COMPLETE` message with timer T308 running.

4. EXTERNAL EVIDENCE

The switch will clear the call after the second T308 timeout.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03299

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3299
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) to clear the on-demand B-channel packet call. The mandatory cause information element (IE) was missing in the `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a cause IE in the first clearing message (that is, the `Q.931 RELEASE` message).

6. REFERENCES

None.

03300

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                 [TEI=f] CRV=g CRF=h KEY=3300
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Causes may include:

- A standard integrated services digital network (ISDN) terminal sent a `Q.931 SETUP` message to the switch with an operator system access (OSA) information element (IE) whose access type was invalid. The only valid OSA access types are:

  Principal.
  Alternate.

- The `Q.931 SETUP` message may also have contained a transit network selection (TNS) and/or a called party number (CdPN) IE.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the OSA IE was incorrectly coded.

6. REFERENCES

None.

03301

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3301
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the contents of the progress indicator information element (IE) were invalid and could not be translated by the switch.

4. EXTERNAL EVIDENCE

The switch will drop the `Q.931 PROGRESS` message and send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents". The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the progress indicator IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03302

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                 [TEI=f] CRV=g CRF=h KEY=3302
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, or `Q.931 CONNECT ACKNOWLEDGE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N7 or U4 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with:

- A cause code value of 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- A cause code value of 101 "message not compatible with call state" for a National integrated services digital network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03303

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T301-EXP
                [TEI=f] CRV=g CRF=h KEY=3303
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T301 timed out while waiting for a `Q.931 CONNECT` message from the primary rate interface (PRI) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE with a cause code value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not sending a `Q.931 CONNECT` message to the switch. It could be that the PRI CPE is not answering the call within the timer T301 interval. This could also be caused by a loss of layer 2 signaling on the D-channel.

Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03304

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3304
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, or `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N8 or U8 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with:

- A cause code value of 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- A cause code value of 101 "message not compatible with call state" for a National Integrated Services Digital Network (ISDN). PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03305

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3305
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03306

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3306
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 RELEASE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N10 or U10 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE to clear the call.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03307

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3307
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` or `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will continue with normal call clearing procedures. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03308

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3308
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 SETUP`, `Q.931 CALL PROCEEDING`, `Q.931 ALERT`, `Q.931 PROGRESS`, or `Q.931 CONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel. The call was in the N10 or U10 call state when it received the message from the CPE. Given the state of the call, the message was unexpected.

Refer to the Call State Appendix for additional information.

4. EXTERNAL EVIDENCE

The switch will drop the unexpected message and send a `Q.931 STATUS` message to the CPE with either:

- A cause code value of 98 "message not compatible with call state or message type non-existent or not implemented" for a custom PRI.
- A cause code value of 101 "message not compatible with call state" for a National integrated services digital network (ISDN) PRI.

The switch will then continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an unexpected Q.931 message to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03309

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CAC-FAIL
                [TEI=f] CRV=g CRF=h KEY=3309
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 STATUS ENQUIRY` message to the primary rate interface (PRI) customer premises equipment (CPE) but timer T322 expired while the switch was waiting for the CPE to respond with a `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the PRI CPE is not responding to the `Q.931 STATUS ENQUIRY` message that was sent by the switch. This could be caused by a loss of layer 2 signaling on the D-channel.

Execute "op:status" on the PRI D-channel. Refer to OP:STATUS in the Input Messages manual for additional information. Verify that the D-channel is in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03310

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3310
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the contents of the progress indicator information element (IE) were invalid. Specifically, the progress description coded in the progress indicator IE by the CPE is not supported by the switch.

4. EXTERNAL EVIDENCE

The switch will drop the `Q.931 PROGRESS` message and send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents". The switch will continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the progress indicator IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03311

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3311
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 PROGRESS` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the contents of the progress indicator information element (IE) were invalid. Specifically, the progress description coded in the progress indicator IE by the CPE is not supported by the switch.

4. EXTERNAL EVIDENCE

The switch will drop the `Q.931 PROGRESS` message and send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information element contents". The switch will continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the progress indicator IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03312

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3312
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory precedence level information element (IE) in the message was missing, untranslatable, or too long. The precedence level IE is mandatory for PRI trunks assigned with the precedence and preemption feature on RC/V View 5.11.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with either:

- A cause code value of 96 "mandatory information element missing" if the IE was missing.
- A cause code value of 100 "invalid information element contents" if the IE was untranslatable or too long.

A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory precedence level IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03313

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRV-DOM
                [TEI=f] CRV=g CRF=h KEY=3313
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the service domain value in the mandatory precedence level information element (IE) of the message was not set to zero. Zero is the only allowed value. The precedence level IE is mandatory for PRI trunks assigned with the precedence and preemption feature on RC/V View 5.11.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 63 "service or option not available, unspecified". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory precedence level IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03314

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3314
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the mandatory cause information element (IE) in the message was not populated by the CPE. The cause IE is mandatory in the first call clearing message received from the CPE since the CPE initiated call clearing.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE and continue with normal call clearing. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the mandatory cause IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03315

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3315
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message with a cause code value of 8 "preemption" from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the PRI trunk is not assigned with the precedence and preemption feature on RC/V View 5.11.

4. EXTERNAL EVIDENCE

The switch will complete the disconnect protocol with the CPE.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an invalid cause code. This is most likely a provisioning problem where one end of the PRI trunk has precedence and preemption and the other end does not.

6. REFERENCES

None.

03316

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3316
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message with a cause code value of 9 "preemption - circuit reserved for reuse" from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel but the PRI trunk is not assigned with the precedence and preemption feature on RC/V View 5.11.

4. EXTERNAL EVIDENCE

The switch will complete the disconnect protocol with the CPE. The switch will not reserve the circuit (PRI B-channel trunk) for reuse.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an invalid cause code. This is most likely a provisioning problem where one end of the PRI trunk has precedence and preemption and the other end does not.

6. REFERENCES

None.

03317

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-MSG
                [TEI=f] CRV=g CRF=h KEY=3317
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the precedence level information element (IE) was populated by the CPE but the PRI trunk is not assigned with the precedence and preemption feature on RC/V View 5.11.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message with a cause code value of 99 "information element nonexistent or not implemented" to clear the call. The switch will continue processing the call normally. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is sending an invalid IE. This is most likely a provisioning problem where one end of the PRI trunk has precedence and preemption and the other end does not.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03318

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e OCA-MISS
                 [TEI=f] CRV=g CRF=h KEY=3318
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) where the mandatory origination call appearance information element (IE) is not present.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE is not populating the origination call appearance IE.

6. REFERENCES

None.

03319

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                 [TEI=f] CRV=g CRF=h KEY=3319
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a custom integrated services digital network (ISDN) customer premises equipment (CPE) and all B-channels for this port are out-of-service.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the port. Put B-channels back in service.

6. REFERENCES

None.

03320

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3320
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL INITIALIZATION", the T303 timer expired while waiting for a `Q.931 ASSOCIATE ACKNOWLEDGE` message in response to a `Q.931 SETUP` message.

4. EXTERNAL EVIDENCE

For the first T303 expiration while waiting for a `Q.931 ASSOCIATE ACKNOWLEDGE` message from a SHDN associate customer premises equipment (CPE), the switch resent a `Q.931 ASSOCIATE SETUP` message to the CPE. If the T303 timer expires a 2nd time, a `Q.931 RELEASE COMPLETE` message is sent to the CPE. The call will not be offered to this SHDN associate CPE.

5. CORRECTIVE ACTION

Determine why the switch did not receive a `Q.931 ASSOCIATE ACKNOWLEDGE` response to the `Q.931 ASSOCIATE SETUP` message.

6. REFERENCES

None.

03321

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3321
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National integrated services digital network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message with the information channel selection field of the channel ID information element (IE) set to indicate "no channel". The information channel selection field should be set to B1, B2, or ANY. The information channel selection field is bits 1 and 2 of octet 3 of the channel ID IE.

4. EXTERNAL EVIDENCE

The customer will not get a dial tone. The customer will receive a `Q.931 RELEASE COMPLETE` with a cause code value of 6 "channel unacceptable".

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 SETUP` message with the information channel selection field of the channel ID IE set to "no channel".

6. REFERENCES

None.

03322

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3322
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with the channel ID information element (IE) improperly coded. The channel ID IE was either untranslatable or too long.

4. EXTERNAL EVIDENCE

None. The call is processed as if the channel ID IE had been properly coded to request any B-channel.

5. CORRECTIVE ACTION

Determine why the CPE is sending in invalid `Q.931 SETUP` message.

6. REFERENCES

None.

03323

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-MISS
                 [TEI=f] CRV=g CRF=h KEY=3323
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with the bearer capability information element (IE) incorrectly populated or not implemented.

4. EXTERNAL EVIDENCE

Customer will not receive a dial tone and will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 65 "bearer capability not implemented".

5. CORRECTIVE ACTION

Determine why the CPE is not correctly coding a mandatory IE.

6. REFERENCES

None.

03324

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MCA-CONG
                [TEI=f] CRV=g CRF=h KEY=3324
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with a call appearance that is reserved for priority terminations from a custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected".

5. CORRECTIVE ACTION

Determine why the CPE type and the call appearance being requested do not match.

6. REFERENCES

None.

03325

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MCA-CONG
                [TEI=f] CRV=g CRF=h KEY=3325
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A custom Integrated Services Digital Network (ISDN) "type A" customer premises equipment (CPE) is trying to originate but has no more available call appearances.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 42 "network (switching equipment) congestion".

5. CORRECTIVE ACTION

Inform customer of the proper use of their call appearances.

6. REFERENCES

None.

03326

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MCA-CONG
                [TEI=f] CRV=g CRF=h KEY=3326
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

For a custom Integrated Services Digital Network (ISDN) "type A" customer premises equipment (CPE), the switch has encountered a system error when trying to access an rlLTMSTAT tuple.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

An assert will fire, the RTAULTMSTAT audit is triggered, and the CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 42 "network (switching equipment) congestion". Refer to the RTAULTMSTAT audit in the Audits Manual for additional information.

5. CORRECTIVE ACTION

None. The switch will clear the problem.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

03327

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MCA-CONG
                [TEI=f] CRV=g CRF=h KEY=3327
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

For a custom Integrated Services Digital Network (ISDN) "types B, C, and D" customer premises equipment (CPE), the switch has encountered a system error when trying to access an rlLTMSTAT tuple. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

An assert will fire, the LTMSTAT audit will be run, and the CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 42 "network (switching equipment) congestion". Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

None. The switch will clear the problem.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

03328

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3328
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a custom Integrated Services Digital Network (ISDN), requesting a B-channel and all B-channels are already being used or this customer premises equipment (CPE) is trying to access more B-channels than are subscribe to.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available"

5. CORRECTIVE ACTION

Inform CPE owner about the services they are actually subscribed to. The user's level of B-channel subscription can be seen on RC/V View 23.2 or RC/V View 23.8 in the MAXB CHL field.

6. REFERENCES

RC/V View(s):

View 23.2 (DIGITAL SUBSCRIBER LINE)
View 23.8 (DSL/BRCS ASSIGNMENT)

03329

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                [TEI=f] CRV=g CRF=h KEY=3329
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully. After examining the `Q.931 RELEASE COMPLETE` message, it was determined that the required extended facility information element (EFIE) was invalid. Either the length of the EFIE was zero or was incorrectly coded by the CPE. A valid EFIE is required because it contains the service profile identifier (SPID) of the CPE requesting the abort or sending the download complete.

4. EXTERNAL EVIDENCE

The download is automatically aborted as a result of the invalid EFIE. PER 7011 is also generated and the number of automatic terminal setup (ATS) failures, shown in part 11 of the 24 hour plant report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message with an invalid EFIE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03330

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-NUM-FORM
                [TEI=f] CRV=g CRF=h KEY=3330
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The cause can be:

- A standard integrated services digital network (ISDN) terminal sent a `Q.931 SETUP` message to the switch with an invalid called party number (CdPN) information element (IE).

  The CdPN IE may be invalid because:
  - The CdPN numbering plan and address type are an invalid combination.
  - An invalid digit was detected in the CdPN.

  The valid address types for the ISDN numbering plan are:
  - International.
  - National.
  - Local.

  Valid address types for the private number plan are:
  - Network-specific.
  - Abbreviated.

  Valid address types for the unknown number plan are:
  - Unknown.

  The valid digits in a CdPN are:
  - 0 through 9.
  - * (star) and # (pound) only if the CdPN address type is "Unknown".

- The `Q.931 SETUP` message may also have contained a transit network selection (TNS) and/or an operator system access (OSA) IE.

4. EXTERNAL EVIDENCE

The call will be cleared with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CdPN IE was incorrectly coded, contained an invalid IE, or contained an invalid IE combination.

6. REFERENCES

None.

03331

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [TEI=f] CRV=g CRF=h KEY=3331
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.931 DISCONNECT` message without mandatory cause information element (IE). The cause IE is mandatory in the first clearing message sent from a CPE. This occurred during the Q.931 clearing procedure of an on-demand B-channel packet call.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the cause IE in the first clearing message (that is, the `Q.931 DISCONNECT` message).

6. REFERENCES

None.

03332

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RES-LIM
                [TEI=f] CRV=g CRF=h KEY=3332
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, that contained a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE).

This message requested a terminal download. While processing the message, the switch ran out of a resource, remote terminal linkage blocks (RTLBs).

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. A `Q.931 RELEASE COMPLETE` message containing a RO-Reject message with reason equal to "resourceLimitation" or a `Q.931 RELEASE COMPLETE` message without an application processor data unit (APDU), cause code value of 47 "resource unavailable, unspecified", was sent to the CPE.

5. CORRECTIVE ACTION

RTLB tuples are used for both the automatic terminal setup (ATS) feature and for TR303 remote terminal (RT) OA&M messages. If this PER key is only seen rarely, this problem can be ignored because it indicates that a critical resource was momentarily exhausted; but, when the load leveled off, the resource became plentiful again. If this PER key is reported persistently, either these two features are too heavily used on this switching module (SM) and their use needs to be spread across other SMs, or the number of RTLB tuples needs to be increased for this SM.

6. REFERENCES

None.

03333

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                 [TEI=f] CRV=g CRF=h KEY=3333
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) to clear the on-demand B-channel packet call. The mandatory cause information element (IE) was missing in the `Q.931 RELEASE COMPLETE` message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the cause IE in the first clearing message (that is, the `Q.931 RELEASE COMPLETE` message).

6. REFERENCES

None.

03334

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3334
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.931 RELEASE` as the first clearing message when the call was in the active state. The first clearing message for on-demand B-channel packet call should be a `Q.931 DISCONNECT` when the call is in the active state.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a `Q.931 DISCONNECT` message as the first clearing message.

6. REFERENCES

None.

03335

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [TEI=f] CRV=g CRF=h KEY=3335
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent `Q.931 RELEASE COMPLETE` as the first clearing message when the call was in the active state. The first clearing message for on-demand B-channel packet call should be a `Q.931 DISCONNECT` when the call is in the active state.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not sending a `Q.931 DISCONNECT` message as the first clearing message.

6. REFERENCES

None.

03336

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T320-EXP
                [TEI=f] CRV=g CRF=h KEY=3336
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While establishing the on-demand B-channel packet connection through a Q.931 procedure, the customer premises equipment (CPE) failed to establish packet layer on the B-Channel (LAPB). The timer T320 expired. The T320 timer is an office timer (RC/V view 8.1) (range between 20 - 60 seconds) and starts as soon as the switch sends the `Q.931 CONNECT ACKNOWLEDGE` message to the CPE. The CPE had (the value of timer T320) seconds to establish LAPB. The timer T320 is used because the CPE is provisioned for "Conditional Notification."

4. EXTERNAL EVIDENCE

The call will be cleared immediately because of the timer expiration.

5. CORRECTIVE ACTION

Corrective actions include:

- Determine why the CPE is not establishing LAPB during the T320 interval.
- The T320 timer is most likely not the problem.

Increasing the T320 timer value may degrade system performance.

6. REFERENCES

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

03337

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                 [TEI=f] CRV=g CRF=h KEY=3337
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While an on-demand B-channel packet call was active, the switch has received a `Q.931 HOLD` message from the customer premises equipment (CPE). This is an invalid message for on-demand B-channel packet calls.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 HOLD REJECT` message and remain in the active state.

5. CORRECTIVE ACTION

Determine why the CPE is sending `Q.931 HOLD` message for on-demand B-channel packet calls.

6. REFERENCES

None.

03338

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                [TEI=f] CRV=g CRF=h KEY=3338
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the on-demand B-channel/D-channel packet call was waiting for a response for the `Q.931 SETUP` message sent to the customer premises equipment (CPE), the timer T303 expired twice. This timer was started after the switch sent the Q.931 SETUP message to the CPE for a conditional notification call. The switch did not receive a response to the SETUP message.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to the `Q.931 SETUP` message. The T303 timer is most likely not the problem. Increasing the T303 timer value may degrade system performance.

6. REFERENCES

None.

03339

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T320-EXP
                [TEI=f] CRV=g CRF=h KEY=3339
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While establishing the on-demand D-channel packet connection through a Q.931 procedure, the customer premises equipment (CPE) failed to establish packet layer (SAPI-16) on the D-channel (LAPD). The switch was timing on an internal timer (T320) and that timer was expired. The T320 timer is an office timer (RC/V view 8.1) (range between 20 - 60 seconds) and starts as soon as the switch receives the `Q.931 CONNECT` message from the CPE. The CPE had (the value of time T320) seconds to establish packet layer on the D-channel. However, service access point identifier 0 (SAPI-0) is active on the D-channel at this time.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Determine why the CPE is not establishing SAPI-16 on the D-channel. The T320 timer is most likely not the problem. Increasing the T320 timer value may degrade system performance.

6. REFERENCES

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

03340

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                [TEI=f] CRV=g CRF=h KEY=3340
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T310 expired. This timer was started after the switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) in response to a `Q.931 SETUP` message sent from the switch for a conditional notification call. After receiving the `Q.931 CALL PROCEEDING` message, the switch was waiting for another Q.931 message (such as, `Q.931 ALERTING`, `Q.931 CONNECT`, etc.) with timer T310 running.

4. EXTERNAL EVIDENCE

The switch will clear the call immediately.

5. CORRECTIVE ACTION

Determine why the CPE is not sending another Q.931 message after sending the `Q.931 CALL PROCEEDING` message.

6. REFERENCES

None.

03341

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-SPID
                [TEI=f] CRV=g CRF=h KEY=3341
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A standard customer premises equipment (CPE) sent in a service profile identifier (SPID) that was used by another CPE on the same standard multi-point interface. Each user on the standard multi-point interface is required to send a unique SPID.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 INFORMATION` message containing cause code value of 100 "invalid information element contents". The CPE that sent in this SPID will not get service (dial tone) until the CPE is reprogrammed with a valid SPID and sends it again.

5. CORRECTIVE ACTION

Execute OP:CPE to identify valid SPIDs for this interface. Determine what SPIDs are already associated with a directory number (DN). Identify an available SPID and instruct the customer to use that.

Refer to OP:CPE in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03342

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-SPID
                [TEI=f] CRV=g CRF=h KEY=3342
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A standard customer premises equipment (CPE) sent in a service profile identifier (SPID) that was just used by another CPE on the same standard multi-point interface or the SPID was invalid on that interface. Each user on the standard multi-point interface is required to send a unique SPID.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 INFORMATION` message containing a cause code value of 100 "invalid information element contents". The CPE that sent in this SPID will not get service (dial tone) until the CPE is reprogrammed with a valid SPID and sends it again. The call reference value (CRV) is set to zero (null CRV). The call reference flag (CRF) is set to zero (user originating).

5. CORRECTIVE ACTION

Execute an OP:CPE to identify valid SPIDs for this interface. Determine what SPIDs are already associated with a directory number (DN). Identify an available SPID and instruct the customer to use that.

Refer to OP:CPE in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03343

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-SPID
                [TEI=f] CRV=g CRF=h KEY=3343
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer has changed the service profile identifier (SPID) and sent it to the switch while there was a call up.

4. EXTERNAL EVIDENCE

The switch will ignore this SPID and send the customer premises equipment (CPE) a `Q.931 INFORMATION` message containing a cause code value of 100 "invalid information element contents". The call reference value (CRV) is set to zero (null CRV). The call reference flag (CRF) is set to zero (user originating).

5. CORRECTIVE ACTION

Determine why the CPE is sending the SPID while there is an active call.

6. REFERENCES

None.

03344

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                 [TEI=f] CRV=g CRF=h KEY=3344
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The bearer capability requested from a custom Integrated Services Digital Network (ISDN) circuit switched data (CSD) customer premises equipment (CPE) is not subscribed to. For example, a CPE sent `Q.931 SETUP` message requesting to make a CSD call but the CPE owner does not subscribe to CSD services.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Review translations associated with this CPE owner and give instructions about what types of services are subscribed to. Refer to RC/V Views associated with this directory number (DN) for additional information.

6. REFERENCES

None.

03345

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3345
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with the bearer capability information element (IE) not populated.

4. EXTERNAL EVIDENCE

The customer will not receive a dial tone. The switch will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 96 "mandatory information element is missing".

5. CORRECTIVE ACTION

Determine why the CPE is not correctly coding a mandatory IE.

6. REFERENCES

None.

03346

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3346
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the channel information element (IE) is not coded correctly. The channel IE was either untranslatable or too long.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE is sending in a `Q.931 SETUP` message with the channel IE incorrectly coded.

6. REFERENCES

None.

03347

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3347
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the bearer capability information element (IE) was not a valid type.

Valid bearer capability IE values are:

3PT1KHZ.
64CLR.
64RES.
56CLR.
56RES.
X.25.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected".

5. CORRECTIVE ACTION

Determine why the CPE is sending in a `Q.931 SETUP` message with an invalid bearer capability IE.

6. REFERENCES

None.

03348

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-MISS
                [TEI=f] CRV=g CRF=h KEY=3348
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the bearer capability information element (IE) was not populated.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 96 "mandatory information element is missing".

5. CORRECTIVE ACTION

Determine why the CPE is sending in a `Q.931 SETUP` message with the bearer capability IE missing.

6. REFERENCES

None.

03349

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3349
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the status of the bearer capability information element (IE) was not coded correctly.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 SETUP` message with the bearer capability IE incorrectly coded.

6. REFERENCES

None.

03350

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3350
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message with the bearer capability information element (IE) coded incorrectly or the status of the bearer capability is invalid.

4. EXTERNAL EVIDENCE

The customer will not receive a dial tone. The customer receives a `Q.931 RELEASE COMPLETE` message. If the bearer capability is coded incorrectly, the message is sent with a cause code value of 111 "protocol error - unspecified". Otherwise, the message is sent with a cause code value of 100 "invalid information element contents".

5. CORRECTIVE ACTION

Determine why the CPE is not correctly coding a mandatory IE.

6. REFERENCES

None.

03351

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SYS-ERR
                [TEI=f] CRV=g CRF=h KEY=3351
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch screening of the calling party number (CgPN) in the `Q.931 SETUP` message failed. The switch screening generally verifies that the customer premise equipment (CPE) has correctly identified its directory number (DN).

4. EXTERNAL EVIDENCE

The customer will not receive a dial tone and will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected".

5. CORRECTIVE ACTION

Determine why there is a customer premises equipment (CPE) mismatch. For example, they may have a not-in-service DN basic electronic key telephone service (EKTS) line, but the CPE has been incorrectly programmed to be a EKTS call appearance call handling (CACH) line. Reprogram the CPE. Refer to RC/V Views 23.2 and 23.8 for additional information.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)
23.8 (DSL/BRCS ASSIGNMENT)

03352

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3352
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message, the B-channel is owned by terminal maintenance, and the B-channel that the switch is attempting to use is currently being used by terminal maintenance.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the port, determine why terminal maintenance has control of the B-channel; and, if appropriate, halt the maintenance activity on this B-channel.

6. REFERENCES

None.

03353

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3353
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and there are no B-channels available because they are already in use or this user is trying to access more B-channels than subscribed to.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Inform customer about use of the subscribed B-channels.

6. REFERENCES

None.

03354

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                [TEI=f] CRV=g CRF=h KEY=3354
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and all B-channels for this port are out-of-service.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the port and put the B-channels back in service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03355

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                 [TEI=f] CRV=g CRF=h KEY=3355
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the bearer capability requested from the customer premises equipment (CPE) is not subscribed to. For example, the CPE sent a `Q.931 SETUP` message requesting to make a circuit switched data (CSD) call but user does not subscribe to CSD service.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Review RC/V View 23.8 associated with this DN and instruct the customer about what types of services are subscribed to.

6. REFERENCES

RC/V View(s):

View 23.8 [DSL/BRCS ASSIGNMENT (USER INFO)]

03356

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3356
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) is trying to access a B-channel but the individual CPE limit has been exceeded.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available" or, if the request for a B-channel was exclusive, the cause code value of 44 "requested circuit/channel not available". The CPE will also get voice call blocked.

5. CORRECTIVE ACTION

The customer is currently using all subscribed B-channels or requested B-channel. The CPE can either release a B-channel to make a call or be provisioned for 2 B-channels.

Refer to RC/V View 23.2 for additional information.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

03357

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                 [TEI=f] CRV=g CRF=h KEY=3357
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a National ISDN CPE. However, all B-channels for this port are out-of-service.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available" or, if the request for a B-channel was exclusive, the cause code value of 44 "requested circuit/channel not available". The CPE will also get voice call blocked.

5. CORRECTIVE ACTION

Check the status of the port. Put B-channels back in service.

6. REFERENCES

None.

03358

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                 [TEI=f] CRV=g CRF=h KEY=3358
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The bearer capability requested from the customer premises equipment (CPE) is not subscribed to. For example, the CPE sent a `Q.931 SETUP` message requesting to make a circuit switched data (CSD) call but user does not subscribe to CSD service.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 57 "bearer capability not authorized".

5. CORRECTIVE ACTION

Review customer translations with CPE owner on what types of services are subscribed to.

6. REFERENCES

None.

03359

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                [TEI=f] CRV=g CRF=h KEY=3359
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` or a `Q.931 SETUP` message and the D-channel is out-of-service.

4. EXTERNAL EVIDENCE

Depression of feature button or one touch feature button on the CPE will be ignored.

5. CORRECTIVE ACTION

Check the status of the D-channel and put it back in service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03360

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3360
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 INFORMATION` or a `Q.931 SETUP` message, terminal maintenance currently owns this port and no call processing can occur, and the blocked call bit is set in the D-channel port block (DPB).

4. EXTERNAL EVIDENCE

The `Q.931 INFORMATION` or `Q.931 SETUP` message will be ignored.

5. CORRECTIVE ACTION

Check the status of the D-channel. Put D-channel back in service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03361

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                [TEI=f] CRV=g CRF=h KEY=3361
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message where the bearer capability requested from the custom Integrated Services Digital Network (ISDN) customer premises equipment (CPE) is not subscribed to. For example, CPE sent a `Q.931 SETUP` message requesting to make a circuit switched data (CSD) call but the CPE owner does not subscribe to CSD service.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Review translations for the CPE owner and give instructions on what types of services are subscribed to. Refer to RC/V Views 23.2 or 23.8 for additional information.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)
23.8 (DSL/BRCS ASSIGNMENT)

03362

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                [TEI=f] CRV=g CRF=h KEY=3362
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the D-channel is out-of-service.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with the cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the D-channel and put it back in service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03363

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3363
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message, terminal maintenance currently owns this port, and the blocked call bit is set in the D-channel port block (DPB). No call processing can occur.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the D-channel.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03364

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3364
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` or `RELEASE COMPLETE` message containing a facility information element (IE) in response to the facility invoke from the switch. The message was translated successfully but the service discriminator value recorded in the facility information element is invalid. The service discriminator value must equal 0x11, supplementary service.

4. EXTERNAL EVIDENCE

The switch discards the facility IE and proceeds with the normal call clearing procedure.

5. CORRECTIVE ACTION

Determine why the service discriminator value is not 0x11.

6. REFERENCES

None.

03365

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3365
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An AT&T custom integrated services digital network (ISDN) customer premises equipment (CPE) sent a `Q.931 SETUP` message with the D-channel indicator field of the channel ID information element (IE) set to D-channel but the D-channel indicator should be set to no D-channel. The D-channel indicator is bit 3 of octet 3 of the channel ID IE.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 111 "protocol error - unspecified".

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 SETUP` message with the D-channel indicator field of the channel ID IE set incorrectly to D-channel.

6. REFERENCES

None.

03366

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                [TEI=f] CRV=g CRF=h KEY=3366
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An AT&T custom integrated services digital network (ISDN) customer premises equipment (CPE) has sent a `Q.931 SETUP` message with the information channel selection field of the channel ID information element (IE) set to "no channel" but the information channel selection field should be set to B1, B2, or ANY. The information channel selection field is bits 1 and 2 of octet 3 of the channel ID IE.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 6 "channel unacceptable".

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 SETUP` message with the information channel selection field of the channel ID IE set incorrectly to "no channel".

6. REFERENCES

None.

03367

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3367
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

For a custom integrated services digital network (ISDN) customer premises equipment (CPE), there are either no B-channels available because they are already being used, or this CPE is trying to access more B-channels than are subscribed to.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Inform CPE owner about use of their B-channels.

6. REFERENCES

None.

03368

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                 [TEI=f] CRV=g CRF=h KEY=3368
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from a custom integrated services digital network (ISDN) circuit switched data (CSD) and all B-channels for this port are out-of-service.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the B-channels and put them back in service. Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03369

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MCA-CONG
                [TEI=f] CRV=g CRF=h KEY=3369
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a setup message and there are no call positions available for origination.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected".

5. CORRECTIVE ACTION

The CPE has used up all available call positions. Review customer translations with the CPE owner on how many call positions the CPE is subscribed to.

6. REFERENCES

None.

03370

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-ID-INV
                 [TEI=f] CRV=g CRF=h KEY=3370
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A National integrated services digital network (ISDN) customer premises equipment (CPE) sent the switch a `Q.931 SETUP` message with the D-channel indicator field of the channel ID information element (IE) set to D-channel. The D-channel indicator should be set to no D-channel. The D-channel indicator is bit 3 of octet 3 of the channel ID IE.

4. EXTERNAL EVIDENCE

The customer receives a `Q.931 RELEASE COMPLETE` message with a cause code value of 111 "protocol error - unspecified". The customer will not get a dial tone.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) is sending a `Q.931 SETUP` message with the D-channel indicator field of the channel ID IE set to D-channel.

6. REFERENCES

None.

03371

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                 [TEI=f] CRV=g CRF=h KEY=3371
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) when the call state was "CALL INITIALIZE", an unexpected `Q.931 ALERT`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 CONNECT`, or `Q.931 CALL PROCEEDING` message was received from a SHDN associate customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

None. The unexpected message was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03372

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3372
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message, terminal maintenance currently owns this port and no call processing can occur, and the blocked call bit is set in the D-channel port block (DPB).

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the D-channel.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03373

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3373
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was NULL, an unexpected `Q.931 ALERT`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 CONNECT`, `Q.931 ASSOCIATE ACKNOWLEDGE`, `Q.931 RECONNECT`, `Q.931 DISCONNECT`, `Q.931 RELEASE`, `Q.931 CONFERENCE`, `Q.931 DROP`, `Q.931 HOLD`, `Q.931 INFORMATION`, `Q.931 TRANSFER`, or `Q.931 CALL PROCEEDING` message was received. The switch was expecting a `Q.931 SETUP` message.

4. EXTERNAL EVIDENCE

None. The unexpected Q.931 message was ignored.

5. CORRECTIVE ACTION

Determine why the customer premises equipment (CPE) sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03374

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PORT-OOS
                 [TEI=f] CRV=g CRF=h KEY=3374
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message and the D-channel is out-of-service.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check the status of the D-channel and put it back in service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03375

Key Code Range: 03000 - 03999
Software Release: 5E10 - 5E13
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e PRI-ODB-NIMP
                [TEI=f] CRV=g CRF=h KEY=3375
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message for on-demand B-channel (ODB) service, but ODB packet switching is not available for the primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 69 "requested facility not implemented".

5. CORRECTIVE ACTION

Inform the customer that ODB is not available for PRI.

6. REFERENCES

None.

03376

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3376
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message for on-demand B-channel (ODB) service but the switch either encountered a database read error or the PH channel(s) assigned to serve this digital subscriber loop (DSL) were already in use.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 34 "channel congestion or no circuit/channel available".

5. CORRECTIVE ACTION

Check to see if the user has all assigned PH channels in use. If so, configure the user for more PH channels or inform the user of ODB service subscription limits.

6. REFERENCES

None.

03377

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CHAN-NA
                [TEI=f] CRV=g CRF=h KEY=3377
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message for on-demand B-channel (ODB) service but the switch cannot get a B-channel.

4. EXTERNAL EVIDENCE

The customer premises equipment (CPE) will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of:

- 34 "channel congestion or no circuit/channel available" (default).
- 44 "requested circuit/channel not available" if an exclusive B-channel request was made.

5. CORRECTIVE ACTION

Check the B-channel's status for this CPE. Verify the traffic load for allocating resources. Refer to OP:STATUS and TRC:UTIL in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03378

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                 [TEI=f] CRV=g CRF=h KEY=3378
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "OUT CALL PROC" (that is, exists for an outgoing call when the switch has acknowledged receipt of the information required for the call to proceed), an unexpected `Q.931 ALERT`, `Q.931 CONNECT ACKNOWLEDGE`, `Q.931 CONNECT`, `Q.931 ASSOCIATED ACKNOWLEDGE`, or `Q.931 CALL PROCEEDING` message was received from an associate customer premises equipment (CPE). The switch was expecting a `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

None. The unexpected message was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03379

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                [TEI=f] CRV=g CRF=h KEY=3379
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL PRESENT" (that is, exists for an incoming call when the switch has indicated the call, but no associate CPE has indicated when the call can be accepted), the T310 timer expired while waiting for a response to a `Q.931 CALL PROCEEDING` message from the associated CPE

The switch sends this message to the associate CPE to indicate that it has initiated the call establishment requested and that it will not accept any more call establishment. The associated CPE may send this message to inform the switch of terminal capabilities and/or to verify the selected channel.

4. EXTERNAL EVIDENCE

If the T310 timer expired for the first time, another `Q.931 SETUP` message was resent to the associate CPE. If the T310 timer expires a second time, the associated CPE call state is changed to NULL and a `Q.931 RELEASE COMPLETE` message is sent to the associate CPE.

5. CORRECTIVE ACTION

Determine why the CPE did not send a `Q.931 ALERT` or `Q.931 CONNECT` message.

6. REFERENCES

None.

03380

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3380
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL PRESENT" (that is, exists for an incoming call when the switch has indicated the call, but no associated CPE has indicated when the call can be accepted), an unexpected `Q.931 ASSOCIATE ACKNOWLEDGE` or `Q.931 CONNECT ACKNOWLEDGE` message was received from a SHDN associate customer premises equipment (CPE). The switch was expecting a `Q.931 ALERT` message.

4. EXTERNAL EVIDENCE

None. The unexpected message was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03381

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3381
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL PRESENT", an unexpected `Q.931 RECONNECT` message was received from a SHDN associate customer premises equipment (CPE). The switch was expecting a `Q.931 ALERT` message.

4. EXTERNAL EVIDENCE

The switch sent a `Q.931 RECONNECT REJECT` message to the SHDN associate CPE in response to the `Q.931 RECONNECT` message. This message is never valid in the "CALL PRESENT" state. The associated CPE sends a `Q.931 RECONNECT` message to the switch to request the reconnection of a held call or the bridging of a call.

5. CORRECTIVE ACTION

Determine why the CPE rejected call.

6. REFERENCES

None.

03382

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-UNEXP
                [TEI=f] CRV=g CRF=h KEY=3382
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a shared directory number (SHDN) call when the call state was "CALL RCVD", an unexpected `Q.931 ASSOCIATE ACKNOWLEDGE` or `Q.931 CONNECT ACKNOWLEDGE` message was received from a SHDN associate customer premises equipment (CPE). The switch was expecting a `Q.931 CONNECT` or `Q.931 RELEASE` message.

4. EXTERNAL EVIDENCE

The unexpected message was ignored.

5. CORRECTIVE ACTION

Determine why the CPE sent an unexpected Q.931 message to the switch.

6. REFERENCES

None.

03383

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e TERM-NOT-INIT
                 [TEI=f] CRV=g CRF=h KEY=3383
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a download of the customer premises equipment (CPE). In preparation for sending the download information to the CPE, the switch performed a check to determine if the terminal endpoint identifier (TEI) is correctly bound to the CPE. The check failed. This indicates that the switch believes that the TEI is not currently bound to the CPE.

4. EXTERNAL EVIDENCE

The CPE will receive a `Q.931 RELEASE COMPLETE` message with a cause code value of 21 "call rejected".

5. CORRECTIVE ACTION

Check the status of the port. If the CPE is out of service, put the CPE back in service.

6. REFERENCES

None.

03384

Key Code Range: 03001 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3384
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a Network Element Services Signaling (NESS) operation. During message translation it was determined that the Facility information element (FACIE) was invalid. Either the length of the FACIE was less then two or the length was coded incorrectly by the customer premises equipment (CPE). A valid FACIE is needed to make a NESS request.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" and the NESS request is aborted.

5. CORRECTIVE ACTION

Determine why the FACIE component of the `Q.932 REGISTER` message was coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-341 *National ISDN Basic Rate Interface Specification*

03385

Key Code Range: 03001 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3385
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.932 REGISTER` message requesting a Network Element Services Signaling (NESS) operation. During message translation it was determined that the Facility information element (FACIE) was invalid. The protocol profile (a.k.a. service discriminator) received from the customer premises equipment (CPE) was not the supplementary service Remote Operations Protocol.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 100 "invalid information element contents" and the NESS request is aborted.

5. CORRECTIVE ACTION

Determine why the FACIE component of the `Q.932 REGISTER` message was coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-341 *National ISDN Basic Rate Interface Specification*

03386

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                 [TEI=f] CRV=g CRF=h KEY=3386
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT or RELEASE COMPLETE` message containing FACILITY IE in response to the facility invoke from the switch. The message was translated successfully but the component length in the facility IE is 0. The facility IE is a mandatory IE in the FACILITY message and should not contain a 0 length component.

4. EXTERNAL EVIDENCE

The switch discards the facility IE and proceeds with the normal call clearing procedure.

5. CORRECTIVE ACTION

Verify why the component is missing.

6. REFERENCES

None.

03387

Key Code Range: 03000 - 03999
Software Release: 5E11 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                [TEI=f] CRV=g CRF=h KEY=3387
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the network specific facilities (NSF) information element (IE) in the message was incompatible with the bearer capability (BC) IE in the message.

Specifically, the bearer service requested in the BC IE is incompatible with the hotel/motel (HM) or selective class of call screening (SCOCS) service requested in octet 4 of the NSF IE.

The allowed bearer services for a HM or SCOCS call are:

- speech,
- 3.1 kHz audio,
- 64 kbps circuit mode unrestricted digital information, and
- 64 kbps circuit mode unrestricted digital information - rate adapted from 56 kbps.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 51 "bearer capability incompatible with service request," and a cause coding standard of "national." A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is making the invalid request.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03388

Key Code Range: 03000 - 03999
Software Release: 5E11 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3388
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the network specific facilities (NSF) information element (IE) in the message was untranslatable.

4. EXTERNAL EVIDENCE

EXTERNAL EVIDENCE This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents." On a national ISDN PRI, the switch will also send a diagnostic value in the cause IE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the NSF IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03389

Key Code Range: 03000 - 03999
Software Release: 5E11 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3389
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but the network specific facilities (NSF) information element (IE) in the message had one of the following errors:

- Octet 4 indicated a selective class of call screening (SCOCS) call, but there were no service parameters in octet 5.
- Octet 4 indicated a SCOCS call, but the service parameters in octet 5 had a value of 0.
- Octet 4 indicated a hotel motel (HM) call, but there were service parameters present in octet 5.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 100 "invalid information element contents." On a national ISDN PRI, the switch will also send a diagnostic value of 0x20 (NSF IE) in the cause IE. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the NSF IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03390

Key Code Range: 03000 - 03999
Software Release: 5E11 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UREC-OP
                [TEI=f] CRV=g CRF=h KEY=3390
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel, but octet 4 of the network specific facilities (NSF) information element (IE) in the message had a coding for a service not implemented by the switch.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 69 "requested facility not implemented." A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is not populating the NSF IE correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03391

Key Code Range: 03000 - 03999
Software Release: 5E11 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REQ-SVC-NSUB
                [TEI=f] CRV=g CRF=h KEY=3391
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a primary rate interface (PRI) D-channel and the network specific facilities (NSF) information element (IE) in the message had a request for hotel/motel, selective class of call screening, foreign exchange, tie trunk, national ISDN banded OUTWATS, or national ISDN unbanded OUTWATS, but the PRI B-channel trunk group is not provisioned for call by call service selection on RC/V View 5.1.

4. EXTERNAL EVIDENCE

This PRI call setup attempt will fail. The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with a cause code value of 50 "requested facility not subscribed." A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to OP:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the PRI CPE is requesting a call by call service on a trunk group that is not provisioned for call by call service.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03392-A

Key Code Range: 03000 - 03999
Software Release: 5E10 - 5E12
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3392
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a untranslatable `FACILITY IE in Q.931 DISC, REL, or REL_COMP` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "Invalid Information Element" and continue the call clearance procedure.

5. CORRECTIVE ACTION

Contact CPE to send proper FACILITY IE in these messages.

6. REFERENCES

None.

03392-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3392
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an untranslatable `FACILITY IE in a Q.931 DISC, REL, or REL_COMP` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch continues the call clearance procedure.

5. CORRECTIVE ACTION

Contact the CPE to send a proper FACILITY IE in these messages.

6. REFERENCES

None.

03393-A

Key Code Range: 03000 - 03999
Software Release: 5E10 - 5E12
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [TEI=f] CRV=g CRF=h KEY=3393
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a untranslatable `FACILITY IE in Q.931 SETUP or FACILITY` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause value of 100 "Invalid Information Element".

5. CORRECTIVE ACTION

Contact CPE to send a proper FACILITY IE in these messages.

6. REFERENCES

None.

03393-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                 [TEI=f] CRV=g CRF=h KEY=3393
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an untranslatable `FACILITY IE in a Q.931 SETUP or FACILITY` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

For a call not in a clearing state, the switch will send a Q.931 STATUS message to the CPE with a cause value of 100 "Invalid Information Element". For a call that is in a clearing state, the switch will continue the call clearing procedure.

5. CORRECTIVE ACTION

Contact the CPE to send a proper FACILITY IE in these messages.

6. REFERENCES

None.

03394-A

Key Code Range: 03000 - 03999
Software Release: 5E10 - 5E12
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3394
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a invalid Protocol Profile field at `FACILITY IE in Q.931 SETUP` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "Invalid Information Element".

5. CORRECTIVE ACTION

Contact CPE to send a proper Protocol Profile field at FACILITY IE in SETUP message.

6. REFERENCES

None.

03394-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-SRVC-DISCR
                [TEI=f] CRV=g CRF=h KEY=3394
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an invalid Protocol Profile (also known as Service Discriminator) field in the `FACILITY IE` of a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message on a primary rate interface (PRI). The switch expected the coding for "Networking Extensions" or "Supplementary Services" in the Protocol Profile field.

4. EXTERNAL EVIDENCE

The switch discards the `FACILITY IE.` For a `Q.931 SETUP or FACILITY` message received while not in a call clearing state, the switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "Invalid Information Element".

5. CORRECTIVE ACTION

Contact the CPE to send a proper Protocol Profile field in the `FACILITY IE.`

6. REFERENCES

None.

03395-A

Key Code Range: 03000 - 03999
Software Release: 5E10 - 5E12
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [TEI=f] CRV=g CRF=h KEY=3395
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` Message without component information element on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and continue the call.

5. CORRECTIVE ACTION

Contact CPE to send a proper component information element to the switch.

6. REFERENCES

None.

03395-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [TEI=f] CRV=g CRF=h KEY=3395
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 `FACILITY` Message without a FACILITY information element on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

For a call not in a clearing state, the switch will send a Q.931 STATUS message to the CPE with a cause value of 96 "Mandatory Information Element missing" and continue the call. For a call that is in a clearing state, the switch will continue the call clearing procedure.

5. CORRECTIVE ACTION

Contact the CPE to send a proper FACILITY information element to the switch.

6. REFERENCES

None.

03396

Key Code Range: 03000 - 03999
Software Release: 5E11(1) and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MULT-PCN-RQSTS
                 [TEI=f] CRV=g CRF=h KEY=3396
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received multiple `PCN requests in a Q.931 SETUP` message on a primary rate interface (PRI).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 REL_COMP` message to the CPE with a cause value of 53 "Service Operation Violated" and the call will be cleared.

5. CORRECTIVE ACTION

Contact the CPE to send a proper PCN request to the switch.

6. REFERENCES

None.

03397

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-SPID
                 [TEI=f] CRV=g CRF=h KEY=3397
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A standard customer premises equipment (CPE) sent in a universal service profile identifier (SPID) that was rejected by the switch. The digital subscriber line (DSL) was provisioned as a base DSL. A base DSL is a DSL with no users provisioned; or, the DSL was provisioned with no fully initializing protocol (FIP) valid user service order profile (USOP)s. A FIP valid USOP is one that is not a default telephone number (TN) or a provisioned fixed terminal endpoint identifier (TEI) USOP.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 INFORMATION` message containing a cause code value of 29 "facility rejected". The CPE that sent in the universal SPID will not have SPIDs downloaded until the DSL is provisioned with at least one FIP valid USOP. The call reference value (CRV) is set to zero (null CRV). The call reference flag (CRF) is set to zero (user originating).

5. CORRECTIVE ACTION

Use Recent Change and Verify (RC/V) view 23.2 or 23.8 to add or modify one or more users to be FIP valid.

Refer to OP:CPE in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)
23.8 (DSL/BRCS ASSIGNMENT)

03398

Key Code Range: 03000 - 03999
Software Release: 5E10 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILLEGAL-SPID
                [TEI=f] CRV=g CRF=h KEY=3398
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A standard customer premises equipment (CPE) already bound to a provisioned fixed terminal endpoint identifier (TEI) user service order profile (USOP) sent in a universal service profile identifier (SPID) that was rejected by the switch. A switch data base read error has occurred while attempting to collect provisioned fixed TEI data from the RLSPID relation.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 INFORMATION` message containing a cause code value of 29 "facility rejected". No SPIDs will be downloaded to the CPE that sent in the universal SPID. The call reference value (CRV) is set to zero (null CRV) The call reference flag (CRF) is set to zero (user originating)

5. CORRECTIVE ACTION

refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section of the Input Messages manual.

6. REFERENCES

None.

03399

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-PD
                [TEI=f] CRV=g CRF=h KEY=3399
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) with a unrecognized protocol discriminator.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the protocol discriminator is not:

```
8 = Call control.
```

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03400

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-TOO-LONG
                [TEI=f] CRV=g CRF=h KEY=3400
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) with a message length that exceeded 260 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why FRBC customer premises equipment (CPE) has sent a Q.931 message that exceeded 260 octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03401

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e SHRT-MSG
                [TEI=f] CRV=g CRF=h KEY=3401
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) with a message length less than 3 octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

Note: This PER is logged with a default call reference value (CRV) of zero and a call reference flag (CRF) value of zero (origination).

5. CORRECTIVE ACTION

Determine why FRBC customer premises equipment (CPE) has sent a Q.931 message with less than three octets.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03402

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e LNG-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3402
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) with a call reference value (CRV) using more than two octets.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

Note: This PER is logged with a default call reference value (CRV) of zero and a call reference flag (CRF) value of zero (origination).

5. CORRECTIVE ACTION

Determine why FRBC customer premises equipment (CPE) has sent a Q.931 message with a CRV that was too long.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03403

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3403
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) with an existing condition such as:

- Call reference value (CRV) whose first octet, bits 5-8, were not coded "0000".
- NULL CRV was received on this FRBC.

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report.

Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

Note: This PER is logged with a default CRV of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the FRBC customer premises equipment (CPE) sent a Q.931 message with an existing condition such as:

- The first octet, bits 5-8, were not coded "0000".
- Including a NULL CRV.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03404

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-MISS
                [TEI=f] CRV=g CRF=h KEY=3404
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received on a frame relay bearer channel (FRBC) without a call reference information element (IE).

4. EXTERNAL EVIDENCE

None. The message is dropped. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

Note: This PER is logged with a default call reference value (CRV) of 0 and a call reference flag (CRF) value of 0 (origination).

5. CORRECTIVE ACTION

Determine why the FRBC customer premises equipment (CPE) sent a Q.931 message without a call reference IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03405

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                [TEI=f] CRV=g CRF=h KEY=3405
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unrecognized Q.931 message type was received on a frame relay bearer channel (FRBC).

4. EXTERNAL EVIDENCE

If the call reference value (CRV) is active, then the user will also receive a `Q.931 STATUS` message. If the CRV is inactive, then a `Q.931 RELEASE COMPLETE` message with a cause code value of 81 "invalid call reference value" will be sent to the user. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the FRBC customer premises equipment (CPE) sent an invalid Q.931 message type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03406

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                [TEI=f] CRV=g CRF=h KEY=3406
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 SETUP message was received on a frame relay bearer channel (FRBC) with the call reference flag coded incorrectly (should be originating for SETUPs) or the call reference type was set as global which is invalid for the current application.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message The message will be ignored and a PER of invalid call reference will be logged. A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the FRBC customer premises equipment (CPE) is sending an invalid SETUP message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03407

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-CALL-REF
                 [TEI=f] CRV=g CRF=h KEY=3407
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message on a frame relay bearer channel (FRBC) using an unallocated call reference value (CRV).

The message received by the switch was one of the following:

- Q.931 CALL PROCEEDING
- Q.931 CONNECT
- Q.931 DISCONNECT
- Q.931 RELEASE
- Q.931 RELEASE COMPLETE
- Q.931 STATUS

4. EXTERNAL EVIDENCE

If the message received is STATUS, a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 101 "message not compatible with call state".

For the other messages, except RELEASE COMPLETE, a `Q.931 RELEASE COMPLETE` is sent with a cause code value of 81 "invalid call reference value".

5. CORRECTIVE ACTION

Determine why the FRBC user is using an unallocated CRV.

6. REFERENCES

None.

03408

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CALL-REF-GLOB
                 [TEI=f] CRV=g CRF=h KEY=3408
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.931 message was received from a frame relay bearer channel (FRBC) containing a global call reference value (CRV).

4. EXTERNAL EVIDENCE

A Q.931 STATUS is sent with a cause code value of 81 "invalid call reference value". A level 3 message error count is pegged and reported in part 11 of the 24 hour plant report. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the FRBC user has coded the call reference IE incorrectly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03409-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [DLCI=f] CRV=g CRF=h KEY=3409
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The message did not contain the datalink connection identifier IE, which is mandatory for this message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 96 "mandatory IE missing" and a diagnostic containing the datalink connection identifier IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending a Q.931 CALL PROCEEDING message to the switch without the datalink connection identifier IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03409-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                [DLCI=f] CRV=g CRF=h KEY=3409
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The message did not contain the datalink connection identifier IE, which is mandatory for this message.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 96 "mandatory IE missing" and a diagnostic containing the datalink connection identifier IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending a Q.931 CALL PROCEEDING message to the switch without the datalink connection identifier IE.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03410-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                [DLCI=f] CRV=g CRF=h KEY=3410
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The problem is that the datalink connection identifier (DLCI) IE did not match the DLCI sent by the switch or the DLCI had invalid contents.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information elements contents and a diagnostic containing the datalink connection identifier IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the datalink connection identifier correctly in the `Q.931 CALL PROCEEDING` message correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03410-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                [DLCI=f] CRV=g CRF=h KEY=3410
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CALL PROCEEDING` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The problem is that the datalink connection identifier (DLCI) IE did not match the DLCI sent by the switch or the DLCI had invalid contents.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information elements contents and a diagnostic containing the datalink connection identifier IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the datalink connection identifier correctly in the `Q.931 CALL PROCEEDING` message correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03411-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                [DLCI=f] CRV=g CRF=h KEY=3411
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The problem was that the datalink connection identifier (DLCI) did not match the DLCI sent by the switch or it had invalid contents.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information elements contents and a diagnostic containing the DLCI IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the datalink connection identifier correctly in the `Q.931 CONNECT` message correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03411-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                [DLCI=f] CRV=g CRF=h KEY=3411
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `Q.931 CONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N9 call state when it received the message from the CPE. The problem was that the datalink connection identifier (DLCI) did not match the DLCI sent by the switch or it had invalid contents.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 100 "invalid information elements contents and a diagnostic containing the DLCI IE value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the datalink connection identifier correctly in the `Q.931 CONNECT` message correctly.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03412-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3412
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N6 or N9 call state when it received the message from the CPE. The problem was that the user-to-user information (UUI) element contained invalid contents or exceeded the size restriction.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 43 "access or user info IE discarded and a diagnostic containing the UUI IE identifier value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending is not populating the UUI IE correctly in the `Q.931 CONNECT` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03412-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3412
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The call was in the N6 or N9 call state when it received the message from the CPE. The problem was that the user-to-user information (UUI) element contained invalid contents or exceeded the size restriction.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with a cause code value of 43 "access or user info IE discarded and a diagnostic containing the UUI IE identifier value.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending is not populating the UUI IE correctly in the `Q.931 CONNECT` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03413-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3413
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) was missing in the `Q.931 DISCONNECT` message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03413-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3413
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) was missing in the `Q.931 DISCONNECT` message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03414-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3414
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 101 "invalid information element contents" and diagnostic with the cause IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 DISCONNECT`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03414-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3414
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 101 "invalid information element contents" and diagnostic with the cause IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 DISCONNECT`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03415-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3415
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred. The switch will include cause code 43 "access or user info IE discarded" and diagnostic with the UUI IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 DISCONNECT`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03415-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3415
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 DISCONNECT` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error has not occurred. The switch will include cause code 43 "access or user info IE discarded" and diagnostic with the UUI IE identifier in the `Q.931 RELEASE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 DISCONNECT`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03416-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3416
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) without the cause information element (IE) while in the N6, N9, or N10 call state. Given the state of the call, the cause IE is considered mandatory since this is the first clearing message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03416-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3416
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) without the cause information element (IE) while in the N6, N9, or N10 call state. Given the state of the call, the cause IE is considered mandatory since this is the first clearing message.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03417-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REL-INV-CAUS
                [DLCI=f] CRV=g CRF=h KEY=3417
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 100 "invalid information element contents" and diagnostic with the cause IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 RELEASE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03417-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e REL-INV-CAUS
                [DLCI=f] CRV=g CRF=h KEY=3417
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 100 "invalid information element contents" and diagnostic with the cause IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 RELEASE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03418-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3418
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 43 "access or user info IE discarded" and a diagnostic with the UUI IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 RELEASE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03418-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3418
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred. The switch will include cause code 43 "access or user info IE discarded" and a diagnostic with the UUI IE identifier in the `Q.931 RELEASE COMPLETE`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 RELEASE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03419-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3419
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) while in N6, N9, or N10 call state. The cause information element (IE) was missing and is considered mandatory for these states.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03419-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3419
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) while in N6, N9, or N10 call state. The cause information element (IE) was missing and is considered mandatory for these states.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the first clearing message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03420-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RELC-INV-CAUS
                [DLCI=f] CRV=g CRF=h KEY=3420
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 RELEASE COMPLETE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03420-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e RELC-INV-CAUS
                [DLCI=f] CRV=g CRF=h KEY=3420
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The cause information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 RELEASE COMPLETE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03421-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3421
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 RELEASE COMPLETE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03421-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3421
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 RELEASE COMPLETE` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

None. The switch will clear the call as if the error had not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 RELEASE COMPLETE`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03422-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3422
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) was missing in the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

None. The switch will send the CPE a `Q.931 STATUS` message with cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03422-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e CSE-MISS
                [DLCI=f] CRV=g CRF=h KEY=3422
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) was missing in the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

None. The switch will send the CPE a `Q.931 STATUS` message with cause code 96 "mandatory information element missing" and a diagnostic with the cause IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the cause information element in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03423-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-MISS
                [DLCI=f] CRV=g CRF=h KEY=3423
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory call state information element (IE) was missing in the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

None. The switch will send the CPE a `Q.931 STATUS` message with cause code 96 "mandatory information element missing" and a diagnostic with the call state IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the call state information element in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03423-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-MISS
                [DLCI=f] CRV=g CRF=h KEY=3423
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory call state information element (IE) was missing in the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

None. The switch will send the CPE a `Q.931 STATUS` message with cause code 96 "mandatory information element missing" and a diagnostic with the call state IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not including the call state information element in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03424-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-CAUS-INV
                [DLCI=f] CRV=g CRF=h KEY=3424
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) contained invalid information element contents.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 100 "invalid information element contents" and a diagnostic with the cause IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03424-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-CAUS-INV
                [DLCI=f] CRV=g CRF=h KEY=3424
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory cause information element (IE) contained invalid information element contents.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 100 "invalid information element contents" and a diagnostic with the cause IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the cause information element correctly in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03425-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-CALL-INV
                [DLCI=f] CRV=g CRF=h KEY=3425
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory call state information element (IE) contained invalid information element contents.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 100 "invalid information element contents" and a diagnostic with the call state IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the call state information element correctly in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03425-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e STAT-CALL-INV
                [DLCI=f] CRV=g CRF=h KEY=3425
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The mandatory call state information element (IE) contained invalid information element contents.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 100 "invalid information element contents" and a diagnostic with the call state IE identifier in the `Q.931 STATUS`.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the call state information element correctly in the `Q.931 STATUS` message.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03426-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                 DLCI=f CRV=g CRF=h KEY=3426
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an invalid Q.931 message type from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) with an active call reference.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with cause 97 "msg type non-existent or not implemented" and a diagnostic containing the message type received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending an invalid Q.931 message type to the switch.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03426-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                 DLCI=f CRV=g CRF=h KEY=3426
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an invalid Q.931 message type from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) with an active call reference.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with cause 97 "msg type non-existent or not implemented" and a diagnostic containing the message type received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending an invalid Q.931 message type to the switch.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03427-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [DLCI=f] CRV=g CRF=h KEY=3427
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). This message was received, however, in an incompatible call state.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 101 "message not compatible with call state" and a diagnostic with the message type value received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending a Q.931 message in an compatible call state to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03427-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                [DLCI=f] CRV=g CRF=h KEY=3427
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). This message was received, however, in an incompatible call state.

4. EXTERNAL EVIDENCE

The switch will send the CPE a `Q.931 STATUS` message with cause code 101 "message not compatible with call state" and a diagnostic with the message type value received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending a Q.931 message in an compatible call state to the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03428-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                 DLCI=f CRV=g CRF=h KEY=3428
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the call presented (N6) state [a `Q.931 SETUP` message was sent to the customer premises equipment (CPE)], the timer T303 expired once.

4. EXTERNAL EVIDENCE

The switch will resend the `Q.931 SETUP` to the frame relay bearer channel CPE and start another T303 timer to await a response.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to the `Q.931 SETUP` message.

6. REFERENCES

None.

03428-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                 DLCI=f CRV=g CRF=h KEY=3428
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the call presented (N6) state [a `Q.931 SETUP` message was sent to the customer premises equipment (CPE)], the timer T303 expired once.

4. EXTERNAL EVIDENCE

The switch will resend the `Q.931 SETUP` to the frame relay bearer channel CPE and start another T303 timer to await a response.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to the `Q.931 SETUP` message.

6. REFERENCES

None.

03429-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                 DLCI=f CRV=g CRF=h KEY=3429
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 DISCONNECT` message to the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) switched-virtual circuit (SVC) and timer T305 expired while waiting for a `Q.931 RELEASE` message from the FRBC CPE.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE with the original cause and another cause information element (IE) with a value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not responding to the `Q.931 DISCONNECT` message that was sent by the switch. This could be caused by a loss of layer 2 signaling. Execute "op:status" on the FRBC member. Verify that the FRBC is in-service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03429-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T305-EXP
                 DLCI=f CRV=g CRF=h KEY=3429
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `Q.931 DISCONNECT` message to the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) switched-virtual circuit (SVC) and timer T305 expired while waiting for a `Q.931 RELEASE` message from the FRBC CPE.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE` message to the CPE with the original cause and another cause information element (IE) with a value of 102 "recovery upon timer expiration".

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not responding to the `Q.931 DISCONNECT` message that was sent by the switch. This could be caused by a loss of layer 2 signaling. Execute "op:status" on the FRBC member. Verify that the FRBC is in-service.

Refer to OP:STATUS in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03430-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                 DLCI=f CRV=g CRF=h KEY=3430
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the release request state [a `Q.931 RELEASE` message was sent to the customer premises equipment (CPE)], the timer T308 expired once. The switch was waiting for a `Q.931 RELEASE COMPLETE` message with timer T308 running.

4. EXTERNAL EVIDENCE

The switch will clear the call after the second T308 timeout.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03430-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                 DLCI=f CRV=g CRF=h KEY=3430
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the release request state [a `Q.931 RELEASE` message was sent to the customer premises equipment (CPE)], the timer T308 expired once. The switch was waiting for a `Q.931 RELEASE COMPLETE` message with timer T308 running.

4. EXTERNAL EVIDENCE

The switch will clear the call after the second T308 timeout.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03428-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                 DLCI=f CRV=g CRF=h KEY=3431
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T310 expired before the switch received a response from the frame relay bearer channel (FRBC) customer premises equipment (CPE).

The switch started timer T303 and sent a `Q.931 SETUP` message to the CPE and the CPE responded with a `Q.931 CALL PROCEEDING` message. Upon receipt of the `Q.931 CALL PROCEEDING` message from the CPE, the switch started timer T310. The switch was waiting for another response (such as, a `Q.931 CONNECT` message).

4. EXTERNAL EVIDENCE

The switch will clear the call by sending the CPE a `Q.931 RELEASE` with a cause code #102 "recovery upon timer expiry".

5. CORRECTIVE ACTION

Determine why the CPE is not sending a `Q.931 CONNECT` after it sends the switch a `Q.931 CALL PROCEEDING` before the T310 timers expires.

6. REFERENCES

None.

03428-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T310-EXP
                 DLCI=f CRV=g CRF=h KEY=3431
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T310 expired before the switch received a response from the frame relay bearer channel (FRBC) customer premises equipment (CPE).

The switch started timer T303 and sent a `Q.931 SETUP` message to the CPE and the CPE responded with a `Q.931 CALL PROCEEDING` message. Upon receipt of the `Q.931 CALL PROCEEDING` message from the CPE, the switch started timer T310. The switch was waiting for another response (such as, a `Q.931 CONNECT` message).

4. EXTERNAL EVIDENCE

The switch will clear the call by sending the CPE a `Q.931 RELEASE` with a cause code #102 "recovery upon timer expiry".

5. CORRECTIVE ACTION

Determine why the CPE is not sending a `Q.931 CONNECT` after it sends the switch a `Q.931 CALL PROCEEDING` before the T310 timers expires.

6. REFERENCES

None.

03432-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T322-EXP
                 DLCI=f CRV=g CRF=h KEY=3432
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was was attempting a call activity check for a frame relay switched virtual circuit call by sending a `Q.931 STATUS INQUIRY` message to the frame relay bearer channel customer premises equipment. It also started T322 to wait for a `Q.931 STATUS` response. The T322 timer expired while waiting for the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

The switch will send another `Q.931 STATUS INQUIRY` and start a second T322 timer.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 STATUS INQUIRY` message.

6. REFERENCES

None.

03432-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T322-EXP
                 DLCI=f CRV=g CRF=h KEY=3432
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was was attempting a call activity check for a frame relay switched virtual circuit call by sending a `Q.931 STATUS INQUIRY` message to the frame relay bearer channel customer premises equipment. It also started T322 to wait for a `Q.931 STATUS` response. The T322 timer expired while waiting for the `Q.931 STATUS` message.

4. EXTERNAL EVIDENCE

The switch will send another `Q.931 STATUS INQUIRY` and start a second T322 timer.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 STATUS INQUIRY` message.

6. REFERENCES

None.

03433-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                 DLCI=f CRV=g CRF=h KEY=3433
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the call presented (N6) state [a `Q.931 SETUP` message was sent to the customer premises equipment (CPE)], the timer T303 expired twice.

4. EXTERNAL EVIDENCE

The switch will clear the call in the network, but it will not send a message to the relay bearer channel (FRBC) CPE since it is not responding.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not responding to the `Q.931 SETUP` message.

6. REFERENCES

None.

03433-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T303-EXP
                 DLCI=f CRV=g CRF=h KEY=3433
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the call presented (N6) state [a `Q.931 SETUP` message was sent to the customer premises equipment (CPE)], the timer T303 expired twice.

4. EXTERNAL EVIDENCE

The switch will clear the call in the network, but it will not send a message to the relay bearer channel (FRBC) CPE since it is not responding.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not responding to the `Q.931 SETUP` message.

6. REFERENCES

None.

03434-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                 DLCI=f CRV=g CRF=h KEY=3434
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the release request state [a `Q.931 RELEASE` message was sent to the customer premises equipment (CPE)], the timer T308 expired twice. The switch was waiting for a `Q.931 RELEASE COMPLETE` message with timer T308 running.

4. EXTERNAL EVIDENCE

The switch will clear the call and schedule an "integrated services port administrator" (ISPA) job to remove the frame relay bearer channel (FRBC) from service.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03434-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T308-EXP
                 DLCI=f CRV=g CRF=h KEY=3434
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While the frame relay switch-virtual circuit call was in the release request state [a `Q.931 RELEASE` message was sent to the customer premises equipment (CPE)], the timer T308 expired twice. The switch was waiting for a `Q.931 RELEASE COMPLETE` message with timer T308 running.

4. EXTERNAL EVIDENCE

The switch will clear the call and schedule an "integrated services port administrator" (ISPA) job to remove the frame relay bearer channel (FRBC) from service.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 RELEASE` message.

6. REFERENCES

None.

03435-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T322-EXP
                 DLCI=f CRV=g CRF=h KEY=3435
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a second `Q.931 STATUS INQUIRY` to the frame relay bearer channel (FRBC) customer premises equipment (CPE) and the second T322 timer expired while waiting for a `Q.931 STATUS` message from FRBC CPE.

4. EXTERNAL EVIDENCE

The switch will clear the call by sending a `Q.931 DISCONNECT` with cause code 102 "recovery upon timer expiration" to the FRBC CPE.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 STATUS INQUIRY` message.

6. REFERENCES

None.

03435-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e T322-EXP
                 DLCI=f CRV=g CRF=h KEY=3435
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a second `Q.931 STATUS INQUIRY` to the frame relay bearer channel (FRBC) customer premises equipment (CPE) and the second T322 timer expired while waiting for a `Q.931 STATUS` message from FRBC CPE.

4. EXTERNAL EVIDENCE

The switch will clear the call by sending a `Q.931 DISCONNECT` with cause code 102 "recovery upon timer expiration" to the FRBC CPE.

5. CORRECTIVE ACTION

Determine why the CPE is not responding to a `Q.931 STATUS INQUIRY` message.

6. REFERENCES

None.

03436-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                 DLCI=f CRV=g CRF=h KEY=3426
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an invalid Q.931 message type from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) to an active call reference.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with cause 97 "msg type non-existent or not implemented" and a diagnostic containing the message type received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not sending invalid Q.931 message type to the switch.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03436-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e MSG-TYPE-INV
                 DLCI=f CRV=g CRF=h KEY=3436
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an invalid Q.931 message type from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC) to an active call reference.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` message to the CPE with cause 97 "msg type non-existent or not implemented" and a diagnostic containing the message type received.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not sending invalid Q.931 message type to the switch.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

03437-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3437
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message without the logical link core parameters (LLCP) information element (IE) from the frame relay bearer channel (FRBC) customer premises equipment (CPE) while in the N6 or N9 call state.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the LLCP identifier and the call remains in the same call state.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the LLCP information element to the switch in the `Q.931 CONNECT` message.

6. REFERENCES

None.

03437-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3437
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message without the logical link core parameters (LLCP) information element (IE) from the frame relay bearer channel (FRBC) customer premises equipment (CPE) while in the N6 or N9 call state.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the LLCP identifier and the call remains in the same call state.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the LLCP information element to the switch in the `Q.931 CONNECT` message.

6. REFERENCES

None.

03438-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3438
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message in the N6 call state without the data link connection identifier (DLCI) information element from the frame relay bearer channel (FRBC) customer premises equipment (CPE). Given the call state, the DLCI is considered mandatory so the call state does not advance.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the DLCI identifier and continues the call.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the DLCI information element to the switch in the `Q.931 CONNECT` when it is the first response to the `Q.931 SETUP` sent.

6. REFERENCES

None.

03438-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3438
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message in the N6 call state without the data link connection identifier (DLCI) information element from the frame relay bearer channel (FRBC) customer premises equipment (CPE). Given the call state, the DLCI is considered mandatory so the call state does not advance.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the DLCI identifier and continues the call.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the DLCI information element to the switch in the `Q.931 CONNECT` when it is the first response to the `Q.931 SETUP` sent.

6. REFERENCES

None.

03439-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                 DLCI=f CRV=g CRF=h KEY=3439
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE). The logical link core parameters (LLCP) information element (IE) contained invalid contents or the contents do not match the LLCP previously sent in the `Q.931 SETUP`.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "invalid information element contents" and a diagnostic of the LLCP identifier and the call remains in the same call state.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the LLCP information element correctly to the switch in the `Q.931 CONNECT` message.

6. REFERENCES

None.

03439-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                 DLCI=f CRV=g CRF=h KEY=3439
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE). The logical link core parameters (LLCP) information element (IE) contained invalid contents or the contents do not match the LLCP previously sent in the `Q.931 SETUP`.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "invalid information element contents" and a diagnostic of the LLCP identifier and the call remains in the same call state.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the LLCP information element correctly to the switch in the `Q.931 CONNECT` message.

6. REFERENCES

None.

03440-A

Key Code Range: 03000 - 03999
Software Release: 5E12 only
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                 DLCI=f CRV=g CRF=h KEY=3444
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message in the N6 call state from the frame relay bearer channel (FRBC) customer premises equipment (CPE). The data link connection identifier (DLCI) IE either did not match the DLCI sent in the `Q.931 SETUP` or it contained invalid contents. Given the call state, the DLCI is considered mandatory so the call state does not advance.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "Invalid information element contents" and a diagnostic of the DLCI identifier and continues the call.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the DLCI information element correctly in the `Q.931 CONNECT`.

6. REFERENCES

None.

03440-B

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-DLCI
                 DLCI=f CRV=g CRF=h KEY=3440
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 CONNECT message in the N6 call state from the frame relay bearer channel (FRBC) customer premises equipment (CPE). The data link connection identifier (DLCI) IE either did not match the DLCI sent in the Q.931 SETUP or it contained invalid contents. Given the call state, the DLCI is considered mandatory so the call state does not advance.

4. EXTERNAL EVIDENCE

The switch sends a Q.931 STATUS message to the CPE with a cause value of 100 "Invalid information element contents" and a diagnostic of the DLCI identifier and continues the call.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the DLCI information element correctly in the Q.931 CONNECT.

6. REFERENCES

None.

03441

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3441
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 CONNECT` message without the logical link core parameters (LLCP) information element from the frame relay bearer channel (FRBC) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the LLCP identifier and continues the call.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the LLCP information element to the switch in the `Q.931 CONNECT` message.

6. REFERENCES

None.

03442

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3442
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message with a cause 96 "mandatory information element missing" from the frame relay bearer channel (FRBC) customer premises equipment (CPE). This message was probably reported as a response to a message the switch previously sent.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE echoing back the same cause IE that was received.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 STATUS` message with cause 96 "mandatory information element missing". The call state in which the message was received and the diagnostics may help in identifying the problem.

6. REFERENCES

None.

03443

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                 DLCI=f CRV=g CRF=h KEY=3443
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message with a cause 97 "message type non-existent or not implemented" from the frame relay bearer channel (FRBC) customer premises equipment (CPE). This message was probably reported as a response to a message the switch previously sent.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE echoing back the same cause IE that was received.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 STATUS` message with cause 97 "message type non-existent or not implemented". The call state in which the message was received and the diagnostics may help in identifying the problem.

6. REFERENCES

None.

03444

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                 DLCI=f CRV=g CRF=h KEY=3444
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message with a cause 99 "information element non-existent or not implemented" from the frame relay bearer channel (FRBC) customer premises equipment (CPE). This message was probably reported as a response to a message the switch previously sent.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE echoing back the same cause IE that was received.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 STATUS` message with cause 99 "information element non-existent or not implemented". The call state in which the message was received and the diagnostics may help in identifying the problem.

6. REFERENCES

None.

03445

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e UXP-MSG
                 DLCI=f CRV=g CRF=h KEY=3445
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 STATUS` message with a cause 100 "invalid information element contents" from the frame relay bearer channel (FRBC) customer premises equipment (CPE). This message was probably reported as a response to a message the switch previously sent.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 DISCONNECT` message to the CPE echoing back the same cause IE that was received.

5. CORRECTIVE ACTION

Determine why the CPE is sending a `Q.931 STATUS` message with cause 100 "invalid information element contents". The call state in which the message was received and the diagnostics may help in identifying the problem.

6. REFERENCES

None.

03446

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INFO-ELEM-MISS
                 DLCI=f CRV=g CRF=h KEY=3446
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) containing a unrecognized comprehension required information element (IE).

4. EXTERNAL EVIDENCE

The switch sends a Q.931 STATUS message to the CPE with a cause value of 96 "mandatory information element missing" and a diagnostic of the unrecognized information element message identifier.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is sending a unrecognized IE to the switch.

6. REFERENCES

None.

03447

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e ILL-DUP-IE
                 DLCI=f CRV=g CRF=h KEY=3447
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) with an information element duplicated.

4. EXTERNAL EVIDENCE

The switch will report the IE that was duplicated in a `Q.931 STATUS` to the FRBC CPE.

5. CORRECTIVE ACTION

Determine why the CPE is sending is duplicating an information element for the `Q.931` message received.

6. REFERENCES

None.

03448

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e OUT-SEQ
                 DLCI=f CRV=g CRF=h KEY=3448
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) with an out-of-sequence information element.

4. EXTERNAL EVIDENCE

None. This error will be handled elsewhere because the information element will be considered missing.

5. CORRECTIVE ACTION

Determine why the CPE is sending an out-of-sequence information element for the Q.931 message received in the given call state.

6. REFERENCES

None.

03449

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                 DLCI=f CRV=g CRF=h KEY=3449
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) with an unrecognized or unexpected information element.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` with a cause code 99 "information element non-existent or not implemented" along with a diagnostic of the information element identifier received.

5. CORRECTIVE ACTION

Determine why the CPE is sending an unrecognized or unexpected information element for the `Q.931` message received.

6. REFERENCES

None.

03450

Key Code Range: 03000 - 03999
Software Release: 5E12 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE
                 DLCI=f CRV=g CRF=h KEY=3450
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) with an information element having a codeset error.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 STATUS` with a cause code 99 "information element non-existent or not implemented" along with a diagnostic of the information element identifier.

5. CORRECTIVE ACTION

Determine why the CPE is sending an information element with a codeset error for the `Q.931` message received.

6. REFERENCES

None.

03451

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-MISS
                 DLCI=f CRV=g CRF=h KEY=3451
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message without the bearer capability (BC) information element (IE) from the frame relay bearer channel (FRBC) customer premises equipment (CPE).

4. EXTERNAL EVIDENCE

The switch returns a `Q.931 RELEASE COMPLETE` message to the CPE with a cause value of 96 "Mandatory Information Element missing" and a diagnostic of the BC identifier and the call attempt is aborted.

5. CORRECTIVE ACTION

Determine why the CPE is not sending the BC information element to the switch in the `Q.931 SETUP` message.

6. REFERENCES

None.

03452

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e BEAR-CAP-INV
                 DLCI=f CRV=g CRF=h KEY=3452
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE) with the bearer capability (BC) information element (IE) containing invalid contents or the bearer capability type not set to frame mode.

4. EXTERNAL EVIDENCE

The switch returns a `Q.931 RELEASE COMPLETE` message to the CPE with a cause value of 100 "Invalid Information Element contents" and a diagnostic of the BC identifier and the call attempt is aborted.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the BC information element correctly to the switch in the `Q.931 SETUP` message.

6. REFERENCES

None.

03453

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                 DLCI=f CRV=g CRF=h KEY=3453
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the frame relay bearer channel (FRBC) customer premises equipment (CPE). The logical link core parameters (LLCP) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "invalid information element contents" and a diagnostic of the LLCP identifier and the call continues as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the CPE is not populating the LLCP information element correctly to the switch in the `Q.931 SETUP` message.

6. REFERENCES

None.

03454

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3454
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "user to user" (UUI) information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 43 "access or user info IE discarded" and a diagnostic of the UUI identifier and the call continues as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the UUI information element correctly in the `Q.931 SETUP`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03455

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3455
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "calling directory number" information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "invalid information element contents" and a diagnostic of the calling DN IE identifier and the call continues as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the calling DN information element correctly in the `Q.931 SETUP`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

03456

Key Code Range: 03000 - 03999
Software Release: 5E13 and later
Protocol: Q.931
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb Q.931 c d e INV-IE-CONTENT
                [DLCI=f] CRV=g CRF=h KEY=3456
```

2. EXPLANATION OF VARIABLES

Refer to the 03(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message from the customer premises equipment (CPE) on a frame relay bearer channel (FRBC). The optional "called directory number" information element (IE) contained invalid contents.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 STATUS` message to the CPE with a cause value of 100 "invalid information element contents" and a diagnostic of the called DN IE identifier and the call continues as if the error has not occurred.

5. CORRECTIVE ACTION

Determine why the FRBC CPE is not populating the called DN information element correctly in the `Q.931 SETUP`.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

8. 04-TMC

04(BASE)-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC

1. BASE FORMAT

```
PER a/a bb:bb:bb TMC c d e y
                 TEI=f CRV=g CRF=h KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Call state for the call associated with the error. Valid values are:

ACTIVE	= Active.
CALL-INIT	= Call initiated.
CALL-PRES	= Call present.
CONT-REQ	= Connect request.
DISC-IND	= Disconnect indication.
NULL	= Null state.
PERM-SIG	= Permanent signal.
REL-REQ	= Release request.
UNKNOWN	= Call state not known.

d = Message type associated with the error. Valid values are:

CONNECT	= Connect.
CONNECT-ACK	= Connect acknowledge.
DISCONNECT	= Disconnect.
INFORMATION	= Information.
RELEASE	= Release.
RELEASE-COMP	= Release complete.
SETUP	= Setup.
STATUS	= Status.
STATUS-ENQ	= Status enquiry.
UNKNOWN	= Message type not known.

e = Direction of transmission for the LAPB frame associated with the error. Valid values are:

RCV	= Frame transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmit the frame associated with the detected error (0-127).

g = The call reference value of the call associated with the detected error (0-2047).

h = The call reference flag of the call associated with the detected error.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

04(BASE)-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC

1. BASE FORMAT

```
PER a/a bb:bb:bb TMC c d e y
                 TEI=f CRV=g CRF=h [i] KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Call state for the call associated with the error. Valid values are:

ACTIVE	= Active.
CALL-INIT	= Call initiated.
CALL-PRES	= Call present.
CONT-REQ	= Connect request.
DISC-IND	= Disconnect indication.
NULL	= Null state.
PERM-SIG	= Permanent signal.
REL-REQ	= Release request.
ACTIVE-R	= Active-R.
SUSPEND-REQ	= Suspend request.
PRE-SUSPEND	= Pre-Suspend.
SUSPEND	= Suspend.
SUSPEND-RLS	= Suspend release.
ACTIVE-R1	= Active-R.

d = Message type associated with the error. Valid values are:

CONNECT	= Connect.
CONNECT-ACK	= Connect acknowledge.
DISCONNECT	= Disconnect.
INFORMATION	= Information.
RELEASE	= Release.
RELEASE-COMP	= Release complete.
SETUP	= Setup.
STATUS	= Status.
STATUS-ENQ	= Status enquiry.
UNKNOWN	= Message type not known.
RESUME	= Resume.
RESUME-ACK	= Resume acknowledge.
SUSPEND	= Suspend.
SUSPEND-ACK	= Suspend acknowledge.

e = Direction of transmission for the LAPB frame associated with the error. Valid values are:

RCV	= Frame transmitted from the customer premises equipment (CPE) to the switch.
XMT	= Frame transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmit the frame associated with the detected error (0-127).

g = The call reference value of the call associated with the detected error (0-2047).

h = The call reference flag of the call associated with the detected error.

i = TMC Optional Signal Types field. Valid values are:
INVALID-IE = Invalid Information Element.
VFDE-SUPPORT = VFDE support.
FLASH-RPT = Flash report.
FLASH-ENABLE = Flash enable.
ON-HOOK-RPT = On-Hook report.
OFF-HOOK-RPT = Off-Hook report.
VFDE-SUPPORT-ACK = VFDE support acknowledge.
FLASH-ENABLE-ACK = Flash enable acknowledge.
OFF-HOOK-ACK = Off-Hook acknowledge.
VFDE-UNSUPPORT = VFDE unsupport.
VFDE-UNSUPPORT-ACK = VFDE unsupport acknowledge.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

04001-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4001
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to determine if a `TMC RELEASE COMPLETE` message was received (that is, an abandon). During this check, an unexpected message was received. The only expected TMC messages for this state are `TMC CONNECT ACKNOWLEDGMENT`, `TMC RELEASE COMPLETE`, `TMC STATUS`, or a second `TMC SETUP` message.

4. EXTERNAL EVIDENCE

The switch dropped the unexpected message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending unexpected messages.

6. REFERENCES

None.

04001-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4001
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to determine if a `TMC RELEASE COMPLETE` message was received (that is, an abandon). During this check, an unexpected message was received. The only expected TMC messages for this state are `TMC CONNECT ACKNOWLEDGMENT`, `TMC RELEASE COMPLETE`, `TMC STATUS`, or a second `TMC SETUP` message.

4. EXTERNAL EVIDENCE

The switch dropped the unexpected message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending unexpected messages.

6. REFERENCES

None.

04002-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4002
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to determine if a `TMC RELEASE COMPLETE` message was received (such as, an abandon). A `TMC RELEASE COMPLETE` message was received. The `TMC RELEASE COMPLETE` message contained an unexpected cause value. The only expected cause code value is 16 "normal call clearing".

4. EXTERNAL EVIDENCE

The switch dropped the `TMC RELEASE COMPLETE` message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04002-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4002
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to determine if a `TMC RELEASE COMPLETE` message was received (such as, an abandon). A `TMC RELEASE COMPLETE` message was received. The `TMC RELEASE COMPLETE` message contained an unexpected cause value. The only expected cause code value is 16 "normal call clearing".

4. EXTERNAL EVIDENCE

The switch dropped the `TMC RELEASE COMPLETE` message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04003-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4003
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to see if a `TMC RELEASE COMPLETE` was received (such as, an abandon). The switch can receive unsolicited `TMC STATUS` messages in any state provided that the `TMC STATUS` message has the correct cause value. The cause value in the `TMC STATUS` message was invalid. The only expected cause code value is 41 "temporary failure".

4. EXTERNAL EVIDENCE

The switch dropped the `TMC STATUS` message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04003-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4003
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. Prior to the switch sending the `TMC CONNECT` message to the remote terminal (RT), a check was made to see if a `TMC RELEASE COMPLETE` was received (such as, an abandon). The switch can receive unsolicited `TMC STATUS` messages in any state provided that the `TMC STATUS` message has the correct cause value. The cause value in the `TMC STATUS` message was invalid. The only expected cause code value is 41 "temporary failure".

4. EXTERNAL EVIDENCE

The switch dropped the `TMC STATUS` message. The call will proceed normally.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04004-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T313-EXP
                 TEI=f CRV=g CRF=h KEY=4004
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. The switch sent a `TMC CONNECT` message to the remote terminal (RT), and started timer T313. While waiting for a `TMC CONNECT ACKNOWLEDGEMENT` message from the RT, timer T313 expired for the second time.

4. EXTERNAL EVIDENCE

The call origination attempt failed.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04004-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T313-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4004
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message. The switch sent a `TMC CONNECT` message to the remote terminal (RT), and started timer T313. While waiting for a `TMC CONNECT ACKNOWLEDGEMENT` message from the RT, timer T313 expired for the second time.

4. EXTERNAL EVIDENCE

The call origination attempt failed.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04005-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T303-EXP
                 TEI=f CRV=g CRF=h KEY=4005
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and started timer T303. While waiting for a `TMC CONNECT` message from the RT, timer T303 expired for the second time.

4. EXTERNAL EVIDENCE

The call termination attempt failed.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04005-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T303-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4005
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and started timer T303. While waiting for a `TMC CONNECT` message from the RT, timer T303 expired for the second time.

4. EXTERNAL EVIDENCE

The call termination attempt failed.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04006-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T305-EXP
                 TEI=f CRV=g CRF=h KEY=4006
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT) and started timer T305. While waiting for a `TMC RELEASE` message from the RT, timer T305 expired.

4. EXTERNAL EVIDENCE

The call idling will proceed by sending a `TMC RELEASE` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04006-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T305-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4006
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT) and started timer T305. While waiting for a `TMC RELEASE` message from the RT, timer T305 expired.

4. EXTERNAL EVIDENCE

The call idling will proceed by sending a `TMC RELEASE` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04007-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T308-EXP
                 TEI=f CRV=g CRF=h KEY=4007
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT), however, timer T305 timed out waiting for a `TMC RELEASE` message. The switch then sent out a `TMC RELEASE` message and started timer T308. While waiting for a `TMC RELEASE COMPLETE` message, timer T308 expired for the second time.

4. EXTERNAL EVIDENCE

The line will continue to be idled.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04007-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T308-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4007
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT), however, timer T305 timed out waiting for a `TMC RELEASE` message. The switch then sent out a `TMC RELEASE` message and started timer T308. While waiting for a `TMC RELEASE COMPLETE` message, timer T308 expired for the second time.

4. EXTERNAL EVIDENCE

The line will continue to be idled.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04008-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T322-EXP
                 TEI=f CRV=g CRF=h KEY=4008
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a `TMC STATUS` message, timer T322 expired for the second time. The switch sent a `TMC STATUS ENQUIRY` and started timer T322.

4. EXTERNAL EVIDENCE

If a call is present, the call will be idled.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04008-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T322-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4008
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a `TMC STATUS` message, timer T322 expired for the second time. The switch sent a `TMC STATUS ENQUIRY` and started timer T322.

4. EXTERNAL EVIDENCE

If a call is present, the call will be idled.

5. CORRECTIVE ACTION

Determine why the RT is not responding to messages sent by the switch.

6. REFERENCES

None.

04009-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T313-EXP
                 TEI=f CRV=g CRF=h KEY=4009
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has received a `TMC SETUP` message. In response to this message, the switch has sent a `TMC CONNECT` message and started timer T313. While waiting for a `TMC CONNECT ACKNOWLEDGEMENT` message, timer T313 expired for the first time.

4. EXTERNAL EVIDENCE

The switch resent the `TMC CONNECT` message and restarted timer T313.

5. CORRECTIVE ACTION

Determine why the remote terminal (RT) did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04009-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T313-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4009
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has received a `TMC SETUP` message. In response to this message, the switch has sent a `TMC CONNECT` message and started timer T313. While waiting for a `TMC CONNECT ACKNOWLEDGEMENT` message, timer T313 expired for the first time.

4. EXTERNAL EVIDENCE

The switch resent the `TMC CONNECT` message and restarted timer T313.

5. CORRECTIVE ACTION

Determine why the remote terminal (RT) did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04010-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T303-EXP
                 TEI=f CRV=g CRF=h KEY=4010
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has sent a `TMC SETUP` message to the remote terminal (RT) and started timer T303. While waiting for a `TMC CONNECT` message, timer T303 expired for the first time.

4. EXTERNAL EVIDENCE

The switch will resend the `TMC SETUP` message and restart timer T303.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04010-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T303-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4010
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has sent a `TMC SETUP` message to the remote terminal (RT) and started timer T303. While waiting for a `TMC CONNECT` message, timer T303 expired for the first time.

4. EXTERNAL EVIDENCE

The switch will resend the `TMC SETUP` message and restart timer T303.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04011-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T308-EXP
                 TEI=f CRV=g CRF=h KEY=4011
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT), however, timer T305 timed out waiting for a `TMC RELEASE` message. The switch then sent out a `TMC RELEASE` message and started timer T308. While waiting for a `TMC RELEASE COMPLETE` message, timer T308 expired for the first time.

4. EXTERNAL EVIDENCE

The call idling will proceed by resending a `TMC RELEASE` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04011-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T308-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4011
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT), however, timer T305 timed out waiting for a `TMC RELEASE` message. The switch then sent out a `TMC RELEASE` message and started timer T308. While waiting for a `TMC RELEASE COMPLETE` message, timer T308 expired for the first time.

4. EXTERNAL EVIDENCE

The call idling will proceed by resending a `TMC RELEASE` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04012-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T322-EXP
                 TEI=f CRV=g CRF=h KEY=4012
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has sent a `TMC STATUS ENQUIRY` and started timer T322. While waiting for a `TMC STATUS` message, timer T322 expired for the first time.

4. EXTERNAL EVIDENCE

The status enquiry will proceed by resending a `TMC STATUS ENQUIRY` message to the remote terminal (RT) and restarting timer T322.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04012-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e T322-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4012
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch has sent a `TMC STATUS ENQUIRY` and started timer T322. While waiting for a `TMC STATUS` message, timer T322 expired for the first time.

4. EXTERNAL EVIDENCE

The status enquiry will proceed by resending a `TMC STATUS ENQUIRY` message to the remote terminal (RT) and restarting timer T322.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04013-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4013
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a response to a message (general wait) sent to the remote terminal (RT), an unexpected message was received.

4. EXTERNAL EVIDENCE

The message will be dropped.

5. CORRECTIVE ACTION

Determine why the RT is sending unexpected messages.

6. REFERENCES

None.

04013-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4013
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a response to a message (general wait) sent to the remote terminal (RT), an unexpected message was received.

4. EXTERNAL EVIDENCE

The message will be dropped.

5. CORRECTIVE ACTION

Determine why the RT is sending unexpected messages.

6. REFERENCES

None.

04014-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MISMATCH
                 TEI=f CRV=g CRF=h KEY=4014
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received either a `TMC CONNECT ACKNOWLEDGEMENT` or a `TMC CONNECT` message, respectively. The received TMC message did not contain the same DS1/DS0 in the channel ID information element (IE) as the one sent by the switch.

4. EXTERNAL EVIDENCE

A call attempt (either originating or terminating) will fail.

5. CORRECTIVE ACTION

Determine why the RT is connecting lines to the wrong DS1/DS0.

6. REFERENCES

None.

04014-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MISMATCH
                 TEI=f CRV=g CRF=h [i] KEY=4014
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received either a `TMC CONNECT ACKNOWLEDGEMENT` or a `TMC CONNECT` message, respectively. The received TMC message did not contain the same DS1/DS0 in the channel ID information element (IE) as the one sent by the switch.

4. EXTERNAL EVIDENCE

A call attempt (either originating or terminating) will fail.

5. CORRECTIVE ACTION

Determine why the RT is connecting lines to the wrong DS1/DS0.

6. REFERENCES

None.

04015-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4015
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT) and received a `TMC RELEASE` message. However, the `TMC RELEASE` message had a different cause value than the one sent by the switch in the `TMC DISCONNECT` message.

4. EXTERNAL EVIDENCE

This `TMC RELEASE` message will be dropped and the switch will continue to wait for the `TMC RELEASE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04015-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4015
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC DISCONNECT` message to the remote terminal (RT) and received a `TMC RELEASE` message. However, the `TMC RELEASE` message had a different cause value than the one sent by the switch in the `TMC DISCONNECT` message.

4. EXTERNAL EVIDENCE

This `TMC RELEASE` message will be dropped and the switch will continue to wait for the `TMC RELEASE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04016-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4016
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message. However, the `TMC RELEASE COMPLETE` message had a different cause value than the one sent by the switch in the `TMC RELEASE` message.

4. EXTERNAL EVIDENCE

This `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for the `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04016-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4016
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message. However, the `TMC RELEASE COMPLETE` message had a different cause value than the one sent by the switch in the `TMC RELEASE` message.

4. EXTERNAL EVIDENCE

This `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for the `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04017-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4017
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 16 "normal call clearing".

4. EXTERNAL EVIDENCE

This `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for the `TMC CONNECT` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04017-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4017
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 16 "normal call clearing".

4. EXTERNAL EVIDENCE

This `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for the `TMC CONNECT` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause values.

6. REFERENCES

None.

04018-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-SEMI-PERM
                 TEI=f CRV=g CRF=h KEY=4018
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` with a cause code value of 34 "no circuit/channel unavailable". The response from the RT suggests that the RT has rejected the assignment because the RT database indicates that the DS1/DS0 is in use by a semi-permanent path.

This is a database inconsistency between the switch and the RT.

4. EXTERNAL EVIDENCE

A call attempt (either originating or terminating) will fail.

5. CORRECTIVE ACTION

The switch will attempt to unprovision the cross-connect object in the RT. The switch accomplishes the unprovisioning of the cross-connect by sending one or more V.120 messages to the RT. The reaction from the RT is dependent upon the type of unprovisioning requested by the switch. .P If the listed action does not correct the problem, determine why the RT is having data base problems.

6. REFERENCES

None.

04018-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-SEMI-PERM
                 TEI=f CRV=g CRF=h [i] KEY=4018
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` with a cause code value of 34 "no circuit/channel unavailable". The response from the RT suggests that the RT has rejected the assignment because the RT database indicates that the DS1/DS0 is in use by a semi-permanent path.

This is a database inconsistency between the switch and the RT.

4. EXTERNAL EVIDENCE

A call attempt (either originating or terminating) will fail.

5. CORRECTIVE ACTION

The switch will attempt to unprovision the cross-connect object in the RT. The switch accomplishes the unprovisioning of the cross-connect by sending one or more V.120 messages to the RT. The reaction from the RT is dependent upon the type of unprovisioning requested by the switch.

If the listed action does not correct the problem, determine why the RT is having data base problems.

6. REFERENCES

None.

04019-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4019
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 34 "no circuit/channel unavailable". This cause code value does not apply to call idling, only call activation.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with a cause code value of 34 when a call has already been established.

6. REFERENCES

None.

04019-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4019
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 34 "no circuit/channel unavailable". This cause code value does not apply to call idling, only call activation.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with a cause code value of 34 when a call has already been established.

6. REFERENCES

None.

04020-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-CKT-OOS
                 TEI=f CRV=g CRF=h KEY=4020
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 44 "requested circuit/channel not available".

4. EXTERNAL EVIDENCE

The terminating call attempt will fail.

5. CORRECTIVE ACTION

If the RT determines that a line is incapable of providing service, the RT should notify the switch over the embedded operations channel (EOC). The line should be removed and restored. If that does not correct the problem, determine why the RT cannot complete calls to that line.

6. REFERENCES

None.

04020-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-CKT-OOS
                 TEI=f CRV=g CRF=h [i] KEY=4020
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 44 "requested circuit/channel not available".

4. EXTERNAL EVIDENCE

The terminating call attempt will fail.

5. CORRECTIVE ACTION

If the RT determines that a line is incapable of providing service, the RT should notify the switch over the embedded operations channel (EOC). The line should be removed and restored. If that does not correct the problem, determine why the RT cannot complete calls to that line.

6. REFERENCES

None.

04021-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4021
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 44 "requested circuit/channel not available".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Disregard this PER if the line automatically went out-of-service following this PER.

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04021-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4021
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 44 "requested line unit unavailable".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Disregard this PER if the line automatically went out-of-service following this PER.

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04022-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-PRETRIP
                 TEI=f CRV=g CRF=h KEY=4022
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 47 "ring fail".

4. EXTERNAL EVIDENCE

The terminating call attempt will fail.

5. CORRECTIVE ACTION

Test the line to determine if the channel unit (CU) should be replaced.

6. REFERENCES

None.

04022-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REJ-PRETRIP
                 TEI=f CRV=g CRF=h [i] KEY=4022
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 47 "ring fail".

4. EXTERNAL EVIDENCE

The terminating call attempt will fail.

5. CORRECTIVE ACTION

Test the line to determine if the channel unit (CU) should be replaced.

6. REFERENCES

None.

04023-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4023
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 47 "ring fail".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04023-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4023
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 47 "ring fail".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04024-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SYS-ERR
                 TEI=f CRV=g CRF=h KEY=4024
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 41 "temporary failure". This is a RT temporary internal failure.

4. EXTERNAL EVIDENCE

The call attempt will fail.

5. CORRECTIVE ACTION

If this problem persists, the TMCs should be switched and determine why the RT is having problems. Refer to SW:TMC or SW:RT in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

04024-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SYS-ERR
                 TEI=f CRV=g CRF=h [i] KEY=4024
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with a cause code value of 41 "temporary failure". This is a RT temporary internal failure.

4. EXTERNAL EVIDENCE

The call attempt will fail.

5. CORRECTIVE ACTION

If this problem persists, the TMCs should be switched and determine why the RT is having problems. Refer to SW:TMC or SW:RT in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

04025-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4025
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message. However, the `TMC RELEASE COMPLETE` message had a different cause code value than the one sent by the switch in the `TMC RELEASE` message. The cause code value received was 41 "temporary failure".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values that are different than the cause code value sent by the switch.

6. REFERENCES

None.

04025-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4025
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message. However, the `TMC RELEASE COMPLETE` message had a different cause code value than the one sent by the switch in the `TMC RELEASE` message. The cause code value received was 41 "temporary failure".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values that are different than the cause code value sent by the switch.

6. REFERENCES

None.

04026-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4026
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a response to a TMC message sent to the remote terminal (RT), where a `TMC RELEASE COMPLETE` message is a valid response, a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 41 "temporary failure" was received.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04026-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4026
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While waiting for a response to a TMC message sent to the remote terminal (RT), where a `TMC RELEASE COMPLETE` message is a valid response, a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 41 "temporary failure" was received.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04027-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4027
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message that had a different cause code value than the one sent by the switch. The cause code value received was 27 "destination out of order".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values other than the one sent by the switch.

6. REFERENCES

None.

04027-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4027
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message that had a different cause code value than the one sent by the switch. The cause code value received was 27 "destination out of order".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid `TMC RELEASE COMPLETE` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values other than the one sent by the switch.

6. REFERENCES

None.

04028-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4028
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 27 "destination out of service". This cause code value is only valid on idling sequences.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values that only apply to idling sequences during an activation sequence.

6. REFERENCES

None.

04028-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4028
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT` or a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 27 "destination out of service". This cause code value is only valid on idling sequences.

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with cause code values that only apply to idling sequences during an activation sequence.

6. REFERENCES

None.

04029-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4029
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 81 "invalid call reference value".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04029-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4029
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SETUP` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause code value of 81 "invalid call reference value".

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04030-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4030
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT`, a `TMC SETUP`, or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause value (general case).

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04030-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4030
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC CONNECT`, a `TMC SETUP`, or a `TMC RELEASE` message to the remote terminal (RT) and received a `TMC RELEASE COMPLETE` message with an unexpected cause value (general case).

4. EXTERNAL EVIDENCE

The `TMC RELEASE COMPLETE` message will be dropped and the switch will continue to wait for a valid TMC message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04031-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4031
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Unsolicited `TMC STATUS` messages are allowed to be received in any state provided they have a cause value of 41 "temporary failure". An unsolicited `TMC STATUS` message with an invalid cause code value was received.

4. EXTERNAL EVIDENCE

The `TMC STATUS` message will be dropped.

5. CORRECTIVE ACTION

Determine why the remote terminal (RT) is sending messages with unexpected cause code values.

6. REFERENCES

None.

04031-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4031
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Unsolicited `TMC STATUS` messages are allowed to be received in any state provided they have a cause value of 41 "temporary failure". An unsolicited `TMC STATUS` message with an invalid cause code value was received.

4. EXTERNAL EVIDENCE

The `TMC STATUS` message will be dropped.

5. CORRECTIVE ACTION

Determine why the remote terminal (RT) is sending messages with unexpected cause code values.

6. REFERENCES

None.

04032-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4032
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `TMC STATUS` message was received in response to a `TMC STATUS ENQUIRY` message. However, the `TMC STATUS` message had an invalid cause code value. The expected cause code value is 30 "response to STATUS ENQUIRY".

4. EXTERNAL EVIDENCE

The `TMC STATUS` message will be dropped and the switch will continue to wait for a valid `TMC STATUS` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04032-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4032
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A `TMC STATUS` message was received in response to a `TMC STATUS ENQUIRY` message. However, the `TMC STATUS` message had an invalid cause code value. The expected cause code value is 30 "response to STATUS ENQUIRY".

4. EXTERNAL EVIDENCE

The `TMC STATUS` message will be dropped and the switch will continue to wait for a valid `TMC STATUS` message.

5. CORRECTIVE ACTION

Determine why the RT is sending messages with unexpected cause code values.

6. REFERENCES

None.

04033-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e UNA-LIN
                 TEI=f CRV=g CRF=h KEY=4033
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC SETUP` or `TMC RELEASE COMPLETE` message from a port on a TR303 remote terminal (RT) that was in the unassigned port state.

4. EXTERNAL EVIDENCE

The switch invokes an automatic recovery action that sends a provisioning task to unprovision the port in the RT data base if the provision attribute in the rIFCPORTTYP relation has been cleared. Refer to the Dynamic Data Manual for additional information.

5. CORRECTIVE ACTION

A possible data mismatch exists between the switch and the TR303 RT. If the switch continues to report the condition, investigate the cause of the data base mismatch in the RT.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

04033-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e UNA-LIN
                 TEI=f CRV=g CRF=h [i] KEY=4033
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected `TMC SETUP`, `TMC STATUS`, or `TMC RELEASE COMPLETE` message from a port on a TR303 remote terminal (RT) that was in the unassigned port state.

4. EXTERNAL EVIDENCE

The switch invokes an automatic recovery action that sends a provisioning task to unprovision the port in the RT data base if the provision attribute in the rIFCPORTTYP relation has been cleared. Refer to the Dynamic Data Manual for additional information.

5. CORRECTIVE ACTION

A possible data mismatch exists between the switch and the TR303 RT. If the switch continues to report the condition, investigate the cause of the data base mismatch in the RT.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

04034-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4034
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC CONNECT`, `TMC CONNECT ACKNOWLEDGE`, or `TMC RELEASE` message from a remote terminal (RT) line. The port status of the line in the switch indicates it should be in the permanent signal state [out-of-service (OOS) high and wet]. In this state, the only valid message that may be received is `TMC SETUP`, `TMC INFORMATION`, and `TMC RELEASE COMPLETE`. A possible status mismatch exists between the switch and the TR303 RT.

4. EXTERNAL EVIDENCE

The received message was discarded.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the RT.

6. REFERENCES

None.

04034-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4034
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected `TMC INFORMATION`, `TMC CONNECT`, `TMC CONNECT ACK`, `TMC RELEASE`, `TMC SUSPEND ACK`, or `TMC RESUME ACK`, message from a remote terminal (RT) line. The state of the port was idle (NULL). In this state, the only valid message that may be received is `TMC SETUP`.

4. EXTERNAL EVIDENCE

The received message was discarded.

5. CORRECTIVE ACTION

Determine why the RT sent an unexpected message.

6. REFERENCES

None.

04035-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4035
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC INFORMATION`, `TMC CONNECT`, or `TMC RELEASE` message from a remote terminal (RT) line. The state of the port was idle (NULL). In that state, the only valid message that may be received is a `TMC SETUP`.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 81 "invalid call reference" to the RT.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the RT.

6. REFERENCES

None.

04035-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4035
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected `TMC INFORMATION`, `TMC CONNECT`, `TMC RELEASE`, `TMC CONNECT ACKNOWLEDGE`, `TMC SUSPEND ACK`, or `TMC RESUME ACK` message from a remote terminal (RT) line. The state of the port was the call initiated state. In the call initiated state, the switch is processing a `TMC SETUP` message sent from the RT. In the call initiated state, the only valid message is another `TMC SETUP` if the switch does not respond to the initial `TMC SETUP` (retry) or `TMC RELEASE COMPLETE` if the call is abandoned.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message with a cause code value of 81 "invalid call reference" to the RT.

5. CORRECTIVE ACTION

Determine why the RT sent an unexpected message.

6. REFERENCES

None.

04036-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4036
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) line. The state of the port was idle (NULL). In that state, the only valid message that may be received is a `TMC SETUP`.

4. EXTERNAL EVIDENCE

The switch sent a `TMC RELEASE COMPLETE` message with a cause code value of 81 "invalid call reference value".

5. CORRECTIVE ACTION

If the switch continues to report this condition, investigate the cause of the mismatch in the RT.

6. REFERENCES

None.

04036-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4036
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected TMC INFORMATION, TMC RESUME-ACK, TMC SUSPEND-ACK, TMC CONNECT ACKNOWLEDGE, TMC CONNECT, TMC SETUP, TMC RELEASE, or TMC RELEASE COMPLETE message from a remote terminal (RT) line. The state of the port was either CALL-PRES, CONT-REQ, or ACTIVE. The switch should only receive a TMC STATUS message if the port is in the ACTIVE state and should receive either a TMC SETUP or TMC CONNECT ACKNOWLEDGE if the port is in the CALL-PRES or CONT-REQ, respectively. In addition, the switch could receive a TMC RELEASE COMPLETE or a TMC STATUS message in either the CALL-PRES or CONT-REQ state.

4. EXTERNAL EVIDENCE

The message was discarded.

5. CORRECTIVE ACTION

If the state of the port was either CALL-PRES or CONT-REQ, determine why the switch was not expecting any messages. If the state of the port was ACTIVE, determine why the RT sent an unexpected message.

6. REFERENCES

None.

04037-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4037
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC SETUP`, `TMC INFORMATION`, `TMC CONNECT`, `TMC RELEASE`, `TMC RELEASE COMPLETE`, or `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) line. The state of the port was active. The only expected TMC message for this state is a `TMC STATUS` message.

4. EXTERNAL EVIDENCE

The message was discarded.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the RT.

6. REFERENCES

None.

04037-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4037
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected TMC SETUP, TMC CONNECT, TMC RELEASE, TMC RELEASE COMPLETE, or TMC CONNECT ACKNOWLEDGE message from a remote terminal (RT) line. The state is either ACTIVE-R, ACTIVE-R1, DISC-IND, REL-REQ, or SUSPEND-RLS. If the port was in the DISC-IND state, the only message the switch should receive is a TMC RELEASE message. If the port was in the REL-REQ state, the only message the switch should receive is a TMC RELEASE COMPLETE message. And if the port was in the SUSPEND-RLS state, the only message the switch should receive is a TMC RESUME ACKNOWLEDGE message. In addition, the switch could receive either a TMC INFORMATION or a TMC STATUS message in all of these states.

4. EXTERNAL EVIDENCE

The message was discarded.

5. CORRECTIVE ACTION

If the state of the port was either DIS-IND, REL-REQ, or SUSPEND-RLS, determine why the switch was not expecting any messages. If the state of the port was ACTIVE-R or ACTIVE-R1, determine why the RT sent an unexpected message.

6. REFERENCES

None.

04038-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4038
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an unexpected `TMC INFORMATION`, `TMC CONNECT`, `TMC RELEASE`, or `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) line. The state of the port was the call initiated state. In the call initiated state, the switch is processing a `TMC SETUP` message sent from the RT. In the call initiated state, the only valid message is another `TMC SETUP` if the switch does not respond to the initial `TMC SETUP` (retry) or `TMC RELEASE COMPLETE` if the call is abandoned.

4. EXTERNAL EVIDENCE

The message is discarded.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the RT.

6. REFERENCES

None.

04038-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4038
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message from the remote terminal (RT) with a signal value of either `ON-HOOK-RPT`, `OFF-HOOK-RPT`, or `FLASH-RPT`. The TMC call state of the port indicated the port was either in the `SUSPEND-REQUEST`, `PRE-SUSPEND`, or `SUSPEND` state, however, the port's call processing data indicated that it was not the case.

4. EXTERNAL EVIDENCE

The message is discarded.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the switch.

6. REFERENCES

None.

04039-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-BCAP
                 TEI=f CRV=g CRF=h KEY=4039
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that was missing a mandatory information element, the bearer capability.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of "mandatory information element is missing" is transmitted to the far end. The `TMC SETUP` message should retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a SETUP message with the bearer capability missing.

6. REFERENCES

None.

04039-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-BCAP
                 TEI=f CRV=g CRF=h [i] KEY=4039
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that was missing a mandatory information element, the bearer capability.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of "mandatory information element is missing" is transmitted to the far end. The `TMC SETUP` message should retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a `TMC SETUP` message with the bearer capability missing.

6. REFERENCES

None.

04040-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-SHRT
                 TEI=f CRV=g CRF=h KEY=4040
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that was missing a mandatory information element (IE), the bearer capability, making the message too short.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of 96 "mandatory information element is missing" is transmitted to the far end. The `TMC SETUP` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a `TMC SETUP` message with the bearer capability missing.

6. REFERENCES

None.

04040-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-SHRT
                 TEI=f CRV=g CRF=h [i] KEY=4040
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that was missing a mandatory information element (IE), the bearer capability, making the message too short.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of 96 "mandatory information element is missing" is transmitted to the far end. The `TMC SETUP` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a `TMC SETUP` message with the bearer capability missing.

6. REFERENCES

None.

04041-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-ME-MISS
                 TEI=f CRV=g CRF=h KEY=4041
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` or `TMC RELEASE COMPLETE` message from a remote terminal (RT) with the cause information element (IE) missing.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the cause IE missing.

6. REFERENCES

None.

04041-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-ME-MISS
                 TEI=f CRV=g CRF=h [i] KEY=4041
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` or `TMC RELEASE COMPLETE` message from a remote terminal (RT) with the cause information element (IE) missing.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the cause IE missing.

6. REFERENCES

None.

04042-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e CON-SHRT
                 TEI=f CRV=g CRF=h KEY=4042
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or a `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) that was missing a mandatory information element (IE), the channel ID, making the message too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the channel ID missing.

6. REFERENCES

None.

04042-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e CON-SHRT
                 TEI=f CRV=g CRF=h [i] KEY=4042
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or a `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) that was missing a mandatory information element (IE), the channel ID, making the message too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the channel ID missing.

6. REFERENCES

None.

04043-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e CON-CHAN-ID
                 TEI=f CRV=g CRF=h KEY=4043
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or a `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) that contained an missing channel ID information element (IE).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with a missing channel ID IE.

6. REFERENCES

None.

04043-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e CON-CHAN-ID
                 TEI=f CRV=g CRF=h [i] KEY=4043
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or a `TMC CONNECT ACKNOWLEDGE` message from a remote terminal (RT) that contained an missing channel ID information element (IE).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with a missing channel ID IE.

6. REFERENCES

None.

04044-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-PRE
                 TEI=f CRV=g CRF=h KEY=4044
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message with an invalid channel ID information element (IE) prefix from a remote terminal (RT). The prefix bit pattern expected, starting in octet 2 of the channel ID IE, and continuing with octet 3 and part of octet 4 (3 bits) is 0000010001101001100, and the prefix bit pattern expected starting in octet 5 of the channel ID IE and continuing in part of octet 6 is 10000011100.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end. The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid channel ID prefix.

6. REFERENCES

None.

04044-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-PRE
                 TEI=f CRV=g CRF=h [i] KEY=4044
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message with an invalid channel ID information element (IE) prefix from a remote terminal (RT). The prefix bit pattern expected, starting in octet 2 of the channel ID IE, and continuing with octet 3 and part of octet 4 (3 bits) is 0000010001101001100, and the prefix bit pattern expected starting in octet 5 of the channel ID IE and continuing in part of octet 6 is 10000011100.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end. The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid channel ID prefix.

6. REFERENCES

None.

04045-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-DS
                 TEI=f CRV=g CRF=h KEY=4045
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message with an invalid DS0 or DS1 in the channel ID information element (IE), from a remote terminal (RT). The DS0 is expected to be between 1 and 24, and the DS1 is expected to be between 1 and 28.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid channel ID.

6. REFERENCES

None.

04045-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-DS
                 TEI=f CRV=g CRF=h [i] KEY=4045
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message with an invalid DS0 or DS1 in the channel ID information element (IE), from a remote terminal (RT). The DS0 is expected to be between 1 and 24, and the DS1 is expected to be between 1 and 28.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC CONNECT` or `TMC CONNECT ACKNOWLEDGE` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid channel ID.

6. REFERENCES

None.

04046-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-MISS
                 TEI=f CRV=g CRF=h KEY=4046
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with the call state or the cause information element (IE) missing. The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with a missing call state or cause IE.

6. REFERENCES

None.

04046-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-MISS
                 TEI=f CRV=g CRF=h [i] KEY=4046
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with the call state or the cause information element (IE) missing. The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with a missing call state or cause IE.

6. REFERENCES

None.

04047-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-INV-BCAP
                 TEI=f CRV=g CRF=h KEY=4047
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that had an invalid bearer capability. The bit pattern expected in the bearer capability IE, starting in octet 2, and continuing throughout octets 3 and 4 is 0x028890.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of 96 "invalid information element contents" is transmitted to the far end. The `TMC SETUP` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a SETUP message with an invalid bearer capability.

6. REFERENCES

None.

04047-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SETUP-INV-BCAP
                 TEI=f CRV=g CRF=h [i] KEY=4047
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SETUP` message from a remote terminal (RT) that had an invalid bearer capability. The bit pattern expected in the bearer capability IE, starting in octet 2, and continuing throughout octets 3 and 4 is 0x028890.

4. EXTERNAL EVIDENCE

A `TMC RELEASE COMPLETE` with a cause code value of 96 "invalid information element contents" is transmitted to the far end. The `TMC SETUP` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a SETUP message with an invalid bearer capability.

6. REFERENCES

None.

04048-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-CPRE-INV
                 TEI=f CRV=g CRF=h KEY=4048
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` or `TMC RELEASE COMPLETE` message with an invalid cause information element prefix, from a remote terminal (RT). The cause IE prefix bit pattern expected, starting in octet 2 of the cause IE and continuing in octet 3, and part of octet 4 is 00000010100000101.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause prefix.

6. REFERENCES

None.

04048-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-CPRE-INV
                 TEI=f CRV=g CRF=h [i] KEY=4048
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` or `TMC RELEASE COMPLETE` message with an invalid cause information element prefix, from a remote terminal (RT). The cause IE prefix bit pattern expected, starting in octet 2 of the cause IE and continuing in octet 3, and part of octet 4 is 00000010100000101.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause prefix.

6. REFERENCES

None.

04049-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-INV-CAUS
                 TEI=f CRV=g CRF=h KEY=4049
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` message with an invalid cause value, from a remote terminal (RT). The cause value expected was either normal clearing or destination out of service.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause value.

6. REFERENCES

None.

04049-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e REL-INV-CAUS
                 TEI=f CRV=g CRF=h [i] KEY=4049
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE` message with an invalid cause value, from a remote terminal (RT). The cause value expected was either normal clearing or destination out of service.

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause value.

6. REFERENCES

None.

04050-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e RELC-INV-CAUS
                 TEI=f CRV=g CRF=h KEY=4050
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE COMPLETE` message with an invalid cause value, from a remote terminal (RT).

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause value.

6. REFERENCES

None.

04050-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e RELC-INV-CAUS
                 TEI=f CRV=g CRF=h [i] KEY=4050
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC RELEASE COMPLETE` message with an invalid cause value, from a remote terminal (RT).

4. EXTERNAL EVIDENCE

None. The cause value is assumed to be normal clearing.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid cause value.

6. REFERENCES

None.

04051-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-SHRT
                 TEI=f CRV=g CRF=h KEY=4051
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with the switch hook mandatory information element (IE) missing, from a remote terminal (RT). The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC INFO` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the switch hook missing.

6. REFERENCES

None.

04051-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-SHRT
                 TEI=f CRV=g CRF=h [i] KEY=4051
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with the switch hook mandatory information element (IE) missing, from a remote terminal (RT). The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC INFO` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the switch hook missing.

6. REFERENCES

None.

04052-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-ME-MISS
                 TEI=f CRV=g CRF=h KEY=4052
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFO` message with the switch hook mandatory information element (IE) missing, from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the switch hook IE missing.

6. REFERENCES

None.

04052-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-ME-MISS
                 TEI=f CRV=g CRF=h [i] KEY=4052
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFO` message with the switch hook mandatory information element (IE) missing, from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the switch hook IE missing.

6. REFERENCES

None.

04053-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CPRE-INV
                 TEI=f CRV=g CRF=h KEY=4053
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) prefix. The prefix expected, starting in octet 2 of the cause IE, and continuing in octet 3, and part of octet 4 is 00000011100000101.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with invalid cause prefix.

6. REFERENCES

None.

04053-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CPRE-INV
                 TEI=f CRV=g CRF=h [i] KEY=4053
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) prefix. The prefix expected, starting in octet 2 of the cause IE, and continuing in octet 3, and part of octet 4 is 00000011100000101.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with invalid cause prefix.

6. REFERENCES

None.

04054-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CAUS-INV
                 TEI=f CRV=g CRF=h KEY=4054
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) value, from a remote terminal (RT). The switch is expecting either a cause code value of 30 "response to STATUS ENQUIRY" or a cause code value of 41 "temporary failure".

4. EXTERNAL EVIDENCE

None. The message is discarded or ignored and should be retransmitted by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent an invalid cause value for this message.

6. REFERENCES

None.

04054-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CAUS-INV
                 TEI=f CRV=g CRF=h [i] KEY=4054
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) value, from a remote terminal (RT). The switch is expecting either a cause code value of 30 "response to STATUS ENQUIRY" or a cause code value of 41 "temporary failure".

4. EXTERNAL EVIDENCE

None. The message is discarded or ignored and should be retransmitted by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent an invalid cause value for this message.

6. REFERENCES

None.

04055-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CAUS-INV
                 TEI=f CRV=g CRF=h KEY=4055
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) value, from a remote terminal (RT). The switch is expecting either a cause code value of 30 "response to STATUS ENQUIRY" or a cause code value of 41 "temporary failure".

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent an invalid cause value for this message.

6. REFERENCES

None.

04055-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CAUS-INV
                 TEI=f CRV=g CRF=h [i] KEY=4055
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid cause information element (IE) value, from a remote terminal (RT). The switch is expecting either a cause code value of 30 "response to STATUS ENQUIRY" or a cause code value of 41 "temporary failure".

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent an invalid cause value for this message.

6. REFERENCES

None.

04056-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CALL-INV
                 TEI=f CRV=g CRF=h KEY=4056
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid call state information element (IE) prefix, from a remote terminal (RT). The bit pattern starting in octet 2 of the call state IE is expected to be 0x01.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid call state prefix.

6. REFERENCES

None.

04056-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CALL-INV
                 TEI=f CRV=g CRF=h [i] KEY=4056
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid call state information element (IE) prefix, from a remote terminal (RT). The bit pattern starting in octet 2 of the call state IE is expected to be 0x01.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid call state prefix.

6. REFERENCES

None.

04057-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CALL-INV
                 TEI=f CRV=g CRF=h KEY=4057
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid call state value in the call state information element (IE), from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid call state value.

6. REFERENCES

None.

04057-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STAT-CALL-INV
                 TEI=f CRV=g CRF=h [i] KEY=4057
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC STATUS` message with an invalid call state value in the call state information element (IE), from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid call state value.

6. REFERENCES

None.

04058-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h KEY=4058
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC unknown or unexpected message from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of ?? "message unimplemented". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a unknown or unexpected TMC message.

6. REFERENCES

None.

04058-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4058
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC unknown or unexpected message from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of ?? "message unimplemented". The `TMC STATUS` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT transmitted a unknown or unexpected TMC message.

6. REFERENCES

None.

04059-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STANDBY-TMC
                 TEI=f CRV=g CRF=h KEY=4059
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message on the standby TMC channel from a remote terminal (RT). A TMC path switch acknowledgement or TMC path switch request are the only messages expected on the standby TMC channel.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message on the standby TMC channel that was not a path switch acknowledgement or path switch request.

6. REFERENCES

None.

04059-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e STANDBY-TMC
                 TEI=f CRV=g CRF=h [i] KEY=4059
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message on the standby TMC channel from a remote terminal (RT). A TMC path switch acknowledgement or TMC path switch request are the only messages expected on the standby TMC channel.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message on the standby TMC channel that was not a path switch acknowledgement or path switch request.

6. REFERENCES

None.

04060-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SHRT-MSG
                 TEI=f CRV=g CRF=h KEY=4060
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message which was too short (that is, less than the minimum size) from a remote terminal (RT). The minimum size message is 5 bytes long.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message too short.

6. REFERENCES

None.

04060-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e SHRT-MSG
                 TEI=f CRV=g CRF=h [i] KEY=4060
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message which was too short (that is, less than the minimum size) from a remote terminal (RT). The minimum size message is 5 bytes long.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message too short.

6. REFERENCES

None.

04061-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-PD
                 TEI=f CRV=g CRF=h KEY=4061
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid protocol discriminator from a remote terminal (RT). The protocol discriminator was expected to be 0x4f.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid protocol discriminator.

6. REFERENCES

None.

04061-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-PD
                 TEI=f CRV=g CRF=h [i] KEY=4061
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid protocol discriminator from a remote terminal (RT). The protocol discriminator was expected to be 0x40 or 0x4f.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid protocol discriminator.

6. REFERENCES

None.

04062-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e BAD-CR-LEN
                 TEI=f CRV=g CRF=h KEY=4062
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an bad call reference information element (IE) length, from a remote terminal (RT). The length was expected to be 2 bytes long.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an bad call reference length.

6. REFERENCES

None.

04062-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e BAD-CR-LEN
                 TEI=f CRV=g CRF=h [i] KEY=4062
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an bad call reference information element (IE) length, from a remote terminal (RT). The length was expected to be 2 bytes long.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an bad call reference length.

6. REFERENCES

None.

04063-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-PRE
                 TEI=f CRV=g CRF=h KEY=4063
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) prefix, from a remote terminal (RT). The prefix was expected to be 0(bit 8 of octet 3).

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid call reference prefix.

6. REFERENCES

None.

04063-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-PRE
                 TEI=f CRV=g CRF=h [i] KEY=4063
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) prefix, from a remote terminal (RT). The prefix was expected to be 0(bit 8 of octet 3).

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid call reference prefix.

6. REFERENCES

None.

04064-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-SUF
                 TEI=f CRV=g CRF=h KEY=4064
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) suffix, from a remote terminal (RT). The suffix was expected to be 0 for a analog call, 1 for a DSL B1 channel call, and 2 for a DSL B2 channel call.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid call reference suffix.

6. REFERENCES

None.

04064-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-SUF
                 TEI=f CRV=g CRF=h [i] KEY=4064
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) suffix, from a remote terminal (RT). The suffix was expected to be 0 for a analog call, 1 for a DSL B1 channel call, and 2 for a DSL B2 channel call.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid call reference suffix.

6. REFERENCES

None.

04065-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-VALUE
                 TEI=f CRV=g CRF=h KEY=4065
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) value, from a remote terminal (RT). The call reference value (CRV) is expected to be between 1 and 2048, inclusive.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid CRV.

6. REFERENCES

None.

04065-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-VALUE
                 TEI=f CRV=g CRF=h [i] KEY=4065
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) value, from a remote terminal (RT). The call reference value (CRV) is expected to be between 1 and 2048, inclusive, for a call processing message, or 0 for a voice frequency data enhancement (VFDE) support or unsupport message.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid CRV.

6. REFERENCES

None.

04066-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-TOO-LONG
                 TEI=f CRV=g CRF=h KEY=4066
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message that was too long from a remote terminal (RT). The maximum size TMC message is 13 bytes long.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message that was too long.

6. REFERENCES

None.

04066-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-TOO-LONG
                 TEI=f CRV=g CRF=h [i] KEY=4066
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message that was too long from a remote terminal (RT). The maximum size TMC message is 13 bytes long.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message that was too long.

6. REFERENCES

None.

04067-A

Key Code Range: 04000 - 04999
Software Release: 5E10 only
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-INV-HOOK
                 TEI=f CRV=g CRF=h KEY=4067
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with an invalid switch hook value, from a remote terminal (RT). A switch hook bit pattern expected starting in octet 2 of the switch hook information element (IE) and continuing in octet 3 is 0x0100.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid switch hook IE.

6. REFERENCES

None.

04067-B

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-INV-HOOK
                 TEI=f CRV=g CRF=h [i] KEY=4067
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with an invalid switch hook value, from a remote terminal (RT). A switch hook bit pattern expected starting in octet 2 of the switch hook information element (IE) and continuing in octet 3 is 0x0100.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid switch hook IE.

6. REFERENCES

None.

04068

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-VALUE
                 TEI=f CRV=g CRF=h [i] KEY=4068
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with a signal value of `VFDE-SUPPORT or VFDE-UNSUPPORT` that had an invalid call reference information element (IE) value, from a remote terminal (RT). The call reference value (CRV) is expected to be 0.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid CRV.

6. REFERENCES

None.

04069

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-SHRT
                 TEI=f CRV=g CRF=h [i] KEY=4069
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with the signal mandatory information element (IE) missing, from a remote terminal (RT). The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the signal missing.

6. REFERENCES

None.

04071

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-ELEM-ERR
                 TEI=f CRV=g CRF=h [i] KEY=4071
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC INFORMATION` message with an invalid signal value, from a remote terminal (RT). The signal values expected are `VFDE-SUPPORT, FLASH-RPT, ON-HOOK-RPT, OFF-HOOK-RPT, FLASH-ENABLE-ACK, and VFDE-UNSUPPORT.`

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 100 "invalid information element contents". The `TMC INFORMATION` message should be retransmitted at a later time by the far end.

5. CORRECTIVE ACTION

Determine why the RT sent the message with an invalid signal value.

6. REFERENCES

None.

04072

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-ELEM-MISS
                 TEI=f CRV=g CRF=h [i] KEY=4072
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SUSPEND-ACK` message with the display mandatory information element (IE) missing, from a remote terminal (RT). The message was too short.

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC SUSPEND` message will be retransmitted at a later time by the switch.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the display missing.

6. REFERENCES

None.

04073

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INFO-ELEM-MISS
                 TEI=f CRV=g CRF=h [i] KEY=4073
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `TMC SUSPEND-ACK` message with the display mandatory information element (IE) missing, from a remote terminal (RT).

4. EXTERNAL EVIDENCE

A `TMC STATUS` message is transmitted to the far end with a cause code value of 96 "mandatory information element is missing". The `TMC SUSPEND` message will be retransmitted at a later time by the switch.

5. CORRECTIVE ACTION

Determine why the RT sent the message with the display IE missing.

6. REFERENCES

None.

04074

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-PD
                 TEI=f CRV=g CRF=h [i] KEY=4074
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either a `TMC SETUP, STATUS, RELEASE, RELEASE-COMP` message with a voice frequency data enhancement (VFDE) protocol discriminator with value 0x40, from a remote terminal (RT). The VFDE protocol discriminator is not allowed for these messages. The protocol discriminator was expected to be 0x4f.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT sent a message with an unexpected protocol discriminator.

6. REFERENCES

None.

04075

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-CR-VALUE
                 TEI=f CRV=g CRF=h [i] KEY=4075
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a TMC message with an invalid call reference information element (IE) value, from a remote terminal (RT). The call reference value (CRV) is expected to be between 1 and 2048, inclusive, for a call processing message or 0 for a voice frequency data enhancement (VFDE) support or unsupport message.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid CRV.

6. REFERENCES

None.

04076

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-CONTENT
                 TEI=f CRV=g CRF=h [i] KEY=4076
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SUSPEND` message with the call identity field set to 0x1, to the remote terminal (RT) but received a `TMC SUSPEND-ACK` message with the call identity field set to 0x0, from the RT. This suggests that the RT has placed the call in suspend mode instead of delay suspend mode as the switch asked.

4. EXTERNAL EVIDENCE

The switch sent a `TMC RESUME` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT transmitted the message with the call identity field set to 0x0.

6. REFERENCES

None.

04077

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-CONTENT
                 TEI=f CRV=g CRF=h [i] KEY=4077
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SUSPEND` message with the call identity field set to 0x0, to the remote terminal (RT) but received a `TMC SUSPEND-ACK` message with the call identity field set to 0x1, from the RT. This suggests that the RT has placed the call in delay suspend mode instead of the suspend mode as the switch asked.

4. EXTERNAL EVIDENCE

The switch sent a `TMC RESUME` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT transmitted the message with the call identity field set to 0x1.

6. REFERENCES

None.

04078

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4078
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected TMC CONNECT, TMC CONNECT-ACK, TMC RELEASE, TMC RELEASE-COMP, TMC SETUP, TMC STATUS, or a TMC RESUME-ACK message from a remote terminal (RT). The call state was either SUSPEND-REQ, PRE-SUSPEND or SUSPEND. If the port was in the SUSPEND-REQ state, the only message the switch was expecting was either a TMC SUSPEND-ACK or a TMC INFORMATION message with a signal value of either ON-HOOK-RPT, OFF-HOOK-RPT or FLASH-RPT. If the port was in the PRE-SUSPEND state, the only message the switch was expecting was a TMC INFORMATION with a signal value of either FLASH-ENABLE-ACK or OFF-HOOK-RPT. If the port was in the SUSPEND state, the only message the switch was expecting was a TMC INFORMATION with a signal value of either FLASH-ENABLE-ACK, ON-HOOK-RPT, OFF-HOOK-RPT or FLASH-RPT.

4. EXTERNAL EVIDENCE

None. The message is discarded and the call continues normally.

5. CORRECTIVE ACTION

Determine why the RT is sending unexpected messages.

6. REFERENCES

None.

04079

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4079
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an unexpected `TMC CONNECT, TMC CONNECT-ACK, TMC RELEASE, TMC STATUS, TMC RESUME-ACK or a TMC SUSPEND-ACK`, from a remote terminal (RT). The call state is `PERM-SIG`. The only valid messages for these state are `TMC SETUP, TMC INFORMATION and a TMC RELEASE-COMP`. A possible status mismatch exists between the switch and the RT.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine the cause of the mismatch in the RT.

6. REFERENCES

None.

04080

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e TIMER-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4080
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC INFORMATION` message with a `FLASH-ENABLE` signal to the remote terminal (RT), and started timer T364. While waiting for a `TMC INFORMATION` message with a `FLASH-ENABLE-ACK` signal from the RT, timer T364 expired for the second time.

4. EXTERNAL EVIDENCE

The line will not be able to use many of its features.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04081

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e TIMER-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4081
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC SUSPEND` message to the remote terminal (RT), and started timer T319. While waiting for a `TMC SUSPEND-ACK` message from the RT, timer T319 expired.

4. EXTERNAL EVIDENCE

The switch sent a `TMC RESUME` message to the RT.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04082

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e TIMER-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4083
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RESUME` message to the remote terminal (RT), and started timer T318. While waiting for a `TMC RESUME-ACK` message from the RT, timer T318 expired for the second time.

4. EXTERNAL EVIDENCE

None. The call proceed normally and inband signaling is disabled.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04083

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e TIMER-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4083
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC INFORMATION` message with a `FLASH-ENABLE` signal to the remote terminal (RT), and started timer T364. While waiting for a `TMC INFORMATION` message with a `FLASH-ENABLE-ACK` signal from the RT, timer T364 expired for the first time.

4. EXTERNAL EVIDENCE

The switch resent the `TMC INFORMATION` message and restarted timer T364.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04084

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e TIMER-EXP
                 TEI=f CRV=g CRF=h [i] KEY=4084
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC RESUME` message to the remote terminal (RT), and started timer T318. While waiting for a `TMC RESUME-ACK` message from the RT, timer T318 expired for the first time.

4. EXTERNAL EVIDENCE

None. The switch resent the `TMC RESUME` message and restarted timer T318.

5. CORRECTIVE ACTION

Determine why the RT did not respond to the TMC message sent by the switch.

6. REFERENCES

None.

04085

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e INV-IE-CONTENT
                 TEI=f CRV=g CRF=h [i] KEY=4085
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent either a `TMC SETUP or TMC CONNECT` message with a 0x4f protocol discriminator to the remote terminal (RT), and received either a `TMC CONNECT or TMC CONNECT- ACK` message respectively. The received message has a voice frequency data enhancement (VFDE) protocol discriminator of value 0x40. The protocol discriminator was expected to be 0x4f.

4. EXTERNAL EVIDENCE

The message is discarded and the call will be rejected using normal clearing procedures.

5. CORRECTIVE ACTION

Determine why the RT sent a message with an unexpected protocol discriminator.

6. REFERENCES

None.

04086

Key Code Range: 04000 - 04999
Software Release: 5E11 and later
Protocol: TMC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb TMC c d e MSG-UNEXP
                 TEI=f CRV=g CRF=h [i] KEY=4086
```

2. EXPLANATION OF VARIABLES

Refer to the 04(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `TMC INFORMATION` message with a `FLASH-ENABLE` signal, to the remote terminal (RT), but received a `TMC INFORMATION` message with a signal value not expected, from the RT.

4. EXTERNAL EVIDENCE

None. The message is discarded.

5. CORRECTIVE ACTION

Determine why the RT transmitted the message with the wrong signal value.

6. REFERENCES

None.

9. 05-X.25

05(BASE)

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25

1. BASE FORMAT

```
PER a/a bb:bb:bb X.25 c d e f y
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=z
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Packet level state for the interface associated with error. Valid values are:

- DCE-OOS = Data circuit equipment (DCE) out of service. DCE is placing the local interface out-of-service. The DCE is waiting for restart confirmation from the data terminating equipment (DTE).
- DCE-RST-IND = DCE restart indication. The DCE has indicated restart of the local interface and is waiting restart confirmation from the DTE. This state corresponds with CCITT X.25 State (R3).
- DTE-RST-REQ = DTE requested restart. The DTE has requested restart of the local interface and is waiting restart confirmation from the DCE. This state corresponds with CCITT X.25 State (R2).
- NOT-INIT = Not initialized. This indicates that the local interface has not received an indication from level 2 to begin initialization of level 3.
- PKT-RDY = Packet level ready. The local interface is ready for logical channel establishment. This state corresponds to CCITT X.25 State (R1).
- UNKNOWN = State not known. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section.

d = Packet level state of a call on a logical channel, permanent or switched, associated with the error. Valid values are:

- CALL-COLL = Call collision. A call collision has been detected and the associated logical channel is being cleared.
- CHAN-RDY = Logical channel ready. The logical channel is idle and available for call establishment. This state corresponds with CCITT X.25 State (P1).
- CHAN-RST = Logical channel restart. The logical channel has been restarted.
- DCE-CLR-IND = DCE requested clear. The DCE has indicated clearing of the logical channel and is waiting for the clear confirmation from the DTE. This state corresponds to CCITT X.25 State (P7).
- DCE-RSE-IND = DCE requested reset. The DCE has indicated the resetting of the logical channel and is waiting for the reset confirmation from the DTE. This state corresponds to CCITT X.25 State (D3).
- DCE-WAT = DCE waiting. The logical channel is being established and the DCE is waiting for call acceptance from the DTE. This state corresponds the CCITT X.25 State (P3).
- DTE-CLR-REQ = DTE requested clear. DTE has requested clearing of the logical channel from the DCE. This state corresponds to CCITT X.25 State (P6).
- DTE-RSE-REQ = DTE requested reset. The DTE has requested resetting of the logical channel

from the DCE. This state corresponds to CCITT X.25 State (D2).

`DTE-WAT` = DTE waiting. The DTE has transmitted a call request packet and is waiting for the call connected packet. This state corresponds to CCITT X.25 State (P2).

`FLOW-RDY` = Flow control ready. Logical channel has completed establishment and is available for data packet exchange. This state corresponds to CCITT X.25 State (D1).

`FRC-CLR` = Forced clear. An internal clear request has been sent to the remote DTE and the local DTE has requested the logical channel to be cleared. The local DCE has forced a clear collision by sending a clear indication packet to the local DTE. The local DCE is waiting for a clear confirmation packet from the local DTE.

`FRC-RSE` = Forced reset. An internal reset request has been sent to the remote DTE and the local DTE has requested the logical channel be reset. The local DCE has forced a reset collision by sending a reset indication packet to the local DTE. The local DCE is waiting for a reset confirmation packet from the local DTE.

`NET-CLR` = Network clear. An internal clear request has been sent to the remote DTE and the local DTE has not been informed of the clearing of the logical channel. The local DCE is waiting for internal confirmation of a clear confirmation from the remote DTE.

`NET-RSE` = Network reset. An internal reset request has been initiated. The local DTE will be informed of the reset condition upon completion of the internal reset procedures.

`PKT-RDY` = Packet ready. The local interface is ready for logical channel establishment.

`PVC-ACT` = Permanent virtual circuit active. The permanent virtual circuit is available for information exchange establishment.

`PVC-OOO` = Permanent virtual circuit out of order. The permanent virtual circuit is not available for data exchange.

`PVC-RST` = Permanent virtual circuit restart. The DCE has indicated a restart of the interface prior to establishment of the permanent virtual circuit. The DCE is waiting restart confirmation from the DTE.

`RST-CLR` = Restart clear. An internal clear request has been initiated for the remote DCE due to initiation of restart procedures at the local DCE.

`UNKNOWN` = State not known.

`e` = Packet type associated with the error. Valid values are:

`CLEAR` = Clear indication/clear request.

`CLEAR-CNF` = Clear confirmation.

`CONN` = Call connected/call accepted.

`DATA` = Data.

`DIAG` = Diagnostic.

`INC-CALL` = Incoming call/call request.

`INTR` = Interrupt.

`INTR-CNF` = Interrupt confirmation.

`RESET` = Reset indication/reset request.

`RESET-CNF` = Reset confirmation.

`RNR` = Receiver not ready.

`RR` = Receiver ready.

`RESTART` = Restart indication/restart request.

`RESTART-CNF` = Restart confirmation.

`UNKNOWN` = Packet type not known.

`f` = Direction of transmission for the X.25 packet associated with the error. Valid values are:

`RCV` = Packet transmitted from the customer premises equipment (CPE) to the switch.

`XMT` = Packet transmitted from the switch to the CPE.

g = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmitting the packet associated with the detected error (0-127). If the TEI is not known, then this field will not be present.

h = The logical channel number (LCN) of the circuit, permanent or virtual, associated with the detected error. If not known, the field will be null.

i = The value of the cause field from the packet associated with the detected error. For a description of the cause values please refer to CCITT Recommendation X.25. If cause field is not present in the packet, then the field will not be present.

j = The value of the diagnostic field from the packet associated with the detected error. For a description of the diagnostic values please refer to CCITT Recommendation X.25. If diagnostic field is not present in the packet, then the field will not be present.

k = Logical channel type. Valid for X.25 and X.75/X.75P protocols. Valid values are:
PVC = Permanent virtual circuit.
SVC = Switched virtual circuit.

l = Clearing network identification code.

m = Clearing sub-network identification code.

n = Called address.

o = Calling address.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

Refer to the ISDN Basic Rate Interface Specification manual for additional information.

3. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

05001

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PKT-SIZE
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5001
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 RESTART REQUEST` packet to the data terminal equipment (DTE). The DTE sent an `X.25 RESTART REQUEST` or `X.25 RESTART CONFIRMATION` packet to the DCE with an invalid packet length.

4. EXTERNAL EVIDENCE

The DCE will send another `X.25 RESTART REQUEST` packet to the DTE in an attempt to establish level 3. The customer will not be able to make X.25 packet calls until level 3 establishes.

5. CORRECTIVE ACTION

Determine why the DTE is sending invalid length packets.

6. REFERENCES

None.

05002

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5002
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

(Beginning with PH3.) The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` packet containing a called line address modified notification (CLAMN) facility. The CLAMN facility is to be processed if found in the call accept packet. The parameter to the CLAMN facility indicates call forwarding. The call forwarding parameter in the CLAMN facility is not supported by the data circuit-terminating equipment (DCE).

4. EXTERNAL EVIDENCE

The DCE will respond with an `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine why the DTE is sending a CLAMN facility with a call forwarding parameter.

6. REFERENCES

None.

05003

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5003
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` packet containing a called line address modified notification (CLAMN) facility. An invalid/unsupported parameter was found in the CLAMN facility. This is for PH3 and higher only.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with an `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine why the DTE sent a CLAMN facility with a parameter other than DTE_ORIG.

6. REFERENCES

None.

05004

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5004
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` packet containing an unexpected called line address modified notification (CLAMN) facility. This is for PH3 and higher only.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with a `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine if the DTE is part of a multi-line hunt group (MLHG). Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF. Determine why the DTE is sending a CLAMN facility in the `X.25 CALL ACCEPT` packet.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05005

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5005
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` packet without a called line address modified notification (CLAMN) facility. The DTE should have included the CLAMN facility in the `X.25 CALL ACCEPT` packet.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with a `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine if the DTE is part of a multi-line hunt group (MLHG). Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF. Determine why the DTE is sending an `X.25 CALL ACCEPT` packet without the CLAMN facility.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05006

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f ABN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5006
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CLEAR REQUEST` packet and included an abnormal diagnostic code. The cause code indicates "DTE ORIGINATED". The diagnostic code indicated something other than "NO ADDITIONAL INFORMATION".

4. EXTERNAL EVIDENCE

The response will depend on what state the call was in when the `X.25 CLEAR REQUEST` packet was sent. The most likely scenario will be the `X.25 CLEAR REQUEST` packet received from the DTE will be sent to the remote DTE indicating the error that was found in the packet.

5. CORRECTIVE ACTION

Determine from the CCITT X.25 Specification Document what the diagnostic code means and attempt to prevent the situation from recurring.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05007

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INT-FAC-ERR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5007
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CLEAR REQUEST` packet has been received from the remote data terminal equipment (DTE). While the switch was preparing to send the `X.25 CLEAR REQUEST` packet to the local DTE, one or more errors were found in the facility field of the packet.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with an `X.25 CLEAR INDICATION` packet to the DTE indicating facility errors were found in the `X.25 CLEAR REQUEST` packet received from the remote DTE. An `X.25 CLEAR REQUEST` packet will also be sent to the remote DTE indicating errors were found in the packet. The facility errors could be:

1 CCITT facilities that are not allowed in a `X.25 CLEAR REQUEST` packet. The only facility allowed is the CLAMN facility.

2 Invalid facility marker. The only facility markers allowed are:

- INTRA
- INTER
- DTE
- AT&T defined facility marker

Any other marker will cause an error.

3 The facility field length is greater than 109 bytes.

5. CORRECTIVE ACTION

Determine why facility errors were found in the `X.25 CLEAR REQUEST` packet.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05008

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INT-FAC-ERR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5008
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CLEAR REQUEST` packet has been received from the remote data terminal equipment (DTE). The DTE is provisioned as a 1984 DTE (that is, a DTE that supports 1984 CCITT Recommendation only). The following errors may have occurred:

- An invalid facility marker or a facility that is not allowed (according to CCITT) in a `X.25 CLEAR REQUEST` packet was found.
- The facility field length is greater than 109 bytes. The facility field maximum length is 109 bytes.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with an `X.25 CLEAR INDICATION` packet to the DTE indicating facility errors were found in the `X.25 CLEAR REQUEST` packet received from the remote DTE. An `X.25 CLEAR REQUEST` packet will also be sent to the remote DTE indicating errors were found in the packet.

5. CORRECTIVE ACTION

Determine why:

- An invalid facility marker or an invalid facility was found in the `X.25 CLEAR REQUEST` packet.
- Facility field length is greated than 109 bytes.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05009

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f ABN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5009
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CLEAR INDICATION` packet was sent to the data terminal equipment (DTE) and the cause code and diagnostic code indicates something other than "DTE ORIGINATED" and "NO ADDITIONAL INFORMATION". The network found something wrong with the call and abnormally cleared the call.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet was sent to the DTE with a cause and diagnostic code indicating why the call was cleared.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.25 CLEAR` packet. Use the X.25 CCITT Specifications to determine why the call was cleared. The call was abnormally cleared in the network. The clearing action was not initiated by the DTE.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05010

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5010
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The packet call is in the data transfer state. This is for a virtual call (VC) or permanent virtual call (PVC). The call was reset because of an existing condition such as:

- The data terminal equipment (DTE) sent an invalid packet for this state.
- An error was found in an `X.25 DATA` packet or an `X.25 RR` packet.
- An `X.25 INTERRUPT` packet has been sent and another `X.25 INTERRUPT` packet is received before the `X.25 INTERRUPT CONFIRMATION` is received.
- An `X.25 INTERRUPT CONFIRMATION` packet is received when an `X.25 INTERRUPT` packet has not been sent.

4. EXTERNAL EVIDENCE

The data-circuit terminating equipment (DCE) will send a `X.25 RESET INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

Using packet type, cause, and diagnostic codes determine why the DTE sent an invalid packet.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05011

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DTE-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5011
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) has sent an `X.25 RESET INDICATION` packet to the data terminal equipment (DTE) and is waiting for an `X.25 RESET CONFIRMATION` packet. The DCE has now received from the DTE something other than an `X.25 RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send another `X.25 RESET INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

Determine why DTE sent a packet other than an `X.25 RESET CONFIRMATION` packet.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05012

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCE-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5012
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 RESET INDICATION` packet to the data circuit-terminating equipment (DCE) and is waiting for an `X.25 RESET CONFIRMATION` packet. Before the DCE can respond with an `X.25 RESET CONFIRMATION` packet, the DTE sent another packet that is invalid for the DCE current state.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 RESET INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

Determine why DTE sent an invalid packet.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05013

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f RESET-COLL
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5013
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent to the data terminal equipment (DTE) an `X.25 RESET INDICATION` packet indicating that a permanent virtual circuit (PVC) on a particular logical channel number (LCN) is out-of-order. At this point, the DCE is not expecting any packets from the DTE. The DTE sent an `X.25 RESET REQUEST` packet on a PVC LCN when the PVC is out-of-order.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 RESET CONFIRMATION` packet and then will send an `X.25 RESET INDICATION` packet with a cause code indicating the PVC is out-of-order.

5. CORRECTIVE ACTION

Determine why DTE sent an `X.25 RESET REQUEST` packet when the PVC is out-of-order. Determine why the PVC is out-of-order.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05014

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PVC-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5014
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent to the data terminal equipment (DTE) an `X.25 RESET INDICATION` packet indicating that a permanent virtual circuit (PVC) on a particular logical channel number (LCN) is out-of-order. At this point, the DCE is not expecting any packets from the DTE. The DTE sent a packet on a PVC LCN when the PVC is out-of-order.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 RESET INDICATION` packet with a cause code indicating the PVC is out-of-order.

5. CORRECTIVE ACTION

Determine why the DTE sent a packet when the PVC is out-of-order. Determine why the PVC is out-of-order.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05015

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INV-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5015
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 CLEAR INDICATION` packet to the data terminal equipment (DTE). The DTE sent an `X.25 CLEAR REQUEST` packet and an error was found in the packet.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE indicating the error found in the packet. The call will be cleared.

5. CORRECTIVE ACTION

Use the cause and diagnostic codes to determine the error found in the packet.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05016

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INV-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5016
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

There is no call up on this logical channel number (LCN) (state P1). The data terminal equipment (DTE) has either sent a packet that is invalid for this state or an `X.25 CALL REQUEST` or `X.25 CLEAR REQUEST` packet that contains errors.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

Use the cause and diagnostic codes to determine why the packet is invalid or the error found in the packet. If diagnostic code indicates Invalid Called Address (0x43) or Invalid Calling Address (0x44), the error may be in the Type Of Address/Numbering Plan Indicator (TOA/NPI) address format, if used. Check packet to determine if the TOA/NPI address format was used. If the TOA/NPI address format was not used, and the diagnostic code indicates and Invalid Called or Calling Address, then check the address in packet to determine if address is correct.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05017

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CALL-COLL
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5017
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL REQUEST` packet to the data circuit-terminating equipment (DCE) (state P5). A previous `X.25 CALL REQUEST` packet is queued up while another call that was terminating on the same logical channel number (LCN) is being cleared.

4. EXTERNAL EVIDENCE

When the call that is being cleared has completed, the queued call will be released and a `X.25 CLEAR INDICATION` packet sent to the DTE. The call from the DTE will not be completed.

5. CORRECTIVE ACTION

None.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05018

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f RTE-FAIL
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5018
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL REQUEST` packet and a routing message has been sent to the switching module (SM). The SM found something wrong with one of the following and indicates that to the protocol handler (PH).

- Routing data may be incorrect or the called address found in the packet is bad.
- - Incorrect Type Of Address/Numbering Plan Indicator (TOA/NPI) address format found in packet.
- There may be a conflict between data provisioned in the switch and what was requested in the `X.25 CALL REQUEST` packet.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

Determine what data is incorrect. Check the cause and diagnostic codes. If diagnostic code indicates Invalid Called Address (0x43) or Invalid Calling Address (0x44), the error may be in the Type Of Address/Numbering Plan Indicator (TOA/NPI) address format, if used. Check packet to determine if the TOA/NPI address format was used. If the TOA/NPI address format was not used, and the diagnostic code indicates and Invalid Called or Calling Address, then check the address in packet to determine if address is correct.

If diagnostic code indicates Invalid General Format Identifier (GFI) check if packet contains the TOA/NPI address format. If it does, then the International Direct Distance Dialing 15 (IDDD15) feature is not available. IDDD15 is a Secured Feature.

Check RC/V View 23.2. Check the routing tables.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05019

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f LOC-ERR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5019
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 INCOMING CALL` packet is being formatted to be sent to the data terminal equipment (DTE). The protocol handler (PH) has sent an internal data request message to packet routing in the switching module (SM) to request the data necessary to send the `X.25 INCOMING CALL` packet to the terminating DTE.

- Packet routing has determined that there may be a conflict between the data provisioned in the switch and what was requested in the `X.25 CALL REQUEST` packet.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send an `X.25 CLEAR INDICATION` packet to the originating DTE.

5. CORRECTIVE ACTION

Determine what data is incorrect. Check the cause and diagnostic codes. Check RC/V View 23.2.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05020

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CALL-COLL
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5020
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 INCOMING CALL` packet to the data terminal equipment (DTE) (state P3). The DTE sent an `X.25 CALL REQUEST` packet to the DCE on the same logical channel number (LCN). This is a call collision scenario.

4. EXTERNAL EVIDENCE

The call sent by the DCE will be cleared (transition to state P5). After clearing is complete, the call received from the DTE will be completed.

5. CORRECTIVE ACTION

Determine why DTE and DCE are trying to setup a call on the same LCN. Check LCN ranges on RC/V View 23.2.

H-PVC-LCN
H-IN-LCN
H-2W-LCN
H-OUT-LCN
L-IN-LCN
L-2W-LCN
L-OUT-LCN

Verify that enough LCNs are provisioned for the call load. Verify that the DTE and DCE are hunting LCNs in the opposite direction.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05021

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INV-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5021
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) received an invalid packet while in state P2, P3, or a data transfer state. The DCE states are:

- The DCE has received an `X.25 CALL REQUEST` packet (P2).
- The DCE has sent an `X.25 INCOMING CALL` packet to the data terminal equipment (DTE) (P3).
- The call is in the data transfer state (D1-3).

An invalid packet has been received at this time.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE.

5. CORRECTIVE ACTION

With the packet level state and the packet type information, determine why DTE has sent an invalid packet.

6. REFERENCES

None.

05022

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f INV-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5022
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) received an `X.25 CLEAR REQUEST` packet from the data terminal equipment (DTE) and then received an invalid packet for the current state.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE in response to the invalid packet.

5. CORRECTIVE ACTION

Using packet type, cause, and diagnostic codes, determine why the DTE sent an invalid packet.

6. REFERENCES

None.

05023

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f LNK-DWN
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5023
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The X.25 layer 3 protocol is not initialized and the data terminal equipment (DTE) sent in a packet to the data circuit-terminating equipment (DCE).

- The circuit state is `NOT-INIT`. This indicates that the local interface has not received an indication from level 2 to begin initialization of level 3.
- The packet state is `UNKNOWN` because the link is not in service, so there would not be a packet state.
- The packet type is `UNKNOWN` because the switch did not process the packet because the link is going out-of-service.
- The LCN is set to zero because the switch did not process the packet because the link is going out-of-service.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the DTE is sending packets when layer 3 is not initialized.

6. REFERENCES

None.

05024

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f LNK-DWN
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5024
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) received a packet while in a state when layer 3 protocol is going out of service as soon as all existing virtual calls clear normally (no new virtual calls are allowed), or the switching module processor (SMP) has blocked normal X.25 packet switching on the link but level 2 is still operational. Modem pooling terminal maintenance procedures may be active in this state. At this time, the data terminal equipment (DTE) sent in a packet.

- The circuit state is `UNKNOWN` because the call is in an internal AT&T state.
- The packet state is `UNKNOWN` because the link is not in service, so there would not be a packet state.
- The packet type is `UNKNOWN` because the switch did not process the packet because the link is going out-of-service.
- The LCN is set to zero because the switch did not process the packet because the link is going out-of-service.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the DTE is sending packets when layer 3 is going out of service.

6. REFERENCES

None.

05025

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RST-IP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5025
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) has received a packet while in state R2. State R2 is when the data terminal equipment (DTE) sent an `X.25 RESTART REQUEST` packet to the DCE and is waiting for a `X.25 RESTART CONFIRMATION` packet. At this time, a network restart is in progress. Then, the DTE sends another packet.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the DTE is sending packets during a network restart.

6. REFERENCES

None.

05026

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f EXP-RST-CNF
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5026
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 RESTART INDICATION` packet to the data terminal equipment (DTE) (state R3) and is waiting for a `X.25 RESTART CONFIRMATION` packet. The DTE sends some other packet type.

4. EXTERNAL EVIDENCE

None.

5. CORRECTIVE ACTION

Determine why the DTE sent something other than an `X.25 RESTART CONFIRMATION` packet.

6. REFERENCES

None.

05027

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PVC-OOO
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5027
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent in a packet on a permanent virtual circuit (PVC) logical channel number (LCN). The PVC is out-of-order.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send an `X.25 RESET INDICATION` to the DTE indicating the PVC is out-of-order.

5. CORRECTIVE ACTION

Determine why the DTE is sending packets on a PVC LCN that is out-of-order.

6. REFERENCES

None.

05028

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-CONG
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5028
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL REQUEST` packet or `X.25 CLEAR REQUEST` packet and the data circuit-terminating equipment (DCE) protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call. The state of the call is State P1.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE indicating a call setup problem.

5. CORRECTIVE ACTION

Determine why the DCE PH does not have enough resources. Determine if the PH is under engineered.

6. REFERENCES

None.

05029

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLR-REQ
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5029
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent a packet and the data circuit-terminating equipment (DCE) protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 CLEAR INDICATION` packet to the DTE indicating a call setup problem.

5. CORRECTIVE ACTION

Determine why the DCE PH does not have enough resources. Determine if PH is under engineered.

6. REFERENCES

None.

05030

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCD-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5030
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) has sent a packet and the data circuit-terminating equipment (DCE) protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call.

4. EXTERNAL EVIDENCE

None. The packet will be discarded.

5. CORRECTIVE ACTION

Determine why the DCE PH does not have enough resources. Determine if PH is under engineered.

6. REFERENCES

None.

05031

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f ABN-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5031
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 RESET REQUEST` packet and has included an abnormal diagnostic code. The cause code indicates "DTE ORIGINATED", but the diagnostic code indicates something other than "NO ADDITIONAL INFORMATION".

4. EXTERNAL EVIDENCE

None. The call will be reset normally. The data circuit-terminating equipment (DCE) will respond with an `X.25 RESET CONFIRMATION` packet.

5. CORRECTIVE ACTION

Determine what the diagnostic code sent by the DTE means and attempt to prevent it.

6. REFERENCES

None.

05032

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCD-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5032
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) received a packet that is invalid for the current state that the DCE is in.

4. EXTERNAL EVIDENCE

None. The packet will be discarded.

5. CORRECTIVE ACTION

Determine why the data terminal equipment (DTE) sent an invalid packet.

6. REFERENCES

None.

05033

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5033
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent a packet to the data terminal equipment (DTE) and the packet is invalid for the current state that the DCE is in.

4. EXTERNAL EVIDENCE

A `X.25 RESET INDICATION` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

None. The `X.25 RESET INDICATION` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

6. REFERENCES

None.

05034

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5034
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) is sending a packet to the data terminal equipment (DTE) and the packet is invalid for the current state that the DCE is in.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

None. This could be an internal timing problem that can be ignored unless occurring consistently.

6. REFERENCES

None.

05035

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5035
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent in an `X.25 RESTART REQUEST` packet (state R2). The remote end of the call has sent a packet to a permanent virtual circuit (PVC) logical channel number (LCN) during a restart of this link.

4. EXTERNAL EVIDENCE

An `X.25 RESET INDICATION` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

None. The `X.25 RESET INDICATION` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

6. REFERENCES

None.

05036

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5036
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) has sent in an `X.25 RESTART REQUEST` packet. The remote end of the call has sent a packet to a virtual circuit logical channel number (LCN) during a restart of this link.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote data terminal equipment (DTE). The call will not be setup.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

05037

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5037
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) is sending an `X.25 DATA` packet to the data terminal equipment (DTE). There is an inconsistency between the DCE send sequence number P(S) [stored in the logical channel control block (LCCB)] and the P(S) found in the packet.

4. EXTERNAL EVIDENCE

An `X.25 RESET INDICATION` packet will be sent to the remote DTE. The `X.25 RESET INDICATION` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Determine why the P(S) is inconsistent between the DCE and DTE.

6. REFERENCES

None.

05038

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5038
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 DATA` packet has been attempted to be sent to the data terminal equipment (DTE). Layer 2 was unable to send the data packet to the DTE. Layer 2 may be unable to queue the frame for transmission or a data inconsistency was found.

4. EXTERNAL EVIDENCE

An `X.25 RESET INDICATION` packet will be sent to the remote DTE. The `X.25 RESET INDICATION` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Determine why layer 2 was unable to send the packet to the DTE.

6. REFERENCES

None.

05039

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f FAC80CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5039
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 INCOMING CALL` packet is being processed before being sent to the data terminal equipment (DTE). The DTE is provisioned for 1980 CCITT Recommendation only. The packet contains a DTE facility marker (CCITT ANNEX G facilities), that is invalid for a 1980 DTE.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the remote DTE is sending DTE facilities to a 1980 DTE. Verify on RC/V View 23.2, field X25VER, that the DTE is provisioned correctly.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05040

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5040
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 INCOMING CALL` packet is being processed before being sent to the data terminal equipment (DTE). The error found could be:

1 The DTE has no incoming logical channel numbers (LCN) provisioned. The LCN is set to zero for printing of the PER report.

2 No free LCNs were available. All the LCNs provisioned for this interface are currently being used. The LCN is set to zero for printing of the PER report.

3 This interface has maximum combined throughput (MCT) feature provisioned. The interface is MCT busy. The amount of calls terminating to this interface is over the MCT limit provisioned. This is for PH3 and higher only.

4 Facility errors were found in the packet.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

For problem:

1 Determine why DTE has no incoming LCN provisioned. Check RC/V View 23.2 for LCN ranges.

2 Determine why no free LCNs were available. Check RC/V View 23.2 for LCN ranges.

3 Determine why interface is MCT busy. Check RC/V View 23.2 fields:

SEND MCT
RCV MCT

If the sum of throughput classes of all the virtual circuits on a given channel meets or exceeds the MCT value for either direction of transmission, then the channel is considered MCT busy.

4 Determine why facility errors were found in the packet. Check cause and diagnostic codes for

assistance in determining the facility error.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05041

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f FAC80CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5041
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CALL CONNECT` packet is being processed before being sent to the data terminal equipment (DTE). The DTE is provisioned for 1980 CCITT Recommendation only. The packet contains a DTE facility marker (CCITT ANNEX G facilities), that is invalid for a 1980 DTE.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the remote DTE is sending DTE facilities to a 1980 DTE. Verify with RC/V View 23.2, field X25VER, that the DTE is provisioned correctly.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05042

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f FACL80CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5042
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CALL CONNECT` packet is being processed before being sent to the Data Terminal Equipment (DTE). The DTE is provisioned for 1980 CCITT Recommendation only. A facility length of greater than 63 bytes was found in the packet. A 1980 DTE supports facility lengths of up to 63 bytes.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE. The call will not be set up.

5. CORRECTIVE ACTION

Determine why the remote DTE is sending facilities with a length greater than 63 bytes. Verify with RC/V View 23.2, field X25VER, that the DTE is provisioned correctly.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05043

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5043
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 CALL CONNECT` packet is being processed before being sent to the data terminal equipment (DTE). The error found may be:

1 Facility errors were found in the packet.

2 No buffers are available to store the new packet.

3 Level 2 is unable to send a packet to the DTE. Layer 2 may be unable to queue the frame for transmission or a data inconsistency was found.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

For problem:

1 Determine why facility errors were found in the packet. Check cause and diagnostic codes for assistance in determining the facility error.

2 Determine why there are no buffers available. The protocol handler (PH) may be over provisioned.

3 Determine why level 2 is unable to send a frame to the DTE.

6. REFERENCES

None.

05044

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f ABN-NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5044
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 RESET INDICATION` packet is being sent to the data terminal equipment (DTE) with a cause code other than "DTE ORIGINATED" and a diagnostic code of other than "NO ADDITIONAL INFORMATION". The call was abnormally reset.

4. EXTERNAL EVIDENCE

An `X.25 RESET INDICATION` packet will be sent to the remote DTE. The `X.25 RESET INDICATION` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.25 RESET` packet. Use the X.25 CCITT Specifications to determine why the call was reset. The call was abnormally reset in the network. The reset action was not initiated by the DTE.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.2, Recommendation X.25,

"Interface between Data Terminal Equipment (DTE) and Data-Circuit Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit", 1988.

05045

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PKTL80RST
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5045
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 INTERRUPT` packet is being processed to be sent to the data terminal equipment (DTE). The DTE is provisioned for 1980 CCITT Recommendation DTE. The `X.25 INTERRUPT` packet contains a data field greater than 1 byte. A 1980 DTE supports an `X.25 INTERRUPT` packet with a data field of only 1 byte.

4. EXTERNAL EVIDENCE

An `X.25 RESET INDICATION` packet will be sent to the remote DTE indicating the `X.25 INTERRUPT` packet was incompatible with the destination interface.

5. CORRECTIVE ACTION

Determine why the remote DTE is sending an `X.25 INTERRUPT` packet with more than 1 byte of data.

6. REFERENCES

None.

05046

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T12-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5046
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A timeout occurred for timer T12 because:

1 An `X.25 RESET INDICATION` packet has been sent to the data terminal equipment (DTE) indicating that a permanent virtual circuit (PVC) is out-of-service (OOS). The switch is expecting to receive an `X.25 RESET CONFIRMATION` but timer T12 has expired instead.

2 An `X.25 RESET INDICATION` packet has been sent to the DTE indicating the PVC is OOS. The DCE is waiting for an `X.25 RESET CONFIRMATION` so that an `X.25 RESET INDICATION` packet can be sent to the DTE indicating the PVC is now operational. Timer T12 has expired waiting for the `X.25 RESET CONFIRMATION` message.

3 The link was in data transfer mode and the data circuit-terminating equipment (DCE) sent an `X.25 RESET INDICATION` packet to the DTE. Timer T12 expired waiting for an `X.25 RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 DIAGNOSTIC` packet to the DTE indicating a timeout has occurred.

5. CORRECTIVE ACTION

Determine why the DTE has not responded to the packets sent by the DCE.

6. REFERENCES

None.

05047

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T10-2ND-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5047
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T10 has expired for a second time. An `X.25 RESTART INDICATION` packet has been sent to the data terminal equipment (DTE) and the DTE has not responded.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send an `X.25 DIAGNOSTIC` packet to the DTE indicating a timeout has occurred.

5. CORRECTIVE ACTION

Determine why the DTE has not responded to the `X.25 RESTART INDICATION` packet.

6. REFERENCES

None.

05048

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f SHRT-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5048
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent a packet to the data circuit-terminating equipment (DCE) that is 1 byte. The switch was expecting a minimum of 3 bytes. The logical channel number (LCN) is in the second byte of the packet and the packet type is in the third byte of the packet. The packet type or LCN of the packet can not be determined. LCN is printed with a default value.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 DIAGNOSTIC` packet to the DTE.

5. CORRECTIVE ACTION

Determine why the DTE is sending packets with only 1 byte.

6. REFERENCES

None.

05049

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DGN-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5049
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent a packet with an existing condition such as:

1 The packet is on an unassigned logical channel number (LCN).

2 The general format identifier (GFI) field of the packet is invalid.

3 The cause code in the `X.25 RESTART REQUEST` packet is invalid.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send an `X.25 DIAGNOSTIC` packet to the DTE.

5. CORRECTIVE ACTION

Determine why the DTE is sending an invalid packet. For problem:

1 Determine if there is an inconsistency between the DCE and the DTE LCN translations.

2 Check the DTE for correct sequence numbering mode (should be Modulo 8).

3 The cause code in the `X.25 RESTART REQUEST` packet should be DTE ORIG.

6. REFERENCES

None.

05050

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PVC-OOO
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5050
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The far-end of a permanent virtual circuit (PVC) sent an `X.25 RESET REQUEST` packet indicating that the PVC is out-of-order. The data circuit-terminating equipment (DCE) is in a data transfer mode or waiting for a `X.25 RESET CONFIRMATION` packet to a previously sent `X.25 RESET INDICATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 RESET INDICATION` packet indicating the PVC is out-of-order.

5. CORRECTIVE ACTION

None. A report is generated indicating that the PVC is going to an out-of-order state.

6. REFERENCES

None.

05051

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5051
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` or `X.25 CLEAR REQUEST` packet containing a called line address modified notification (CLAMN) with a modified CALLED address, and the CALLED address is in abbreviated form (1 to 6 digits). The switch was expecting a CALLED address that is not in abbreviated format.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the DTE is sending a modified address that is in abbreviated format. Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF. Check for an interaction with packet business groups (PBGs) for abbreviated dialing. Check DTE option settings.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05052

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5052
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` or `X.25 CLEAR REQUEST` packet with a modified CALLED address and the call was hunted to a member of a multi-line hunt group (MLHG). The modified CALLED address is not the individual directory number (DN) for that MLHG.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the DTE is sending a modified address that is not the individual MLHG address. The individual address found in the packet does not match the data circuit-terminating equipment (DCE) individual address. Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05053

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5053
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CALL ACCEPT` or `X.25 CLEAR REQUEST` packet with a modified CALLED address. The hunt type for the multi-line hunt group (MLHG) is uniform call distribution (UCD) hunting. The modified address is not the individual address.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the DTE is sending a modified address that is not an individual MLHG address.

6. REFERENCES

None.

05054

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T13-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5054
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 CLEAR INDICATION` packet to the date terminal equipment (DTE) and is waiting for an `X.25 CLEAR CONFIRMATION` packet (State P7). Timer T13 expired waiting for the `X.25 CLEAR CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send another `X.25 CLEAR INDICATION` packet to the DTE and restart timer T13. If the DTE does not respond to this packet, the call is assumed to be cleared and the DCE is ready to accept another call.

5. CORRECTIVE ACTION

Determine why the DTE is not responding to packets sent by DCE.

6. REFERENCES

None.

05055

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T12-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5055
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data circuit-terminating equipment (DCE) sent an `X.25 RESET INDICATION` packet to the data terminal equipment (DTE) and is waiting for an `X.25 RESET CONFIRMATION` packet. Timer T12 expired while waiting for the `X.25 RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send another `X.25 RESET INDICATION` packet to the DTE and restart timer T12. If the DTE does not respond to this packet, an `X.25 CLEAR INDICATION` packet will be sent to the DTE and the call will be taken down. This is for a virtual call (VC) only.

5. CORRECTIVE ACTION

Determine why the DTE is not responding to packets sent by DCE.

6. REFERENCES

None.

05056

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f PVC-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5056
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T12 has expired for the second time while waiting for an `X.25 RESET CONFIRMATION` packet on a permanent virtual circuit (PVC) logical channel number (LCN). The data circuit-terminating equipment (DCE) sent an `X.25 RESET INDICATION` packet to the DTE and is waiting for an `X.25 RESET CONFIRMATION` packet. Timer T12 expired while waiting for the `X.25 RESET CONFIRMATION` packet. The DCE then sends another `X.25 RESET INDICATION` packet to the DTE and waits for an `X.25 RESET CONFIRMATION` packet. Timer T12 expired again.

4. EXTERNAL EVIDENCE

The DCE will send another `X.25 RESET INDICATION` packet to the data terminal equipment (DTE) indicating the PVC is operational. The DCE will assume the PVC is operational without receiving a response from the DTE.

5. CORRECTIVE ACTION

Determine why the DTE is not responding to packets sent by the DCE.

6. REFERENCES

None.

05057

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T12-2ND-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5057
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T12 expired for the second time while waiting for an `X.25 RESET CONFIRMATION` packet on a permanent virtual circuit (PVC) logical channel number (LCN). The data circuit-terminating equipment (DCE) sent an `X.25 RESET INDICATION` packet to the DTE and is waiting for an `X.25 RESET CONFIRMATION` packet. Timer T12 expired while waiting for the `X.25 RESET CONFIRMATION` packet. The DCE then sends another `X.25 RESET INDICATION` packet to the DTE and waits for an `X.25 RESET CONFIRMATION` packet. Timer T12 expired for the second time while waiting for the `X.25 RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The DCE will send an `X.25 RESET INDICATION` packet to the remote data terminal equipment (DTE) indicating the PVC is out-of-service (OOS).

5. CORRECTIVE ACTION

Determine why the DTE is not responding to packets sent by the DCE.

6. REFERENCES

None.

05058

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5058
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CLEAR REQUEST` packet containing a called line address modified notification (CLAMN) facility. The CLAMN facility is to be processed if found in the `X.25 CLEAR REQUEST` packet. The parameter to the CLAMN facility indicates call forwarding. The call forwarding parameter in the CLAMN facility is not supported by the data circuit-terminating equipment (DCE). This is for PH3.

4. EXTERNAL EVIDENCE

The DCE will respond with an `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine why the DTE is sending a CLAMN facility with a parameter of call forwarding.

6. REFERENCES

None.

05059

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5059
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CLEAR REQUEST` packet containing a called line address modified notification (CLAMN) facility. An invalid/unsupported parameter was found in the CLAMN facility. This is for PH3.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) responded with an `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine why the DTE sent a CLAMN facility with a parameter other than "DTE_ORIG".

6. REFERENCES

None.

05060

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5060
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

(Beginning with PH3.) The data terminal equipment (DTE) sent an `X.25 CLEAR REQUEST` packet containing an unexpected called line address modified notification (CLAMN) facility. The CLAMN is unexpected because either the called address is the same as the called address sent in the `X.25 INCOMING CALL` packet or no called address was present in the `X.25 CLEAR REQUEST` packet.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with a `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine if the DTE is part of a multi-line hunt group (MLHG). Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF. The HUNT NOTIF field should be set to either YES or NO. Determine why the DTE is sending a CLAMN facility in the `X.25 CLEAR REQUEST` packet.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05061

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f CLAMN-CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5061
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The data terminal equipment (DTE) sent an `X.25 CLEAR REQUEST` packet without a called line address modified notification (CLAMN) facility. The DTE should have included the CLAMN facility in the `X.25 CLEAR REQUEST` packet.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will respond with an `X.25 CLEAR REQUEST` packet. The call will be cleared.

5. CORRECTIVE ACTION

Determine if the DTE is part of a multi-line hunt group (MLHG). Determine if the line is provisioned correctly by checking RC/V View 23.2, field HUNT NOTIF. Determine why the DTE is not sending a CLAMN facility in the `X.25 CLEAR REQUEST` packet.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05062

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T10-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5062
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T10 has expired for the first time. An `X.25 RESTART INDICATION` packet has been sent to the data terminal equipment (DTE) and the DTE has not responded with an `X.25 RESTART CONFIRMATION`.

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send another `X.25 RESTART INDICATION` packet to the DTE and restart timer T10.

5. CORRECTIVE ACTION

Determine why the DTE has not responded to the `X.25 RESTART INDICATION` packet.

6. REFERENCES

None.

05063

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f ABN-RST
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5063
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A data terminal equipment (DTE) sent an `X.25 RESTART REQUEST` packet to the data circuit-terminating equipment (DCE). During the network restart, the DTE sent a packet to the DCE before the DCE has responded with an `X.25 RESTART CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

An `X.25 RESTART INDICATION` will be sent to the DTE to let them know they sent out a packet before they received the `X.25 RESTART CONFIRMATION`. The DCE will wait for a `X.25 RESTART CONFIRMATION` packet.

5. CORRECTIVE ACTION

None. A report is generated indicating why the DCE is sending an `X.25 RESTART INDICATION` packet to the DTE.

6. REFERENCES

None.

05064

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f FACL80CLR
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5064
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `X.25 INCOMING CALL` packet is being processed before being sent to the data terminal equipment (DTE). The DTE is provisioned for 1980 CCITT Recommendation only. The facility field length in the `X.25 INCOMING CALL` packet exceeds 63 bytes. A 1980 DTE can only receive a facility field length of 63 bytes or less.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR INDICATION` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the remote DTE is sending DTE facilities with a length greater than 63 bytes to a 1980 DTE. Verify with RC/V View 23.2, field X25VER, that the DTE is provisioned correctly.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

05065

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCD-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5065
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received an `X.25 CALL REQUEST` packet from a data terminal equipment (DTE) and was in the process of routing the call, when it received a manual or automatic request to remove the channel that caused the `X.25 CALL REQUEST` packet to be discarded.

4. EXTERNAL EVIDENCE

The channel on which routing was requested, will go out of service. All packet calls are torn down on the channel.

5. CORRECTIVE ACTION

Determine why the manual or automatic request to remove the channel was received.

6. REFERENCES

None.

05066

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCD-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5066
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was in the process of sending an `X.25 CALL REQUEST` packet to a data terminal equipment (DTE) and while attempting to route the call, it received a manual or automatic request to remove the channel that caused the `X.25 CALL REQUEST` packet to be discarded.

4. EXTERNAL EVIDENCE

The channel to which the call was routed will go out of service. All packet calls are torn down on the channel.

5. CORRECTIVE ACTION

Determine why the channel was removed.

6. REFERENCES

None.

05067

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DCD-PKT
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5067
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was in the middle of clearing towards the network to a data terminal equipment (DTE) during an X.25 call collision procedure when it received a manual or automatic request to remove the channel that caused an `X.25 CALL REQUEST` packet to be discarded.

4. EXTERNAL EVIDENCE

The channel is removed from service. All packet calls are torn down.

5. CORRECTIVE ACTION

Determine why the channel was removed.

6. REFERENCES

None.

05068

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f DTE-RST
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5068
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was in the middle of a restart procedure on a data terminal equipment (DTE) for a switched virtual circuit (VC) when it received a manual or automatic request to remove the channel.

4. EXTERNAL EVIDENCE

The network side of the call is cleared with an `X.25 CLEAR` packet, and the channel is removed from service.

5. CORRECTIVE ACTION

Determine why the channel was removed.

6. REFERENCES

None.

05069

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f NET-RESET
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5069
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was in the middle of a restart procedure on a data terminal equipment (DTE) for a permanent virtual circuit (PVC) when it received a manual or automatic request to remove the channel.

4. EXTERNAL EVIDENCE

The network side of the call is reset with an `X.25 RESET` packet, and then the channel is removed from service.

5. CORRECTIVE ACTION

Determine why the channel was removed.

6. REFERENCES

None.

05070

Key Code Range: 05000 - 05999
Software Release: 5E10 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f LNK-OOO
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5070
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch was in the middle of a restart procedure on a data terminal equipment (DTE) for a permanent virtual circuit (PVC) when it received a unconditional manual or automatic request to remove the channel.

4. EXTERNAL EVIDENCE

The network side of the call is reset with an `X.25 RESET` packet, and the channel is removed from service immediately.

5. CORRECTIVE ACTION

Determine why the channel was removed.

6. REFERENCES

None.

05071

Key Code Range: 05000 - 05999
Software Release: 5E12 and later
Protocol: X.25
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb X.25 c d e f T11-EXP
                [TEI=g] LCN=h [CAUS=i] [DIAG=j] [k] [CNIC=l] [CSI=m] KEY=5071
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 05(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A timeout has occurred for timer T11 because:
An `X.25 Incoming Call` packet has been sent to the terminating data terminal equipment (DTE) and the DTE has not responded with a `X.25 Call Accept` packet within the timer interval (180 seconds).

4. EXTERNAL EVIDENCE

The data circuit-terminating equipment (DCE) will send a `X.25 Clear Request` packet to the originating DTE indicating a timeout has occurred.

5. CORRECTIVE ACTION

Determine why the DTE has not responded to the packets sent by the DCE.

6. REFERENCES

None.

10. 06-X.75

06(BASE)

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75/X.75P

1. BASE FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f y
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=z
                 [CDADDR=m] [CGADDR=n]
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Packet level state for the interface associated with the error. Valid values are:

- LOC-OOS = Local signalling terminal equipment (STE) out-of-service. Local STE is placing the local interface out-of-service. The local STE is waiting restart confirmation from the remote STE.
- LOC-RST-REQ = Local STE restart indication. The local STE has indicated restart of the local interface and is waiting restart confirmation from the remote STE. This state corresponds with CCITT X.75 State (R3).
- NOT-INIT = Not initialized. This indicates that the local interface has not received an indication from level 2 to begin initialization of level 3.
- PKT-RDY = Packet level ready. The local interface is ready for logical channel establishment. This state corresponds to CCITT X.75 State (R1).
- REM-RST-REQ = Remote STE requested restart. The remote STE has requested restart of the local interface and is waiting restart confirmation from the local STE. This state corresponds with CCITT X.75 State (R2).
- UNKNOWN = State not known. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section.

d = Packet level state of a call on a logical channel, permanent or switched, associated with the error. Valid values are:

- CALL-COLL = Call collision. A call collision has been detected and the associated logical channel is being cleared.
- CHAN-RDY = Logical channel ready. This state corresponds with CCITT X.75 State (P1). The logical channel is idle and available for call establishment.
- CHAN-RST = Logical channel restart. The logical channel has been restarted.
- FRC-CLR = Forced clear. An internal clear request has been sent to network and the remote STE has requested the logical channel to be cleared. The local STE has forced a clear collision by sending a clear request packet to the remote STE. The local STE is waiting for a clear confirmation packet from the remote STE.
- FLOW-RDY = Flow control ready. This state corresponds to CCITT X.75 State (D1). Logical channel has completed establishment and is available for data packet exchange.
- FRC-RSE = Forced reset. An internal reset request has been sent to the network and the remote STE has requested the logical channel be reset. The local STE has forced a reset collision by sending a reset request packet to the local DTE. The local STE is waiting for a reset confirmation packet from the remote STE.
- LOC-CLR-REQ = Local STE requested clear. This state corresponds to CCITT X.75 State (P7).

The local STE has indicated clearing of the logical channel and is waiting for the clear confirmation from the remote STE.

LOC-RSE-REQ = Local STE requested reset. This state corresponds to CCITT X.75 State (D3). The local STE has indicated the resetting of the logical channel and is waiting for the reset confirmation from the remote STE.

LOC-WAT = Local STE waiting. This state corresponds the CCITT X.75 State (P3). The logical channel is being established and the local STE is waiting for call acceptance from the remote STE.

NET-CLR = Network clear. An internal clear request has been sent to the network and the remote STE has not been informed of the clearing of the logical channel. The local STE is waiting for internal confirmation of a clear confirmation from the network.

NET-RSE = Network reset. An internal reset request has been initiated. The remote STE will be informed of the reset condition upon completion of the internal reset procedures.

PVC-ACT = Permanent virtual circuit active. The permanent virtual circuit is available for information exchange establishment.

PVC-OOO = Permanent virtual circuit out of order. The permanent virtual circuit is not available for data exchange.

PVC-RST = Permanent virtual circuit restart. The local STE has indicated a restart of the interface prior to establishment of the permanent virtual circuit. The local STE is waiting restart confirmation from the remote STE.

REM-CLR-REQ = Remote STE requested clear. This state corresponds to CCITT X.75 State (P6). Remote STE has requested clearing of the logical channel from the local STE.

REM-RSE-REQ = Remote STE requested reset. This state corresponds to CCITT X.75 State (D2). The remote STE has requested resetting of the logical channel from the local STE.

REM-WAT = Remote STE waiting. This state corresponds to CCITT X.75 State (P2). The remote STE has transmitted a call request packet and is waiting for the call connected packet.

RST-CLR = Restart clear.

UNKNOWN = State not known. Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION section.

e Packet type associated with the error. Valid values are:

CLEAR = Clear request.

CLEAR-CNF = Clear confirmation.

CONN = Call connected.

DATA = Data.

DIAG = Diagnostic.

INC-CALL = Call request.

INTR = Interrupt.

INTR-CNF = Interrupt confirmation.

RESET = Reset request.

RESET-CNF = Reset confirmation.

RNR = Receiver not ready.

RR = Receiver ready.

RESTART = Restart request.

RESTART-CNF = Restart confirmation.

UNKNOWN = Packet type not known.

f = Direction of transmission for the X.75/X.75' packet associated with the error. Valid values are:

RCV = Packet transmitted from the customer premises equipment (CPE) to the switch.

XMT = Packet transmitted from the switch to the CPE.

g = The logical channel number (LCN) of the circuit, permanent or virtual, associated with the detected error. If not known, the field will be null.

h = The value of the cause field from the packet associated with the detected error. For a description of the cause values, refer to the CCITT Recommendation X.75. If the cause field is not present in the packet, then the field will not be present.

i = The value of the diagnostic field from the packet associated with the detected error. For a description of the diagnostic values, refer to CCITT Recommendation X.75. If the diagnostic field is not present in the packet, then the field will not be present.

j = Logical channel type. Valid values are:
PVC = Permanent virtual circuit.
SVC = Switched virtual circuit.

k = Clearing network identification code.

l = Clearing sub-network identification code.

m = Called address.

n = Calling address.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.3, Recommendation X.75,

"Packet-Switched Signalling System Between Public Networks Providing Data Transmission Services", 1988.

235-900-301 *ISDN Basic Rate Interface Specification*

06001

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f T30-EXP
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6001
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T30 has expired for the first time waiting for the remote signalling terminal equipment (STE) to respond to an `X.75/X.75P RESTART REQUEST` packet.

4. EXTERNAL EVIDENCE

The STE will send another `X.75/X.75P RESTART REQUEST` packet to the remote STE and restart timer T30.

5. CORRECTIVE ACTION

Determine why remote STE has not responded to the `X.75/X.75P RESTART REQUEST` packet.

6. REFERENCES

None.

06002

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75P
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f TSC-EXC
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6002
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75P CALL REQUEST` packet and the transit sub-network count (TSNC) utilities parameter field is greater than the global office parameter value set on RC/V View 8.1, field SUBNET CNT.

The purpose of the TSNC utility is to keep track of the number of X.75P interfaces within the service provider network that have been traversed in the virtual call path. The call could have exceeded the number of switch hops provisioned by the SUBNET CNT field or indicate a looping condition. The TSNC utility is valid for X.75P trunks only.

4. EXTERNAL EVIDENCE

The STE will send an `X.75P CLEAR REQUEST` packet to the remote STE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why the call cleared. Check that routing translations and the called number are translated correctly. The fault may lie in another switch in the service provider network. Verify that RC/V View 8.1, field SUBNET CNT, is set correctly.

6. REFERENCES

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

06003

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-CLR-REQ
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6003
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an invalid packet while in state P1, P7, or while waiting for routing data. The STE states are:

P1 = A call is not up.

P2 = A call is waiting for routing data.

P7 = The STE has sent an X.75/X.75P CLEAR REQUEST packet to the remote STE.

An invalid packet has been received.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P CLEAR REQUEST` packet to the remote STE. The call will not be setup.

5. CORRECTIVE ACTION

Using the packet type, cause code, and diagnostic code, determine why packet is invalid. If the call is in state P1 or waiting for data, then if the diagnostic code indicates Invalid Called Address (0x43) or Invalid Calling Address (0x44), the error may be in the Type Of Address/Numbering Plan Indicator (TOA/NPI) address format, if used. Check packet to determine if the TOA/NPI address format was used. If the TOA/NPI address format was not used, and the diagnostic code indicates and Invalid Called or Calling Address, then check the address in packet to determine if address is correct. If diagnostic code indicates Invalid General Format Identifier (GFI) check if packet contains the TOA/NPI address format. If it does, then the International Direct Distance Dialing 15 (IDDD15) feature is not available. IDDD15 is a Secured Feature.

6. REFERENCES

None.

06004

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-CLR-REQ
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6004
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent an `X.75/X.75P CLEAR REQUEST` packet to the STE. Before the STE responded with an `X.75/X.75P CLEAR CONFIRMATION` packet, the remote STE sent another packet that is invalid for the current state.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P CLEAR REQUEST` packet to the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets before it receives the `X.75/X.75P CLEAR CONFIRMATION` packet.

6. REFERENCES

None.

06005

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f NET-CLR
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6005
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an invalid packet while in state P2, P3, or a data transfer state. The STE states are:

P2 = The STE received an `X.75/X.75P CALL REQUEST` packet.

P3 = The STE sent an `X.75/X.75P CALL REQUEST` packet to the remote STE.

D1-3 = The call is in the data transfer state.

An invalid packet has been received.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P CLEAR REQUEST` packet to the remote STE.

5. CORRECTIVE ACTION

With the packet level state and the packet type, determine why the DTE has sent an invalid packet.

6. REFERENCES

None.

06006

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f NET-RESET
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6006
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The packet call is in the data transfer state. This is for a virtual call (VC) or permanent virtual call (PVC).

The call was reset because:

1 The signalling terminal equipment (STE) sent an invalid packet for this state.

2 An error was found in an `X.75/X.75P DATA` packet or an `X.75/X.75P RR` packet.

3 An `X.75/X.75P INTERRUPT` packet has been sent and another `X.75/X.75P INTERRUPT` packet is received before the `X.75/X.75P INTERRUPT CONFIRM` is received.

4. EXTERNAL EVIDENCE

The STE will send a `X.75/X.75P RESET REQUEST` packet to the remote STE.

5. CORRECTIVE ACTION

Using packet type, cause code, and diagnostic code, determine why the STE sent an invalid packet.

6. REFERENCES

None.

06007

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6007
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent an `X.75/X.75P RESET REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESET CONFIRMATION` packet. The STE has received, from the remote STE, something other than an `X.75/X.75P RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The STE will send another `X.75/X.75P RESET REQUEST` packet to the remote STE.

5. CORRECTIVE ACTION

Determine why the STE sent a packet other than an `X.75/X.75P RESET CONFIRMATION` packet.

6. REFERENCES

None.

06008

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-RSE-REQ
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6008
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet to the STE that is causing the call to be reset.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET REQUEST` packet to the remote STE.

5. CORRECTIVE ACTION

Using the packet type, cause code, diagnostic code, and the state the call is in, determine why the call was reset.

6. REFERENCES

None.

06009

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f T33-EXP
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6009
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A T33 timer expired while waiting for the `X.75/X.75P CLEAR CONFIRMATION` packet. The signalling terminal equipment (STE) sent an `X.75/X.75P CLEAR REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P CLEAR CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The STE will send another `X.75/X.75P CLEAR REQUEST` packet to the remote STE and restart timer T33.

5. CORRECTIVE ACTION

Determine why the remote STE is not responding to packets sent by the STE.

6. REFERENCES

None.

06010

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f T32-EXP
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6010
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A T32 timer expired while waiting for the `X.75/X.75P RESET CONFIRMATION` packet. The signalling terminal equipment (STE) sent an `X.75/X.75P RESET REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The STE will send another `X.75/X.75P RESET REQUEST` packet to the remote STE and restart timer T32.

5. CORRECTIVE ACTION

Determine why the remote STE is not responding to packets sent by the STE.

6. REFERENCES

None.

06011

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f T32-2ND-EXP
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6011
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T32 expired for the second time while waiting for an `X.75/X.75P RESET CONFIRMATION` packet on a permanent virtual circuit (PVC) logical channel number (LCN). The signalling terminal equipment (STE) sent an `X.75/X.75P RESET REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESET CONFIRMATION` packet. Timer T32 expired while waiting for the `X.75/X.75P RESET CONFIRMATION` packet. The STE then sent another `X.75/X.75P RESET REQUEST` packet to the remote STE and waits for an `X.75/X.75P RESET CONFIRMATION` packet. Timer T32 expires for the second time while waiting for the `X.75/X.75P RESET CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET REQUEST` packet to the remote STE indicating the PVC is out-of-service (OOS).

5. CORRECTIVE ACTION

Determine why the remote STE is not responding to packets sent by the STE.

6. REFERENCES

None.

06012

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f T32-2ND-EXP
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6012
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Timer T32 expired for the second time while waiting for an `X.75/X.75P RESET CONFIRMATION` packet on a permanent virtual circuit (PVC) logical channel number (LCN).

The signalling terminal equipment (STE) sent an `X.75/X.75P RESET REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESET CONFIRMATION` packet. Timer T32 expired while waiting for the `X.75/X.75P RESET CONFIRMATION` packet. The STE then sends another `X.75/X.75P RESET REQUEST` packet to the remote STE and waits for an `X.75/X.75P RESET CONFIRMATION` packet. Timer T32 expires again.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET REQUEST` packet to the remote STE indicating the PVC is operational. The STE will assume the PVC is operational without receiving a response from the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE is not responding to packets sent by the STE.

6. REFERENCES

None.

06013

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f REM-ABN-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6013
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P CLEAR REQUEST` packet from the remote STE with a cause code of other than "DTE ORIGINATED" and a diagnostic code other than "NO ADDITIONAL INFORMATION". The network has abnormally cleared the call.

4. EXTERNAL EVIDENCE

The `X.75/X.75P CLEAR REQUEST` packet will be forwarded to the next interface.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.25 CLEAR REQUEST` packet. Use the X.75 CCITT Specifications to determine why the call was cleared. The call was abnormally cleared in the network. The clearing action was not initiated by the STE.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.3, Recommendation X.75,

"Packet-Switched Signalling System Between Public Networks Providing Data Transmission Services", 1988.

06014

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LNK-NOT-INT
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6014
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The X.75/X.75P layer 3 protocol is not initialized and the remote signalling terminal equipment (STE) sent a packet to the STE.

- The circuit state is `NOT-INIT`. This indicates that the local interface has not received an indication from level 2 to begin initialization of level 3.
- The packet state is `UNKNOWN` because the link is not in service, so there would not be a packet state.
- The packet type is `UNKNOWN` because the switch did not process the packet because the link is going out-of-service.
- The LCN is set to zero because the switch did not process the packet because the link is going out-of-service.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets when layers 3 is not initialized.

6. REFERENCES

None.

06015

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LNK-NOT-INT
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6015
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received a packet while in a state when layer 3 protocol is going out of service as soon as all existing virtual calls clear normally (no new virtual calls are allowed).

- The circuit state is `UNKNOWN` because the call is in an internal AT&T state.
- The packet state is `UNKNOWN` because the link is not in service, so there would not be a packet state.
- The packet type is `UNKNOWN` because the switch did not process the packet because the link is going out-of-service.
- The LCN is set to zero because the switch did not process the packet because the link is going out-of-service.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets when layer 3 is going out-of-service.

6. REFERENCES

None.

06016

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f SHRT-PKT
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6016
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet to the STE that is 1 byte. The switch was expecting a minimum of 3 bytes. The logical channel number (LCN) is in the second byte of the packet and the packet type is in the third byte of the packet. The packet type or LCN of the packet can not be determined.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets with only 1 byte.

6. REFERENCES

None.

06017

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f INV-GFI
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6017
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet with an invalid general format identifier (GFI) field of the packet. The switch was expecting GFI to indicate the sequence numbering mode equal to "Modulo 8".

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets with a GFI indicating something other than Modulo 8.

6. REFERENCES

None.

06018

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LCN-UNA
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6018
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet with an logical channel number (LCN) greater than the maximum LCN supported (127 is largest LCN supported).

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets on an invalid LCN.

6. REFERENCES

None.

06019

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-RST-REQ
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6019
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received a packet while in state R2.

State R2 is when the STE has sent an `X.75/X.75P RESTART REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESTART CONFIRMATION` packet. At this time, a network restart is in progress. The remote STE has sent another packet.

4. EXTERNAL EVIDENCE

None. The packet is discarded. When the network restart is complete, an `X.75/X.75P RESTART REQUEST` packet will be sent to the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets during a network restart.

6. REFERENCES

None.

06020

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6020
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent an `X.75/X.75P RESTART REQUEST` packet to the remote STE and is waiting for an `X.75/X.75P RESTART CONFIRMATION` packet (state R3). The remote STE has now sent a packet other than an `X.75/X.75P RESTART CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

None. The packet is discarded. When the network restart is complete, an `X.75/X.75P RESTART REQUEST` packet will be sent to the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE sent something other than an `X.75/X.75P RESTART CONFIRMATION` packet.

6. REFERENCES

None.

06021

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LCN-UNA
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6021
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent a packet on a unassigned logical channel number (LCN).

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE sent a packet on an unassigned LCN. For RC/V View 5.5, verify fields:

H-2W-LCN
H-IN-LCN
H-OUT-LCN
H-PVC-LCN
L-2W-LCN
L-IN-LCN
L-OUT-LCN

6. REFERENCES

RC/V View(s):

5.5 (TRUNK MEMBER)

06022

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f PVC-LCN-UNA
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6022
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet on a permanent virtual circuit (PVC) logical channel number (LCN) and the PVC is out-of-service (OOS).

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET REQUEST` packet indicating the PVC is OOS.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets to a PVC that is OOS.

6. REFERENCES

None.

06023

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6023
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet and the STE protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call.

4. EXTERNAL EVIDENCE

None. The packet will be discarded.

5. CORRECTIVE ACTION

Determine why the STE PH does not have enough resources. Determine if the PH is under engineered.

6. REFERENCES

None.

06024

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f NET-CONG
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6024
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent an `X.75/X.75P CALL REQUEST` or `X.75/X.75P CLEAR REQUEST` packet and the STE protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P CLEAR REQUEST` packet to the remote STE indicating a call setup problem.

5. CORRECTIVE ACTION

Determine why the STE PH does not have enough resources. Determine if the PH is under engineered.

6. REFERENCES

None.

06025

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-CLR-REQ
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6025
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet and the STE protocol handler (PH) does not have logical channel control block (LCCB) resources to set up the call.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P CLEAR REQUEST` packet to the remote STE indicating a call setup problem.

5. CORRECTIVE ACTION

Determine why the STE PH does not have enough resources. Determine if PH is under engineered.

6. REFERENCES

None.

06026

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f REM-ABN-RSE
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6026
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P RESET REQUEST` packet from the remote STE with a cause code of other than "DTE ORIGINATED" or "NETWORK OPERATIONAL" and a diagnostic code other than "NO ADDITIONAL INFORMATION". The network abnormally reset the call.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET CONFIRMATION` packet to the remote STE.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.75/X.75P RESET REQUEST` packet. Use the X.75 CCITT Specifications to determine why the call was reset. The call was abnormally reset in the network. The reset action was not initiated by the STE.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.3, Recommendation X.75,

"Packet-Switched Signalling System Between Public Networks Providing Data Transmission Services", 1988.

06027

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6027
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent an `X.75/X.75P INTERRUPT CONFIRMATION` packet when the STE has not sent an `X.75/X.75P INTERRUPT REQUEST` packet.

4. EXTERNAL EVIDENCE

None. The packet is discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending an `X.75/X.75P INTERRUPT CONFIRMATION` packets when no `X.75/X.75P INTERRUPT REQUEST` packet has been sent by the STE.

6. REFERENCES

None.

06028

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75 c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6028
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet that is invalid for the current state the STE is in.

4. EXTERNAL EVIDENCE

None. The packet will be discarded and the logical channel control block (LCCB) data structure will be released. The number of active calls on this trunk will be decremented by one.

5. CORRECTIVE ACTION

Using packet type, link, packet states, cause code, and diagnostic code, determine why the remote STE sent an invalid packet.

6. REFERENCES

None.

06029

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6029
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The remote signalling terminal equipment (STE) sent a packet that is invalid for the current state the STE is in.

4. EXTERNAL EVIDENCE

None. The packet will be discarded.

5. CORRECTIVE ACTION

Using packet type, link, packet states, cause code, and diagnostic code, determine why the remote STE sent an invalid packet.

6. REFERENCES

None.

06030

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-ABN-CLR
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6030
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Somewhere in the network, the call was abnormally cleared. The clear was not initiated by the DTE. An `X.75/X.75P CLEAR REQUEST` packet is being sent to the remote signalling terminal equipment (STE) and the cause code and diagnostic code indicates something other than "DTE ORIGINATED" and "NO ADDITIONAL INFORMATION".

4. EXTERNAL EVIDENCE

An `X.75/X.75P CLEAR REQUEST` packet will be sent to the remote STE with a cause and diagnostic code indicating something other than `DTE ORIGINATED` and "NO ADDITIONAL INFORMATION" respectively.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.75/X.75P CLEAR REQUEST` packet. Use the X.75 CCITT Specifications to determine why the call was cleared. The call was abnormally cleared in the network. The clearing action was not initiated by the STE.

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.3, Recommendation X.75,

"Packet-Switched Signalling System Between Public Networks Providing Data Transmission Services", 1988.

06031

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-RSE
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6031
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received a packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE. This packet is invalid for the current state of the STE.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESET REQUEST` packet will be sent to the remote DTE. The `X.75/X.75P RESET REQUEST` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

06032

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6032
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received a packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE. This packet is invalid for the current state of the STE.

4. EXTERNAL EVIDENCE

An `X.75/X.75P CLEAR REQUEST` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

None. This could be an internal timing problem that can be ignored unless it is occurring frequently.

6. REFERENCES

None.

06033

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-RSE
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6033
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent an `X.75/X.75P RESTART REQUEST` packet (state R2) to the remote STE. Before receiving an `X.75/X.75P RESTART CONFIRMATION` packet, the STE received a packet other than an `X.25 RESET REQUEST` from the remote data terminating equipment (DTE) destined for a permanent virtual circuit (PVC) logical channel number (LCN) connection to the remote STE.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESET REQUEST` packet will be sent to the remote DTE.

5. CORRECTIVE ACTION

None. The `X.75/X.75P RESET REQUEST` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

6. REFERENCES

None.

06034

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6034
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent an `X.75/X.75P RESTART REQUEST` packet to the remote STE (state R2). At this time, the STE received a packet from the remote data terminating equipment (DTE) destined for a virtual circuit (VC) logical channel number (LCN) connection to the remote STE during a restart of the link.

4. EXTERNAL EVIDENCE

An `X.75/X.75P CLEAR REQUEST` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

06035

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-RSE
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6035
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P DATA` packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE. There is an inconsistency between the STE send sequence number P(S), stored in the logical channel control block (LCCB), and the P(S) found in the packet.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESET REQUEST` packet will be sent to the remote DTE. The `X.75/X.75P RESET REQUEST` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Determine why the P(S) is inconsistent between the STE and the remote DTE.

6. REFERENCES

None.

06036

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-RSE
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6036
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P DATA` packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE. The attempt to send the `X.75/X.75P DATA` packet was directed toward the remote signaling terminal (STE). Layer 2 was unable to send the data packet to the remote STE. Layer 2 may be unable to queue the frame for transmission or a data inconsistency was found.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESET REQUEST` packet will be sent to the remote DTE. The `X.75/X.75P RESET REQUEST` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Determine why layer 2 was unable to send the packet to the remote STE.

6. REFERENCES

None.

06037

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75P
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f TSC-EXC
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6037
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) is in the process of sending an `X.75P CALL REQUEST` packet to the remote STE and the transit sub-network count (TSNC) utilities parameter field is greater than the global office parameter value set on RC/V View 8.1, field SUBNET CNT.

The purpose of the TSNC utility is to keep track of the number of X.75P interfaces within the service provider network that have been traversed in the virtual call path. The call could have exceeded the number of switch hops provisioned by the SUBNET CNT field or indicate a looping condition. The TSNC utility is valid for X.75P trunks only.

4. EXTERNAL EVIDENCE

The STE will send an `X.75P CLEAR REQUEST` packet to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

Determine why call cleared. Check that routing translations and the called number are translated correctly. The fault may lie in another switch in the service provider network. Verify that RC/V View 8.1, field SUBNET CNT, is set correctly.

6. REFERENCES

RC/V View(s):

8.1 [OFFICE PARAMETERS (MISCELLANEOUS)]

06038

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6038
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an X.25 CALL REQUEST packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE.

The X.25 CALL REQUEST packet is being processed before being sent to the remote STE. An existing error condition was found such as:

1 The X.75/X.75P trunk is in a campon state. The trunk will be removed from service after all calls are cleared. No new calls are allowed to be setup.

2 No free logical channel number (LCN) were available. All the LCNs provisioned for this interface are currently being used.

3 A problem was found in the address field of the packet.

4 Utility/facility errors were found in the packet.

5 No buffers are available to store the new packet.

6 Level 2 is unable to send packet to the remote STE. Layer 2 may be unable to queue the frame for transmission or a data inconsistency was found.

4. EXTERNAL EVIDENCE

An X.75/X.75P CLEAR REQUEST packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

For problem:

1 None.

2 Determine why no free LCNs were available. Check RC/V View 5.5 for LCN ranges.

3 If the diagnostic code indicates an Invalid Called Address (0x43) or an Invalid Calling Address (0x44), then the address may be 15 digits long. The outgoing trunk that this call is going out on has an Numbering Plan Mode of X121, so a "0" prefix will be added to the address. This will make the

address 16 digits long and to large to fit into the address field of the packet. Verify that the address is 15 digits long. If it is not 15 digits long, then no corrective action required. If it is 15 digits long, then routing may need to be changed to allow call to complete.

4 Determine why utility/facility errors were found in the packet. Using cause and diagnostic codes, determine the utility/facility error.

5 Determine why there are no buffers available. The protocol handler (PH) may be over provisioned.

6 Determine why level 2 is unable to send a frame to the remote STE.

6. REFERENCES

RC/V View(s):

5.5 (TRUNK MEMBER)
5.5 (TRUNK MEMBER)

06039

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-NET-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6039
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.25 CALL CONNECT` packet from the remote data terminating equipment (DTE) destined for a connection to the remote STE.

The `X.25 CALL CONNECT` packet is being processed before being sent to the remote STE. Possible errors are:

1 A problem was found in the address field of the packet.

2 Utility/facility errors were found in the packet.

3 No buffers are available to store the new packet.

4 Level 2 is unable to send a packet to the remote STE. Layer 2 may be unable to queue the frame for transmission or a data inconsistency was found.

4. EXTERNAL EVIDENCE

An `X.75/X.75P CLEAR REQUEST` packet will be sent to the remote DTE. The call will not be setup.

5. CORRECTIVE ACTION

For problem:

1 None.

2 Determine why utility/facility errors were found in the packet. Using the cause and diagnostic codes, determine the utility/facility error.

3 Determine why there are no buffers available. The protocol handler (PH) may be over provisioned.

4 Determine why level 2 is unable to send a frame to the remote STE.

6. REFERENCES

None.

06040

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-ABN-RSE
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6040
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) has received an `X.75/X.75P RESET REQUEST` packet from the network destined for a connection to the remote STE. The `X.75/X.75P RESET REQUEST` packet is being sent to the remote STE with a cause code other than "DTE ORIGINATED" and a diagnostic code of other than "NO ADDITIONAL INFORMATION" respectively. The call was abnormally reset.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESET REQUEST` packet will be sent to the remote STE. The `X.75/X.75P RESET REQUEST` packet will reset the data transfer mode. The data packet sequence numbers will be reset to the last acknowledged data packet. All unacknowledged data packets will be retransmitted.

5. CORRECTIVE ACTION

Examine the cause and diagnostic codes received in the `X.75/X.75P RESET REQUEST` packet. Use the X.75 CCITT Specifications to determine why the call was reset. The call was abnormally reset in the network. The reset action was not initiated by the data terminating equipment (DTE).

6. REFERENCES

Other Manual(s):

CCITT, Blue Book, Volume VIII, Fascile VIII.3, Recommendation X.75,

"Packet-Switched Signalling System Between Public Networks Providing Data Transmission Services", 1988.

06041

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LOC-RSE-REQ
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6041
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.25 RESET REQUEST` packet from the remote data terminating equipment (DTE) destined for a permanent virtual circuit (PVC) connection to the remote STE. The `X.25 RESET REQUEST` packet is indicating the far-end of the PVC is out-of-order. The STE is in a data transfer mode or waiting for an `X.75/X.75P RESET CONFIRMATION` packet to a previously sent `X.75/X.75P RESET REQUEST` packet.

4. EXTERNAL EVIDENCE

The STE will send an `X.75/X.75P RESET REQUEST` packet to the remote STE indicating the PVC is out-of-order. A report is generated indicating that the PVC is being placed into an out-of-order state.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

06042

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f UXP-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6042
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packet from the remote STE and the packet is invalid for the current state of the STE.

4. EXTERNAL EVIDENCE

None. The packet will be discarded.

5. CORRECTIVE ACTION

Determine why the remote STE is sending an `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packets in the wrong state. Determine the state the STE is in when receiving the `X.75/X.75P RESTART` packet.

6. REFERENCES

None.

06043

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f ABN-RST
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6043
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) sent an `X.75/X.75P RESTART REQUEST` packet to the remote STE. During the network restart, the remote STE sent a packet to the STE before the remote STE responded with an `X.75/X.75P RESTART CONFIRMATION` packet.

4. EXTERNAL EVIDENCE

An `X.75/X.75P RESTART REQUEST` will be sent to the remote STE to notify it that it sent out a packet before it had received the `X.75/X.75P RESTART CONFIRMATION` packet. The STE will now wait for an `X.75/X.75P RESTART CONFIRMATION` packet.

5. CORRECTIVE ACTION

None. A report is generated indicating why the STE is sending an `X.75/X.75P RESTART REQUEST` packet to the remote STE.

6. REFERENCES

None.

06044

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f RTE-FAIL
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6044
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P CALL REQUEST` packet from the remote STE and, during the process of routing the call, a manual or automatic request to remove the trunk group member was received.

4. EXTERNAL EVIDENCE

The `X.75/X.75P CALL REQUEST` packet will be discarded. The trunk group member will go out-of-service. All packet calls are torn down on the trunk group member.

5. CORRECTIVE ACTION

Determine why the trunk group member was removed from service.

6. REFERENCES

None.

06045

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f NET-CLR
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6045
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) was in the middle of a restart procedure for a switched virtual circuit (SVC) when the STE received a manual or automatic request to remove the trunk group member.

4. EXTERNAL EVIDENCE

An `X.25 CLEAR REQUEST` packet will be sent to the remote data terminating equipment (DTE) and the trunk group member is removed from service.

5. CORRECTIVE ACTION

Determine why the trunk group member was removed from service.

6. REFERENCES

None.

06046

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f NET-RESET
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6046
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) was in the middle of a restart procedure for a permanent virtual circuit (PVC) when the STE received a manual or automatic request to remove the trunk group member.

4. EXTERNAL EVIDENCE

An `X.25 RESET REQUEST` packet will be sent to the remote data terminating equipment (DTE) and the trunk group member is removed from service. The PVC will go out of service.

5. CORRECTIVE ACTION

Determine why the trunk group member was removed from service.

6. REFERENCES

None.

06047

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LNK-DWN
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6047
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) was in the middle of a restart procedure for a permanent virtual circuit (PVC) when the STE received a unconditional manual or automatic request to remove the trunk group member.

4. EXTERNAL EVIDENCE

An `X.25 RESET REQUEST` packet will be sent to the remote data terminating equipment (DTE) and the trunk group member is removed from service immediately. The PVC will go out-of-service.

5. CORRECTIVE ACTION

Determine why the trunk group member was removed from service.

6. REFERENCES

None.

06048

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f SHRT-PKT
                 LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6048
                [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packet that is too short. The minimum length of an `X.75/X.75P RESTART REQUEST` packet is 5 bytes and the minimum length of an `X.75/X.75P RESTART CONFIRMATION` packet is 3 bytes.

4. EXTERNAL EVIDENCE

The `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packet will be discarded. Depending on the state of the call, an `X.75/X.75P RESTART REQUEST` packet may be sent to the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets that are too short.

6. REFERENCES

None.

06049

Key Code Range: 06000 - 06999
Software Release: 5E10 and later
Protocol: X.75
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb {X.75|X.75P} c d e f LNG-PKT
                  LCN=g [CAUS=h] [DIAG=i] [j] [CNIC=k] [CSI=l] KEY=6049
                 [CDADDR=n] [CGADDR=o]
```

2. EXPLANATION OF VARIABLES

Refer to the 06(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The signalling terminal equipment (STE) received an `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packet that is too long. The maximum length of an `X.75/X.75P RESTART REQUEST` packet is 5 bytes and the maximum length of an `X.75/X.75P RESTART CONFIRMATION` packet is 3 bytes.

4. EXTERNAL EVIDENCE

The `X.75/X.75P RESTART REQUEST` or `X.75/X.75P RESTART CONFIRMATION` packet will be discarded. Depending on the state of the call, an `X.75/X.75P RESTART REQUEST` packet may be sent to the remote STE.

5. CORRECTIVE ACTION

Determine why the remote STE is sending packets that are too long.

6. REFERENCES

None.

11. 07-CEP

07(BASE)-A

Key Code Range: 07000 - 07999
Software Release: 5E10 - 5E11
Protocol: CEP

1. BASE FORMAT

```
PER a/a bb:bb:bb CEP c d e y
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = The common management information service element (CMISE) operation associated with error. Valid values are:

- ACTION-CONF = Action confirmed (M-ACTION-REQUEST).
- EVENT-REPT = Event report.
- LINK-REPLY = Linked reply.
- UNKNOWN = Invalid or unknown operation.

d = The module type. Valid values are:

- APPL = ATS application layer.
- CONV = ATS convergence function.
- UNKNOWN = Unknown module type.

e = Direction of transmission for the automatic terminal setup (ATS) message associated with the error. Valid values are:

- RCV = Message transmitted from the customer premises equipment (CPE) to the switch.
- XMT = Message transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmitting the frame associated with the detected error (0-127).

g = The call reference value (CRV) of the call associated with the detected error (0-32767).

h = The invoke ID.

i = Application processor data unit (APDU) type associated with the error. Valid values are:

- ERROR = ROSE error.
- INVOKE = ROSE invoke.
- NO-APDU = Invalid or not provided APDU.
- REJECT = ROSE reject.
- RESULT = ROSE result.
- UNKNOWN = Unknown APDU.

j = The object class. Valid values are:

SERV-PROF-VBR = Service profile verification basic rate.
SERV-PROF-VBR2 = Service profile verification basic rate type 2.
TERM = Terminal.

k = The linked ID (LID).

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

07(BASE)-B

Key Code Range: 07000 - 07999
Software Release: 5E12 and later
Protocol: CEP

1. BASE FORMAT

```
PER a/a bb:bb:bb CEP c d e y
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = The common management information service element (CMISE) operation or error associated with the protocol error. Valid CMISE operation values are:

ACTION-CONF = Action confirmed (M-ACTION-REQUEST).
EVENT-REPT = Event report.
LINK-REPLY = Linked reply.
UNKNOWN = Invalid or unknown operation.

Valid CMISE error values are:

ACCESS-DENIED = Access denied.
NO-SUCH-OBJ-INST = No such object instance.
PROC-FAILURE = Processing failure.
UNKNOWN = Invalid or unknown error.

d = The module type. Valid values are:

APPL = ATS application layer.
CONV = ATS convergence function.
UNKNOWN = Unknown module type.

e = Direction of transmission for the automatic terminal setup (ATS) message associated with the error. Valid values are:

RCV = Message transmitted from the customer premises equipment (CPE) to the switch.
XMT = Message transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmitting the frame associated with the detected error (0-127).

g = The call reference value (CRV) of the call associated with the detected error (0-32767).

h = The invoke ID.

i = Application processor data unit (APDU) type associated with the error. Valid values are:

ERROR = ROSE error.
INVOKE = ROSE invoke.

NO-APDU = Invalid or not provided APDU.
REJECT = ROSE reject.
RESULT = ROSE result.
UNKNOWN = Unknown APDU.

j = The object class. Valid values are:
SERV-PROF-VBR = Service profile verification basic rate.
SERV-PROF-VBR2 = Service profile verification basic rate type 2.
TERM = Terminal.

k = The linked ID (LID).

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

None.

07001

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7001
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a `CMISE ACTION-CONF` message, from the National integrated services digital network (ISDN) customer premises equipment (CPE).

The purpose of this CMISE message was to request a CPE download. This CMISE message was not enveloped by a `Q.932 REGISTER` message.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The terminal download did not complete successfully. A `Q.931 RELEASE COMPLETE` message containing either a CMISE eventReport message with "EventType = unusablePDU" or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq" or a `CMISE EVENTREPORT` message with "EventType = generalDownloadError" was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE is sending CMISE messages not enveloped by a `Q.932 REGISTER` message.

6. REFERENCES

None.

07002

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7002
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. The CMISE message contained a CMISE operation that was not in local distinguished name format.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a `CMISE EVENTREPORT` message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE. Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message contained a CMISE operation that was not in local distinguished name format.

6. REFERENCES

None.

07003

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MISS-ARG
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7003
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) containing a `CMISE OPERATION` that had no arguments.

This message either requested a terminal download or indicated the results of a terminal download.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a `CMISE EVENTREPORT` message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE. Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key code 7012, is logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message containing a `CMISE OPERATION` that had no arguments.

6. REFERENCES

None.

07004

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7004
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) containing a "baseManagedObjectClass" object ID that was not in global distinguished name format.

The purpose of this CMISE message was to request a CPE download.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The CPE download did not complete successfully. A `Q.931 RELEASE COMPLETE` message containing either a `CMISE EVENTREPORT` message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a `CMISE EVENTREPORT` message with "EventType = generalDownloadError" was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message containing an object ID that was not in global distinguished name format.

6. REFERENCES

None.

07005

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7005
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) containing an "actionType" object ID that was not in global distinguished name format.

The purpose of this CMISE message was to request a CPE download.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The CPE download did not complete successfully. A `Q.931 RELEASE COMPLETE` message containing either a `CMISE EVENTREPORT` message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a message containing an object ID that was not in global distinguished name format.

6. REFERENCES

None.

07006

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7006
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a `CMISE EVENTREPORT` message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) not enveloped by a `Q.931 RELEASE COMPLETE` message.

A CPE download was in progress when this message was received.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The CPE download did not complete successfully. A subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message not enveloped by a `Q.931 RELEASE COMPLETE` message.

6. REFERENCES

None.

07007

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7007
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) containing a "managedObjectClass" object ID that was not in global distinguished name format.

A CPE download was in progress when this message was received.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. A subsequent PER, key code 7012, was logged. The CPE download did not complete successfully.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message containing an object ID that was not in global distinguished name format.

6. REFERENCES

None.

07008

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7008
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE) containing an "eventType" object ID that was not in global distinguished name format.

A CPE download was in progress when this message was received.

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The CPE download did not complete successfully. A subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message containing an "eventType" object ID that was not in global distinguished name format.

6. REFERENCES

None.

07009

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7009
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a common management information service element (CMISE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE).

This message either requested a terminal download or indicated the results of a terminal download. The only valid CMISE operations are:

- actionConfirmed
- eventReport

4. EXTERNAL EVIDENCE

The switch discarded the CMISE message. The terminal download did not complete successfully.

5. CORRECTIVE ACTION

Determine why the CPE sent a CMISE message with an invalid operation.

6. REFERENCES

None.

07010

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-RSLT
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7010
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in respond to the facility invoke from the switch. The message either contains no operation value in the return result component of the FIE or the operation value was unknown.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the `FACILITY` message with proper operation value for the return result.

6. REFERENCES

None.

07011

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-NO-PDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7011
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch that did not contain a protocol data unit (PDU). This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully.

The PDU is required because it contains the service profile identifier (SPID) of the CPE requesting the abort or sending the download complete.

4. EXTERNAL EVIDENCE

The download is automatically aborted as a result of the PDU not being present. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message without the required PDU.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07012

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-NO-PDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7012
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch requesting an abort of the download. The switch was unable to decode the protocol data unit (PDU) part of the `Q.931 RELEASE COMPLETE` message.

4. EXTERNAL EVIDENCE

The download is automatically aborted as a result of not being able to decode the PDU. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message with a PDU that could not be decoded by the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07013

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e RES-LIM
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7013
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

While processing a download request, an internal error occurred in the convergence layer. This error is a result of a switch resource limitation.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing an application protocol data unit (APDU) of `ROSE REJECT` is sent to the customer premises equipment (CPE) that requested the download. The download is aborted.

5. CORRECTIVE ACTION

None.

6. REFERENCES

None.

07014

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UNUSABLE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7014
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A Q.932 REGISTER message, requesting a download, has been received by the switch. After decoding the abstract syntax notation one (ASN.1) application protocol data unit (APDU) contained within the Q.932 REGISTER message, it was determined that one or more information components are invalid.

Either the object instance, object type, or action type is invalid; or, the length of the service profile identifier (SPID) is not between the valid range of 3 to 20. These values are required, indicate that a terminal download is requested, and identifies the customer premises equipment (CPE) that has made the request.

An internal counter within the switch is incremented every time a download is requested. A CPE is allowed only three downloads within a 10 minute period. Including this download request, the CPE has not yet exceeded this threshold.

4. EXTERNAL EVIDENCE

The switch sends a Q.931 RELEASE COMPLETE message to the CPE containing an APDU of "ROIV-SPVBUNUSABLEAPDU-EVENTREPORT" indicating that it is unable to process the download request because it received an invalid APDU. The download request is aborted.

5. CORRECTIVE ACTION

Determine why the CPE sent a Q.932 REGISTER message with an invalid object class, object instance, action type, or SPID.

6. REFERENCES

None.

07015

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UNUSABLE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7015
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch. This message indicates that the CPE is either requesting an abort of the download, or responding to the switch that the download completed successfully.

After decoding the abstract syntax notation one (ASN.1) application protocol data unit (APDU) contained within the `Q.931 RELEASE COMPLETE` message, it was determined that one or more information components are invalid. Either the object instance, object type, or action type is invalid; or, the length of the service profile identifier (SPID) is not between the valid range of 3 to 20. These values are required and indicate that the CPE is requesting termination of the download, and identifies the CPE that has made the request.

4. EXTERNAL EVIDENCE

The download is automatically aborted because the switch received an invalid APDU. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message with an invalid object class, object instance, action type, or SPID.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07016

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-T-EXP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7016
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch requesting an abort of the download. The abort was sent because an internal timer on the CPE expired before the download was completed (that is, prior to the CPE receiving all `Q.932 FACILITY` and `Q.932 SEGMENT` messages.)

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE timer expired prior to the download completing. Determine if any or all `Q.932 FACILITY` or `Q.932 SEGMENT` messages were sent by the switch.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07017

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-PDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7017
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch requesting an abort of the download. The abort was sent because the CPE received a `Q.932 FACILITY` or `Q.932 SEGMENT` message containing a protocol data unit (PDU) that was not expected or could not be used.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there exists an inconsistency between switch translations and what the CPE is expecting. Check RC/V View 23.2.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07018

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-INV-ER
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7018
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

During a download, the customer premises equipment (CPE) sent a `Q.931 RELEASE COMPLETE` message to the switch requesting an abort of the download. The reason for the abort, that is specified by the event type field that is contained in the application Protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message, is either invalid or unrecognized.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message to abort the download, but included an invalid or unrecognized event type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07019

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e CA-NOT-SUPPORT
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7019
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received information for call appearances (CAs). This indicates that the CPE is provisioned for either basic call or basic electronic key telephone service (EKTS), but not call appearance call handling (CACH) EKTS.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 23.2. Either modify this RC/V view to match the characteristics of this CPE, or provision the CPE to match the characteristics of this RC/V View.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07020

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e IGRP-NOT-SPRTD
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7020
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received information for INTERCOM groups. This indicates that the CPE is provisioned for either basic call or basic electronic key telephone service (EKTS), but not call appearance call handling (CACH) EKTS.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V Views 23.2 and 23.21. Either modify these RC/V Views to match the characteristics of this CPE, or provision the CPE to match the characteristics of these RC/V Views.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)
23.21 (ISDN TERMINAL TYPE C/D KEY SYSTEM)

07021

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e FA-FI-OO-RANGE
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7021
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received feature activator (FA) and feature indicator (FI) values that are out of range.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 12.5 using field CONFIG GRP from RC/V View 23.2 for correct FA and FI values. The feature button numbers listed on RC/V View 12.5 is equivalent to the FA and FI values. Either modify the feature button on RC/V View 12.5 to match the characteristics of the CPE, or provision the CPE to match the feature button values of this RC/V View.

6. REFERENCES

RC/V View(s):

12.5 (CONFIGURATION GROUP DEFINITION)
23.2 (DIGITAL SUBSCRIBER LINE)

07022

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e CA-ID-OO-RANGE
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7022
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received one or more call appearance (CA) identifiers that are out of range.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 23.2, fields CA and CA-QTY, for correct CA ranges.

Either modify these fields to match the characteristics of the CPE, or provision the CPE to match the values shown on this RC/V View.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07023

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e DNAPP-OO-RANGE
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7023
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received one or more directory number appearances (DNAs) that are out of range.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 23.2 for correct DNA ranges. Verify fields:

AU-DNA
AU-DNA-QTY
K56-DNA
K56-DNA-QTY
K64-DNA
K64-DNA-QTY
SP-DNA
SP-DNA-QTY

Either modify these fields to match the characteristics of the CPE, or provision the CPE to match the values shown on this RC/V View.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07024

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e TOO-MANY-DNS
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7024
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received too many directory numbers (DNs).

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 23.2 for the correct list of DNs. Verify fields:

CKT-TN
DPKT-TN
DSL-TN
ODB-TN

Either modify these fields to match the characteristics of the CPE, or provision the CPE to match the values shown on this RC/V View.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07025

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BC-NOT-SUPPRTD
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7025
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful because the CPE received a bearer capability (BC) that it does not support.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the switch translations and what the CPE is expecting. Check RC/V View 23.2 for correct BCs. Verify fields:

CSD
CSV
DPKT
ODB

Either modify these fields to match the characteristics of the CPE, or provision the CPE to match the values shown on this RC/V View.

6. REFERENCES

RC/V View(s):

23.2 (DIGITAL SUBSCRIBER LINE)

07026

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-INV-ER
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7026
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message indicates that the download was not successful. However, the PDU was not populated with a reason for the unsuccessful download.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

As requested by the CPE, the download is aborted.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message to abort the download, but did not include a reason.

6. REFERENCES

None.

07027

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e USR-ABT-INV-ER
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7027
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch sent the downloadable information to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages), and is waiting for a response from the CPE. The CPE responded with a `Q.931 RELEASE COMPLETE` message.

The event type field that is contained in the application protocol data unit (APDU) of the `Q.931 RELEASE COMPLETE` message is not populated with a valid reason. It is unknown whether the download completed successfully.

Refer to TR-NWT-1281 for additional information regarding event types.

4. EXTERNAL EVIDENCE

The download is automatically aborted as a result of the invalid event type. The number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.931 RELEASE COMPLETE` message but did not include a valid event type.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07028

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e TERM-NOT-INIT
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7028
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. However, the switch could not download the information because the CPE has become unbound (that is, layer 3 went down and the CPE is not initialized).

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message containing an application protocol data unit (APDU) of "ROER-TERMINALNOTINITIALIZED". This message indicates that the switch is unable to process the download request, and the request is aborted.

5. CORRECTIVE ACTION

Determine why the CPE became unbound (uninitialized) after the download request was already accepted by the switch.

6. REFERENCES

None.

07029

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e NON-EXST-SPID
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7029
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. However, the switch could not download the information because the application protocol data unit (APDU) embedded within the `Q.932 REGISTER` message, contained a service profile identifier (SPID) that is not associated with any terminal endpoint identifier (TEI) on the switch.

The SPID is used to associate a download request with an initialized terminal.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message containing an APDU of "ROER-NOSUCHOBJECTINSTANCE" to the CPE indicating that it is unable to process the download request, and the request is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the SPID provisioned on the CPE and that assigned by the switch. Execute OP:CPE to determine the valid SPID for the CPE.

Refer to OP:CPE in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

07030

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e INCONSIST-SPID
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7030
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. However, the switch could not download the information because the application protocol data unit (APDU) embedded within the `Q.932 REGISTER` message, contained a service profile identifier (SPID) that is associated with another terminal endpoint identifier (TEI) on the switch (that is, although the switch recognized the SPID, it was not the SPID associated with the CPE making the request.)

The SPID is used to associate a download request with an initialized terminal.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message containing an APDU of "ROER-ACCESSDENIED" to the CPE indicating that it is unable to process the download request, and the request is aborted.

5. CORRECTIVE ACTION

Determine why there is an inconsistency between the SPID provisioned on the CPE and that assigned by the switch. Execute OP:CPE to determine the valid SPID for the CPE.

Refer to OP:CPE in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

07031

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e FAIL-RPT-RSLTS
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7031
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch has sent the downloadable data to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages) and is waiting for a `Q.931 RELEASE COMPLETE` response message from the CPE stating whether or not the download was successful.

After waiting six seconds, the switch has not received an indication of a response from the CPE. Within six seconds, the switch expects to receive either a response from the CPE or an indication that the five second internal alarm has fired. The CPE is expected to respond within five seconds. The switch waits an extra second (that is, six seconds instead of five) to allow time for processing of the response or internal alarm.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message containing an application protocol data unit (APDU) of "ROIV-SPVB-TIMEREXPIRY-EVENTREPORT" to the CPE indicating that it is unable to complete the download, and the request is aborted.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to the switch with a `Q.931 RELEASE COMPLETE` message within five seconds.

6. REFERENCES

None.

07032

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e TOO-FREQ-RQSTS
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7032
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. However, the switch could not process the download request because this CPE has exceeded the allowed three downloads within a ten minute period. This request is the 4th, 5th or 6th request within this ten minute interval.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message to the CPE with an application protocol data unit (APDU) of "ROER-SPVB-TOOFREQUENTREQUESTS-EVENTREPORT" indicating that the switch can not process the download request, and the request is aborted. If the `Q.932 REGISTER` message is valid (that is, with no errors), then the number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

Determine if the switch is responding to download requests. If yes, then no corrective action required. Wait 10 or more minutes before trying another download.

6. REFERENCES

Other Manual(s):

235-600-750 *Output Messages*

07033

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e TOO-FREQ-RQSTS
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7033
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. However, the switch could not process the download request because this CPE has exceeded the allowed three downloads within a ten minute period. At this point, the CPE has requested more than six downloads within a ten minute period.

4. EXTERNAL EVIDENCE

The switch will send a `Q.931 RELEASE COMPLETE` message to the CPE with an application protocol data unit (APDU) of "ROER-SPVB-GENERALDOWNLOADERROR-EVENTREPORT" and the download request will not be processed. The CPE will be taken out of service. If the `Q.932 REGISTER` message is valid (that is, with no errors), then the number of automatic terminal setup (ATS) failures, shown at PART 11 of the PLNT-24 report, is incremented. Refer to REPT:PLNT24-PT11 in the Output Messages manual for additional information.

5. CORRECTIVE ACTION

None. Wait until the CPE is put back in-service before trying another download. Execute OP:CPE to determine if the CPE is back in-service.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

235-600-750 *Output Messages*

07034

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e FAIL-RPT-RSLTS
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7034
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A customer premises equipment (CPE) has requested a download by sending a `Q.932 REGISTER` message to the switch. The switch has sent the downloadable data to the CPE (that is, all `Q.932 FACILITY` and `Q.932 SEGMENT` messages) and is waiting for a `Q.931 RELEASE COMPLETE` response message from the CPE stating whether or not the download was successful.

After waiting five seconds, an internal alarm fired indicating that the CPE did not respond within the required five seconds.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 RELEASE COMPLETE` message containing an application protocol data unit (APDU) of "ROIV-SPVB-TIMEREXPIRY-EVENTREPORT" to the CPE indicating that it is unable to complete the download, and the request is aborted.

5. CORRECTIVE ACTION

Determine why the CPE did not respond to the switch with a `Q.931 RELEASE COMPLETE` message within five seconds.

6. REFERENCES

None.

07035

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e RES-LIM
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7035
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. While processing the message, the switch ran out of a resource, rlMALLOC tuples.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The switch discarded the common management information service element (CMISE) message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing a RO-Reject message with reason equal to "resourceLimitation". Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key 7012, was logged.

5. CORRECTIVE ACTION

rlMALLOC tuples are used for both the automatic terminal setup (ATS) feature and for TR303 remote terminal (RT) OA&M messages.

If this key code is only seen rarely, this problem can be ignored because it indicates that a critical resource was momentarily exhausted, but that when the load leveled off, the resource became plentiful again.

If this Key code is reported persistently, either these two features are too heavily used on this switching module (SM) and their use needs to be spread across other SMs, or the number of rlMALLOC tuples needs to be increased by AT&T customer support.

Refer to the TECHNICAL ASSISTANCE portion of the INTRODUCTION for additional information.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

07036

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7036
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. The switch's abstract syntax notation one (ASN.1) decoder was unable to decode the message, so the message must have been badly structured.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a common management information service element (CMISE) eventReport message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE. Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a ROSE message that can not be decoded.

6. REFERENCES

None.

07037

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7037
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. This ROSE message contains an unrecognized APDU type. The only valid APDU type for the ATS protocol is RO-Invoke.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a common management information service element (CMISE) eventReport message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE. Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a ROSE message with an invalid APDU type.

6. REFERENCES

None.

07038

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7038
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. The ROSE message contained an invoke ID which was not within the valid range of -128 through 127.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a common management information service element (CMISE) eventReport message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE. Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a ROSE message with an out of range invoke ID.

6. REFERENCES

None.

07039

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: ATS
Type: Output
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7039
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931/Q.932 message containing a remote operation service equipment (ROSE) message, from the National integrated services digital network (ISDN) customer premises equipment (CPE). This message either requested a terminal download or indicated the results of a terminal download. This ROSE message contains an unrecognized ROSE operation type. The only valid ROSE operations for the ATS protocol are:

- CMISE actionConfirmed
- CMISE eventReport

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. If the message was a request for a terminal download, then a `Q.931 RELEASE COMPLETE` message containing either a common management information service element (CMISE) eventReport message with "EventType = unusablePDU", or a RO-Error message with a reason of "ProcessorFailure:tooFreqReq", or a CMISE eventReport message with "EventType = generalDownloadError" was sent to the CPE.

Otherwise, the message was received while a terminal download was in progress. The terminal download did not complete successfully and a subsequent PER, key code 7012, was logged.

5. CORRECTIVE ACTION

Determine why the CPE sent a ROSE message with an invalid operation type.

6. REFERENCES

None.

07040

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7040
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) with a ROSE component type of Return Result, Return Error, or Reject when a ROSE Invoke was expected.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of mistyped component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message without a ROSE Invoke component.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07041

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7041
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) that had an error in the length of a protocol data unit (PDU). Either the wrong length format was used or the length was inconsistant with that of the FACIE.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of badly structured component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message with the FACIE coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07042

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7042
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) missing a mandatory protocol data unit (PDU).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of mistyped component was sent to the CPE. If the missing PDU was the Invoke ID then the Null ID will be used in the ROSE Reject.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message was coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07043-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E13
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e RES-LIM
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7043
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch and either the switching module (SM) processor that received the message was in isolation or the transaction capabilities application part (TCAP) common channel signaling system 7 (CCS7) network was not orperational.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of resource limitation was sent to the CPE.

5. CORRECTIVE ACTION

Investigate the SM isolation problem or the CCS7 network status.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07043-B

Key Code Range: 07001 - 07999
Software Release: 5E14 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e RES-LIM
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7043
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switchbut the transaction capabilities application part (TCAP) common channel signaling system 7 (CCS7) network was not orperational.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of resource limitation was sent to the CPE.

5. CORRECTIVE ACTION

Investigate the CCS7 network status.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07044

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e LNK-RESP-UXP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7044
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) with a linked id protocol data unit (PDU).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of linked response unexpected was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE is attempting to invoke unsupported linked operation.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07045

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e INV-OBJ-INST
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7045
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) requesting an unsupported operation.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of unrecognized operation was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE was invoking an unsupported operation.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07046

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7046
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) which contained a sequence protocol data unit (PDU) whose length was either coded using the wrong length format (long vs. short) or the sequence length was inconsistant with the length of the FACIE.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of badly structured component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message with the sequence PDU length of the FACIE coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07047

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7047
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) without the mandatory sequence protocol data unit (PDU).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of mistyped component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message without a sequence PDU coded in the FACIE.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07048

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7048
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) without the mandatory sequence protocol data unit (PDU).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of mistyped component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message without a sequence PDU coded in the FACIE.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07049

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7049
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) specifying the envelopNCAData service operation. This request was missing a mandatory argument defined for this operation.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of mistyped argument was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message requesting the envelopNCAData service operation without all mandatory arguments.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07050

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7050
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) without the mandatory sequence protocol data unit (PDU).

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of mistyped component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message without a sequence PDU coded in the FACIE.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07051

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7051
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) requesting the envelopNCAData service operation. There was an inconsistancy between the number of bytes of arguments and the length of the sequence protocol data unit (PDU). e.g. number of bytes of argument PDUs greater than encoded length of sequence PDU.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of badly structured component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message with the length of the sequence PDU coded incorrect;y.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07052

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7052
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) requesting the envelopNCAData service operation. There was an inconsistancy between the number of bytes of arguments and the length of the sequence protocol data unit (PDU). e.g. number of bytes of argument PDUs less than encoded length of sequence PDU.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of badly structured component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message coded inconsistantly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07053

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-ARG
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7053
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE). After protocol conversion from integrated services digital network (ISDN) to transaction capabilities application part (TCAP) common channel signaling system 7 (CCS7) it was determined that the number of bytes of ISDN envelopNCAData arguments exceeds the number of bytes that can be sent in a TCAP CCS7 NCAData message.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of mistyped argument was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message was coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07054

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-ARG
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7054
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE). After protocol conversion from integrated services digital network (ISDN) to transaction capabilities application part (TCAP) common channel signaling system 7 (CCSS7) it was determined that the number of bytes of ISDN envelopNCAData arguments exceeds the number of bytes that can be sent in a TCAP SS7 NCAData message.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of mistyped argument was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message coded incorrectly.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07055

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e RES-LIM
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7055
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE). After conversion from ISDN to transaction capabilities application part (TCAP) common channel signaling system 7 (CCS7) protocol it was determined that the destination TCAP switching module (SM) was unavailable.

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject invoke error of resource limitation was sent to the CPE.

5. CORRECTIVE ACTION

Determine the reason for the SM isolation.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

07056

Key Code Range: 07001 - 07999
Software Release: 5E10 and later
Protocol: CEP
Application: NESS
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7056
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The customer premises equipment (CPE) sent a `Q.932 REGISTER` message to the switch containing a facility information element (FACIE) with an unrecognized remote operation service equipment (ROSE) component type.

Valid ROSE component types are:

- Invoke
- Return Result
- Return Error
- Reject

4. EXTERNAL EVIDENCE

A `Q.931 RELEASE COMPLETE` message containing a ROSE Reject general error of unknown component was sent to the CPE.

5. CORRECTIVE ACTION

Determine why the CPE sent a `Q.932 REGISTER` message with an unknown ROSE component type.

6. REFERENCES

Other Manual(s):

235-900-301 *ISDN Basic Rate Interface Specification*

235-190-126 *Advanced Services Platform Release 0.1B*

07057

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-ERR
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7057
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in respond to the facility invoke from the switch. The message contains an unrecognized error value in the return error component of the FIE.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send a `FACILITY` message with proper error value in the return error component.

6. REFERENCES

None.

07058

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UNK-INVOKE-ID
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7058
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in respond to the facility invoke from the switch. The message contains an non-active invoke identifier in the return result component of the FIE.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send a proper invoke id in response to invoke.

6. REFERENCES

None.

07059

Key Code Range: 07000 - 07999
Software Release: 5E10 and later
Protocol: CEP
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UNK-INVOKE-ID
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7059
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message in respond to the facility invoke from the switch. The message contains an non-active invoke identifier in the return error component of the FIE.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send a proper invoke id in response to invoke.

6. REFERENCES

None.

07060

Key Code Range: 07001 - 07999
Software Release: 5E11 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7060
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message which contains a PCN request (CNAM Operation). The switch expects to receive the PCN request in a `Q.931 SETUP` message.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the PCN request in a SETUP message.

6. REFERENCES

None.

07061

Key Code Range: 07001 - 07999
Software Release: 5E11 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-ARG
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7061
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message which contains error or missing argument of CNAM operation.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct argument for the CNAM operation in FACILITY IE.

6. REFERENCES

None.

07062

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7062
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message which contained an EEECTE request (TBCT Operation). The switch expected to receive the request in a Q.931 FACILITY message.

4. EXTERNAL EVIDENCE

The switch sends a Q.931 FACILITY message containing a reject component with problem tag 129 (invoke problem) and problem value 1 (unrecognized operation).

5. CORRECTIVE ACTION

Contact the CPE to send the EEECTE request in the FACILITY IE of a Q.931 FACILITY message instead of a Q.931 SETUP message.

6. REFERENCES

None.

07063-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7063
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP or FACILITY` message which contains unrecognized component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct component in FACILITY IE.

6. REFERENCES

None.

07063-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7063
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL, or REL_COMP` message which contained an unrecognized component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct component in a FACILITY IE.

6. REFERENCES

None.

07064-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7064
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 SETUP or FACILITY message which contains component(such as PSRETRES, PSRETERR, or PSREJECT) not for CNAM operation.

4. EXTERNAL EVIDENCE

The switch sends a Q.931 FACILITY message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct component for the CNAM operation in FACILITY IE.

6. REFERENCES

None.

07064-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7064
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained a component (such as return result, return error, or reject) that was not expected by the switch. The switch expected to receive an invoke component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct component (invoke) in the FACILITY IE.

6. REFERENCES

None.

07065-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7065
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP or FACILITY` message which contains untranslatable invoke component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct invoke component for CNAM operation in FACILITY IE.

6. REFERENCES

None.

07065-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e BSTRUCT-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7065
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained an untranslatable invoke component.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct invoke component in the FACILITY IE.

6. REFERENCES

None.

07066-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7066
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP or FACILITY` message which contains invoke component with mistype operation for CNAM.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct CNAM operation in FACILITY IE.

6. REFERENCES

None.

07066-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-APDU
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7066
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained an invoke component with a mistyped operation.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct operation in the FACILITY IE.

6. REFERENCES

None.

07067-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e DUP-INVOC
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7067
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP or FACILITY` message which contains duplicate invoke identifier.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the correct invoke identifier in FACILITY IE.

6. REFERENCES

None.

07067-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e DUP-INVOC
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7067
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained a duplicate invoke identifier.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct invoke identifier in the FACILITY IE.

6. REFERENCES

None.

07068-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e LNK-RESP-UXP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7068
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP or FACILITY` message which contains linked identifier unexpected.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact CPE to send the proper link identifier for the CNAM operation in FACILITY IE.

6. REFERENCES

None.

07068-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e LNK-RESP-UXP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7068
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained an unexpected linked identifier.

4. EXTERNAL EVIDENCE

The switch sends a `Q.931 FACILITY` message with a reject component.

5. CORRECTIVE ACTION

Contact the CPE to not send the linked identifier in the FACILITY IE.

6. REFERENCES

None.

07069-A

Key Code Range: 07001 - 07999
Software Release: 5E10 - 5E12
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e REJ-UNKOP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7069
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message which contains unrecognized operation.

4. EXTERNAL EVIDENCE

The switch may send a `Q.931 FACILITY` message with a reject component, may clear the call, or discard the FACILITY IE if instructed in the FACILITY IE.

5. CORRECTIVE ACTION

Contact CPE to sen the correct CNAM operation in FACILITY IE.

6. REFERENCES

None.

07069-B

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PCN
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e REJ-UNKOP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7069
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a Q.931 SETUP, FACILITY, DISC, REL or REL_COMP message which contained an unrecognized invoke operation under the "Networking Extensions" Protocol Profile.

4. EXTERNAL EVIDENCE

For a Q.931 SETUP or FACILITY message, the switch may send a Q.931 FACILITY message with a reject component, may clear the call, or discard the FACILITY IE if instructed in the FACILITY IE.

5. CORRECTIVE ACTION

Contact the CPE to send the correct operation in the FACILITY IE.

6. REFERENCES

None.

07070

Key Code Range: 07000 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PRI
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e UREC-OP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=07070
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP` message which contained a D-Channel ID request. The switch expected to receive the request in a Q.931 FACILITY message.

4. EXTERNAL EVIDENCE

The switch sends a Q.931 FACILITY message containing a reject component with problem tag 129 (invoke problem) and problem value 1 (unrecognized operation).

5. CORRECTIVE ACTION

Contact the CPE to send the D-Channel ID request in the FACILITY IE of a Q.931 FACILITY message instead of a Q.931 SETUP message.

6. REFERENCES

None.

07071

Key Code Range: 07000 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: TBCT
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e MTYPE-ARG
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=07071
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 FACILITY` message which contained an error or was missing the mandatory link-ID argument of the EEECT request (TBCT Operation).

4. EXTERNAL EVIDENCE

The switch sends a Q.931 FACILITY message with a return error component.

5. CORRECTIVE ACTION

Contact the CPE to send the correct argument for the EEECT request in the FACILITY IE.

6. REFERENCES

None.

07072

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: TBCT
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e DUP-INVOC
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7072
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message on a primary rate interface (PRI) that contained an EEECTE (Enhanced Explicit Explicit Call Transfer Execute) operation in an invoke component of the `FACILITY IE`, but a previous invoke component, in the same `FACILITY IE`, already contained an EEECTE or DCID (D-Channel ID) operation. Only one EEECTE or DCID request is allowed in the `FACILITY IE`.

4. EXTERNAL EVIDENCE

The invalid EEECTE request is not accepted. For a `Q.931 FACILITY or SETUP` message, the switch sends a `Q.931 FACILITY` message containing a return error component with error value 10 (Supplementary Service Interaction Not Allowed).

5. CORRECTIVE ACTION

Contact CPE to not send multiple EEECTE or DCID requests in the FACILITY IE.

6. REFERENCES

None.

07073

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PRI
Type: Output
Error Analysis: no\"ERROR ANALYSIS

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e DUP-INVOC
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7073
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message on a primary rate interface (PRI) that contained a DCID (D-Channel ID) operation in an invoke component of the `FACILITY IE`, but a previous invoke component, in the same `FACILITY IE`, already contained a DCID or EEECTE (Enhanced Explicit Explicit Call Transfer Execute) operation. Only one DCID or EEECTE request is allowed in the `FACILITY IE`.

4. EXTERNAL EVIDENCE

The invalid DCID request is not accepted. For a `Q.931 FACILITY or SETUP` message, the switch sends a `Q.931 FACILITY` message containing a return error component with error value 10 (Supplementary Service Interaction Not Allowed).

5. CORRECTIVE ACTION

Contact CPE to not send multiple EEECTE or DCID requests in the FACILITY IE.

6. REFERENCES

None.

07074

Key Code Range: 07001 - 07999
Software Release: 5E13 and later
Protocol: CEP
Application: PRI
Type: Output
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CEP c d e REJ-UNKOP
                 TEI=f CRV=g h i [IID=j] [LID=k] KEY=7074
```

2. EXPLANATION OF VARIABLES

Refer to the 07(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `Q.931 SETUP, FACILITY, DISC, REL or REL_COMP` message which contained an unrecognized invoke operation under the "Supplementary Services" Protocol Profile.

4. EXTERNAL EVIDENCE

For a `Q.931 SETUP or FACILITY` message, the switch sends a `Q.931 FACILITY` message containing a reject component with problem tag 129 (invoke problem) and problem value 1 (unrecognized operation).

5. CORRECTIVE ACTION

Contact the CPE to send the correct operation in the FACILITY IE.

6. REFERENCES

None.

12. 08-IDLC

08(BASE)-A

Key Code Range: 08000 - 08999
Software Release: 5E10 - 5E11
Protocol: IDLC

1. BASE FORMAT

```
PER a/a bb:bb:bb IDLC c d e y
                 TEI=f g h i KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = The common management information service element (CMISE) operation associated with error. Valid values are:

- ACTION = Action.
- ACTION-CONF = Action confirmed.
- CREATE = Create.
- DELETE = Delete.
- EVENT-REPT = Event report.
- EVNT-RPT-CONF = Event report confirmed.
- GET = Get.
- LINK-REPLY = Linked reply.
- SET = Set.
- SET-CONFIRM = Set confirmed.
- UNKNOWN = Null or unknown operation.

d = The IDLC module type. Valid values are:

- ASN1 = ASN.1.
- ASN1-DECODE = ASN.1 decode.
- ASN1-ENCODE = ASN.1 encode.
- ASN1-GEN = ASN.1 generated code.
- CMISE = CMISE.
- CMISE-DECODE = CMISE decode.
- CMISE-ENCODE = CMISE encode.
- IDLCSE = IDLCSE.
- IDLCSE-DECODE = IDLCSE decode.
- IDLCSE-ENCODE = IDLCSE encode.
- ROSE = ROSE.
- ROSE-DECODE = ROSE decode.
- ROSE-ENCODE = ROSE encode.
- UNKNOWN = Unknown or null module.

e = Direction of transmission for the IDLC message associated with the error. Valid values are:

- RCV = Message transmitted from the customer premises equipment (CPE) to the switch.
- XMT = Message transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmit the frame associated with the detected error (0-127).

g = The transaction ID associated with the APDU.

h = The APDU type associated with the error. Valid values are:

ERROR = Remote operation service equipment (ROSE) Error.
INVOKE = ROSE invoke.
NO-APDU = Invalid or not provided APDU.
REJECT = ROSE reject.
RESULT = ROSE result.
UNKNOWN = Unknown APDU.

i = The object class identifier associated with the error. Valid values are:

AISDN-FR-PATH-TERM = ATT ISDN framed path termination.
ANA-LINE-TERM = Analog line termination.
ANETWORK-ELEM = ATT network element.
APM-FREEZE-SCHED = ATT PM freeze schedule.
CHAN-TERM = Channel termination.
CIRCUIT-PACK = Circuit pack.
CROSS-CONNECT = Cross connect.
DDS-LINE-TERM = DDS lint termination.
DISCRIMINATOR = Discriminator.
DS0-CHAN-TERM = DS0 channel termination.
DS1-FR-PATH-TERM = DS1 framed path termination.
DS1-LINE-TERM = DS1 line termination.
EQUIPMENT = Equipment.
EQUIP-HOLD = Equipment holder.
EVENT-RPT-CNTRL = Event report control.
FRAME-PATH-TERM = Framed path termination.
IDLC-CP-PROF = IDLC call processing profile.
IDLC-DL-PROF = IDLC data link profile.
IDLC-DL-TERM = IDLC data link termination.
IDLC-TERMINAL = IDLC terminal.
ISDN-FR-PATH = ISDN framed path termination.
ISDN-LINE-TERM = ISDN line termination.
ISDN-PER-SYS = ISDN PER system profile.
LINE-TERM = Line termination.
MAN-OP-SCHED = Management operations schedule.
MEMORY = Memory.
MTA-PATH-TERM = Metallic test access path termination.
MTA-UNIT = Metallic test access unit.
NETWORK-ELEM = Network element.
NULL-OBJ = Invalid or not provided object class.
PM-REPT-SCHED = PM report scheduled.
PM-INT-PROF = PM interval profile.
PROTECT-GRP = Protection group.
PROT-GRP-UNIT = Protection group unit.
QDS0-CHAN-TERM = Quarter DS0 channel termination.
SPECIAL-ANALOG = Special analog line termination.

TA-PATH-TERM = Test access path termination.
TA-UNIT = Test access unit.
TERM-POINT = Termination point.
TEST-RESP-CIRC = Test response circuit.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08(BASE)-B

Key Code Range: 08000 - 08999
Software Release: 5E12 and later
Protocol: IDLC

1. BASE FORMAT

```
PER a/a bb:bb:bb IDLC c d e y
                 TEI=f g h i KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = The common management information service element (CMISE) operation or error associated with the protocol error. Valid CMISE operation values are:

ACTION = Action.
ACTION-CONF = Action confirmed.
CREATE = Create.
DELETE = Delete.
EVENT-REPT = Event report.
EVNT-RPT-CONF = Event report confirmed.
GET = Get.
LINK-REPLY = Linked reply.
SET = Set.
SET-CONFIRM = Set confirmed.
UNKNOWN = Null or unknown operation.

Valid CMISE error values are:

ACCESS-DENIED = Access denied.
CLASS-INST-CNFL = Class instance conflict.
COMPLEXITY-LIM = Complexity limitation.
DUP-MAN-OBJ-INST = Duplicate managed object instance.
GET-LIST-ERROR = Get list error.
INV-ARG-VAL = Invalid argument value.
INV-ATTR-VAL = Invalid attribute value.
INV-FILTER = Invalid filter.
INV-OBJ-INST = Invalid object instance.
INV-SCOPE = Invalid scope.
MISS-ATTR-VAL = Missing attribute value.
MISTYPED-OPER = Mistyped operation.
NO-SUCH-ACTION = No such action.
NO-SUCH-ARG = No such argument.
NO-SUCH-ATTR = No such attribute.
NO-SUCH-EV-TYP = No such event type.
NO-SUCH-INVK-ID = No such invoke ID.
NO-SUCH-OBJ-CLS = No such object class.
NO-SUCH-OBJ-INST = No such object instance.
NO-SUCH-REF-OBJ = No such reference object.

OPER-CANCELLED = Operation cancelled.
PROC-FAILURE = Processing failure.
SET-LIST-ERROR = Set list error.
SYNC-NOT-SUPP = Synchronization not supported.
UNKNOWN = Null or unknown error.

d = The IDLC module type. Valid values are:
ASN1 = ASN.1.
ASN1-DECODE = ASN.1 decode.
ASN1-ENCODE = ASN.1 encode.
ASN1-GEN = ASN.1 generated code.
CMISE = CMISE.
CMISE-DECODE = CMISE decode.
CMISE-ENCODE = CMISE encode.
IDLCSE = IDLCSE.
IDLCSE-DECODE = IDLCSE decode.
IDLCSE-ENCODE = IDLCSE encode.
ROSE = ROSE.
ROSE-DECODE = ROSE decode.
ROSE-ENCODE = ROSE encode.
UNKNOWN = Unknown or null module.

e = Direction of transmission for the IDLC message associated with the error. Valid values are:
RCV = Message transmitted from the customer premises equipment (CPE) to the switch.
XMT = Message transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmit the frame associated with the detected error (0-127).

g = The transaction ID associated with the APDU.

h = The APDU type associated with the error. Valid values are:
ERROR = Remote operation service equipment (ROSE) Error.
INVOKE = ROSE invoke.
NO-APDU = Invalid or not provided APDU.
REJECT = ROSE reject.
RESULT = ROSE result.
UNKNOWN = Unknown APDU.

i = The object class identifier associated with the error. Valid values are:
AISDN-FR-PATH-TERM = ATT ISDN framed path termination.
ANA-LINE-TERM = Analog line termination.
ANETWORK-ELEM = ATT network element.
APM-FREEZE-SCHED = ATT PM freeze schedule.
CHAN-TERM = Channel termination.
CIRCUIT-PACK = Circuit pack.
CROSS-CONNECT = Cross connect.
DDS-LINE-TERM = DDS lint termination.

DISCRIMINATOR = Discriminator.
DS0-CHAN-TERM = DS0 channel termination.
DS1-FR-PATH-TERM = DS1 framed path termination.
DS1-LINE-TERM = DS1 line termination.
EQUIPMENT = Equipment.
EQUIP-HOLD = Equipment holder.
EVENT-RPT-CNTRL = Event report control.
FRAME-PATH-TERM = Framed path termination.
IDLC-CP-PROF = IDLC call processing profile.
IDLC-DL-PROF = IDLC data link profile.
IDLC-DL-TERM = IDLC data link termination.
IDLC-TERMINAL = IDLC terminal.
ISDN-FR-PATH = ISDN framed path termination.
ISDN-LINE-TERM = ISDN line termination.
ISDN-PER-SYS = ISDN PER system profile.
LINE-TERM = Line termination.
MAN-OP-SCHED = Management operations schedule.
MEMORY = Memory.
MTA-PATH-TERM = Metallic test access path termination.
MTA-UNIT = Metallic test access unit.
NETWORK-ELEM = Network element.
NULL-OBJ = Invalid or not provided object class.
PM-REPT-SCHED = PM report scheduled.
PM-INT-PROF = PM interval profile.
PROTECT-GRP = Protection group.
PROT-GRP-UNIT = Protection group unit.
QDS0-CHAN-TERM = Quarter DS0 channel termination.
SPECIAL-ANALOG = Special analog line termination.
TA-PATH-TERM = Test access path termination.
TA-UNIT = Test access unit.
TERM-POINT = Termination point.
TEST-RESP-CIRC = Test response circuit.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08001

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e RES-LIM
                 TEI=f g h i KEY=8001
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message that contained a ROSE ASN.1 message from a TR303 remote terminal (RT) indicating a resource limitation in the RT. The resource limitation message was generated because of a maintenance activity. Possible maintenance activities are:

- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

4. EXTERNAL EVIDENCE

Manual or automatic maintenance activities to the TR303 RT that is experiencing resource failure may not complete successfully.

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity. Determine why there are TR303 remote terminal resource limitation problems.

6. REFERENCES

Other Manual(s):

CCITT *Recommendation X.229*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08002

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e RES-LIM
                 TEI=f g h i KEY=8002
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch attempted to re-transmit a V.120 message containing a `ROSE ASN.1` application processor data unit (APDU) containing a remote terminal (RT) data base provisioning request to a TR303 RT. The request had previously failed because of a remote resource limitation. The re-transmission attempt also failed because of a remote resource limitation.

4. EXTERNAL EVIDENCE

Other TR303 RT maintenance activities may also fail because of RT resource failures. The types of TR303 manual and automatic maintenance activities that may fail include:

- ISDN and Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog and ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity. Determine why there were TR303 RT resource limitation problems.

6. REFERENCES

Other Manual(s):

CCITT *Recommendation X.229*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08003

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-CLS
                 TEI=f g h i KEY=8003
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message that contained a `CMISE M-ACTION-CONFIRMED` message from a TR303 remote terminal (RT) that contained an invalid object class identifier. `CMISE M-ACTION-CONFIRMED` messages should only be received by the switch for embedded operations channel (EOC)/ time slot management channel (TMC) path switches. Path switches on the EOC/TMC may be failing as a result of this protocol error. The object class identifier was in a format other than global distinguished name format.

Refer to ISO/IEC specification 9595, Information technology - Open Systems Interconnection - Common management Information service definition for more information on CMISE object identifiers.

TR303 maintenance activities that may fail because of EOC/TMC failures include:

- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

4. EXTERNAL EVIDENCE

Switch initiated maintenance activities to the TR303 RT may not complete successfully. These maintenance activities may be either automatic or manually initiated.

5. CORRECTIVE ACTION

Retry the maintenance activity. If the maintenance activity does not succeed, determine why there were TR303 RT problems related to transmission of CMISE messages containing object class identifiers not in global distinguished name format.

6. REFERENCES

Other Manual(s):

ISO/IEC *Specification 9595, Information Technology - Open Systems Interconnection - Common Management Information*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08004

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ARG
                 TEI=f g h i KEY=8004
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-ACTION-CONFIRMED` message from a TR303 remote terminal (RT) that contained an unknown argument. `CMISE M-ACTION-CONFIRMED` messages from the RT should only be sent for embedded operations channel (EOC)/ time slot management channel (TMC) path switch requests. This is caused by a missing or null value "ActionArgument" field in the `CMISE M-ACTION-CONFIRMED` message.

Refer to ISO/IEC specification 9595, Information technology - Open Systems Interconnection - Common management Information service definition for more information on the CMISE ActionArgument field.

TR303 maintenance activities that might fail because of EOC/TMC failures include:

- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

4. EXTERNAL EVIDENCE

The TR303 RT may be experiencing problems with the EOC/TMC. An automatic or manual EOC/TMC path switch has failed. Switch initiated maintenance activities to the TR303 RT may not complete successfully. These maintenance activities may be either automatic or manually initiated.

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity. If a maintenance activity does not succeed, determine why there were TR303 RT problems related to transmission of `CMISE M-ACTION-CONFIRMED` messages containing an unknown `ActionArgument` field.

6. REFERENCES

Other Manual(s):

ISO/IEC *Specification 9595, Information Technology - Open Systems Interconnection - Common Management Information*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08005

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-INST
                 TEI=f g h i KEY=8005
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-ACTION-CONFIRMED` message from a TR303 remote terminal (RT) that contained an invalid object instance. `CMISE M-ACTION-CONFIRMED` messages from the RT should only be sent for EOC/TMC path switch requests. The CMISE base managed object instance was not in the local distinguished name format.

Refer to ISO/IEC specification 9595, Information technology - Open Systems Interconnection - Common management Information service definition for more information on the CMISE local distinguished name format for base managed object instances.

TR303 maintenance activities that may fail because of EOC/TMC failures include:

- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

4. EXTERNAL EVIDENCE

The TR303 Remote Terminal may be experiencing problems with the EOC/TMC. An automatic or manual EOC/TMC path switch has failed. Switch initiated maintenance activities to the TR303 RT may not complete successfully. These maintenance activities may be either automatic or manually initiated.

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity. If maintenance activity does not succeed, determine why there were TR303 RT problems related to transmission of `CMISE M-ACTION-CONFIRMED`

messages containing a base managed object instance that is not in the local distinguished name format.

6. REFERENCES

Other Manual(s):

ISO/IEC *Specification 9595, Information Technology - Open Systems Interconnection - Common Management Information*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08006

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-INST
                 TEI=f g h i KEY=8006
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CMISE M-ACTION-CONFIRMED message from a TR303 remote terminal (RT) that contained an invalid object instance for the object class specified in the message. CMISE M-ACTION-CONFIRMED messages from the RT should only be sent for EOC/TMC path switch requests.

TR303 maintenance activities that may fail because of EOC/TMC failures include:

- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- Remote Terminal Alarm Reads
- Remote Terminal Provisioning

4. EXTERNAL EVIDENCE

The TR303 RT may be experiencing problems with the EOC/TMC. An automatic or manual EOC/TMC path switch has failed. Switch initiated maintenance activities to the TR303 RT may not complete successfully. These maintenance activities may be either automatic or manually initiated.

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity. If maintenance activity does not succeed, determine why there were TR303 RT problems related to transmission of CMISE M-ACTION-CONFIRMED messages containing invalid object class to object instance mapping.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08007

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MSG-UNEXP
                 TEI=f g h i KEY=8007
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-EVENT-REPORT` message from a TR303 remote terminal (RT) that was not on the embedded operations channel (EOC) link or not for terminal endpoint identifier = 4 (TEI=4).

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send `CMISE M-EVENT-REPORT` messages to the switch. The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 RT problems related to sending `CMISE M-EVENT-REPORT` messages with an invalid TEI or not over the EOC.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08008

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-CLS
                 TEI=f g h i KEY=8008
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-EVENT-REPORT` message from a TR303 remote terminal (RT) that contained an object class identifier that was not in the global form. `CMISE M-EVENT-REPORT` messages are used by the RT to report events to the switch.

Refer to ISO/IEC specification 9595, Information technology - Open Systems Interconnection - Common management Information service definition for more information on CMISE object identifiers.

The RT may not be able to report events because of particular types of protocol errors. These types include:

- Analog and ISDN change of service state
- DS1 performance monitoring reports
- RT power or environmental alarms
- RT hardware alarms
- RT memory corruption alarms
- ISDN loss of signal
- DSL performance monitoring reports

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send `CMISE M-EVENT-REPORT` messages to the switch. The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions. Determine why there were TR303 RT problems related to transmission of `CMISE M-EVENT-REPORT` messages containing object instance identifiers not in global form.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

ISO/IEC *Specification 9595, Information Technology - Open Systems Interconnection - Common Management Information*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08009

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-EVENT-TYPE
                 TEI=f g h i KEY=8009
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CMISE M-EVENT-REPORT messages from a TR303 remote terminal (RT) that contained an event type identifier that was not in the global form. CMISE M-EVENT-REPORT messages are used by the RT to report events to the switch. Refer to TR-NWT-00303 for more information on CMISE object identifiers.

The RT may not be able to report events because of certain types of protocol errors. These types include:

- Analog and ISDN change of service state
- DS1 performance monitoring reports
- RT power or environmental alarms
- RT hardware alarms
- RT memory corruption alarms
- ISDN loss of signal
- DSL performance monitoring reports

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send CMISE M-EVENT-REPORT messages to the switch The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 RT problems related to transmission of CMISE M-EVENT-REPORT messages containing event type identifiers not in global form.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08010

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV_OBJ_INST
                 TEI=f g h i KEY=8010
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-EVENT-REPORT` message from a TR303 remote terminal (RT) that contained an object instance that was not in the local distinguished name format.

Refer to TR-NWT-00303 for more information on the CMISE local distinguished name format for object instances.

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send `CMISE M-EVENT-REPORT` messages to the switch. The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 RT problems related to transmission of `CMISE M-EVENT-REPORT` messages containing object instance identifiers not in local distinguished name format.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08011

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-INST
                 TEI=f g h i KEY=8011
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switching module (SM) received a `CMISE M-EVENT-REPORT` message from a TR303 remote terminal (RT) that contained an invalid object instance for the object class specified in the message. Refer to Technical Reference TR-NWT-00303, Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface for more information on CMISE object identifiers.

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send `CMISE M-EVENT-REPORT` messages to the switch. The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions. Determine why there were TR303 RT problems related to transmission of `CMISE M-EVENT-REPORT` messages containing invalid object instance/object class mapping.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08012

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ARG
                 TEI=f g h i KEY=8012
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-EVENT-REPORT` message from a TR303 remote terminal (RT) that did not contain any event report information. Refer to Technical Reference TR-NWT-00303, Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface for more information on CMISE event reports.

4. EXTERNAL EVIDENCE

The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect CMISE protocol software.

5. CORRECTIVE ACTION

Determine why there were TR303 remote terminal problems related to transmission of `CMISE M-EVENT-REPORT` messages containing no event report information.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08013

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK_ARG
                 TEI=f g h i KEY=8013
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `CMISE M-EVENT-REPORT` message indicating an integrated services digital network (ISDN) change of the overhead bits report from the TR303 remote terminal (RT) that did not contain any event report information. The switch received a `CMISE M-EVENT-REPORT` message from a TR303 RT that contained an object instance that was not in the local distinguished name format. Refer to Technical Reference TR-NWT-00303, Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface for more information on the CMISE event reports.

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to send `CMISE M-EVENT-REPORT` messages to the switch. The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 remote terminal problems related to transmission of `CMISE M-EVENT-REPORT` messages containing no event report information.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08014

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8014
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` data provisioning request to a TR303 remote terminal (RT) to get the cross connect attributes for a line. The response message from the RT did not contain a `CMISE GET RESULT` and was not the last message in the response. A null `CMISE GET RESULT` is only valid in the last message of a `CMISE MULTI-GET`.

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the switching module (SM) office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the RT.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to EXC:RT-PROV and ALW:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08015

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8015
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to get the cross connect attributes for a line that terminates to a TR303 remote terminal (RT). The name binding returned from the remote terminal was incorrect. The expected name bindings can either be for a DS0 channel or a quarter DS0 channel. The correct name bindings for DS0 are:

- terminalId.
- ds1LineTermId.
- ds1FramedPathTermId.
- ds0ChannelTermId.

The correct name bindings for DS1 are:

- terminalId.
- ds1LineTermId.
- ds1FramedPathTermId.
- ds0ChannelTermId.
- quarterDS0ChannelTermId.

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the switching module (SM) office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the RT.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to ALW:RT-PROV and EXC:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08016

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8016
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` data provisioning request to get the cross connect attributes for an integrated services digital network (ISDN) line that terminates to a TR303 remote terminal (RT). An invalid "to" termination was received for a DS0 channel termination cross connect. Expected values for the "to" termination of the cross connect are "B1 channel" or "B2 channel". Refer to Technical Reference TR-NWT-00303, Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface for more information on cross connect provisioning.

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the switching module (SM) office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the remote terminal.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to ALW:RT-PROV and EXC:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08017

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8017
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` data provisioning request to get the cross connect attributes for a line that terminates to a TR303 remote terminal (RT). An invalid attribute for the cross connect was specified in the message received by the switching module (SM). Valid cross connect attributes are:

DS0 channel termination ID
Quarter DS0 Channel Termination ID

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the SM office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the remote terminal.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to ALW:RT-PROV and EXC:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08018

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8018
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` data provisioning request to get the cross connect attributes for a line that terminates on a TR303 remote terminal (RT). The response message from the RT indicated the "to" termination of the cross connect is a digital data service (DDS) channel. The response from the RT contained an invalid name binding for the "to" termination. The valid name binding for the DDS primary channel is "ddsLineTermid". The valid name bindings for the DDS secondary channel are "ddsLineTermid" or "ds0ChannelTermId".

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the switching module (SM) office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the RT.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to ALW:RT-PROV and EXC:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08019

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8019
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` data provisioning request to get the cross connect attributes for a line that terminates on a TR303 remote terminal (RT). The response message from the RT contained an invalid "to" termination for the cross connect. Valid "to" termination values are:

ISDN B1, B2, or D Channel
Analog Line
Digital Data Services (DDS) Channel

4. EXTERNAL EVIDENCE

The RT database may not be consistent with the switching module (SM) office dependent data (ODD). This could result in a degradation of call processing and maintenance activities in the RT.

5. CORRECTIVE ACTION

Allow provisioning reports by executing:

```
ALW:RT,PROV,REPT,SID={SID number};
```

Provisioning reports will indicate if any provisioning tasks are completing successfully. Attempt to manually provision a single TR303 line by executing:

```
EXC:RT,PROV,TYPE=LINE,ILEN={SM|IDCU|RT|LINE}
```

If provisioning fails, determine why there were RT CMISE problems related to data provisioning.

Refer to ALW:RT-PROV and EXC:RT-PROV in the Input Messages manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08020

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8020
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a V.120 message containing a `CMISE EOC` request to a TR303 remote terminal (RT) to read current performance monitoring counts for DS1 terminations. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DS1 performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08021

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8021
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read current performance monitoring counts for DS1 terminations. The response message from the RT indicated that a CMISE get list error has occurred, but the CMISE result contains no further error information. A get list error occurs when the remote terminal does not return all requested attributes. The TR303 RT may be experiencing problems with CMISE communications software. Refer to TR-NWT-00303 for more information on CMISE DS1 performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RT will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08022

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8022
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read performance monitoring history counts for DS1 terminations. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software. Refer to TR-NWT-00303 for more information on CMISE DS1 performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring history counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08023

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8023
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read performance monitoring history counts for DS1 terminations. The response message from the RT indicated that a CMISE get list error has occurred, but the CMISE result contains no further error information. A get list error occurs when the remote terminal does not return all requested attributes. The TR303 RT may be experiencing problems with CMISE communications software. Refer to TR-NWT-00303 for more information on CMISE DS1 performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring history counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

TR-NWT-00303

08024

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8024
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read previous performance monitoring counts for DS1 terminations. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DS1 Performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08025

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8025
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read previous performance monitoring counts for DS1 terminations. The response message from the RT indicated that a `CMISE GET` list error has occurred, but the CMISE result contains no further error information. A get list error occurs when the RT does not return all requested attributes. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DS1 performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08026

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8026
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read daily digital subscriber line (DSL) performance monitoring counts. The response message from the RT should consist of multiple application protocol data units (APDUs). The CMISE protocol has detected that one or more of the expected protocol data units is missing from the response.

Refer to TR-NWT-00303 for more information on CMISE DSL Performance Monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08027

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8027
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read digital subscriber line (DSL) interval performance monitoring counts. The response message from the RT should consist of multiple application protocol data units (APDUs). The CMISE protocol has detected that one or more of the expected protocol data units is missing from the response.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08028

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8028
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read all digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software. Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08029

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8029
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read current digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08030

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8030
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read daily digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08031

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8031
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read history digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08032

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8032
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read hourly digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08033

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8033
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read interval digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08034

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8034
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read previous digital subscriber line (DSL) performance monitoring counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08035

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8035
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch sent a `CMISE EOC` request to a TR303 remote terminal (RT) to read a single digital subscriber line (DSL) performance monitoring daily counts. The response message from the RT did not contain a CMISE result. The TR303 RT may be experiencing problems with CMISE communications software.

Refer to TR-NWT-00303 for more information on CMISE DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DSL performance monitoring counts for TR303 RTs will fail. Refer to EXC:ALE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT CMISE protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08036

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-OBJ-INST
                 TEI=f g h i KEY=8036
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` event report indicating a DS1 performance monitoring quarterly or daily threshold alert. The received message contained an unknown object instance. The expected object instance is a DS1 frame path termination object.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08037

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8037
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` event report indicating a DS1 performance monitoring quarterly or daily threshold alert. A mismatch was detected between the error threshold identifier and the error attribute.

Refer to TR-NWT-00303 for more information on DS1 error threshold identifier to error attribute mapping.

4. EXTERNAL EVIDENCE

Manual or automatic requests to read DS1 performance monitoring counts for TR303 RTs will fail. Refer to OP:FAC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08038

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-OBJ-INST
                 TEI=f g h i KEY=8038
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE ASN.1 EOC` event report indicating a digital subscriber line (DSL) performance monitoring hourly or daily threshold alert that contained an invalid port name.

Refer to TR-NWT-00303 for more information on DSL performance monitoring messages.

4. EXTERNAL EVIDENCE

The switch will not be able to process DSL performance monitoring data from the TR303 RT. DSL performance monitoring data will not be displayed on the ROP.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08039

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8039
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` event report indicating a digital subscriber line (DSL) performance monitoring hourly or daily threshold alert that contained an object identifier to attribute value mismatch for the threshold.

Refer to TR-NWT-00303 for more information on DSL error threshold identifier to error attribute mapping.

4. EXTERNAL EVIDENCE

The switch will not be able to process DSL performance monitoring data from the TR303 RT. DSL performance monitoring data will not be displayed on the ROP.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08040

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-INST
                 TEI=f g h i KEY=8040
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` request to perform a path switch on the embedded operations channel (EOC) or time slot management channel (TMC). The protection group identifier object instance contained in the path switch message is invalid. Valid values for the protection group identifier are:

1 = EOC

2 = TMC

Refer to TR-NWT-00303 for more information on EOC/TMC path switch messages.

4. EXTERNAL EVIDENCE

The TR303 RT may not be able to successfully switch the EOC/TMC data link. There is a possibility that no maintenance or call processing activity will complete on the TR303 RT. This will occur if all EOC/TMC links are out-of-service (OOS).

Refer to OP:RT, SW:EOC, and SW:TMC in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Check the status of the EOC/TMC links to TR303 RTs. Attempt to restore any links that are OOS. If call processing is failing on a TR303 RT, switch the active and standby TMC links. Attempt to manually switch the EOC to ensure stable EOC links exist. Determine why there were TR303 RT IDLC protocol problems related to path switching.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08041

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-OBJ-INST
                 TEI=f g h i KEY=8041
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` port conditioning event report. This event report was reporting either:

- Change in service state (analog or ISDN line).
- Loss of signal (ISDN line).
- Change of overhead bits (ISDN line).

The port name specified in the event report was found to be invalid.

Refer to TR-NWT-00303 for more information on port conditioning messages.

4. EXTERNAL EVIDENCE

This could be an indication that the TR303 RT is experiencing call processing problems.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to port conditioning.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08042

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MISS-ATT
                 TEI=f g h i KEY=8042
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` port conditioning event report. This event report was reporting a change in service state on an analog or integrated services digital network (ISDN) line. The primary service state information was missing from the message.

Refer to TR-NWT-00303 for more information on port conditioning messages.

4. EXTERNAL EVIDENCE

This could be an indication that the TR303 RT is experiencing call processing problems.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to port conditioning. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08043

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8043
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` port conditioning event report. This event report was reporting a change in service state on an analog or integrated services digital network (ISDN) line. The attribute specifying the service state transition is invalid.

Refer to TR-NWT-00303 for more information on port conditioning messages.

4. EXTERNAL EVIDENCE

This could be an indication that the TR303 RT is experiencing call processing problems.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to port conditioning. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08044

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MSG-UNEXP
                 TEI=f g h i KEY=8044
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent an autonomous V.120 message containing a `CMISE EOC` port conditioning event report. The object class in the message indicated that the object is an analog line termination. The message from the remote terminal is invalid because it is reporting something other than a change of service state. Change of service state is the only valid report for an analog line.

Refer to TR-NWT-00303 for more information on port conditioning messages.

4. EXTERNAL EVIDENCE

This could be an indication that the TR303 RT is experiencing call processing problems.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to port conditioning. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08045

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8045
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` in response to a request for reading the status of a digital subscriber line (DSL). The CMISE result field is null indicating that the TR303 RT did not return a result for this request.

Refer to TR-NWT-00303 for more information on CMISE result information.

4. EXTERNAL EVIDENCE

This could be an indication that the TR303 RT is experiencing integrated service digital network (ISDN) call processing problems.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to ISDN status. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08046

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8046
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request for reading the RT alarm status. The CMISE result field is null indicating that the TR303 RT did not return a result for this request.

Refer to TR-NWT-00303 for more information on CMISE result information.

4. EXTERNAL EVIDENCE

The TR303 RT may be experiencing alarm conditions that it cannot report due to incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to transmission of CMISE result messages containing no result information.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08047

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8047
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request for reading the RT alarm status. The response message from the RT did not contain a `CMISE GET` result and was not the last message in the response. A null get result is only valid in the last message of a CMISE multi-get.

Refer to TR-NWT-00303 for more information on CMISE multi-gets.

4. EXTERNAL EVIDENCE

The TR303 RT may be experiencing alarm conditions that it cannot report because of incorrect IDLC transmission software.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to transmission of CMISE multi-get responses.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08048

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ATT
                 TEI=f g h i KEY=8048
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request for a restore of an analog line termination, integrated services digital network (ISDN) framed path termination, or DS1 line termination. The CMISE message indicated an action other than restore in the action type field.

Refer to TR-NWT-00303 for more information on line restore messages.

4. EXTERNAL EVIDENCE

Manual or automatic restores of analog or ISDN lines may not complete successfully. Lines may remain in an out-of-service state. Refer to RST:LINE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Retry the line restore if the restore failed because of a manual action. Determine why there were TR303 RT IDLC protocol problems related to line restore. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08049

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ARG
                 TEI=f g h i KEY=8049
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request for a restore of an analog line termination, integrated services digital network (ISDN) framed path termination, or DS1 line termination. The CMISE message did not contain any result data indicating the restore result.

Refer to TR-NWT-00303 for more information on line restore messages.

4. EXTERNAL EVIDENCE

Manual or automatic restores of analog or ISDN lines may not complete successfully. Lines may remain in an out-of-service state. Refer to RST:LINE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Retry the line restore if the restore failed because of a manual action. Determine why there were TR303 RT IDLC protocol problems related to line restore. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08050

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8050
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request for a restore of an analog line termination, integrated services digital network (ISDN) framed path termination, or DS1 line termination. The CMISE message did not contain any result data indicating the CMISE request did not complete successfully.

Refer to TR-NWT-00303 for more information on line restore messages.

4. EXTERNAL EVIDENCE

Manual or automatic restores of analog or ISDN lines may not complete successfully. Lines may remain in an out-of-service state. Refer to RST:LINE in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Retry the line restore if the restore failed because of a manual action. Determine why there were TR303 RT IDLC protocol problems related to line restore. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08051

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8051
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request to read the protection line switch status. The CMISE response message did not contain any result data.

Refer to TR-NWT-00303 for more information on line restore messages.

4. EXTERNAL EVIDENCE

Manual or automatic attempts to read the protection line switch status of the TR303 RTs will fail.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to protection line switch status.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08052

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MSG-UNEXP
                 TEI=f g h i KEY=8052
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request to read the protection line switch status. The CMISE response message contained an invalid attribute other than a DS1 line termination identifier.

Refer to TR-NWT-00303 for more information on protection switch status messages.

4. EXTERNAL EVIDENCE

Manual or automatic attempts to read the protection line switch status of the TR303 RTs will fail.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to protection line switch status.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08053

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MSG-UNEXP
                 TEI=f g h i KEY=8053
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request to read the protection line switch status. The CMISE response message contained an attribute indicating a switched protection group unit status. The relative distinguished name (RDN) sequence for this unit was set to an unexpected value. The expected value is DS1 line termination identifier.

Refer to TR-NWT-00303 for more information on protection switch status messages.

4. EXTERNAL EVIDENCE

Manual or automatic attempts to read the protection switch status of the TR303 RT will fail.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to protection line switch status.

Refer to OP:RT in the Input Messages manual to query the RT for possible alarm conditions.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08054

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8054
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request to read the status of an integrated services digital network (ISDN) channel. The CMISE response message did not contain any result data.

Refer to TR-NWT-00303 for more information on ISDN status messages.

4. EXTERNAL EVIDENCE

Manual or automatic attempts to read ISDN channel status for the TR303 RT may fail. Refer to OP:STATUS in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to ISDN channel status messages. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08055

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e ELEMENT-MISS
                 TEI=f g h i KEY=8055
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The TR303 remote terminal (RT) sent a V.120 message containing a `CMISE EOC` response to a request to read the status of an analog line. The CMISE response message did not contain any result data.

Refer to TR-NWT-00303 for more information on analog line status messages.

4. EXTERNAL EVIDENCE

Manual or automatic attempts to read analog line status for the TR303 RT may fail. Verify that TR303 calls are completing successfully. Refer to OP:STATUS in the Input Messages manual for additional information.

5. CORRECTIVE ACTION

Determine why there were TR303 RT IDLC protocol problems related to analog line status messages. Verify that TR303 calls are completing successfully.

6. REFERENCES

Other Manual(s):

235-600-700 *Input Messages*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08056

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYS_ERR
                 TEI=f g h i KEY=8056
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). An invalid parameter value was passed to the abstract syntax notation one (ASN.1) decoder.

4. EXTERNAL EVIDENCE

The received message was dropped. The PCBADPARAM assert fired. Refer to the Asserts manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08057

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-LNK-ID
                 TEI=f g h i KEY=8057
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). The message was a response from the RT (a linked RO-Invoke) as a result of a request originated by the switch (a non-linked RO-Invoke). The message contained a "linkedId" field that did not match the list of "invokeIds" currently maintained by the switch, so the received message's "linkedId" is invalid because it does not represent any outstanding switch RO-Invokes that are currently awaiting responses by the switch.

4. EXTERNAL EVIDENCE

The received message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT sent a ROSE message with invalid data. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08058

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA-ERR
                 TEI=f g h i KEY=8058
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). The switch could not find an rlRTLB dynamic data tuple. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCDDPB assert fired indicating that a dynamic data tuple was found to be corrupt or missing; or, the PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call. If a PCDDPB assert was fired, an associated DPB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08059

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYS-ERR
                 TEI=f g h i KEY=8059
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Invoke message from the TR303 remote terminal (RT). The switch was attempting to create a terminal process.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAUPCBLA assert fired indicating that a dynamic data tuple was found to be corrupt or missing; or, the PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call; or, the PCOSDSPROB assert fired indicating that an operating system problem occurred. If the PCAUPCBLA assert fired, an associated PCBLA audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual, Audits, and Dynamic Data manuals for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08060

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA_ERR
                 TEI=f g h i KEY=8060
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Invoke message, from the TR303 remote terminal (RT). While attempting to obtain an rlRTLB dynamic data tuple from the free list and link it to the rlPCBLA dynamic data tuple, an error was found. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. Possible asserts that could fire include:

- PCBADPARAM
- PCAURTLB
- PCAUPCBLA
- PCDDPB
- PCRTLB

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads

- RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08061

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA-ERR
                 TEI=f g h i KEY=8061
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Invoke, from the TR303 remote terminal (RT). While attempting to attach an rlAPDU dynamic data tuple to an rlRTLB dynamic data tuple, an error occurred.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. An associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08062

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYS-ERR
                 TEI=f g h i KEY=8062
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). While attempting to send an internal message to a terminal process, an error occurred.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. The associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08063

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-INVOKE-ID
                 TEI=f g h i KEY=8063
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Result` message, from the TR303 remote terminal (RT). The message was a response from the RT as a result of a request originated by the switch. This message indicates that no operation with the specified "invokeId" is in progress.

4. EXTERNAL EVIDENCE

The received message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT sent a message with an invalid "invokeId". If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08064

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA-ERR
                 TEI=f g h i KEY=8064
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Result, from the TR303 remote terminal (RT). While attempting to attach an rlAPDU dynamic data tuple to an rlRTLB dynamic data tuple, an error occurred. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. An associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08065

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYS-ERR
                 TEI=f g h i KEY=8065
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Result` message, from the TR303 remote terminal (RT). While attempting to send an internal message to a terminal process, an error occurred.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. An associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition.

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08066

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-INVOKE-ID
                 TEI=f g h i KEY=8066
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message was a response from the RT as a result of a request originated by the switch. This message indicates that no operation with the specified "invokeId" is in progress.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT sent a message with an invalid "invokeId". If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08067

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA-ERR
                 TEI=f g h i KEY=8067
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Error, from the TR303 remote terminal (RT). While attempting to attach an rlAPDU dynamic data tuple to an rlRTLB dynamic data tuple, an error occurred. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. An associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08068

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYS-ERR
                 TEI=f g h i KEY=8068
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the remote terminal (RT). While attempting to send an internal message to a terminal process, an error occurred.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The PCAURTLB assert fired indicating a dynamic data linkage problem. An associated RTLB audit was scheduled that would repair the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08069

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-APDU
                 TEI=f g h i KEY=8069
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a general problem of unrecognized application protocol data unit (APDU) was encountered by the RT. The valid APDU types are:

- RO-Invoke
- RO-Result
- RO-Error
- RO-Reject

4. EXTERNAL EVIDENCE

The received ROSE message was dropped.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT has indicated that it can not recognize the APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08070

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-APDU
                 TEI=f g h i KEY=8070
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a badly formed application protocol data unit (APDU) was encountered by the RT. This signifies that the structure of the APDU does not conform to CCITT Recommendation X.229.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a badly formed APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

CCITT *Recommendation X.229*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08071

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8071
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a badly structured application processor data unit (APDU) was encountered by the RT. This signifies that the structure of the APDU does not conform to the standard notation and encoding, defined in CCITT Recommendations X.208 and X.209.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a badly structured APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

CCITT *Recommendations X.208*

CCITT *Recommendations X.209*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08072

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8072
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a problem was encountered by the RT, but the switch was unable to determine the type of problem that was encountered.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT is encountering a problem in communicating with the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08073

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DUP-INVOC
                 TEI=f g h i KEY=8073
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of duplicate invocation was encountered by the RT. This signifies that the "invokeId" parameter violates the assignment rules of CCITT recommendation X.219.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a problem of duplicate invocation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

CCITT *Recommendation X.219*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08074

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-OP
                 TEI=f g h i KEY=8074
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of unrecognized CMISE operation was encountered by the RT. The valid CMISE operations that can be sent to the RT are:

- CMISE actionConfirmed
- CMISE eventReport
- CMISE create
- CMISE delete
- CMISE get
- CMISE set

4. EXTERNAL EVIDENCE

The received ROSE message was dropped.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching

- RT Alarm Reads
- RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of unrecognized CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08075

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-ARG
                 TEI=f g h i KEY=8075
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of an invalidly formatted argument was encountered by the RT. This signifies that the type of the operation argument supplied was not one agreed upon between the ROSE-users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of an invalidly formatted argument. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08076

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e RES-LIM
                 TEI=f g h i KEY=8076
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of resource limitation was encountered by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. The following RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

If this PER key is seen rarely, this problem can be ignored because it would indicate that a critical resource was momentarily exhausted but, when the load leveled off, the resource became plentiful again.

If this PER key is reported persistently, then determine why the RT is exhausting its resources. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08077

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INIT-REL
                 TEI=f g h i KEY=8077
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of initiator releasing was encountered by the RT. This indicates that the association-initiator is not willing to perform the invoked operation because it is about to attempt to release the application-association.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of initiator releasing. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08078

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-LNK-ID
                 TEI=f g h i KEY=8078
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of unrecognized "linkedId" was encountered by the RT. This signifies that there is no operation in progress with an "invokeId" equal to the specified "linkedId".

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of unrecognized "linkedID". If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08079

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e LNK-RESP-UXP
                 TEI=f g h i KEY=8079
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of linked response unexpected was encountered by the RT. This signifies that the invoked operation referred to by the "linkedId" is not a parent-operation.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of linked response unexpected. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08080

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UXP-CHILD-OP
                 TEI=f g h i KEY=8080
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem of unexpected child operation was encountered by the RT. This signifies that the invoked child-operation is not one that the invoked parent-operation referred to by the "linkedId" allows.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem of unexpected child operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08081

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8081
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that an invoke problem was encountered by the RT, but the switch was unable to determine the type of invoke problem that was encountered.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered an invoke problem. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08082

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-INVOKE-ID
                 TEI=f g h i KEY=8082
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return result problem of unrecognized invocation was encountered by the RT. This signifies that no operation with the specified "invokeId" is in progress.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return result problem of unrecognized invocation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08083

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UXP-RES
                 TEI=f g h i KEY=8083
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return result problem of result response unexpected was encountered by the RT. This signifies that the invoked operation does not report a result.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return result problem of result response unexpected. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08084

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-RSLT
                 TEI=f g h i KEY=8084
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return result problem of invalidly formatted result was encountered by the RT. This signifies that the type of the result parameter supplied is not one that was agreed upon between the ROSE-users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return result problem of invalidly formatted result. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08085

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8085
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return result problem was encountered by the RT, but the switch was unable to determine the type of return result problem that was encountered.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return result problem. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08086

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-INVOKE-ID
                 TEI=f g h i KEY=8086
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the remote terminal (RT). The message indicates that a return error problem of unrecognized invocation was encountered by the RT. This signifies that no operation with the specified "invokeId" is in progress.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return error problem of unrecognized invocation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08087

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UXP-ERR
                 TEI=f g h i KEY=8087
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return error problem of error response unexpected was encountered by the RT. This signifies that the invoked operation does not report a failure.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return error problem of error response unexpected. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08088

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-ERR
                 TEI=f g h i KEY=8088
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return error problem of unrecognized error was encountered by the RT. This signifies that the reported error is not one of those agreed upon between the ROSE-users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return error problem of unrecognized error. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08089

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UXP-ERR
                 TEI=f g h i KEY=8089
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return error problem of unexpected error was encountered by the RT. This signifies that the reported error is not one that the invoked operation may report.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return error problem of unexpected error. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08090

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-PARAM
                 TEI=f g h i KEY=8090
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return error problem of invalidly formatted parameter was encountered by the RT. This signifies that the type of the error parameter supplied is not one that was agreed upon between the ROSE-users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return error problem of invalidly formatted parameter. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08091

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8091
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a return result problem was encountered by the RT, but the switch was unable to determine the type of return error problem that was encountered.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a return result problem. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08092

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8092
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Reject` message, from the TR303 remote terminal (RT). The message indicates that a problem was encountered by the RT, but the switch was unable to determine the type of problem that was encountered.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT encountered a problem. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08093

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e RES-LIM
                 TEI=f g h i KEY=8093
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the remote terminal (RT). While processing the message, the switch ran out of rlMALLOC dynamic data tuples. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

The rlMALLOC tuples are used for both the automatic terminal setup (ATS) feature and for TR303 RT OA&M messages.

If this PER key is seen rarely, this problem can be ignored because it indicates that a critical resource was momentarily exhausted but, when the load leveled off, the resource became plentiful again.

If this PER key is reported persistently, either these two features are too heavily used on this switching module (SM) and their use needs to be spread across other SMs, or the number of rIMALLOC tuples needs to be increased for this SM by AT&T customer support. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08094

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-OP
                 TEI=f g h i KEY=8094
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an unrecognized CMISE operation. The valid CMISE operations for the IDLC protocol are:

- CMISE actionConfirmed
- CMISE eventReport
- CMISE create
- CMISE delete
- CMISE get
- CMISE set

4. EXTERNAL EVIDENCE

The received ROSE message was dropped.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching

  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT sent a message with an invalid CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08095

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-RSLT
                 TEI=f g h i KEY=8095
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). During the decoding of a `RO-Result` message, a invalidly formatted result was detected.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT encountered an invalidly formatted result. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08096

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-ERR
                 TEI=f g h i KEY=8096
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an unrecognized RO-Error application processor data unit (APDU).

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT encountered an unrecognized RO-Error. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08098

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OP
                 TEI=f g h i KEY=8098
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message, containing a CMISE message, from the TR303 remote terminal (RT). The CMISE message was missing arguments.

4. EXTERNAL EVIDENCE

If the operation was a confirmed operation, then the switch sent a V.120 message, containing a RO-Reject message to the TR303 RT. The received CMISE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT sent a CMISE message with missing arguments. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08099

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SYNC-NS
                 TEI=f g h i KEY=8099
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "synchronization not supported" was reported by the RT. This indicates that the requested type of synchronization made by the switch to the RT is not supported by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT and the switch are not synchronized. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08100

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-FILTER
                 TEI=f g h i KEY=8100
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid filter" was reported by the RT. This indicates that the filter parameter sent from the switch to the RT is not supported by the RT or it contains unknown values.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not support or recognize the filter parameter in the CMISE message contained in the V.120 message sent by the switch. If this PER occurs, it will probably occur multiple times, due to a software mismatch between the RT and switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08101

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ATT-VAL
                 TEI=f g h i KEY=8101
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid attribute value" was reported by the RT. This indicates that the attribute value sent from the switch to the RT is not permitted by the RT. It could be out of range or simply not allowed.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not permit the attribute value in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08102

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ACTION
                 TEI=f g h i KEY=8102
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "no such action" was reported by the RT. This indicates that the action type sent from the switch to the RT is not supported by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not support the action type in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08103

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-OBJ-REF
                 TEI=f g h i KEY=8103
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "no such reference object" was reported by the RT. This indicates that the parameter of a reference object sent from the switch to the RT is not recognized by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not recognize the parameter in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08104

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-EVENT-TYPE
                 TEI=f g h i KEY=8104
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "no such event type" was reported by the RT. This indicates that the RT does not know about the event sent from the switch to the RT. It is not logged in as event type by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not recognize the event in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08105

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK_ARG
                 TEI=f g h i KEY=8105
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "no such argument" was reported by the RT. This indicates that the argument sent from the switch to the RT is not recognized by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not recognize the argument in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08106

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-ARG-VAL
                 TEI=f g h i KEY=8106
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid argument value" was reported by the RT. This indicates that the argument specified in the primitive sent from the switch to the RT is unrecognizable, out of range, or is otherwise unacceptable by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not recognize, considers it out of range, or finds unacceptable the argument in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08107

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-SCOPE
                 TEI=f g h i KEY=8107
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid scope" was reported by the RT. This indicates that the scope parameter value sent from the switch to the RT is in error.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT does not accept the scope parameter value in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08108

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OBJ-INST
                 TEI=f g h i KEY=8108
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid object instance" was reported by the RT. This indicates that the name of the object instance sent from the switch to the RT violates naming rules.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates that the parameter in the CMISE message, contained in the V.120 message, sent by the switch, violates naming rules. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08109

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MISS-ATT-VAL
                 TEI=f g h i KEY=8109
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "missing attribute value" was reported by the RT. This indicates that a required attribute value was not sent from the switch to the RT or the default value was not available.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a missing attribute value in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08110

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e COMP-LIM
                 TEI=f g h i KEY=8110
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "complexity limitation" was reported by the RT. This indicates that a parameter in the requested operation sent from the switch to the RT is too complex, so the operation is not performed by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates that the defined operation, in the CMISE message, contained in the V.120 message sent by the switch, was too complex. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08111

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-CMIP-OP
                 TEI=f g h i KEY=8111
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "unrecognized operation" was reported by the RT. This indicates that a CMISE operation request sent from the switch to the RT is not agreed upon by the CMISE service users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates an invalid operation request in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08112

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-INVOKE-ID
                 TEI=f g h i KEY=8112
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "no such invoke identifier" was reported by the RT. This indicates that the invoke identifier sent from the switch to the RT is not recognized by the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates an invalid invoke identifier in the ROSE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08113

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OP
                 TEI=f g h i KEY=8113
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid operation" was reported by the RT. This indicates that the CMISE operation request sent from the switch to the RT is not agreed upon by the CMISE service users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates an invalid operation request in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08114

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-OP
                 TEI=f g h i KEY=8114
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Error` message, from the TR303 remote terminal (RT). The message indicates that a CMISE error of "invalid operator" was reported by the RT. This indicates that the CMISE operation request sent from the switch to the RT is not agreed upon by the CMISE service users.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates an invalid operation request in the CMISE message contained in the V.120 message sent by the switch. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08115

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8115
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a RO-Result message containing a CMISE response message, from the TR303 remote terminal (RT). The CMISE operation received in the CMISE response was not consistent with the original CMISE operation in the request sent to the remote CMISE peer.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

Manual or automatic requests made from the switch to the RT:

- Remove/Restore of an ISDN or Analog Line
- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- RT Alarm Reads
- RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE response was received in the CMISE message, contained in the V.120 message sent by the switch, that was not consistent with the original CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08116

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8116
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was expected, but the RO-Invoke was not a linked reply.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT sent a `RO-Invoke` message that was not a linked reply. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08117

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8117
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was received but the received CMISE argument (GET) did not match the CMISE operation that was sent from the switch to the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE argument in the CMISE message, contained in the V.120 message sent by the switch, did not match the CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08118

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8118
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was received but the received CMISE argument (SET) did not match the CMISE operation that was sent from the switch to the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE argument in the CMISE message, contained in the V.120 message sent by the switch, did not match the CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08119

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8119
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was received but the received CMISE argument (ACTION) did not match the CMISE operation that was sent from the switch to the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE argument in the CMISE message, contained in the V.120 message sent by the switch, did not match the CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08120

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e OP-MISMATCH
                 TEI=f g h i KEY=8120
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was received but the received CMISE argument (DELETE) did not match the CMISE operation that was sent from the switch to the RT.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE argument in the CMISE message, contained in the V.120 message sent by the switch, did not match the CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08121

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UNK-ARG
                 TEI=f g h i KEY=8121
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a `RO-Invoke` message, from the TR303 remote terminal (RT). A linked reply as a result of an earlier request made by the switch was received but the received CMISE argument was not a valid argument type.

4. EXTERNAL EVIDENCE

The received ROSE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

5. CORRECTIVE ACTION

Determine why the RT indicates a CMISE argument in the CMISE message, contained in the V.120 message sent by the switch, was not a valid argument type. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08122

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INV-OP
                 TEI=f g h i KEY=8122
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a CMISE message from the TR303 remote terminal (RT). The CMISE message was not in local distinguished name format.

4. EXTERNAL EVIDENCE

The switch sent a V.120 message containing a RO-Reject message to the TR303 RT. The received CMISE message was dropped. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT sent a CMISE message not in local distinguished name format. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08123

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC_APDU
                 TEI=f g h i KEY=8123
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). This ROSE message contains an unrecognized application processor data unit (APDU) type. The valid APDU types are:

- RO-Invoke
- RO-Result
- RO-Error
- RO-Reject

4. EXTERNAL EVIDENCE

The received V.120 message containing a ROSE message was dropped. A V.120 message containing a `RO-Reject` message containing a reject reason of "UNRECOGNISEDAPDU" was sent to the remote ROSE layer of the TR303 RT.

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an unrecognized APDU type. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08124

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e SHRT-MSG
                 TEI=f g h i KEY=8124
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected a ROSE APDU that was too short. This is probably because of an incorrect length field for a received encoded ASN.1 type or an end-of-contents (EOC) value was detected prior to complete decoding of the received APDU.

4. EXTERNAL EVIDENCE

The switch discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a message with a APDU that is too short. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08125

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e INFO-TOO-LONG
                 TEI=f g h i KEY=8125
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message, from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected a ROSE message that was too long for the internal decoding buffer. This is either because of a resource failure when attempting to acquire rlRTMSGBUF dynamic data tuples or because an end-of-contents (EOC) value was not detected when decoding a message that was expected to fit in a single rlRTMSGBUF tuple. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The switch discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending ROSE messages that are too long. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08126

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-ARG
                 TEI=f g h i KEY=8126
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Invoke` message. An invalidly formatted argument was detected. Specifically, an unknown member of an ASN.1 CHOICE was detected.

4. EXTERNAL EVIDENCE

The switch ROSE discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending ROSE messages with an incorrectly formatted argument. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08127

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE_RSLT
                 TEI=f g h i KEY=8127
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The ASN.1 decoder detected an error during the decoding of a `RO-Result` message. An invalidly formatted result was detected. Specifically, an unknown member of an ASN.1 CHOICE was detected.

4. EXTERNAL EVIDENCE

The switch ROSE discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending ROSE messages with an incorrectly formatted result. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08128

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-PARAM
                 TEI=f g h i KEY=8128
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Error` message. An invalidly formatted parameter was detected. Specifically, an unknown member of an ASN.1 CHOICE was detected.

4. EXTERNAL EVIDENCE

The switch ROSE discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a Rose message with an incorrectly formatted parameter. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08129

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-APDU
                 TEI=f g h i KEY=8129
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Reject` message. An invalidly formatted application processor data unit (APDU) was detected. Specifically, an unknown member of an ASN.1 CHOICE was detected.

4. EXTERNAL EVIDENCE

The switch ROSE discarded the message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a Rose message with an incorrectly formatted APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08130

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-APDU
                 TEI=f g h i KEY=8130
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error. Specifically, an unknown member of an ASN.1 CHOICE was detected. Also, the application processor data unit (APDU) type was invalid. Valid APDUs are:

- RO-Invoke
- RO-Result
- RO-Error
- RO-Reject

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:"
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an invalid APDU type. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08131

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-ARG
                 TEI=f g h i KEY=8131
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Invoke` message. An invalidly formatted argument was detected. Specifically, the error reason was for some problem other than an unknown member of an ASN.1 CHOICE being detected.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an incorrectly formatted argument. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08132

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-RSLT
                 TEI=f g h i KEY=8132
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Result` message An invalidly formatted argument was detected. Specifically, the error reason was for some problem other than an unknown member of an ASN.1 CHOICE being detected.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an incorrectly formatted argument. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08133

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e MTYPE-PARAM
                 TEI=f g h i KEY=8133
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Error` message. An invalidly formatted parameter was detected. Specifically, the error reason was for some problem other than an unknown member of an ASN.1 CHOICE being detected.

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an incorrectly formatted parameter. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08134

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e BSTRUCT-APDU
                 TEI=f g h i KEY=8134
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an error during the decoding of a `RO-Reject` message. A badly structured application processor data unit (APDU) was detected or the APDU type was invalid. Specifically, the error reason was for some problem other than an unknown member of an ASN.1 CHOICE being detected. The valid APDU types are:

- RO-Invoke
- RO-Result
- RO-Error
- RO-Reject

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads

    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms
    - RT memory corruption alarms
    - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with a badly structured or invalid APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08135

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-OP
                 TEI=f g h i KEY=8135
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an unrecognized CMISE operation. The valid CMISE operations for the IDLC protocol are:

- CMISE actionConfirmed
- CMISE eventReport
- CMISE create
- CMISE delete
- CMISE get
- CMISE set

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message.

RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching

  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a message with an unrecognized CMISE operation. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08136

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e UREC-ERR
                 TEI=f g h i KEY=8136
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). The abstract syntax notation one (ASN.1) decoder detected an unrecognized RO-Error application processor data unit (APDU).

4. EXTERNAL EVIDENCE

The switch discarded the ROSE message. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning

- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a ROSE message with an unrecognized RO-Error APDU. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

08137

Key Code Range: 08000 - 08999
Software Release: 5E10 and later
Protocol: IDLC
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb IDLC c d e DDA-ERR
                 TEI=f g h i KEY=8137
```

2. EXPLANATION OF VARIABLES

Refer to the 08(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message containing a ROSE message from the TR303 remote terminal (RT). While processing the message, the abstract syntax notation one (ASN.1) decoder could not access the first rlRTMSGBUF dynamic data tuple that was supposed to be linked to an application processor data unit (APDU) dynamic data tuple due to dynamic data linkage problems. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received message was dropped. The PCAUAPDU assert fired indicating that a dynamic data tuple was found to be corrupt or missing. There was also an associated APDU audit scheduled that repaired the corrupt or missing tuple. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

13. 09-V.120

09(BASE)

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120

1. BASE FORMAT

```
PER a/a bb:bb:bb V120 c d e y
                 TEI=f SAPI=g KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Segment state for the call associated with error. Valid values are:
- BEG-SEG = Processing first segment.
- MIDDLE-SEG = Processing second or subsequent segments.
- NULL-SEG = Null segment.

d = Segment type associated with the error. Valid values are:
- BEGIN = Begin segment.
- FINAL = Final segment.
- MIDDLE = Middle segment.
- SINGLE = Single segment.
- UNKNOWN = Segment type unknown.

e = Direction of transmission for the V.120 message associated with the error. Valid values are:
- RCV = Message transmitted from the customer premises equipment (CPE) to the switch.
- XMT = Message transmitted from the switch to the CPE.

f = The terminal endpoint identifier (TEI) corresponding to the entity to receive or transmit the frame associated with the detected error (0-127).

g = The service access point identifier (SAPI) corresponding to the entity to receive or transmit the frame associated with the detected error. Valid values are:
- 0 =
- 1 =

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09001

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-SAPI
                 TEI=f SAPI=g KEY=9001
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `V.120 EOC` message with an incorrect service access point identifier (SAPI) value from a remote terminal (RT). The SAPI value received was 0. The SAPI value expected was 1.

4. EXTERNAL EVIDENCE

None. The received V.120 message was dropped.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an incorrect SAPI value.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09002

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-TEI
                 TEI=f SAPI=g KEY=9002
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message on a time slot management channel (TMC) with an invalid terminal equipment identifier (TEI), from a remote terminal (RT). The TEI expected is 0.

4. EXTERNAL EVIDENCE

None. The received V.120 message was dropped.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid TEI.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09003

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-TEI
                 TEI=f SAPI=g KEY=9003
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message on the embedded operations channel (EOC) with an invalid terminal equipment identifier (TEI), from a remote terminal (RT). The TEI expected is 0 or 4.

4. EXTERNAL EVIDENCE

None. The received V.120 message was dropped.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid TEI.

6. REFERENCES

None.

09004

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e SHRT-MSG
                 TEI=f SAPI=g KEY=9004
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The message was too short (less than 2 bytes).

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. The switch sent a V.120 message containing a RO-Reject message to the TR303 RT. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending messages that are too short. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09005

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e LNG-FRM
                 TEI=f SAPI=g KEY=9005
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The message was too long (greater than 256 bytes).

4. EXTERNAL EVIDENCE

The received V.120 segment message was dropped. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT sent a message that was too long. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09006

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e SYS-ERR
                 TEI=f SAPI=g KEY=9006
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). While processing the message, an internal software error occurred in the switch (that is, a bad parameter was passed to a function).

4. EXTERNAL EVIDENCE

The received V.120 message was dropped and the PCBADPARAM assert fired indicating that a bad parameter was passed to a function. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms
    - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09007

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9007
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). While processing the message, an internal software error occurred in the switch (that is, a dynamic data tuple was found to be corrupt or missing). Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped and an assert may have fired indicating that a dynamic data tuple was found to be corrupt or missing. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts and Dynamic Data manuals for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms
    - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

None. If an assert fired, there was also an associated audit scheduled that repaired the corrupted or missing tuple. If a manual maintenance activity failed, retry the maintenance activity.

Refer to the Audits manual for additional information.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09008

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e STANDBY-EOC
                 TEI=f SAPI=g KEY=9008
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The message was an integrated digital terminal - remote digital terminal (IDT-RDT) type message and was received on the standby side of the embedded operations channel (EOC). IDT-RDT type messages should not to be received on the standby side of the EOC, they should only be received on the active side of the EOC.

4. EXTERNAL EVIDENCE

The received V.120 message is passed up to the higher layers of the protocol stack, so the switch will process the message as if it had come in on the active side. An EOC path switch request will be sent to the TR303 RT in order to resynchronize to the active side (that is, make sure that the RT and the switch agree which side is currently the active side). This path switch is requested directly by the V.120 protocol layer, rather than using conventional error analysis.

5. CORRECTIVE ACTION

If a burst of these PERs are reported for less than a one minute period and then not reported again for several hours, none. These are an informational trace indicating that the software on both sides of the interface (that is, the TR303 RT and the switch) have automatically corrected the problem.

If a burst of these PERs are reported for more than a one minute period or are reported for less than a one minute period several times an hour, then determine why the RT is sending messages to the wrong side of the EOC.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09009

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9009
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The rlFCPORTYPE static data tuple was found to be corrupt or missing.

4. EXTERNAL EVIDENCE

The PER key code 9008 will also be logged. An embedded operations channel (EOC) path switch request is supposed to be sent to the TR303 RT. The path switch request will not be sent. The PCFCPORT assert will fire and the associated FCPORTYPE audit will be scheduled that repaired the corrupted or missing tuple. Refer to the Asserts manual and the Audits manual for additional information.

5. CORRECTIVE ACTION

None.

6. REFERENCES

Other Manual(s):

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09010

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9010
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The rlRTEILA dynamic data tuple that was expected to be linked to a rlDPB dynamic data tuple was found to be corrupt or missing.

Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAURTEILA or PCDDPB assert fired indicating that a dynamic data tuple was found to be corrupt or missing. There was also an associated DPB or RTEILA audit scheduled that repaired the corrupted or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Dynamic Data Manual and Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning
- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09011

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9011
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). An rlAPDU dynamic data tuple that was expected to be linked to an rlRTEILA dynamic data tuple was found to be corrupt or missing. Refer to Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAURTEILA or PCAUAPDU assert fired indicating that a dynamic data tuple was found to be corrupt or missing. There was also an associated RTEILA or APDU audit scheduled that repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09012

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-EBIT
                 TEI=f SAPI=g KEY=9012
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The extension (E) bit portion of the V.120 header was found to be invalid. It was set to 0. It is supposed to be set to 1.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a V.120 message with the extension (E) bit portion of the V.120 header set incorrectly. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09013

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-EC
                 TEI=f SAPI=g KEY=9013
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The error control (EC) portion of the V.120 header was found to be invalid. The two error control bits should both be set to 0.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT is sending a V.120 message with the EC portion of the V.120 header set incorrectly. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09014

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e RCV-BEGIN
                 TEI=f SAPI=g KEY=9014
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a `V.120 BEG-SEG` segment from the TR303 remote terminal (RT) while the TR303 RT is in the "MIDDLE-SEG" state.

4. EXTERNAL EVIDENCE

The V.120 discarded the current application protocol data unit (APDU) under assembly, moved to the BEGIN state, and continued processing the received message.

5. CORRECTIVE ACTION

Determine why the RT is sending an inappropriate message.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09015

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9015
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch was trying to acquire an rlAPDU or rlRTMSGBUF dynamic data tuple from the free list. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAUAPDU, PCAPDU, or PCRTMSGBUF assert fired indicating that a dynamic data tuple was found to be corrupt or missing or an PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call. If a PCAUAPDU assert was fired, an associated APDU audit was scheduled which would repair the corrupted or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual or Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms

- RT hardware alarms
- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09016

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e SYS-ERR
                 TEI=f SAPI=g KEY=9016
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). An unexpected return code value was returned from a function call.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms
    - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09017

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e RCV-NONBEGIN
                 TEI=f SAPI=g KEY=9017
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The message received was a non-begin message while the TR303 RT is in the BEGIN state.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. RT OA&M activities may fail as a result of this error condition. These activities include:

Manual or automatic requests made from the switch to the RT:

- Remove/Restore of an ISDN or Analog Line
- ISDN or Analog Line Testing
- DSL Performance Monitoring
- DS1 Performance Monitoring
- Analog or ISDN Port Conditioning
- EOC/TMC Path Switching
- DS1 Protection Line Switching
- RT Alarm Reads
- RT Provisioning

- Messages sent autonomously by the RT to the switch:

- RT power or environmental alarms
- RT hardware alarms
- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the RT sent a non-begin message while in the BEGIN state. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09018

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e RBLIM
                 TEI=f SAPI=g KEY=9018
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The re-assembled remote operation service equipment (ROSE) application processor data unit (APDU) is larger than the maximum allowable size (10,000 bytes).

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. All V.120 messages of the current APDU under assembly were also discarded. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms
  - RT memory corruption alarms
  - ISDN loss of signal

5. CORRECTIVE ACTION

Determine why the ROSE APDU is too large. If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09019

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9019
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). An rlRTMSGBUG dynamic data tuple could not be acquired from the free list. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAUAPDU or PCRTMSGBUF assert fired indicating that an rlAPDU or rlRTMSGBUF dynamic data tuple was found to be corrupt or missing; or, the PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call. If a PCAUAPDU assert fired, then an APDU audit was scheduled which would repair the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual or the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09020

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e SYS-ERR
                 TEI=f SAPI=g KEY=9020
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). An unexpected return code value was returned from a function call.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCBADPARAM assert fired indicating that an unexpected return code value was returned from a function call. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms
    - RT memory corruption alarms

- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09021

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9021
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not add the rlAPDU tuple to the tail of the set owned by the rlRTEILA tuple because of dynamic data linkage problems. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAUAPDU assert fired indicating that a dynamic data tuple was found to be corrupt or missing. The associated APDU audit was scheduled that repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09022

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9022
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not unlink the rlAPDU tuple from the rlRTEILA tuple because of dynamic data linkage problem. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAUAPDU assert fired indicating that a dynamic data tuple was found to be corrupt or missing. There was also an associated APDU audit scheduled that repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09023

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9023
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not unlink the rlRTMSGBUF tuple from the rlAPDU tuple because of dynamic data linkage problems. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped The PCAURTMSGBUF assert fired indicating that a dynamic data tuple was found to be corrupt or missing. There was also an associated RTMSGBUF audit scheduled that repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09024

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9024
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not put the rlRTMSGBUF tuple back on the free list. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped The PCAURTMSGBUF assert fired indicating that a dynamic data tuple was found to be corrupt or missing or the PCBADPARAM assert fired indicating that an unexpected return code value was returned by a function call. If the PCAURTMSGBUF assert fired, then an associated RTMSGBUF audit was scheduled which would have repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual or the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
    - Remove/Restore of an ISDN or Analog Line
    - ISDN or Analog Line Testing
    - DSL Performance Monitoring
    - DS1 Performance Monitoring
    - Analog or ISDN Port Conditioning
    - EOC/TMC Path Switching
    - DS1 Protection Line Switching
    - RT Alarm Reads
    - RT Provisioning

- Messages sent autonomously by the RT to the switch:
    - RT power or environmental alarms
    - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09025

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9025
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not add the rlAPDU tuple to the tail of the set owned by the rlRTEILA tuple because of dynamic data linkage problems. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped The AUAPDU assert fired indicating that an APDU dynamic data tuple was found to be corrupt or missing. There was also an associated APDU audit scheduled that repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09026

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e DDA-ERR
                 TEI=f SAPI=g KEY=9026
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message from the TR303 remote terminal (RT). The switch could not put the rlAPDU tuple back on the free list. Refer to the Dynamic Data Manual for additional information.

4. EXTERNAL EVIDENCE

The received V.120 message was dropped. The PCAUAPDU assert fired indicating that a dynamic data tuple was found to be corrupt or missing or a PCBADPARAM assert fired indicating that a unexpected return value was returned from a function call. If the PCBADPARAM assert fired, then an associated APDU audit was scheduled which would have repaired the corrupt or missing tuple. All V.120 messages of the current application processor data unit (APDU) under assembly were also discarded. Refer to the Asserts manual and the Audits manual for additional information. RT OA&M activities may fail as a result of this error condition. These activities include:

- Manual or automatic requests made from the switch to the RT:
  - Remove/Restore of an ISDN or Analog Line
  - ISDN or Analog Line Testing
  - DSL Performance Monitoring
  - DS1 Performance Monitoring
  - Analog or ISDN Port Conditioning
  - EOC/TMC Path Switching
  - DS1 Protection Line Switching
  - RT Alarm Reads
  - RT Provisioning
- Messages sent autonomously by the RT to the switch:
  - RT power or environmental alarms
  - RT hardware alarms

- RT memory corruption alarms
- ISDN loss of signal

5. CORRECTIVE ACTION

If a manual maintenance activity failed, retry the maintenance activity.

6. REFERENCES

Other Manual(s):

235-600-209 *Dynamic Data Manual*

235-600-400 *Audits*

235-600-500 *Asserts*

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09027

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-TEI
                 TEI=f SAPI=g KEY=9027
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message on a embedded operations channel (EOC) with an invalid terminal equipment identifier (TEI), from a remote terminal (RT). The TEI expected is 4.

4. EXTERNAL EVIDENCE

None. The received V.120 message was dropped.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an invalid TEI.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

09028

Key Code Range: 09000 - 09999
Software Release: 5E10 and later
Protocol: V.120
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb V120 c d e INV-SAPI
                 TEI=f SAPI=g KEY=9028
```

2. EXPLANATION OF VARIABLES

Refer to the 09(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a V.120 message on a embedded operations channel (EOC) with an incorrect service access point identifier (SAPI) value from a remote terminal (RT). The SAPI value expected was 1.

4. EXTERNAL EVIDENCE

None. The received V.120 message was dropped.

5. CORRECTIVE ACTION

Determine why the RT transmitted a message with an incorrect SAPI value.

6. REFERENCES

Other Manual(s):

TR-NWT-00303 *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface*

14. 10-CESHL2

10(BASE)

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2

1. BASE FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e y
                 LINK=f [SHDLCI=g] [CEDLCI=h] KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Logical Link state associated with the error Valid values are:
DLCI-UNASGND = DLCI (data link connection identifier), unassigned.
DLCI-ASSIGNED = DLCI assigned
AWAIT-ESTAB = Awaiting establish
AWAIT-RELEASE = Awaiting release
MF-ESTABLISH = Multiframe establish
TMR-RECOVERY = Timer recovery

d = Channel element to speech handler layer 2 (CESHL2) frame type associated with the error. Valid values are:

XID	= Exchange ID, unnumbered format (u-frame).
SABME	= Set asynchronous balanced mode used to bring up/reset the link, u-frame.
	Note: This frame is only sent to the far end when the logical link state is in MF-ESTAB or TMR-RECOVERY.
UA	= Unnumbered Acknowledgment, u-frame.
DM	= Disconnect Mode, u-frame.
DISC	= Disconnect, u-frame.
FRMR	= Frame reject, u-frame.
UI	= Unnumbered Acknowledgement, u-frame.
RR	= Receiver Ready, Supervisory format (s-frame).
RNR	= Receiver Not Ready, s-frame.
REJ	= Reject, s-frame.
I	= Information, (i-frame)
UNKNOWN	= Unknown

e = Direction of transmission for the CESHL2 frame associated with the error. Valid values are:

RCV	= Frame transmitted from the cell site (that is, channel element) to the switch (that is, speech handler).
XMT	= Frame transmitted from the switch (that is, speech handler) to the cell site (that is, channel element).

f = The logical link corresponding to the entity that received or transmitted the frame associated with

the detected error (0-2).

`g` = The speech handler data link connection identifier (SHDLCI) corresponding to the local entity that received or transmitted the frame associated with the detected error. The SHDLCI has the logical link number, the PSU (Packet Switch Unit) community number, and the PH (Protocol Handler) Number embedded within it. If no value is present, then the entity is not known.

`h` = The channel element data link connection identifier (CEDLCI) corresponding to the remote entity that transmitted or received the frame associated with the detected error. If no value is present, then the entity is not known.

`y` = The protocol error code (PEC) denoting the error detected.

`z` = The key code that uniquely identifies the individual occurrence of the PEC specified in '`y`'.

3. REFERENCES

Other Manual(s):

235-200-100 *5ESS™-2000 Switch For AUTOPLEX System 1000 Wireless Applications*

10000-A

Key Code Range: 10000 - 10999
Software Release: 5E10 only
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e LNG-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10000
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end that exceeded the maximum length of 78 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid length.

6. REFERENCES

None.

10000-B

Key Code Range: 10000 - 10999
Software Release: 5E11 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e LNG-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10000
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end that exceeded the maximum length of 78 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid length.

6. REFERENCES

None.

10002

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e SHRT-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10002
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end that was less than 5 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that was too short.

6. REFERENCES

None.

10004

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UXP-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10004
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 unexpected frame from the far end in the DLCI Unassign state. In the DLCI Unassign state the switch is expecting a XID command frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a unexpected frame.

6. REFERENCES

None.

10006

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e ILL-ADD
                 LINK=f SHDLCI=g CEDLCI=h KEY=10006
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end which had the extended address bit(s) set incorrectly. Each byte in the address field of the frame is expected to end in a zero with the last byte ending in a one.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with incorrect extended address bit(s).

6. REFERENCES

None.

10008

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-DLCI
                 LINK=f SHDLCI=g CEDLCI=h KEY=10008
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with a invalid DLCI. The DLCI contained a invalid PSU community number, or a invalid channel group number.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid DLCI.

6. REFERENCES

None.

10010

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-DLCI
                 LINK=f SHDLCI=g CEDLCI=h KEY=10010
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with a invalid DLCI. The DLCI contained a invalid or unknown version number. The switch expects a version number of zero.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an invalid DLCI.

6. REFERENCES

None.

10012

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UXP-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10012
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 unexpected I-frame from the far end when in DLCI assign, release wait, or establish wait state.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a unexpected frame.

6. REFERENCES

None.

10014

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e I-EXP
                 LINK=f SHDLCI=g CEDLCI=h KEY=10014
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 I-frame from the far end without an information field.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted an I-frame with no information field.

6. REFERENCES

None.

10016

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e SHRT-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10016
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 I-frame from the far end that was less than 5 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that was too short.

6. REFERENCES

None.

10018

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-CR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10018
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 response I-frame from the far end but was expecting a command frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a response frame.

6. REFERENCES

None.

10020

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e SHRT-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10020
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 S-frame from the far end that was less than 5 bytes.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame that was too short.

6. REFERENCES

None.

10022

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UXP-I-FLD
                 LINK=f SHDLCI=g CEDLCI=h KEY=10022
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 S-frame from the far end that had a unexpected information field.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with a unexpected information field.

6. REFERENCES

None.

10024

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e I-EXP
                 LINK=f SHDLCI=g CEDLCI=h KEY=10024
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 UI or FRMR frame from the far end without an information field.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a UI or FRMR frame with no information field.

6. REFERENCES

None.

10026

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UXP-I-FLD
                 LINK=f SHDLCI=g CEDLCI=h KEY=10026
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 U-frame from the far end that had a unexpected information field.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a frame with an unexpected information field.

6. REFERENCES

None.

10028

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-CR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10028
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 response U-frame from the far end but was expecting a command frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a response frame.

6. REFERENCES

None.

10030

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-CR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10030
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 command U-frame from the far end but was expecting a response frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a command frame.

6. REFERENCES

None.

10032

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UXP-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10032
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 unexpected SABME, UA, or DM frame from the far end in multiframe or timer recovery state.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end transmitted a unexpected frame.

6. REFERENCES

None.

10034

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UNK-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10034
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR from the far end which indicated that the switch had previously sent a frame with an undefined or unimplemented control field. The control field of that frame was returned in the FRMR and had the "W" bit set.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch transmitted a frame which had a undefined or unimplemented control field.

6. REFERENCES

None.

10036

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-I-FLD
                 LINK=f SHDLCI=g CEDLCI=h KEY=10036
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR from the far end which indicated that the switch had previously sent a frame with an unexpected information field. The control field of that frame was returned in the FRMR and had the "X" bit set.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch transmitted a frame to the far end that had a unexpected information field.

6. REFERENCES

None.

10038

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e LNG-I-FLD
                 LINK=f SHDLCI=g CEDLCI=h KEY=10038
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR from the far end which indicated that the switch had previously sent a frame with an information field that exceeded the maximum length of 72 bytes. The control field of that frame was returned in the FRMR and had the "Y" bit set.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end received a CESHL2 frame from the switch with an information field that exceeded 72 bytes.

6. REFERENCES

None.

10040

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-NR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10040
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR from the far end which indicated that the switch had previously sent a frame with an invalid "next-to-receive" sequence number. The control field of that frame was returned in the FRMR and had the "Z" bit set.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end received a frame from the switch which contained an invalid "next-to-receive" sequence number.

6. REFERENCES

None.

10042

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e FRM-REJ
                 LINK=f SHDLCI=g CEDLCI=h KEY=10042
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR frame from the far end. The control field of that frame was returned in the FRMR and had neither the "W", "X", "Y", or "Z" bits set.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received a FRMR frame from the far end.

6. REFERENCES

None.

10044

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e FRM-REJ
                 LINK=f SHDLCI=g CEDLCI=h KEY=10044
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 FRMR frame from the far end. The control field of that frame was not returned and/or the frame was a command frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received a FRMR frame from the far end.

6. REFERENCES

None.

10046

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-NR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10046
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with an invalid "next- to-receive" sequence number.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the switch received a frame from the far end with an invalid "next-to-receive" sequence number.

6. REFERENCES

None.

10048

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-NR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10048
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with an invalid "next- to-receive" sequence number.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the switch received a frame from the far end with an invalid "next-to-receive" sequence number.

6. REFERENCES

None.

10050

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e UNK-FRM
                 LINK=f SHDLCI=g CEDLCI=h KEY=10050
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a unknown CESHL2 S-frame from the far end.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the far end transmitted a unknown S-frame.

6. REFERENCES

None.

10052

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-NR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10052
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with an invalid "next- to-receive" sequence number.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the switch received a frame from the far end with an invalid "next-to-receive" sequence number.

6. REFERENCES

None.

10054

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-NR
                 LINK=f SHDLCI=g CEDLCI=h KEY=10054
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 frame from the far end with an invalid "next- to-receive" sequence number.

4. EXTERNAL EVIDENCE

The frame is discarded. The link is reset by transmitting a SABME to the far end.

5. CORRECTIVE ACTION

Determine why the switch received a frame from the far end with an invalid "next-to-receive" sequence number.

6. REFERENCES

None.

10056

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-XID
                 LINK=f SHDLCI=g CEDLCI=h KEY=10056
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 invalid XID frame from the far end. The frame contained an invalid format ID.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received an invalid XID frame from the far end.

6. REFERENCES

None.

10058

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-XID
                 LINK=f SHDLCI=g CEDLCI=h KEY=10058
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 invalid XID frame from the far end. The extended address bits in the channel element DLCI were set incorrectly. Each byte of this field is expected to end in a zero with the last byte ending in a one.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received an invalid XID frame from the far end.

6. REFERENCES

None.

10059

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis:

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-XID
                 LINK=f SHDLCI=g CEDLCI=h KEY=10059
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 invalid XID frame from the far end. The group length field in the frame was inconsistent with the actual length of the frame.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received an invalid XID frame from the far end.

6. REFERENCES

None.

10060

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-XID
                 LINK=f SHDLCI=g CEDLCI=h KEY=10060
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 invalid XID frame from the far end. The group length field did not indicate the fixed, known length of a XID command frame (7 bytes).

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received an invalid XID frame from the far end.

6. REFERENCES

None.

10062

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e INV-XID
                 LINK=f SHDLCI=g CEDLCI=h KEY=10062
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received a CESHL2 invalid XID frame from the far end. The frame contained a unknown or invalid group ID.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the switch received an invalid XID frame from the far end.

6. REFERENCES

None.

10064

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e RTRY-EXC
                 LINK=f SHDLCI=g CEDLCI=h KEY=10064
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch timed out three times waiting for a response to a SABME it initiated to the far end, each time waiting approximately 100 milliseconds.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end did not response to the SABME.

6. REFERENCES

None.

10066

Key Code Range: 10000 - 10999
Software Release: 5E10 and later
Protocol: CESHL2
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL2 c d e RTRY-EXC
                 LINK=f SHDLCI=g CEDLCI=h KEY=10066
```

2. EXPLANATION OF VARIABLES

Refer to the 10(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch timed out three times waiting for a response to a DISC it initiated to the far end, each time waiting approximately 100 milliseconds.

4. EXTERNAL EVIDENCE

None. The frame is discarded.

5. CORRECTIVE ACTION

Determine why the far end did not response to the DISC.

6. REFERENCES

None.

15. 11-CESHL3

11(BASE)

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3

1. BASE FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e y
                 LINK=f [SHDLCI=g] [CEDLCI=h] KEY=z
```

2. EXPLANATION OF VARIABLES

a = Time stamp date in the form mm/dd.

b = Time stamp time in the form hh:mm:ss.

c = Logical link state associated with the error. Valid values are:

LM-IDLE	= Link manager is idle.
LM-ASGN	= Link manager is assigned.
LM-ESTAB	= Link manager is established.
LM-CONNECT	= Link manager is connected.
LM-DISC	= Link manager performing disconnect procedure.
LM-DROP	= Link manager performing drop procedure.
LM-RELEASE	= Link manager performing release procedure.
TM-IDLE	= Tone manager is idle.
TM-CONT	= Tone manager generating continuous DTMF tone.
TM-BURST	= Tone manager generating burst DTMF tones.
TM-TIMEOUT	= Tone manager continuous tone timed out.

d = Channel element to speech handler layer 3 (CESHL3) message type associated with the error. Valid values are:

BURST-DTMF	= Burst dual tone multi-frequency (DTMF).
START-DTMF	= Start DTMF.
STOP-DTMF	= Stop DTMF.
CLK-ADJUST	= Clock adjustment.
CONNECT	= Connect.
JOIN	= Join.
REMOVE	= Remove.
REV-VOICE	= Reverse voice.
REV-MIXED	= Reverse voice and signaling.
UNKNOWN	= Message type not known.

e = Direction of transmission for the CESHL3 message associated with the error. Valid values are:

RCV	= Message transmitted from the cell site (that is, Channel Element) to the switch (that is, Speech Handler).
XMT	= Message transmitted from the switch (that is, Speech Handler) to the cell site (that is, Channel Element).

f = The logical link corresponding to the entity that received or transmitted the message associated

with the detected error (0-2).

g = The speech handler data link connection identifier (SHDLCI) corresponding to the local entity that received or transmitted the message associated with the detected error. If no value is present, then the entity is not known.

h = The channel element data link connection identifier (CEDLCI) corresponding to the remote entity that transmitted or received the message associated with the detected error. If no value is present, then the entity is not known.

y = The protocol error code (PEC) denoting the error detected.

z = The key code that uniquely identifies the individual occurrence of the PEC specified in 'y'.

3. REFERENCES

Other Manual(s):

235-200-100 *5ESS™-2000 Switch For AUTOPLEX System 1000 Wireless Applications*

11001

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-CALL-ID
                 LINK=f SHDLCI=g CEDLCI=h KEY=11001
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site with an invalid call identifier. CESHL3 compares the call identifier from the received connection request frame with the call identifier previously assigned by the executive cellular processor (ECP). In this instance, the call identifier received did not match the call identifier stored. Note: Since this PER is triggered by a CESHL2 message the packet type is set to unknown.

4. EXTERNAL EVIDENCE

The connection request was denied (that is, a negative acknowledgement was returned) and the call was dropped.

5. CORRECTIVE ACTION

Determine why the call identifier received from the cell site did not agree with the call identifier assigned by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11002

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e EXP-ASGN-TIM
                 LINK=f SHDLCI=g CEDLCI=h KEY=11002
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The CESHL3 connection assignment timer was started when a link connection indication was received from CESHL2. Note: Receipt of a Layer 2 XID frame caused this timer to be started. The connection assignment timer expired while waiting for the data link established indication from CESHL2.

4. EXTERNAL EVIDENCE

The call was dropped.

5. CORRECTIVE ACTION

Determine why the cell site did not send the appropriate CESHL2 indication in the time allowed.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11003

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e EXP-CONN-TIM
                 LINK=f SHDLCI=g CEDLCI=h KEY=11003
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The CESHL3 connection establishment timer was started when a link established indication was received from CESHL2. Note: Receipt of a Layer 2 SABME frame caused this timer to be started. The connection establishment timer expired while waiting for a `FS_CONNECT` message from the cell site.

4. EXTERNAL EVIDENCE

The call was dropped.

5. CORRECTIVE ACTION

Determine why the cell site did not send the `FS_CONNECT` message in the time allowed.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11004

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e EXP-DIS-TIM
                 LINK=f SHDLCI=g CEDLCI=h KEY=11004
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The CESHL3 disconnect timer was started in one of the following two scenarios. Either CESHL3 requested CESHL2 to release the link or a `FS_REMOVE` message was received from the cell site and CESHL3 was expecting the cell site to release the CESHL2 link. In either case, the disconnect timer expired while waiting for the data link release indication or data link release confirmed indication from CESHL2.

4. EXTERNAL EVIDENCE

Call release procedures were continued. CESHL3 requested CESHL2 to release the link.

5. CORRECTIVE ACTION

Determine why the cell site did not send the appropriate CESHL2 indication in the time allowed.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11005

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e EXP-RMV-TIM
                 LINK=f SHDLCI=g CEDLCI=h KEY=11005
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The CESHL3 remove timer was started when CESHL3 sent a `FS_DROP` message to the cell site. The remove timer expired while waiting for a `FS_REMOVE` message from the cell site.

4. EXTERNAL EVIDENCE

Call release procedures were continued. CESHL3 requested CESHL2 to release the link.

5. CORRECTIVE ACTION

Determine why the cell site did not send an `FS_REMOVE` message in response to the `FS_DROP` message in the time allowed.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11006

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UXP-CONN-TYP
                 LINK=f SHDLCI=g CEDLCI=h KEY=11006
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

One of three possible events occurred:

- A `FS_JOIN` was received from the cell site when a `FS_CONNECT` was expected.
- A `FS_CONNECT` was received from the cell site when a `FS_JOIN` was expected.
- A `FS_CONNECT` or a `FS_JOIN` was received from the cell site when neither was expected.

4. EXTERNAL EVIDENCE

The connect or join request was denied (that is, a negative acknowledgement was returned to the cell site).

5. CORRECTIVE ACTION

Determine why the cell site sent an incorrect connect or join request.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11007

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UXP-INP-TYPE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11007
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unexpected CESHL2 indication or CESHL3 message was received for the current state of the CESHL3 state machine.

4. EXTERNAL EVIDENCE

The input was ignored.

5. CORRECTIVE ACTION

None.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11008

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-PKT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11008
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 information frame was received from the cell site, however the CESHL3 packet type in the frame was incorrect. The CESHL3 packet type differentiates inter-processor signaling packets from voice packets. In this instance, the expected packet type was inter-processor signaling.

4. EXTERNAL EVIDENCE

The CESHL3 packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL2 information frame with the incorrect CESHL3 packet type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11009

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-CS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11009
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 inter-processor signaling packet was received from the cell site. The code set value received did not match the expected code set value for an inter-processor signaling packet.

4. EXTERNAL EVIDENCE

A `FS_NACK` message was returned to the cell site and the inter-processor signaling packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an inter-processor signaling packet with an invalid code set value.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11010

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-CEID
                 LINK=f SHDLCI=g CEDLCI=h KEY=11010
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 inter-processor signaling packet was received from the cell site and the Channel Element Identifier (CEID) received in the message did not match the CEID expected. The expected CEID is printed as variable 'h'.

4. EXTERNAL EVIDENCE

An FS_NACK message was returned to the cell site and the inter-processor signaling packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an inter-processor signaling packet with an incorrect CEID.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11011

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-SHID
                 LINK=f SHDLCI=g CEDLCI=h KEY=11011
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 inter-processor signaling packet was received from the cell site and the Speech Handler Identifier (SHID) received in the message did not match the SHID expected. The expected SHID is printed as variable '`g`'.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the inter-processor signaling packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an inter-processor signaling packet with an incorrect SHID.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11012

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-DTMF
                 LINK=f SHDLCI=g CEDLCI=h KEY=11012
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `FS_START_DTMF` message was received from the cell site with an invalid (that is, out of range) dual tone multi-frequency (DTMF) digit value.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the `FS_START_DTMF` message was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an `FS_START_DTMF` message with an invalid DTMF digit value.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11013

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-DTMF
                 LINK=f SHDLCI=g CEDLCI=h KEY=11013
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `FS_BURST_DTMF` message was received from the cell site with an invalid number (that is, too many or none) of dual tone multi-frequency (DTMF) digits.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the `FS_BURST_DTMF` message was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an `FS_BURST_DTMF` message with an invalid number of DTMF digits.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11014

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-DTMF
                 LINK=f SHDLCI=g CEDLCI=h KEY=11014
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An `FS_BURST_DTMF` message was received from the cell site with an invalid dual tone multi-frequency (DTMF) digit value.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the `FS_BURST_DTMF` message was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an `FS_BURST_DTMF` message with an invalid DTMF digit value.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11015

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UXP-INP-TYPE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11015
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an `FS_ACK`, `FS_NACK`, or `FS_DROP` message from the cell site. These messages are unexpected.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the message was dropped.

5. CORRECTIVE ACTION

Determine why the cell site sent an unexpected message.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11016

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-MSG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11016
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 inter-processor signaling packet containing an unknown CESHL3 message type was received from the cell site.

4. EXTERNAL EVIDENCE

An `FS_NACK` message was returned to the cell site and the inter-processor signaling packet was dropped.

5. CORRECTIVE ACTION

Determine why the cell site sent an inter-processor signaling packet containing an unknown message type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11017

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-PKT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11017
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 unnumbered information frame was received from the cell site, however the CESHL3 packet type was incorrect. The CESHL3 packet type differentiates inter-processor signaling packets from voice packets. In this instance, the expected packet type was voice. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL2 unnumbered information frame with an incorrect CESHL3 packet type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11018

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-PKT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11018
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 unnumbered information frame was received from the cell site, however the CESHL3 packet type was incorrect. The CESHL3 packet type differentiates inter-processor signaling packets from voice packets. In this instance, the expected packet type was voice. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL2 unnumbered information frame with an incorrect CESHL3 packet type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11019

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-RVCS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11019
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid reverse voice code set. The reverse voice code set differentiates 8K and 13K bps vocoder types. In this instance, the expected code set was 8K bps vocoder type.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid code set.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11020

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-RVCS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11020
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid reverse voice code set. The reverse voice code set differentiates 8K and 13K bps vocoder types. In this instance, the expected code set was 13K bps vocoder type.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid code set.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11021

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-VTT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11021
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid voice traffic type. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid voice traffic type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11022

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-VTT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11022
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid voice traffic type. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid voice traffic type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11023

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11023
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was half rate for a voice packet with half rate reverse signaling. The voice traffic rate was not half rate. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11024

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11024
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was quarter rate for a voice packet with three-quarter rate reverse signaling. The voice traffic rate was not quarter rate. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11025

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11025
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was one-eighth rate for a voice packet with seven-eighths rate reverse signaling. The voice traffic rate was not one-eighth rate. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11026

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11026
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was zero rate for a voice packet with full rate reverse signaling. The voice traffic rate was not zero rate. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11027

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11027
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was zero rate for a voice packet with one of the following reverse signaling rates: 1.0K bps secondary traffic, 2.6K bps signaling, 6.05K bps signaling or 13.05K bps signaling. The voice traffic rate was not zero rate. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11028

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11028
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was one-eighth rate for a voice packet with one of the following reverse signaling rates: 1.6K bps signaling, 4.05K bps signaling + 1.0K bps secondary traffic, 5.05K bps signaling, 11.05K bps signaling + 1.0K bps secondary traffic or 12.05K bps signaling. The voice traffic rate was not one-eighth rate. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11029

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11029
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was quarter rate for a voice packet with one of the following reverse signaling rates: 3.35K bps signaling or 10.35K bps signaling. The voice traffic rate was not quarter rate. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11030

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e REV-SIG-MSMTCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11030
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site. There was a mismatch between the voice traffic type and the reverse signaling type. The expected voice traffic type was half rate for a voice packet with one of the following reverse signaling rates: 6.85K bps signaling. The voice traffic rate was not half rate. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent the incorrect combination of reverse voice rate and reverse signaling rate.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11031

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-REV-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11031
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unknown reverse signaling type. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unknown reverse signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11032

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-REV-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11032
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unknown reverse signaling type. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unknown reverse signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11033

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNS-FWD-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11033
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unsupported forward signaling type. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unsupported forward signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11034

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNS-FWD-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11034
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unsupported forward signaling type. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unsupported forward signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11035

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-FWD-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11035
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unknown forward signaling type. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unknown forward signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11036

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-FWD-SIG
                 LINK=f SHDLCI=g CEDLCI=h KEY=11036
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an unknown forward signaling type. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an unknown forward signaling type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11037

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e PKT-SIZE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11037
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site where the frame size (as indicated by CESHL2) did not agree with CESHL3 header information. The vocoder type for the call was 8K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a reverse voice packet with an incorrect frame size.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11038

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e PKT-SIZE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11038
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site where the frame size (as indicated by CESHL2) did not agree with CESHL3 header information. The vocoder type for the call was 13K bps.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a reverse voice packet with an incorrect frame size.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11039

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e VOC-MISMATCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11039
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site. The vocoder type for the call requested by the connection request did not match the vocoder type previously specified for this call by the Executive Cellular Processor (ECP). The expected vocoder type was 8K bps. Note: Although this PER is logged as a CESHL3 PER, the check of vocoder type was performed as a result of a CESHL2 frame, and there is no corresponding level 3 message. Therefore, the PER will print the CESHL3 message type as UNKNOWN.

4. EXTERNAL EVIDENCE

A negative acknowledgement was returned to the cell site.

5. CORRECTIVE ACTION

Determine why the vocoder type requested by the cell site did not match the vocoder type specified by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11040

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e VOC-MISMATCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11040
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site. The vocoder type for the call requested by the connection request did not match the vocoder type previously specified for this call by the Executive Cellular Processor (ECP). The expected vocoder type was 13K bps. Note: Although this PER is logged as a CESHL3 PER, the check of vocoder type was performed as a result of a CESHL2 frame, and there is no corresponding level 3 message. Therefore, the PER will print the CESHL3 message type as UNKNOWN.

4. EXTERNAL EVIDENCE

A negative acknowledgement was returned to the cell site.

5. CORRECTIVE ACTION

Determine why the vocoder type requested by the cell site did not match the vocoder type specified by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11041

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e LNK-LOST-OUTSQ
                 LINK=f SHDLCI=g CEDLCI=h KEY=11041
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Excessive (that is, greater than 250) consecutive out-of-sequence, missing or invalid CESHL3 reverse voice packets were detected for a call leg. The time duration for 250 consecutive reverse voice packets is 5 seconds. The number of out-of-sequence packets was greater than the number of missing or invalid packets.

4. EXTERNAL EVIDENCE

The call leg was dropped. If the call was not in soft handoff, the call was dropped. If the call was in soft handoff, only the errored call leg was dropped.

5. CORRECTIVE ACTION

Determine why 250 consecutive CESHL3 reverse voice packets were out-of-sequence, missing or invalid.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11042

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e LNK-LOST-MISS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11042
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

Excessive (that is, greater than 250) consecutive out-of-sequence, missing or invalid CESHL3 reverse voice packets were detected for a call leg. The time duration for 250 consecutive reverse voice packets is 5 seconds. The number of missing and/or invalid packets was greater than the number of out-of-sequence packets.

4. EXTERNAL EVIDENCE

The call leg was dropped. If the call was not in soft handoff, the call was dropped. If the call was in soft handoff, only the errored call leg was dropped.

5. CORRECTIVE ACTION

Determine why 250 consecutive CESHL3 reverse voice packets were out-of-sequence, missing or invalid.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11043

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e EXP-TON-TIM
                 LINK=f SHDLCI=g CEDLCI=h KEY=11043
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The continuous Dual Tone Multi-Frequency (DTMF) tone timer was started when the continuous DTMF tone was started. CESHL3 expected to receive a CESHL3 FS_STOP_DTMF message from the cell site before the continuous DTMF tone timer expired. The continuous DTMF tone timer expired while waiting for a CESHL3 FS_STOP_DTMF message from the cell site.

4. EXTERNAL EVIDENCE

The continuous DTMF tone was stopped.

5. CORRECTIVE ACTION

Determine why the cell site did not send a CESHL3 FS_STOP_DTMF message prior to the expiration of the timer.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11044

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UXP-INP-TYPE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11044
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

An unexpected CESHL3 FS_STOP_DTMF message was received from the cell site. The CESHL3 state machine was not in the correct state to accept an FS_STOP_DTMF message.

4. EXTERNAL EVIDENCE

The message was ignored.

5. CORRECTIVE ACTION

Determine why the cell site sent an unexpected FS_STOP_DTMF message.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11045

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e BURST-Q-OVFL
                 LINK=f SHDLCI=g CEDLCI=h KEY=11045
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 FS_BURST_DTMF message was received from the cell site which caused the burst Dual Tone Multi-Frequency (DTMF) digit queue to overflow. The burst DTMF digit queue has a fixed size of 128 DTMF digits. Each FS_BURST_DTMF message contains 1 to 64 DTMF digits. Multiple FS_BURST_DTMF messages were received such that the total number of DTMF digits to be queued exceeded 128.

4. EXTERNAL EVIDENCE

The FS_BURST_DTMF message was ignored.

5. CORRECTIVE ACTION

Determine why the cell site sent more burst DTMF digits than the queue could hold.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11046

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e PKT-SIZE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11046
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 inter-processor signaling packet was received from the cell site, however the frame size (as indicated by CESHL2) was incorrect for the CESHL3 message type.

4. EXTERNAL EVIDENCE

A CESHL3 FS_NACK message was returned to the cell site and the inter-processor signaling packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent an inter-processor signaling packet of incorrect size.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11047

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: \"ERROR ANALYSIS

1. FORMAT

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site. The vocoder type for the call requested by the connection request did not match the vocoder type previously specified for this call by the Executive Cellular Processor (ECP). The expected vocoder type was EVRC 8K bps. Note: Although this PER is logged as a CESHL3 PER, the check of vocoder type was performed as a result of a CESHL2 frame, and there is no corresponding level 3 message. Therefore, the PER will print the CESHL3 message type as UNKNOWN.

4. EXTERNAL EVIDENCE

A negative acknowledgement was returned to the cell site.

5. CORRECTIVE ACTION

Determine why the vocoder type requested by the cell site did not match the vocoder type specified by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11048

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis:

1. FORMAT

```
PER
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

This file has been created for the newest release. Additional information will be included as it is made available.

4. EXTERNAL EVIDENCE

5. CORRECTIVE ACTION

6. REFERENCES

None.

11049

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis:

1. FORMAT

```
PER
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

This file has been created for the newest release. Additional information will be included as it is made available.

4. EXTERNAL EVIDENCE

5. CORRECTIVE ACTION

6. REFERENCES

None.

11050

Key Code Range: 11000 - 11999
Software Release: 5E10 and later
Protocol: CESHL3
Error Analysis: \"ERROR ANALYSIS

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UXP-INP-TYPE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11050
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

The switch received either an FS_BURST, FS_START, or FS_STOP message from the cell site for a CDMA data call. These messages are unexpected.

4. EXTERNAL EVIDENCE

An FS_NACK message was returned to the cell site and the message was dropped.

5. CORRECTIVE ACTION

Determine why the cell site sent an unexpected message.

6. REFERENCES

None.

11051

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-PKT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11051
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 unnumbered information frame was received from the cell site, however the CESHL3 packet type was incorrect. The CESHL3 packet type differentiates inter-processor signaling packets from voice packets. In this instance, the expected packet type was voice. The vocoder type for the call was ACELP.

4. EXTERNAL EVIDENCE

The CESHL3 packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL2 unnumbered information frame with an incorrect CESHL3 packet type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11052

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-RVCS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11052
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid reverse voice header extension bit. The extension bit was not set to a 1. The vocoder type for the call was ACELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid header extension bit.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11053

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-VTT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11053
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with invalid voice traffic. The vocoder type for the call was ACELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with invalid voice traffic.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11054

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e PKT-SIZE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11054
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site where the frame size (as indicated by CESHL2) did not agree with CESHL3 header information. The vocoder type for the call was ACELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a reverse voice packet with an incorrect frame size.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11055

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-PKT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11055
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 unnumbered information frame was received from the cell site, however the CESHL3 packet type was incorrect. The CESHL3 packet type differentiates inter-processor signaling packets from voice packets. In this instance, the expected packet type was voice. The vocoder type for the call was VSELP.

4. EXTERNAL EVIDENCE

The CESHL3 packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL2 unnumbered information frame with an incorrect CESHL3 packet type.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11056

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e INV-RVCS
                 LINK=f SHDLCI=g CEDLCI=h KEY=11056
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with an invalid reverse voice header extension bit. The extension bit was not set to a 1. The vocoder type for the call was VSELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with an invalid header extension bit.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11057

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e UNK-VTT
                 LINK=f SHDLCI=g CEDLCI=h KEY=11057
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site with invalid voice traffic. The vocoder type for the call was VSELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a CESHL3 reverse voice packet with invalid voice traffic.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11058

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: yes

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e PKT-SIZE
                 LINK=f SHDLCI=g CEDLCI=h KEY=11058
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL3 reverse voice packet was received from the cell site where the frame size (as indicated by CESHL2) did not agree with CESHL3 header information. The vocoder type for the call was VSELP.

4. EXTERNAL EVIDENCE

The CESHL3 reverse voice packet was discarded.

5. CORRECTIVE ACTION

Determine why the cell site sent a reverse voice packet with an incorrect frame size.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11059

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e VOC-MISMATCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11059
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site. The vocoder type for the call requested by the connection request did not match the vocoder type previously specified for this call by the Executive Cellular Processor (ECP). The expected vocoder type was ACELP. Note: Although this PER is logged as a CESHL3 PER, the check of vocoder type was performed as a result of a CESHL2 frame, and there is no corresponding level 3 message. Therefore, the PER will print the CESHL3 message type as UNKNOWN.

4. EXTERNAL EVIDENCE

A negative acknowledgement was returned to the cell site.

5. CORRECTIVE ACTION

Determine why the vocoder type requested by the cell site did not match the vocoder type specified by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*

11060

Key Code Range: 11000 - 11999
Software Release: 5E12 and later
Protocol: CESHL3
Error Analysis: no

1. FORMAT

```
PER a/a bb:bb:bb CESHL3 c d e VOC-MISMATCH
                 LINK=f SHDLCI=g CEDLCI=h KEY=11060
```

2. EXPLANATION OF VARIABLES

Refer to the 11(BASE) description for a full explanation of all variables shown in the format.

3. CAUSE

A CESHL2 connection request frame was received from the cell site. The vocoder type for the call requested by the connection request did not match the vocoder type previously specified for this call by the Executive Cellular Processor (ECP). The expected vocoder type was VSELP. Note: Although this PER is logged as a CESHL3 PER, the check of vocoder type was performed as a result of a CESHL2 frame, and there is no corresponding level 3 message. Therefore, the PER will print the CESHL3 message type as UNKNOWN.

4. EXTERNAL EVIDENCE

A negative acknowledgement was returned to the cell site.

5. CORRECTIVE ACTION

Determine why the vocoder type requested by the cell site did not match the vocoder type specified by the ECP.

6. REFERENCES

Other Manual(s):

235-200-100 *5ESS®-2000 Switch For AUTOPLEX® System 1000 Wireless Applications*