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DMS-100 Family

North American DMS-100

Customer Data Schema Reference Manual Volume 10 of 11

Data Schema TABLES-TRKGRP type OS

LEC0015 and up Standard 05.02 May 2001

NORTEL NETWORKS™

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1 Data schema tables

The following pages contain the data schema tables.

TABLES

Table name

Table TABLES

Functional description

Table TABLES is a software management table that cross-references a number of internal tables. User datafill is not required, the table is displayed for information only.

TABMON

Table name

Table Monitoring table

Functional description

This table allows the operating company to activate or deactivate monitoring for each table in the DMS load. If monitoring is active, the operating company can use data in TABMON to activate notification and generation of (TUPL) logs. The system generates these logs for tuple changes, additions, and deletions in the monitored table.

This table functions when software optionality control (SOC) option BASE CO Data Change is on.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table TABMON:

- SOCVAR
- SOCFEAT
- SOCOPT

Table size

The size of the table is static. The size of the table depends on the number of tables in the load. You can change only tuples. You cannot add or delete tuples.

Datafill

Datafill for table TABMON appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TABNAME		vector of a maximum of 16 alphanumeric characters	Enter the DMS table name.
MONITOR		Y or N	Enter Y to activate table monitoring. Enter N to deactivate table monitoring. The default value is N.

TABMON (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LOG		Y or N	Enter Y for TUPL log generation. Enter N to disable TUPL log generation. The default value is N.
FILES		vectors of a maximum of eight characters each	Enter the names of the files where the system sends tuple change notification. The default value is $ (dollar sign).
OWNER		vector of a maximum of three user names	Enter a maximum of three userids. The system does not notify these users of table datafill changes that the users made. The default value is $.

Datafill example

Sample datafill for table TABMON appears in the following table.

MAP example for table TABMON

```
TABNAME MONITOR LOG         FILES   OWNER
_____________________________________________________
   CLLI       Y  N  FILE1 FILE2 $ ADMIN $
```

Table history

BASE07

Table TABMON was introduced in BASE07.

Additional information

Log reports TUPL600, TUPL601, TUPL602, TUPL603, TUPL604, TUPL605, and TUPL606 associate with the table TABMON.

TAPIDTAB

Table name

Physical Tap Identifier table

Functional description

Table TAPIDTAB preserves the relationship between integrated link maintenance (ILM) buses and taps and access identifiers over BCS applications.

Direct access to the table cannot occur. The customer contains read-only access. Access that is not direct can occur through data entry of a device that requires ILM supported resources allows access that is not direct. Access that is not direct can occur as part of a restore operation on the N + 1 BCS as part of a BCS application.

Datafill sequence and meaning

Does not apply. The table is write-protected against direct data entry.

Table size

0 to 2048 tuples. The number of tuples dynamically determines table size.

Datafill

Datafill for table TAPIDTAB appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
ACID		see subfields	*Access identifier.* The access identifier identifies the tap associated with an access identifier. The ACID field is multiple with three parts: AKEY, AIDX, and ACHNL.
	KEY	0 to 1023	*Access key.* The access key part of the access identifier.
	INDEX	0 to 1023	*Access index.* The access index part of the access identifier.
	CHANNEL	0 to 1023	*Access channel.* The access channel part of the access identifier.

TAPIDTAB (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TAPID		see subfields	*Tap identifier.* The tap identifier is an identifier that ILM uses to identify a tap on a bus. The TAPID tuple is a multiple with three parts. These parts are AKEY, BUSOFST, and TAPOFST.
	AKEY	0 to 1023	*Access key.* The access key of the bus the tap is on.
	BUSOFST	0 to 255	*Bus offset.* If more than one bus is on an access key, use the bus offset to differentiate between the buses.
	TAPOFST	0 to 255	*Tap offset.* The tap offset identifies a tap off a bus.
LOCALID		0 to 255	*Local tap identifier.* The local tap identifier identifies a tap on an access key.

Datafill example

Sample datafill for table TAPIDTAB appears in the following example.

MAP example for table TAPIDTAB

```
ACIID      TAPID   LOCALID
_____________________________________________________________

2 0 0       2 0 0       0
3 0 0       2 0 1       0
3 1 0       2 0 2       1
```

Table history

BCS26

Table TAPIDTAB was introduced in BCS26.

Additional information

Restore table TAPIDTAB before you restore the inventory tables of the devices that require ILM resources. These tables are APINV, LIMINV, LIUINV, and NIUINV. Nortel recommends that this table precede table VCHIDTAB.

TCAPTRID

Table name

TCAP Transaction Identifier Table

Functional description

ATTENTION

Feature 59014752 (TCAPTRID Removal) obsoletes table TCAPTRID. Identifier pools (IDPL) automatically allocate transaction and component identifiers for all applications.

Table TCAPTRID continues to be visible. However, during the One-Night Process (ONP), the system sets the values for transaction and component identifiers to zero, and the value for field IDPLUSER to Y. As a result, all applications obtain their transaction IDs from IDPLs.

You cannot create or change any datafill in table TCAPTRID.

If you try to add a tuple in table TCAPTRID, the system displays the following message:

```
Applications no longer engineer TCAP transaction and
component Ids in table TCAPTRID. They are dynamically
allocated by Identifier Pool software.
```

If you try to change a tuple in table TCAPTRID, the system displays the following message:

```
Application has converted to Identifier Pool
Software. Modification of this tuple is not allowed.
```

Note: You can still delete tuples from table TCAPTRID. Nortel Networks recommends that you delete all tuples after the ONP.

Datafill sequence and meaning

Does not apply.

Table size

Does not apply.

TCAPTRID (continued)

Datafill

Do not add or change any tuples.

Field descriptions

Field	Subfield	Entry	Explanation and action
TCAPAPPL		ACBAR, AIN, CNAMD, DNVAL, INAP, MAPMSC, NACD, NMS, NRAG, NSSTCN, OLNS, PVN, REPLDIGS, RTRS, or SIGTRANS	*Transaction capabilities application* Do not enter or change any values in this field.
NUMTRIDS		numeric (0 to 32 767)	*Number of transaction identifiers* The default value is 0. Do not change the value for this field.
NUMCOMPS		numeric (0 to 32 767)	*Number of component identifiers* The default value is 0. Do not change the value for this field.
IDPLUSER		Y or N	*Identifier pools in use* The default value is Y. IDPLs dynamically allocate the TCAP transaction and component identifiers for the application. Do not change the entry for this field.

Datafill example

Sample datafill for table TCAPTRID appears in the following example.

TCAPTRID (continued)

MAP example for table TCAPTRID

```
TCAPAPPL   NUMTRIDS   NUMCOMPS   IDPLUSER
-------------------------------------------

     PVN          0          0          Y
   ACBAR          0          0          Y
    NACD          0          0          Y
   DNVAL          0          0          Y
     NMS          0          0          Y
FREEPHONE         0          0          Y
     AIN          0          0          Y
   CNAMD          0          0          Y
```

Table history

TL13

Table TCAPTRID obsoleted.

NA011

Added information about changes to AIN and INAP applications. Changed MAP example.

NA009

Entry CNAMD in field TCAPAPPL was updated for ISDN Primary Rate Interface (PRI) Calling Name Delivery (I-CNAMD) in NA009.

NA008

The TCAP TRID formula was changed for AIN Essentials, AIN Service Enablers, and local number portability (LNP) in NA008. These changes occurred in accordance with the method that Bob Englehart and Susan Bohme (7L16) use. Note this change patches back to NA007 for AIN Essentials.

APC08

Entry INAP was added in field TCAPAPPL for the INAP protocol in APC08.

TL08

Field IDPLUSER was added in TL08.

TL05

Value OLNS was added to field TCAPAPPL according to OLNS TCAP and AMA Changes in TL05.

TCAPTRID (end)

TOPS04

Value RTRS was added to field TCAPAPPL for each feature AN1389 in functionality External RTRS Interface, ENSV0009 in TOPS04.

BCS36

The total NUMTRIDS for all applications was changed in the “Table size section" and field NUMTRIDS. Reference to the NORESTARTSWACT utility was added in BCS36.

TDCHLDY

Table name

Multiunit Message Rate Holiday Table

Functional description

Table TDCHLDY defines billing on holiday days if other than normal billing rates apply.

The key into table TDCHLDY consists of the month (field MONTH) and day of the month (field DOMONTH).

The result is field BILLDAY, an index into table TDCSCHED.

For related information, refer to table MRSANAME.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TDCHLDY.

Table size

0 to 365 tuples

Datafill

The following table lists datafill for table TDCHLDY.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
HLDYINDX		see subfields	*Holiday index* This field consists of subfields MONTH and DOMONTH.
	MONTH	JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC	*Month of the holiday* Enter the month of the date on which other than normal rates apply.

TDCHLDY (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DOMONTH	1 to 31	*Day of the month of the holiday* Enter the day of the month of the day on which other than normal rates apply.
BILLDAY		MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY SUNDAY HOLIDAY1 HOLIDAY2 or HOLIDAY3	*Billing day* Enter the index into table TDCSCHED.

Datafill example

The following example shows sample datafill for table TDCHLDY.

MAP display example for table TDCHLDY

```
HLDYINDX   BILLDAY
_____________________________________________________________
  JAN  1    FRIDAY
```

TDCSCHED

Table name

Multiunit Message Rate Day and Time Treatment Table

Functional description

Table TDCSCHED defines the treatment index TREATMNT into table CHARGTAB.

The result in field TREATMNT is an index into table CHARGTAB, field TRTINDEX.

For related information, refer to table MRSANAME.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TDCSCHED.

Table size

0 to 10 tuples

Datafill

The following table lists datafill for table TDCSCHED.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
BILLDAY		MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY SUNDAY HOLIDAY1 HOLIDAY2 or HOLIDAY3	*Billing day* If the record is the first in the billing day list enter the key into table TDCSCHED. Otherwise, leave this field blank.
TDCVECTR		see subfields	*Time schedule vector* This field consists of up to eight multiples of subfields TIME and TREATMNT. If less than eight multiples are required, end the list with a $ (dollar sign).

TDCSCHED (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TIME	0 to 2400	*Time* Enter the time, in hours and minutes, up to which the associated treatment in field TREATMNT applies. The starting time for the first TIME-TREATMNT pair is 0 (zero).
	TREATMNT	CHGA CHGB CHGC or CHGD	*Treatment* Enter the index into table CHARGTAB.

Datafill example

The following example shows sample datafill for table TDCSCHED.

MAP display example for table TDCSCHED

```
BILLDAY

                                        TDCVECTR
_____________________________________________________________
MONDAY
                                                (2400 CHGA) $
```

TERMDEV

Table name

Terminal Device Table

Functional description

Table TERMDEV lists assignments for terminal devices.

The operating company completes the input for table TERMDEV. The switching unit input/output controller (IOC) assignments to the terminal devices appear on Northern Telecom drawing number D610.

See table MTD for the terminal devices with fixed assignments on the IOC.

Assign the trunk test positions (TTP) devices in order: TTP:00, TTP:01, TTP:02, and so on. Continue assignment until the assignment of all the TTP devices occurs. When the assignment completes, entry of the remaining printers and visual display units (VDU) in the table can occur.

WARNING

Lockout condition can occur

A lockout condition is present if all commands are privileged-classed (PRIVCLASS) out for all users and terminals. The only method in which to stop the lockout is to use the user identification (userid) ADMIN. An ADMIN userid does not appear. The system does not restrict an ADMIN. An ADMIN userid is available if knowledge of the ADMIN password is present. An ADMIN userid is available if the terminal is not in the automatic login (AUTOLOGIN) mode.

If the DMS switch has a heavy load, some terminals and one log device must continue to run. Call processing and maintenance load do not affect this condition. This base support occurs if guaranteed background tasks are present. Guaranteed tasks are limited in number. Guaranteed tasks run more than other tasks.

Guarantee of the following devices can occur:

- one network management (NWM) MAP (maintenance and administration position) or port
- one switching control center system (SCCS) MAP
- one local MAP

TERMDEV (continued)

- one service analysis position or interface
- one emergency technical assistance service (ETAS) reserved device
- one log device

A maximum of five devices can be guaranteed in table TERMDEV. Only one device can be guaranteed in table LOGDEV. The customer assigns these devices through datafill in tables TERMDEV and LOGDEV. A user logging into these devices has a guaranteed response.

Field GUAR is N by default. Change this setting if use of this feature is a requirement.

> ***Note:*** To enter data table CUSTPROT can restrict access to table TERMDEV. Access limits must occur for operating companies in the United Kingdom. These limits occurs if table CUSTPROT receives data. The limits prevent the customer of third party system maintenance from reconfiguring terminal data. This type of change to terminal data affects automatic dial back and terminal command class limits.

If the switching unit contains feature AD0179 (ACD Real Time Display Enhancement), enter the datalink device in tables TERMDEV and SLLNKDEV. This entry assures connection in LNKUTIL. This entry generates the ACDRTD (ACD real time display) reports.

If the switching unit contains feature package NTX243AA (AMA teleprocessing system), enter the correct data in table TERMDEV. Entry of data for each of the two recording devices in the device processing peripheral (DPP) unit must occur. Enter data in table TERMDEV before you enter data into table DPP for the DPP links. Entry of data for terminals associated with data in different IOCs must occur to assure reliability.

Do not use the same class numbers when you enter data in tables TERMDEV, CUSTPROT, SUBPROT, or CMDS. The system does not distinguish between class numbers for commands and class numbers for system data table access privilege. Duplication of a class number can occur. This condition can cause the PERMIT command to provide intended access to a command and table access that was not intended. This event occurs because the PERMIT command assigns privilege classes for commands and for access to tables.

A change to table TERMDEV can affect the terminal data that table DPP uses. Delete the affected tuple from table DPP before the tuple from table TERMDEV.

Effective in BCS30, two C-side links allow outgoing messages Central control (CC) sends to the card received over C-side link 0. The BCS30 contains the 1X67FA device controller card for the Simplified Message Desk Interface (SMDI) feature. Outgoing messages the card sends to the CC route over C-side link 1.

Entry of data in table TERMDEV requires two tuples when two C-side links occur. This requirement occurs if table TERMDEV contains a console device that uses a 1X67FA terminal controller card. When the manual addition of the first tuple occurs, table control adds a second tuple automatically.

A two-tuple restriction on field TERMDES occurs when data entry in a console device that uses the 1X67FA terminal controller occurs. In this even, a maximum field length of seven characters can occur. When the automatic addition of the second tuple occurs, the second, different tuple name takes the name of the first tuple. The capital letter I follows this name.

The maximum length of a tuple name in field TERMDES is eight characters under the following condition. Entry of data in table TERMDEV, with a console device that does not use the 1X67FA card, allows this maximum.

See table MTD for additional information.

Effective in CSP03, field CKERDISC permits the display of the CkEr (Circuit Error) alarm on the MAP IOD banner. This display does not have to occur.

Table TERMDEV defines the SMDI card 1X67FA. In a disconnected state, this device can cause an alarm in the MAP EXT banner. The new CKERDISC field does not affect this alarm.

Effective CSP04, field MODEM allows for specification of direct dial-up modems. An entry of DUGEN specifies direct dial-up modems. These modems drop the call when the user logs out. If the entry of DUGEN occurs, the data transmit ready line in the 1X67BD card toggles. This action occurs when the user logs out and the call drops.

Datafill sequence and meaning

Enter data in table IOC before you enter data into table TERMDEV.

Table size

Memory allocation for a maximum of 128 terminal devices occurs automatically. These terminal devices include 59 SMDI type console devices and 64 non-SMDI devices. Reservation of the remaining five entries for other uses occurs.

TERMDEV (continued)

The maximum number of non-SMDI consoles available for data entry is 84 when an SMDI does not contain datafill.

Datafill

Datafill for table TERMDEV appears in the following table.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
TERMDES		alphanumeric (a maximum of eight characters)	*Terminal designation*. Enter the name the operating company defines for each terminal device. Assignment of all TTPs must occur first, starting with the MAP. The MAP is TTP:00. The remaining TTPs follow in numerical order. After assignment of TTPs occurs, the assignment of other terminal devices can occur. Other terminal devices include as printers and VDUs Name dial-up facilities that ETAS and field service engineering (FSE) DIAL1, DIAL2, and so on, use. ***Note:*** Enter a maximum eight characters unless the 1X67FA card is in use. The 1X67FA card requires seven characters.
IOCNO		0 to 19	*Input/output controller number*. Enter the number of the IOC to which terminal device assignment occurs. See table MTD for details.
CKTNO		0 to 35	*Input/output controller circuit number*. Enter the IOC circuit number to which terminal device assignment occurs. See table MTD for details.

TERMDEV (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
TERMTYPE		CYB, DEFAULTC, DPH, FPRT, HAZ, HP, KSR, LGR2, LSG, PRT, SMDI, SPRT, TEC, VT100, VT102, or VUC4	*Terminal type*. Enter one of the following terminal types: • CYB (Cybernex) • DEFAULTC (does not support MAP) • DPH (Displayphone) • FPRT (fast printer does not pad output line with nulls) • HAZ (Hazeltine) • HP (Hewlett-Packard) • KSR (keyboard send/receiver) • LGR2 (Cybernex) • LGR2 LSG (Lear Sigler) • PRT (printer pads output line with 15 nulls) • SMDI (simplified message desk interface) • SPRT (slow printer pads output line with 30 nulls) • TEC (TEC) • VT100 • VT102 • VUC4 (Vucom) ***Note:*** Refer to the printer operating manual for number of nulls required.

TERMDEV (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
BAUDRT		B110, B134PT5, B150, B300, B600, B1200, B1800, B2000, B2400, B3600, B4800, B7200, B9600, or B19200	*Baud rate*. Enter the baud rate of the terminal device.
INTYP		CL or EIA	*Interface type*. If the terminal device has a data set or modem, enter EIA (electronic industries association interface). Enter CL (current loop) if this condition does not occur.
EQPEC		alphanumeric (a maximum of eight characters)	*Equipment product engineering code*. Enter the product engineering code (PEC) of the terminal controller card.
PRTY		EVEN, NONE, or ODD	*Parity*. Enter the parity of the terminal device.
GUAR		Y or N	*Guaranteed device*. Enter Y if the device is guaranteed. The device is guaranteed if the device continues to run and the call processing or maintenance load does not affect the device. Enter N if the device is not guaranteed. The default value is N.

TERMDEV (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
MODEM		CTS, DBANS, DUGEN, NONE, RIXON, or UDS	*Modem type.* The entry in this field describes the type of modem connected to the corresponding port. The entry determines the set of procedures to use for controlling the modem. If enhanced password control (automatic dial-back) is present, specify the type of modem. If the feature is not present, the entry is NONE. Enter CTS if the CTS212AH modem connects to the port. Enter DBANS if a modem connects to the port but does not have agency procedures. The modem does not have agency procedures if the modem is able to autoanswer. The modem is not able to autodial. Enter DUGEN for a dial-up generic modem type. Enter RIXON if the Rixon R212A modem connects to the port. Enter UDS if the Motorola UDS-224 connects to the port.

TERMDEV (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
COMCLASS		0 to 30, NONE, or ALL	*Command class.* Enter the command classes allowed for the terminal device. A blank space separates the command classes. Enter NONE if a limit on terminal commands occurs. Enter ALL if a restriction for terminal commands does not occur. ***Note:*** If in table OFCOPT, set parameter ENHANCED_COMMAND_SCREENING to Y. Option NONE is not correct. Enter a minimum of one command in field COMCLASS. A user can log in at the terminal to perform commands allowed on the terminal. A user can log in at the terminal to perform commands allowed for the user login identification.
CKERDISC		Y or N	*CkEr alarm on DISconnected device.* Enter Y if the device can cause a CkEr alarm when it is in a DISconnected state. Enter N if the device cannot cause a CkEr alarm.

Datafill example

Sample datafill for table TERMDEV appears in the following example.

Standard datafill on a MAP device that is not guaranteed appears in the first tuple.

Datafill with a terminal ID for use in table DPP appears in the second tuple.

Datafill with a modem type of DUGEN appears in the third tuple.

MAP example for table TERMDEV

```
TERMDES IOCNO CKTNO TERMTYPE BAUDRT INTYP EQPEC PRTY GUAR
MODEM
          COMCLASS
         CKERDISC
_____________________________________________________________

MAP      0     8    VT100  B2400    CL    1X67AA NONE
N  NONE
                    ALL
                Y
PRT0     0       8    KSR   B1200    EIA   1X67AA NONE
N NONE
                   ALL
               N
DIAL1    0     10   VT100  B1200    EIA   1X67BD NONE
N  DUGEN
                   ALL
                N
```

Table history

CSP06

A reference to the datafill section was added in CSP06. The maximum number of non-SMDI consoles available for entry when no SMDI receives data appears in this reference.

CSP04

Entry DUGEN to field MODEM was added in CSP04.

A reference to the NT1X67BD EQPEC was added in CSP04.

Entry NONE is not a correct entry in field COMCLASS if office parameter ENHANCED_COMMAND_SCREENING contains a Y. A note stating this condition was added in CSP04.

CSP03

Field CKERDISC was added in CSP03.

BCS36

Entry SMDI to field TERMTYPE was added again in BCS36.

TEXTLOG

Table name

Logical Display Text Table

Functional description

Table TEXTLOG is used by Visual Screen List Editing (VSLE) and other display features. It contains the names of the physical phrases that make up a logical display phrase provided to guide the user during a VSLE session. The table is accessed using a three part key consisting of the name of the feature application with which the display string is associated, a numeric index to allow selection by the application of the appropriate display to be used, and the language used for the display.

Datafill sequence and implications

Table TEXTPHRS must be datafilled before table TEXTLOG.

Table size

0 to 256 tuples

Datafill

The following table lists datafill for table TEXTLOG.

Field descriptions for table TEXTLOG (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
LPHRSKEY		see subfields	*Logical phrase key* This field is the key of the table and consists of subfields APPLNAME, LANGUAGE, and DISPNUM.
	APPLNAME	CALLOG, VSLE	*Application name* Enter the name of the feature application for which this tuple is used as follows: • CALLOG (Call Logging) • VSLE (Visual Screen List Editing)
	LANGUAGE	NILANG LANG1 LANG2	*Language* Enter the language used for the display: LANG1, LANG2 or NILANG (no language).

Field descriptions for table TEXTLOG (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	DISPNUM	0 to 127	*Display number* Enter the numeric index by which the feature application uniquely identifies the display data contained in the tuple.
DISPTYPE		C, S, or T	*Display type* Enter C for the cursor control display. This display type provides instructions and displays softkeys, used to wait for softkey or DTMF keypad input. Enter S for the standard display. This display type is used to wait for softkey input from the user. Instructions are provided and softkeys displayed. Enter T for the transient display. This display type provides an informational display to indicate results of user actions where no input is allowed.
LRCI(NA002-)		LEFT RIGHT CENTER INDENT	*Left Right Center Indent* This is the display justification indicator field. Enter the desired mode of justification.

TEXTLOG (continued)

Field descriptions for table TEXTLOG (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
PHRSLIST		alphanumeric (2 to 8 characters)	*Phrase list* Enter the list of up to 16 physical phrase names as defined in table TEXTPHRS which together make up a single logical display phrase. If less than 16 phrase names are required, end the list with a $ (dollar sign). The phrase names must be previously datafilled in table TEXTPHRS.
DEFNLIST		Up to 8 softkey definer lists	*Definer list* This field contains a vector of up to 8 softkey definer lists. The SOFTKEY subfield is the softkey definer number from the list of softkey definer numbers defined in field DEFNUM of table SOFTKEY. The value of the SOFTKEY subfield is 1 to 33. (The integer 1 is reserved internally to allow for an unused softkey to be left blank.) The value of the MODE subfield is N for normal or H for highlight. The softkey table (SKT) subfield indicates which softkey table is loaded in the CPE. The values are SRV for server or CPE for customer premises equipment. If less than 8 softkey definers are required, end the list with a $ (dollar sign).
	SOFTKEY	1 to 33	
	MODE (NA002-)	N, H	
	SKT NA002-)	SRV, CPE	

Datafill example

The following example shows sample datafill for table TEXTLOG.

MAP display example for table TEXTLOG

```
       LPHRSKEY DISPTYPE LRCI
                      PHRSLIST
                          DEFNLIST
-------------------------------------------------------------------------------
CALLOG  LANG1   1       S LEFT
                                    ( CLTITLE)$
                                  ( 1 N SRV )$
```

Table history

NA004

The tuple DSCWID was removed from table TEXTLOG.

NA002

The field LRCI was added and subfields MODE and SKT were added to field DEFNLIST. Field DEFNLIST was also changed to allow eight softkey definer lists instead of seven.

TEXTPHRS

Table name

Text Phrases Table

Functional description

Table TEXTPHRS is used by display features Visual Screen List Editing (VSLE) and Call Logging (CALLOG). It contains the instructional and prompting text strings which, when concatenated as specified in table TEXTLOG, make up individual logical display phrases. The table is accessed via a one-part key which is the name of the physical phrase. Each physical phrase can be up to 40 characters in length.

Table 1 lists the phrase names and their use in the default call logging (CALLOG) datafill. A dummy phrase is variable that is filled in when the phrase is formatted before it is sent to the customer premises equipment (CPE). For example, the dummy phrase CLCOUNT is replaced with a two digit integer (01 to 31) indicating the total number of entries in the subscriber's incoming call list (ICL).

CALLOG phrase name usage (Sheet 1 of 2)

Phrase Name	Usage
CLCOUNT	Generic phrase that is a two-digit field containing the current count of items in the ICL.
CLNEWCT	Generic phrase that is a two-digit field containing the count of NEW items in the ICL.
CLOLDCT	Generic phrase that is a two-digit field containing the count of OLD items in the ICL.
CLNAMEIT	Generic phrase that specifies an item with the NAME appearing in the primary column and information in the secondary column. The format of fields within this type cannot be changed.
CLDNIT	Generic phrase that specifies an item with the directory number (DN) appearing in the primary column and information in in the secondary column. The format of fields within this type cannot be changed.
CLPRIM	Generic phrase that is replaced by the NAME or DN, whichever is the primary as datafilled in table RESOFC, for the current item.
CLCURNUM	Generic phrase that is replaced with item number and new or old indicator for the currently selected item.
CLTITLE	Phrase used to specify the title of the call logging service.

CALLOG phrase name usage (Sheet 2 of 2)

Phrase Name	Usage
CLOLD	The word `Old' used in the header item of the virtual display.
CLNEW	The word `New' used in the header item of the virtual display.
CLDIAL	The phrase to be used in the primary column when an item is dialed.
CLREMOVE	The phrase to be used in the primary column when an item is removed.
CLERASED	Message to be displayed when the subscriber erases all calls in the ICL by pressing the ERASE softkey.
CLDNLD1	Part A of the download message.
CLDNLD2	Part B of the download message.
CLEMPTY	Message displayed when the list is empty.
CLNODIAL	The phrase used when the subscriber attempts to dial an entry that contains a DN that cannot be dialed.
CLCLOSE	The phrase used when an error has occurred or the session has timed out, the message is put up, and the session terminated.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TEXTPHRS.

Table size

0 to 256 tuples

TEXTPHRS (continued)

Datafill

The following table lists datafill for table TEXTPHRS.

Field descriptions for table TEXTPHRS

Field	Subfield or refinement	Entry	Explanation and action
PHRSNAME		alphanumeric (2 to 8 characters)	*Phrase name* Enter the character name of the physical phrase.
PHRASE		alphanumeric (up to 40 characters)	*Phrase* Enter the text string displayed to the user as instructional or prompting messages. The characters may be any alphanumeric character, except a blank. Interpretation of the characters is application specific, for example, the underscore (_) may be interpreted as a blank. This field is a vector of up to 40 characters, however, display capabilities are only 20 characters at a time. The back quote (`) may be used to split a text string exceeding 20 characters in length so that a natural break between text may occur. Characters after the back quote (`) appear in the second 20 character field of the virtual display line.
HLMODE (NA002-)		see subfields	*Highlight mode* This field contains up to four highlight modes. Each mode consists of a position and a mode. Enter the character position of the change in highlight mode. The values range from 1 to 40. The characters specified in the POSITION subfield are highlighted according to the selected mode and continue until the end of the display or the next mode position is specified. The default mode is NORMAL if no HLMODE vectors are entered.
	POSITION	1 to 40	
	MODE	NORMAL REVERSE GREY BOLD	

Datafill example

The following example shows sample datafill for table TEXTPHRS.

TEXTPHRS (end)

MAP display example for table TEXTPHRS

```
PHRSNAME                              PHRASE      HLMODE
_____________________________________________________________

CLCOUNT                    GENERIC_CALLOG_ITEM_COUNT $
CLNEWCT                     GENERIC_CALLOG_NEW_COUNT $
CLOLDCT                     GENERIC_CALLOG_OLD_COUNT $
CLNAMEIT                    GENERIC_CALLOG_NAME_ITEM $
CLDNIT                        GENERIC_CALLOG_DN_ITEM $
CLPRIM                        GENERIC_CALLOG_PRIMARY $
CLCURNUM                 GENERIC_CALLOG_ITEM_NUMBER $
CLTITLE                        Call_Logging_Service $
CLOLD                                         _Old $
CLNEW                                        _New_ $
CLDIAL                                 Dialing...' $
CLREMOVE                               Removed...' $
CLERASED                             Erased_All_Calls $
CLDNLD1                                Processing_ $
CLDNLD2                                     _Calls $
CLEMPTY                              No_Calls...Hang_up $
CLNODIAL                             Cannot_Return_Call $
CLCLOSE                                Session_Complete $
```

NA002

Field HLMODE with subfields POSITION and MODE was added.

TFANINT

Table name

Traffic Separation Intersection Table

Overview

The traffic separation intersection tables contain tables TFANINT and OCCTSINT.

The traffic separation measurement system (TSMS) uses table TFANINT to separate calls according to type of call. The TSMS separates calls at the intersection of specified source and destination traffic separation numbers.

The equal access traffic separation measurement system (EATSMS) uses table OCCTSINT to separate calls according to local access and transport area (LATA) and state attributes. The EATMSMS separates calls at the intersection of specified carrier and carrier trunk group traffic separation numbers.

The TSMS and EATSMS do not function together.

Functional description

The use of table TFANINT in a DMS office can occur with TSMS. This condition occurs when the operating company must separate traffic according to the type of call.

The TSMS allows the operating company to separate direct dialed (DD), operator assisted (OA), and no prefix (NP) calls. The operating company can separate these calls for a maximum of 2048 traffic separation intersections.

The traffic separation numbers of the source and destination of the call index each entry in table TFANINT. The source can be a line or a trunk. The destination can be a line, trunk, announcement, or tone.

For each source traffic separation number and destination traffic separation number, table TFANINT has three registers. These registers correspond to the three types of calls, DD, OA, and NP. Each register contains a number that is an index to operational measurements (OM) group TFCANA.

For example, a caller can make a DD call from a line with a traffic separation number of 5. The caller makes this call to a trunk with a traffic separation number of 7. When this action occurs, the TSMS indexes the tuple in table TFANINT with field TFANIN = 5 and field TFANOUT = 7. The TSMS locates the DD register number that field DDREGNO specifies. The system uses this register number to increase the call count or to measure setup or connection use. Use the CI command OMSHOW or TFAN to view this data.

The assignment of source traffic separation numbers occurs in field TRAFSNO of table TRKGRP for incoming and two-way trunk groups. The assignment of source traffic separation numbers occurs in field TRAFSNO of table LINEATTR for line attributes.

The assignment of destination traffic separation numbers occurs in field TRAFSNO of the following tables:

- table TONES for tones
- table ANNS for announcements
- table LINEATTR for line attributes
- table TRKGRP for outgoing and two-way trunk groups

For a two-way trunk group or a line attribute, the source traffic separation number equals the destination traffic separation number.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table TFANINT:

- ANNS
- TRKGRP
- TONES
- LINEATTR

Table size

0 to 2047 tuples

The system dynamically allocates memory. The system uses an average of 14 words of store for each tuple. You can assign the tuples in order. For example, tfanin/tfanout 1 0, 2 0, 3 0, 4 0. When you perform this action, the system uses an average of 8 words of store for each tuple.

TFANINT (continued)

Datafill

Datafill for table TFANINT appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description
INDX		see subfields	*Index*. This field contains subfields TFANIN and TFANOUT.
	TFANIN	0 to 127	*Source traffic separation number*. Enter the source traffic separation number assigned to the intersection. The maximum number of source traffic separation numbers you can specify is 127. If you specify this number, storage restrictions limit the maximum of destination traffic separation numbers you can specify to 125.
	TFANOUT	0 to 127	*Destination traffic separation number*. Enter the destination traffic separation number assigned to the intersection. The maximum number of destination traffic separation numbers you can be specify is 127. If you specify this number, storage restrictions limit the maximum number of source traffic separation numbers you can specify to 125.
DDREGNO		0 to 2047	*Direct dial register number*. Enter the register number assigned to the intersection for a peg count of DD calls. You can enter a number from 1 to 2047. If you do not require a peg count of DD calls, enter 0. The number you enter cannot exceed the value of office parameter NO_TFAN_OM_REGISTERS in table OFCENG. The maximum value for NO_TFAN_OM_REGISTERS is 2047.

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
OAREGNO		0 to 2047	*Operator assisted register number*. Enter the register number assigned to the intersection for a peg count of OA calls. You can enter a number from 1 to 2047. If you do not require a peg count of OA calls, enter 0. The number you enter cannot exceed the value of office parameter NO_TFAN_OM_REGISTERS in table OFCENG. The maximum value for NO_TFAN_OM_REGISTERS is 2047.
NPREGNO		0 to 2047	*No prefix register number*. Enter the register number assigned to the intersection for a peg count of NP calls. You can enter a number from 1 to 2047. If you do not require a peg count of NP calls, enter 0. The number you enter cannot exceed the value of office parameter NO_TFAN_OM_REGISTERS in table OFCENG. The maximum value for NO_TFAN_OM_REGISTERS is 2047.

Datafill example

Datafill for table TFANINT appears in the following description.

The first entry is for an incoming local trunk group. This group has source traffic separation number 7. The first entry is also for an outgoing local trunk group. This group has destination traffic separation number 9. The required peg counts are for NP calls. The NP register has the register number 1 assigned.

The second entry is for flat rate lines. These lines have source traffic separation number 8. The second entry is also for an outgoing-to-Traffic Operator Position System (TOPS) trunk group. This trunk group has destination traffic separation number 12. The DD calls (1+) have register number 4 assigned. The OA calls (0+) have register number 5 assigned. The operator calls (0-) have register number 6 assigned.

Sample datafill for table TFANINT appears in the following example.

TFANINT (end)

MAP example for table TFANINT

```
   INDX DDREGNO OAREGNO NPREGNO


_____________________________________________________________________


  7    9      0        0       1
  8   12      4        5       6
```

Table history

CSP03

The following changes were made in CSP03:

- Reference to table DATASIZE was removed. This table does not include TFANINT any longer. Information about store allocation was added to table DATASIZE.
- Reference to NORESTARTSWACT was removed. This reference was removed because activation is immediate.
- The ranges of fields TFANIN and TFANOUT were changed to 0 to 127.
- Reference to office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER was removed.

BCS36

A reference to the NORESTARTSWACT utility was added in BCS36.

TFSSCRN

Table name

Toll-Free Service Screening Table

Functional description

Table TFSSCRN lists the toll-free numbers subject to GR-2892 processing. When a number encounters the number service code (NSC) selector, a check is made to determine whether or not it is on the list. When the number is on the list, it bypasses TR-533 (E800) processing and proceeds as an AIN call.

Datafill sequence and implications

Table TRIGDIG is datafilled before table TFSSCRN.

When a corresponding AIN trigger is not present in table TRIGDIG the results are as follows:

- numbers in table TFSSCRN bypass E800
- a database query does not occur
- the call is routed to treatment

Table size

The minimum table size for table TFSSCRN is 0 tuples, and the maximum table size is 32k tuples. A restart is not required to increase table size.

Datafill

The following table lists datafill for table TFSSCRN.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TFSCODE		800,888,877, 866,855,844, 833,822	TFSCODE describes the toll-free code (SAC) in use.
FROMNXX		000 to 999	FROMNXX describes the lower bound of the range of the numbers in this SAC, that are processed by GR-2892.
TONXX		000 to 999	TONXX describes the upper bound of the range of the numbers belonging to GR-2892. ***Note:*** The numbers belonging to GR-2892 must be greater than or equal to FROMNXX.

TFSSCRN (end)

Datafill example

The following example shows sample datafill for table TFSSCRN.

MAP display example for table TFSSCRN

```
TFSCODE  FROMNXX   TONXX
_____________________________________________________________________
    800     622     733
```

Table history

NA008

Table TFSSCRN is introduced by Toll-Free Service on Service Enablers (AR2219).

Supplementary information

Not applicable

TIESCDIG

Table name

Trigger Item Escape Digits Table

Functional description

Table TIESCDIG administers the digit-based escape criteria for AIN trigger items in table TRIGITM.

Datafill sequence and implications

Datafill table TRIGITM after table TIESCDIG.

Table size

The system dynamically allocates the table size from 0 to 256 escape groups (0 to 32 000 tuples).

Datafill

The following table lists datafill for table TIESCDIG.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
ESCGRP		Alphanumeric vector (1 to 8 characters)	Digit Based Escape Group Name. Datafill the escape group name.
ESCDIGS		Numeric vector (1 to 18 digits)	Escape Digits. Datafill a vector of 1 to 18 digits to represent the dialed digits.

Datafill example

The following example shows sample datafill for table TIESCDIG.

MAP display example for table TIESCDIG

```
  ESCGRP                                                ESCDIGS
--------------------------------------------------------------
OBNAESC                                                   514
OBNAESC                                                613622
OBNAESC                                             6135551212
 OHDESC                                                   819
 OHDESC                                                   514
 OHDESC                                                   613
```

TIESCDIG (end)

Table history

NA010

Feature AJ5123 AIN O_BNA Trigger Screening (OTS) introduces table TIESCDIG in NA010.

TIMEODAY

Table name

Time of Day Table

Functional description

This table defines the time-of-day (TOD) result for a specified TOD system and day type (field DAYTYPE).

The Time of Day (TOD) feature is available in switching units with the following software packages:

- Integrated Business Network (IBN) Time of Day Routing (software package NTX433AA)
- IBN Time of Day Network Class of Service (NCOS) (software package NTX434AA)
- International Switching Units With Time of Day Routing (software package NTX488AA)
- DMS-300 switching units with Time of Day and Percentage Routing (software package NTX295AA)
- Network Advice of Charge (NAOC) Tariff and Time of Day Switchover

Feature BC1459 (Partitioned Table Editor) can be present in an IBN switch. If this feature is present, tables DATAOWNR and OWNTAB define the ownership of each tuple in this table. These tables define the tuples in the following way:

- The entries in table DATAOWNR that apply to table TIMEODAY have field TABNAME equal to the entry in field TODNAME. For these entries, the two fields equal the value of field TODNAME in this table.
- The entry in table OWNTAB that applies to this table is the entry with the entry in field TABNAME equal to TIMEODAY.

See table TODHEAD for additional information.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table TIMEODAY:

- CARNAME
- RESNAME
- TARFINDX
- TODHEAD
- DAYTYPES

TIMEODAY (continued)

If the International DMS-100 Metering System is present in the switch, enter data in table LNETWORK. Enter data in this table before you enter data in table TIMEODAY.

If the IBN TOD NCOS Screening System is present in the switch, enter data in tables COSMAP and CUSTHEAD. Enter data in these tables before you enter data in table TIMEODAY.

If the IBN and DMS-300 TOD and Percentage Routing System in present in the switch, enter data in table IBNRTE. Enter data in this table before you enter data in table TIMEODAY.

Table size

0 to 16 640 tuples

Datafill

Datafill for table TIMEODAY appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Description
TCOINDX		0 to 15	*Tariff of charge index* This is value used for tariff indexing. This value overrides the index from table TODHEAD for the time period that starts with the actual TCO. THe TCOINDX must already be in table TARIFINDX for this carrier. Enter the information for this field to activate the NAOC feature.
TODNAME		alphanumeric (1 to 8 characters)	*Time of day name* For the IBN or DMS-300 TOD Percentage Routing system, enter the name assigned to the TOD system. A minimum of one entry in table IBNRTE for an IBN switch is assigned this name. Tables OVR0-9 for a DMS-300 switch is assigned this name. This value contains the carrier/reseller name (name must be the same as the one entered in table TODHEAD and in either table CARNAME or RESNAME.

TIMEODAY (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Description
			For the IBN TOD NCOS screening system, enter the name assigned to the TOD system. The customer group in table CUSTHEAD with the option TODNCOS has this name assigned. For the International TOD DMS-100 Metering System, enter the name assigned to the TOD system.
DAYTYPE		alphanumeric (1 to 8 characters)	*Day type*. Enter the day type assigned to this TOD and Percentage Routing entry. Table DAYTYPES must already define the day type.
TIME		see subfields	*Time*. This field contains subfields HOUR and MINUTE.
	HOUR	0 to 23	*Hour*. Enter the starting hour for the TOD result.
	MINUTE	0 to 59	*Minute*. Enter the starting minute for the TOD result.
DATA		see subfield	*Data*. This field contains subfield TODTYPE.
	TODTYPE	MTR, RTE, or blank	*Time of day type* For the TOD DMS-100 Metering System, enter MTR. Enter data in refinements NETWORK and TNTNUM. For the IBN or DMS-300 TOD Percentage Routing System, enter RTE (route). Enter data in refinement TIME.
	LNETNAME	alphanumeric (1 to 8 characters)	*Logical metering network*. If the entry in subfield TODTYPE is MTR, enter data in this refinement. Enter the character logical metering network name assigned to this TOD DMS-100 metering system entry. Assignment of this name occurs in table LNETWORK.

TIMEODAY (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Description
	TNTNUM	0 to 9	*Tariff number table number*. If the entry in subfield TODTYPE is MTR, enter data in this refinement. Enter the number of the tariff number table number that applies to the entry. Table MTARFNUM defines the TNTNUM, field TABLEKEY.
COSMAP		alphanumeric (1 to 16 characters)	*Class-of-service mapping*. If the entry in subfield TODTYPE is NCOS, enter data in this refinement. Enter the class-of-service name assigned to TOD NCOS screening. This name must already be assigned to the customer group in table CUSTHEAD with the option TODNCOS.
TIME		0 to 9 A to F	*Integrated Business Network time range*. If the entry in subfield TODTYPE is RTE, enter data in this refinement. Enter the time range that applies to the entry.

Datafill example

Five examples of datafill for table TIMEODAY follow.

Example 1

This example sets up a charge for the IBN or DMS-300 TOD System. Different routing occurs for weekdays, Saturdays, Sundays, statutory holidays and public service (PS) holidays.

The example indicates the rates that the operating company charges for the different times and day types. These rates are as follows:

- full rate on weekdays from 08:00 to 18:00
- 1/3 off in the evening
- 2/3 off 11:30 to 08:00

The TOD system does not provide the charge. The charge appears as an example of charging.

In this example, the final entry in each tuple indicates the price rate:

- 0 indicates two-thirds off or night-owl rate
- 1 indicates full rate
- 2 indicates one-third off or evening rate
- 3 indicates one-half off
- 4 indicates 60% off

The first tuple is two-thirds off. This tuple has field TIME set to 0. The second tuple is full rate. The third tuple is one-third off. The fourth and fifth tuples are two-thirds off. The sixth tuple is one-third off. This tuple is for Saturday from 8:00 to 18:00. The seventh and eighth tuples are two-thirds off. The ninth tuple is a statutory holiday and is half-off. The tenth tuple is a PS holiday and is 60% off.

MAP example for table TIMEODAY

```
TODNAME DAYTYPE   TIME              DATA
-------------------------------------------------
LONTODN WEEKDAY    0  0          RTE     0
LONTODN WEEKDAY    8  0          RTE     1
LONTODN WEEKDAY   18  0          RTE     2
LONTODN WEEKDAY   23 30          RTE     2
LONTODN  SATDAY    0  0          RTE     0
LONTODN  SATDAY    8  0          RTE     0
LONTODN  SATDAY   18  0          RTE     2
LONTODN  SUNDAY    0  0          RTE     0
LONTODN STATHOL    0  0          RTE     3
LONTODN   PSHOL    0  0          RTE     4
```

Example 2

The following example of percentage routing allows the redirection of all or a percentage of overflow traffic. The system can redirect overflow traffic for specified routes through other off-peak switches. This action allows the system to maintain the level of service to the customer at all times of the day.

TIMEODAY (continued)

The simultaneous times in the different time zones for the United Kingdom (UK), United States (US), and Hong Kong (HKG) appear in the following table.

Example of time zones for table TIMEODAY

UK	USA	HKG
08:00	03:00	20:00
12:00	07:00	00:00
16:00	11:00	04:00
19:00	14:00	07:00
00:00	19:00	12:00

The UK and HKG operating companies can agree to route the overflow USA/CANADA traffic from 12:00 to 19:00 through HKG. The UK operating company can route this traffic when the HKG time zone is OFF-PEAK and the equipment is under-used. This feature provides routing flexibility for maximum equipment use of calls through DMS-300.

The routing of a percentage of the USA/CANADA traffic on weekdays through HKG appears in the following example. This routing occurs during the HKG off-peak time (00:00 - 07:00).

MAP example for table TIMEODAY

```
TODNAME DAYTYPE   TIME                DATA
-------------------------------------------------------
  US300 WEEKDAY  12  0              RTE   0
  US300 WEEKDAY  16  0              RTE   0
  US300 WEEKDAY  19  0              RTE   1
```

Example 3

Datafill for an IBN TOD NCOS screening entry for a TOD system with the name LONTODN appears in the following example.

MAP example for table TIMEODAY

```
TODNAME DAYTYPE   TIME                DATA
-------------------------------------------------------
LONTODN WEEKDAY   0  0    NCOS NCOSTODMAP
```

Example 4

Datafill for an international TOD DMS-100 metering system for a TOD system with the name CUST03 appears in the following example.

MAP example for table TIMEODAY

```
TODNAME DAYTYPE   TIME                DATA
-------------------------------------------------------
LONTODN WEEKDAY   0  0     MTR  NATIONAL 2
```

Example 5

Datafill that the system can use to route service calls appears in the following example. The way that the system routes these calls differs from normal business hours. An example of a service call is repair service.

The system uses this data to route calls on Monday to Friday from 08:30 to 17:30 to the repair service desk. The system routes calls during the following times to a destination other than the repair service desk:

- from 17:30 to 08:29 on Monday to Friday
- all day Saturday and Sunday

MAP example for table TIMEODAY

```
TODNAME DAYTYPE   TIME                DATA
-------------------------------------------------------
 REPAIR WEEKDAY   0  0              RTE  0
 REPAIR WEEKDAY   8 30              RTE  1
 REPAIR WEEKDAY  17 30              RTE  0
 REPAIR WEEKDAY   0  0              RTE  0
```

TIMEODAY (end)

Table history

MMP15

The table TIMEODAY specifies changeovers that occur at given times of the day. With feature 59023132, the number of tariffs that can be specified is increased from 8 to 10.

MMP12

The TCOINDX field was new to table TIMEODAY. This field activates the NAOC feature.

EUR006

The following values were added to field DATA in EUR006:

- LNETNAME
- TNTNUM

The range of values in field TODTYPE was changed to include MTR or RTE in EUR006.

TIMESPEC

Table name

Timed Semi-permanent Connections Table

Functional description

Table TIMESPEC defines the times that two endpoints are active in a switch. It allows the automatic establishment and removal of semi-permanent connections.

Timed semi-permanent connections are set up by adding an entry into table TIMESPEC. Table TIMESPEC contains the two endpoints of the connection, the first and last date of the connection and the days of the week and times that the connection is made.

Each entry in table TIMESPEC automatically enters tuples in table SPECCONN which specifies regular semi-permanent or nailed-up connections when the time criteria is met.

Table TIMESPEC is intended for the DMS-300, however the use of non-trunk related endpoints used as timed semi-permanent connections is not precluded.

On the DMS-300, only digital trunk controllers (DTC) and pulse code modulation (PCM) 30 DTCs (PDTC) peripheral module (PM) types are supported.

Use the following steps to set up a timed semi-permanent connection:

1. Add the two endpoints to table SPECCONN (verify the connection using normal nailed up connection tests such as loop-back or bit error rate (BERT) testing.
2. Once the connection is verified, remove the entry from table SPECCONN.
3. Datafill table TIMESPEC using the same endpoints and include the timed information. When the connection is active, the tuple appears as read-only in table SPECCONN.

   Note: Endpoints that are manually added to table SPECCONN must not have any entries in table TIMESPEC.

Datafill sequence and implications

Table SPECCONN must be datafilled before table TIMESPEC.

Table size

0 to 4095 tuples

TIMESPEC (continued)

Datafill

The following table lists datafill for table TIMESPEC.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TIMEIDX		0 to 4095	*Time index* Enter the time index.
ENDPT1		see subfield	*End point1* This field is the identifier of the first endpoint of the semi-permanent connection. This field consists of subfield SCSEL. ***Note:*** To change an endpoint in a tuple in table TIMESPEC, the tuple must be deleted and then readded. The table editor CHANGE command cannot be used.

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SCSEL	D30, DCHCHNL, DS0T, DS1, ISLC, RCUL, or ST	*End point selector* Enter the type of selector for the endpoint. When datafill is complete for the first endpoint selector, go to field ENDPT2, section Endpoint. When datafill is complete for both endpoints, go to field ABSIG, section Both endpoints. Enter D30 for PCM30 format and datafill refinement PMTYPE, section SCSEL = D30.. Enter DCHCHNL (D-channel handler channel) for endpoints that traverse a subscriber carrier module-100 urban (SMU) equipped with the ISDN signaling preprocessor (ISP)16 option and datafill refinements ISGNO and CHNL, section SCSEL = DCHCHNL. Enter DS0T and datafill refinements XPMTYPE, PMNO, PORT, CHNL, and TCINFO, section SCSEL = DS0T. See note under RCUL. Enter DS1 for endpoints that traverse a subscriber carrier module-100 urban (SMU) equipped with the ISDN signaling preprocessor (ISP)16 option and datafill refinement PMTYPE, section SCSEL = D30. Enter ISLC (ISDN U-line card) and datafill refinement LEN, section SCSEL = ISLC. Enter RCUL (remote carrier urban) and datafill refinements LEN and TCINFO, section SCSEL = ISLC. ***Note:*** Endpoints DS0T and RCUL cannot be connected to DS1, ISLC, or DCHCHNL endpoints. Enter ST (signaling terminal) and datafill refinement STNO, section SCSEL = ST. Any entry outside the range indicated for this field is invalid.

TIMESPEC (continued)

SCSEL = D30

If the entry in field SCSEL is D30, datafill refinement PMTYPE as described below.

Field description for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PMTYPE	PDTCPLGCRC02orSMA	*Peripheral module type* Enter the peripheral module (PM) type. Refinements are shown following this field in alphabetical order. Enter PDTC (pulse code modulation [PCM]30 digital trunk controller) and datafill refinements DEQNO, DEQCKTNO, and DEQCKTTS. Enter PLGC (PCM30 line group controller) and datafill refinements DEQNO, DEQCKTNO, and DEQCKTTS. Enter RCO2 (offshore remote cluster controller 2) and datafill refinements RCO2NO, RCO2CKTNO, and RCO2CKTTS. Enter SMA (subscriber carrier module-100S access) and datafill refinements SMANO, SMACKTNO, and SMACKTTS. Any entry outside the range indicated for this field is invalid.
	DEQNO	0 to 511	*Equipment module number* If the entry in refinement PMTYPE is PDTC or PLGC, datafill this refinement. Enter the external number of the PM.
	DEQCKTNO	0 to 19	*Equipment module circuit number* If the entry in refinement PMTYPE is PDTC or PLGC, datafill this refinement. Enter the peripheral (P)-side port number on the equipment.
	DEQCKTTS	1 to 31	*Equipment module time slot* If the entry in refinement PMTYPE is PDTC or PLGC, datafill this refinement. Enter the time slot (channel) on the D30.

TIMESPEC (continued)

Field description for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	RC02NO	0 to 511	*RC0 2 number* If the entry in refinement PMTYPE is RCO2, datafill this refinement. Enter the external number of the RC02.
	RC02CKTNO	0 to 47	*RC02 circuit number* If the entry in refinement PMTYPE is RCO2, datafill this refinement. Enter the P-side port number on the RC02.
	RC02CKTTS	1 to 31	*RC02 time slot* If the entry in refinement PMTYPE is RCO2, datafill this refinement. Enter the time slot (channel) on the D30.
	SMANO	0 to 511	*SMA number* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the external number of the SMA.
	SMACKTNO	0 to 19	*SMA circuit number* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the P-side port number on the SMA.
	SMACKTTS	1 to 24	*SMA time slot* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the time slot (channel) on the D30.

TIMESPEC (continued)

SCSEL = DCHCHNL

If the entry in field SCSEL is DCHCHNL, datafill refinements ISGNO and CHNL as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ISGNO	0 to 255	*ISDN signaling group (D-channel handler number)* Enter the D-channel handler (DCH) identifier.
	CHNL	0 to 31	*Channel number* Enter the channel on the DCH.

SCSEL = DS0T

If the entry in subfield SCSEL is DS0T, datafill refinements XPMTYPE, PMNO, PORT, CHNL, and subfield TCINFO as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	XPMTYPE	SMU	*Extended multiprocessor system (XMS) peripheral module (XPM) type* Enter SMU for the subscriber carrier module-100S urban.
	PMNO	0 to 255	*Peripheral module number* Enter the external number of the SMU.
	PORT	0 to 19	*Port* Enter the P-side port number of the SMU.
	CHNL	1 to 24	*Channel* Enter the time slot (channel) on the DS1.
	TCINFO	see subfield	*Trunk conditioning information* This field consists of subfield CGAMODE.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CGAMODE	DT, FT, OP, VN, or VT	CARRIER GROUP ALARM MODEEnter the type of trunk conditioning applied on each channel. • DT (dataport transparent) A Multiplexer out-of-synchronization (MUX-OOS) PCM pattern (00011010) is transmitted. No A- or B-bits are transmitted. • FT (full transparent) No trunk conditioning is applied. The incoming PCM pattern is transmitted. No A- or B-bits are used. • OP (optional) Operating company personnel supply a PCM pattern in hexadecimal. No A- or B-bits are used. Datafill refinement TCPCM. • VN (voice nontransparent) Idle PCM (01111111) is transmitted. Datafill refinement TCSIG. • VT (voice transparent) Idle PCM is transmitted. No A- or B-bits are transmitted.
	TCPCM	00 to FF	*Trunk conditioning PCM pattern* If the entry in subfield CGAMODE is OP, datafill this refinement. Enter a two-digit hexadecimal value used in trunk conditioning.
	TCSIG	0000 to 1111	*Trunk conditioning signaling bits* If the entry in subfield CGAMODE is VN, datafill this refinement. Enter four bits. The first two bits, A1 and B1, are the A- and B-bits transmitted for the first 2.5 seconds. The second two bits, A2 and B2, are the A- and B-bits transmitted for the duration of the failure.

TIMESPEC (continued)

SCSEL = DS1

If the entry in field SCSEL is DS1, datafill refinement PMTYPE as described below.

Field descriptions for conditional datafill (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	PMTYPE	DTC, IAC, LGC, LTC, PDTC, RCC2, RCCI, SMA, SMU, SRCC, or TMS	*Peripheral module type* Enter the type of peripheral module and datafill its refinements. Refinements are shown following this field in alphabetical order. Enter DTC (digital trunk controller) and datafill refinements DTCNO, DTCCKTNO, and DTCCKTTS. See note under PDTC. Enter IAC (ISDN access controller) and datafill refinements IACNO, IACCKTNO, and IACCKTTS. Enter LGC (line group controller) and datafill refinements LGCNO, LGCCKTNO, and LGCCKTTS. Enter LTC (line trunk controller) and datafill refinements LTCNO, LTCCKTNO, and LTCCKTTS. Enter PDTC (pulse code modulation [PCM]30 DTC) and datafill refinements DEQNO, DEQCKTNO, and DEQCKTTS. ***Note:*** On the DMS-300, only DTCs and PDTCs are supported. Enter RCC2 (remote cluster controller 2) and datafill refinements RCC2NO, RCC2CKTNO, and RCC2CKTTS.

Field descriptions for conditional datafill (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
			Enter RCCI (ISDN remote cluster controller) and datafill refinements RCCINO, RCCICKTNO, and RCCICKTTS. Enter SMA (subscriber carrier module-100S access) and datafill refinements SMANO, SMACKTNO, and SMACKTTS. Enter SMU (subscriber carrier module-100S urban) and datafill refinements SMUNO, SMUCKTNO, and SMUCKTTS. Enter SRCC (Synchronous Optical Network [SONET] remote cluster controller) and datafill refinements SRCCNO, SRCCKTNO, and SRCCKTTS. Enter TMS (Traffic Operator Position System [TOPS] message switch) and datfill refinements TMSNO, TMSCKTNO, and TMSCKTTS. Any entry outside the range indicated for this field is invalid.
	DEQNO	0 to 511	*PDTC number* If the entry in refinement PMTYPE is PDTC, datafill this refinement. Enter the external number of the PDTC.
	DEQCKTNO	0 to 19	*PTDC circuit number* If the entry in refinement PMTYPE is PDTC, datafill this refinement. Enter the P-side port number on the PDTC.
	DEQCKTTS	1 to 31	*PDTC time slot* If the entry in refinement PMTYPE is PDTC, datafill this refinement. Enter the time slot (channel) on the DS1.
	DTCNO	0 to 511	*DTC number* If the entry in refinement PMTYPE is DTC, datafill this refinement. Enter the external number of the DTC.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	DTCCKTNO	0 to 19	*DTC circuit number* If the entry in refinement PMTYPE is DTC, datafill this refinement. Enter the P-side port number on the DTC.
	DTCCKTTS	1 to 24	*Time slot* If the entry in refinement PMTYPE is DTC, datafill this refinement. Enter the time slot (channel) on the DS1.
	IACNO	0 to 127	*IAC number* If the entry in refinement PMTYPE is IAC, datafill this refinement. Enter the external number of the IAC.
	IACCKTNO	0 to 19	*IAC circuit number* If the entry in refinement PMTYPE is IAC, datafill this refinement. Enter the P-side port number on the IAC.
	IACCKTTS	1 to 24	*IAC time slot* If the entry in refinement PMTYPE is IAC, datafill this refinement. Enter the time slot (channel) on the DS1.
	LGCNO	0 to 511	*LGC number* If the entry in refinement PMTYPE is LGC, datafill this refinement. Enter the external number of the LGC.
	LGCCKTNO	0 to 19	*LGC circuit number* If the entry in refinement PMTYPE is LGC, datafill this refinement. Enter the P-side port number on the LGC.
	LGCCKTTS	1 to 24	*Time slot* If the entry in refinement PMTYPE is LGC, datafill this refinement. Enter the time slot (channel) on the DS1.
	LTCNO	0 to 511	*LTC module number* If the entry in refinement PMTYPE is LTC, datafill this refinement. Enter the external number of the LTC.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	LTCCKTNO	0 to 19	*LTC circuit number* If the entry in refinement PMTYPE is LTC, datafill this refinement. Enter the P-side port number on the LTC.
	LTCCKTTS	1 to 24	*LTC time slot* If the entry in refinement PMTYPE is LTC, datafill this refinement. Enter the time slot (channel) on the DS1.
	RCC2NO	0 to 511	*RCC2 number* If the entry in refinement PMTYPE is RCC2, datafill this refinement. Enter the external number of the RCC2.
	RCC2CKTNO	0 to 47	*RCC2 circuit number* If the entry in refinement PMTYPE is RCC2, datafill this refinement. Enter the P-side port number on the RCC2.
	RCC2CKTTS	1 to 24	*RCC2 time slot* If the entry in refinement PMTYPE is RCC2, datafill this refinement. Enter the time slot (channel) on the DS1.
	RCCINO	0 to 511	*RCCI number* If the entry in refinement PMTYPE is RCCI, datafill this refinement. Enter the external number of the RCCI.
	RCCICKTNO	0 to 19	*RCCI circuit number* If the entry in refinement PMTYPE is RCCI, datafill this refinement. Enter the P-side port number on the RCCI.
	RCCICKTTS	1 to 24	*RCCI time slot* If the entry in refinement PMTYPE is RCCI, datafill this refinement. Enter the time slot (channel) on the DS1.
	SMANO	0 to 511	*SMA number* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the external number of the SMA.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	SMACKTNO	0 to 19	*SMA circuit number* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the P-side port number on the SMA.
	SMACKTTS	1 to 24	*SMA time slot* If the entry in refinement PMTYPE is SMA, datafill this refinement. Enter the time slot (channel) on the DS1.
	SMUNO	0 to 511	*SMU number* If the entry in refinement PMTYPE is SMU, datafill this refinement. Enter the external number of the SMU.
	SMUCKTNO	0 to 19	*SMU circui t number* If the entry in refinement PMTYPE is SMU, datafill this refinement. Enter the P-side port number on the SMU.
	SMUCKTTS	1 to 24	*SMU time slot* If the entry in refinement PMTYPE is SMU, datafill this refinement. Enter the time slot (channel) on the DS1.
	SRCCNO	0 to 511	*SRCC number* If the entry in refinement PMTYPE is SRCC, datafill this refinement. Enter the external number of the SRCC.
	SRCCCKTNO	0 to 47	*SRCC circuit number* If the entry in refinement PMTYPE is SRCC, datafill this refinement. Enter the P-side port number on the SRCC.
	SRCCCKTTS	1 to 24	*SRCC time slot* If the entry in refinement PMTYPE is SRCC, datafill this refinement. Enter the time slot (channel) on the DS1.
	TMSNO	0 to 255	*TMS number* If the entry in refinement PMTYPE is TMS, datafill this refinement. Enter the external number of the TMS.

Field descriptions for conditional datafill (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	TMSCKTNO	0 to 19	*TMS circuit number* If the entry in refinement PMTYPE is TMS, datafill this refinement. Enter the P-side port number on the TMS.
	TMSCKTTS	1 to 31	*TMS time slot* If the entry in refinement PMTYPE is TMS, datafill this refinement. Enter the time slot (channel) on the DS1.

SCSEL = ISLC

If the entry in field SCSEL is ISLC, datafill refinements LEN and CHNL as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	LEN	see subfields	*Line equipment number* This field defines the physical location of the equipment that is connected to a specific telephone line. Because field LEN is common to more than 60 tables, it is documented in a single section to avoid unnecessary duplication. Refer to section “Common entry field LEN" for a complete description of field LEN and associated subfields. Field LEN consists of subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT, and CIRCUIT.
	CHNL	B1, B2, or D	*Channel* Enter the channel on the ISLC.

TIMESPEC (continued)

SCSEL = RCUL

If the entry in field SCSEL is RCUL, datafill refinements LEN, TCINFO, ATTEN, and FXGCBA as described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	LEN	see subfields	*Line equipment number* This field defines the physical location of the equipment that is connected to a specific telephone line. Because field LEN is common to more than 60 tables, it is documented in a single section to avoid unnecessary duplication. Refer to section “Common entry field LEN" for a complete description of field LEN and associated subfields. Field LEN consists of subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT, and CIRCUIT.
	TCINFO	see subfield	*Trunk conditioning information* This field consists of subfield CGAMODE.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CGAMODE	DT, FT, OP, VN, or VT	*Carrier group alarm mode* Enter the type of trunk conditioning applied on each channel. • DT (dataport transparent) A Multiplexer out-of-synchronization (MUX-OOS) PCM pattern (00011010) is transmitted. No A- or B-bits are transmitted. • FT (full transparent) No trunk conditioning is applied. The incoming PCM pattern is transmitted. No A- or B-bits are used. • OP (optional) Operating company personnel supply a PCM pattern in hexadecimal. No A- or B-bits are used. Datafill refinement TCPCM. • VN (voice nontransparent) Idle PCM (01111111) is transmitted. Datafill refinement TCSIG. • VT (voice transparent) Idle PCM is transmitted. No A- or B-bits are transmitted.
	TCPCM	00 to FF	*Trunk conditioning pcm pattern* If the entry in subfield CGAMODE is OP, datafill this refinement. Enter a two-digit hexadecimal value used in trunk conditioning.
	TCSIG	0000 to 1111	*Trunk conditioning signaling bits* If the entry in subfield CGAMODE is VN, datafill this refinement. Enter four bits. The first two bits, A1 and B1 are the A- and B-bits transmitted for the first 2.5 s. The second two bits, A2 and B2, are the A- and B-bits transmitted for the duration of the failure.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ATTEN	0 to 7	*Attenuation*Enter the amount of receive loss in dB inserted by the Foreign Exchange with Battery Reversal (FXB) card. Any value for special services module (SSM) channel units can be entered. The system subsequently sets the field to 0 (zero) automatically.
	FXBCGA	ON or OFF	*Foreign exchange with battery reversal carrier group alarm* Enter ON if the RCU to subscriber side supervisory signaling is onhook. Enter OFF if the RCU to subscriber-side supervisory signaling is offhook. Any value for SSM channel units can be entered. The system subsequently sets the field to ON automatically.

SCSEL = ST

If the entry in field SCSEL is ST, datafill refinement STNO as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	STNO	0 to 1023	*Signaling terminal number* Enter the signaling terminal number from table STINV.

Endpoint 2

To complete datafill for the second endpoint, datafill field ENDPT2 and its refinements as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ENDPT2	see subfield	*End point2* This field is the identifier of the second endpoint of the connection. This field consists of subfield SCSEL and refinements. Go to subfield SCSEL and continue datafill.

Both endpoints

For both ENDPOINT1 and ENDPOINT2, datafill the following fields.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ABSIG	Y or N	*A and B signaling bit preservation* Enter Y (yes) to preserve the A and B signaling bits.
	STARTDAT	see subfields	*Start date* This field consists of subfields STARTMTH, DAY and YEAR.
	STARTMTH	JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, or NONE	*Start month* This field specifies the first date the connection information is set up in the extended multiprocessor system (XMS) peripheral module (XPM). Enter the month for an actual start date or enter NONE. If NONE is entered, the first date of connection is immediately after the tuple is defined. If the entry is NONE, no refinements require datafill. Go to field ENDDATE.
	DAY	1 to 31	*Start day* Enter a value between the range of 1 and 31 corresponding to the day of the month when the connection is first set up.

TIMESPEC (continued)

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	YEAR	1991 to 2103	*Start year* Enter a value that corresponds to the year when the connection is first set up.
	ENDDATE	see subfields	*End date* This field consists of subfields ENDMONTH, DAY and YEAR.
	ENDMONTH	JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, or NONE	*End month* Enter the month to specify an actual connection date or enter NONE. If the entry is NONE, no refinements require datafill. Go to field TIMERANG.
	DAY	1 to 31	*End day* Enter a value that corresponds to the day of the month when the connection is ended.
	YEAR	1991 to 2103	*End year* Enter a value that corresponds to the year when the connection is ended.
	DAYSWEEK	MON, TUE, WED, THU, FRI, SAT, SUN	*Days of the week* Enter up to eight days of the week that the connection is set up in the XPM. If less than eight days are required, end the list with a $ (dollar sign).
	TIMERANG	see subfields	*Time ranges* This field consists of up to four multiples of subfields STARTIME and ENDTIME. If less than four times are required, end the list with a $ (dollar sign). The time ranges must be entered sequentially and must not interlap.
	STARTIME	0 to 2400	*Start time* Enter the start time of a connection in the format HHMM, where HH is 00 to 23 and MM is 00 to 59. The values in fields STARTIME and ENDTIME form a time range of when the semi-permanent connection is active. The start time must be less than the end time.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ENDTIME	0 to 2400	*End time* Enter a value to specify the last date a connection is set up in the format HHMM, where HH is 00 to 23 and MM is 00 to 59.
	STATUS	ACTIVE INACTIVE MTC NOINTEGorP MBUSY	*Status* This field indicates the status of the connection. The connection status cannot be set or changed by the operating company. The status is determined by the status of the timed connection (whether it is active or not), and the XPMs involved in the establishment of the connection. ACTIVE - indicates that all connections through PMs and any required network connections are active, and the fields, DAYSWEEK, STARTDAT, ENDDATE, STARTIME, and ENDTIME indicate that the connection is made at the current time. INACTIVE - a timed entry in table SPECCONN is inactive if one of the PMs has not established a connection, or if the current date is before the start date or after the end date. The entry is also inactive if the current time is not between a start time and end time or if the current day is not found in field DAYSWEEK in table SPECCONN. MTC - indicates that one of the XPMs in a timed entry in table SPECCONN is undergoing a maintenance action. NOINTEG - indicates that the connection has been physically made, but integrity either has not been found or has been lost. Both XPMs are in service. PMBUSY - indicates that at least one of the XPMs in a timed entry in table SPECCONN is out of service.

Datafill example

The following example shows sample datafill for table TIMESPEC.

TIMESPEC (end)

MAP display example for table TIMESPEC

```
 TIMEIDX
  ENDPT1
  ENDPT2                                  ABSIG
  STARTDAT                                ENDDATE
  DAYSWEEK                                DAYS
  TIMERANG                               STATUS
 ------------------------------------------------------------------------

  0001
   D30       PDTC   1  3 19
   D30       PDTC   1  2 16           N
JAN  1 1991                          FEB 14 1999
      (MON) (TUE) (WED) (THU) (FRI)$
    (   0 1200) (1300 1500) (1700 2400)$   ACTIVE

    0002
    D30       PDTC   1  3 19
     D30       PDTC   1  2 17          N
NONE                                 DEC 25 1999
                             (SAT) (SUN)$
                             (0000 2400)$   INACTIVE
```

Table history

BCS34

Table TIMESPEC was introduced.

TKCVDATA

Table name

Mass Trunk Conversion Data Table

Functional description

Table TKCVDATA helps operating companies minimize the time and effort to convert per trunk signaling (PTS) trunks to ISDN user part (ISUP) trunks, thereby utilizing the Common Channel Signaling 7 (CCS7) protocol. This table enables the operating company to see what new trunks and trunk groups are created, and can also be used to detect datafill errors.

If the old trunk group is large, the best approach is to split the trunk group into two records. This ensures that the old trunk group can be converted without taking the whole trunk group out of service. During datafill process, it is important that the circuit identification code (CIC) for each trunk is identical at the end switching units. For all Signaling System 7 (SS7) trunks in a switching unit, the CIC must be unique for every destination point code (DPC). Currently, since there are no rules for naming the trunks at the end switching units, the datafill process can be complicated if the external trunk numbers are not aligned at the end switching units.

To determine the CIC assigned to an ISUP trunk, use the following formula:

$C(x) = n(x) + s - e$

where

C(x)
is the circuit identification code (CIC) for trunk member x

n(x)
is the external number for trunk member x in the new trunk group

s
is the starting CIC for the set of ISUP trunks in the TKCVDATA record. This is the CIC given to the first ISUP trunk in the set

e
is the starting external number for the set of trunks in the new trunk group

Since the external trunk number of the new group determines the CIC value, this assignment ensures that the external trunk numbers of the new group are aligned at the end switching units.

If there are any undatafilled PTS trunks in the record, they appear in the new trunk group as well. There can be some unused CICs. To avoid the holes in

TKCVDATA (continued)

the CICs assigned, the records must be constructed to contain only datafilled trunks.

The records must be datafilled so that the CICs are identical for the trunks at the end switching units. The datafill process is straightforward if the external numbers are identical for the trunks at the end switching units. Two examples are given, at the end of this section, to indicate how the datafill differs depending on the alignment of the external trunk numbers for the trunks at the end switching units.

Record verification

Each record is verified during datafill and before the conversion is allowed. This verification process checks each of the following rules:

- Both trunk group common language location identifiers (CLLI) are for trunk groups.
- The two trunk group CLLIs are not the same.
- The corresponding subgroup tuples exist in table TRKSGRP for the ISUP trunk group that are in the PTS trunk group.
- The PTS trunk specified by the value in field OSTRTMEM exists (only if not attempting a retry).
- The PTS trunk specified by the value in field OLASTMEM exists (only if not attempting a retry).
- The PTS trunks are on a peripheral module that is specified in table LTCINV as a CCS7 peripheral.
- The set of ISUP trunks datafilled do not exist (only if not attempting a retry), but are valid trunk members.
- The CIC for each new ISUP trunk is not used (only if not attempting a retry), but each is a valid CIC.

The following verifications are already done by standard table control:

- The PTS trunk group CLLI exists.
- The ISUP trunk group CLLI exists.
- The TRKCIC value is within the valid range.
- The selector is CIC.

The overlay of ranges between records is not verified. This can be done manually after all the entries have been added to table TKCVDATA.

The subgroup information is retained in the new ISUP trunks after the conversion. Each new ISUP trunk stays in the subgroup it was in when it was a PTS trunk. The data in each record specifies a block of PTS trunks for conversion.

MAP level TRKCONV commands

MAP (maintenance and administrative position) level TRKCONV provides the commands to act on the posted record. The commands available are as follows:

- CVPOST: posts the requested record or records.
- CVBSY: busies out the trunks in the posted record or records. When this command is issued, an alarm goes off when the defined threshold is reached.
- CONV: converts the PTS trunks to ISUP trunks by updating trunk tables.
- CVRTS: brings the trunks into service.
- CVNEXT: displays the next record if more than one record was requested by the CVPOST command.
- CVCOT: runs the continuity test on the trunks.
- UNDO: converts the ISUP trunks back to PTS trunks. This command is not used unless there is something wrong with the conversion process.
- RCLLI: renames the ISUP trunk CLLI to the corresponding PTS trunk CLLI. The PTS trunk CLLI is renamed to a dummy CLLI. This command precludes the use of the UNDO command. This command also changes the conversion status field to LOCKED.
- AUTOCNV: (only with package NTXV25AA [JPN Auto Mass Trunk Conversion]) specifies the particulars of the automatic trunk conversion process.

Procedure for manual conversion process

Only one person at one of the affected switching units should perform the conversion process. This person must have access to a remote MAP terminal for the other switching unit involved. A hard copy of table TRKMEM and C7TRKMEM should be taken before the conversion process is started, as a precaution.

TKCVDATA (continued)

The procedure for switching units involved in the process is described below.

1. Check that the switching unit has datafill for CCS7 signaling. If this datafill does not exist, datafill the following tables:
   - C7NETWRK
   - C7LKSET
   - C7LINK
   - C7RTESET
   - IPMLINV (only if message switch and buffer 7 [MSB7] signaling is used)
   - LTCINV (to update field OPT_ATTR as a CCS7 peripheral module)
2. Check if the ISUP trunk group data exists. If it does not exist, perform the following procedure:
   a. Add entry to table TRKGRP.
   b. Add entries to table TRKSGRP.
   c. Add entries to table ISUPDEST.
   d. Add translation and routing data for the new ISUP trunk group.
3. Select a block of trunks from a PTS trunk group to convert in consultation with the other switching unit.
4. Add entry to table TKCVDATA for this block of PTS trunks. Various data verifications must be done before this entry can be added in table TKCVDATA (for example, all the PTS trunks reside on a #7 digital trunk controller [DTC]).
5. Set the read-only field CSTATUS to INITIAL.
6. Repeat steps 3 to 5 for any additional blocks of trunks.
7. Go into the TRKCONV MAP level by issuing the following command:

   ```
   > MAPCI;MTC;TRKS;TTP;LEVEL TRKCONV
   ```

8. Post the record or records agreed on with other switching unit using the CVPOST command. The records posted at both switching units must contain the same trunks.
9. Enter the CVBSY command with the INB option. This changes the state of all the PTS trunks to offline. Log reports are generated for any of the trunks that do not change to the offline state. Correct these logs before continuing.

10. If any of the trunks are in the CPB state, take one of the following actions:
    - Wait for the trunks to go idle, then change them to the offline state using the CVBSY INB command.
    - Go on to another record and come back to this record later.
    - Break the record up into smaller records and isolate the CPB trunks.
11. Ensure that the other switching unit has also issued the CVBSY INB command for the same set of trunks.
12. When all the trunks in the record are in the INB state, the CONV (convert) command can be issued. To convert a record, enter the following command:

    ```
    > CONV
    ```

    To convert a set of records, enter the following command:

    ```
    > CONV ALL
    ```
13. The conversion status changes to RUNNING only if the data verifications pass. Otherwise, the command is exited. If the record fails the verification, a verification failure message is displayed on the user's terminal and the command is exited.
14. If the conversion status changes to FAILURE after the command is completed, this indicates that some of the PTS trunks were not converted. Log reports are generated for the trunks that were not converted.
15. If the conversion status changes to COMPLETE after the CONV command is completed, this indicates that all PTS trunks were converted.
16. Ensure that the other switching unit has also converted the same set of trunks.
17. Process all logs generated by the CONV command before proceeding.
18. If the switch is a DMS, issue the CVBSY command. This changes the state of the ISUP trunks to the manual busy state, which is necessary since continuity tests can only be done on trunks in the manual busy or idle states. If the switch is not a DMS, prepare the trunks for continuity tests. Note that the continuity test can only be initiated on outgoing trunks (DMS).

TKCVDATA (continued)

19. The following steps should be performed at the switching unit containing the trunks that are outgoing or two-way:
    - Notify the other switching unit when you are about to start the continuity test. To do this, enter one of the following commands:

      ```
      > CVCOT
      ```

      or

      ```
      > CVCOT ALL
      ```
    - If log reports were generated from the continuity tests, they must be corrected in conjunction with the other switching unit.
    - Rerun the CVCOT command if errors existed after the log reports were corrected.
    - When the CVCOT command has completed successfully, bring the new trunks into service by using the CVRTS command.
    - Inform the other switching unit to bring the corresponding ISUP trunks into service.
    - Verify the performance of the new ISUP trunks.
    - This completes the conversion for this record.
20. When the conversion is complete and the PTS trunks are converted successfully, delete the tuples from table TKCVDATA.

Failure conditions for the manual conversion process

The following procedure is for handling error conditions if the CVCOT command results in several logs.

1. The operating company personnel have the option of fixing the errors or reversing the conversion process. The conversion process can be reversed only if the following conditions are valid.
    - The PTS trunk group data still exists.
    - The conversion status is not set to LOCKED as a result of running the RCLLI command.
2. If the above conditions are met, issue the UNDO command. This deletes the ISUP trunks from tables C7TRKMEM and TRKMEM, and adds the PTS trunks to table TRKMEM.

If a restart occurs during the conversion process, it can result in loss of data. If the data loss cannot be recovered by the software, it is up to the operating company personnel to correct the data inconsistency manually.

Renaming the ISUP trunk CLLI to the PTS trunk CLLI

This optional procedure is used if the operating company wishes to reuse the old PTS trunk group CLLI as the ISUP trunk group CLLI (the conversion cannot be reversed with the UNDO command after the ISUP CLLI is renamed).

1. Access the TRKCONV MAP level.
2. Enter the following command:

   ```
   > RCLLI <isup CLLI> <pts CLLI>
   ```

   This changes the CLLI for the ISUP trunk group to the PTS CLLI if the PTS trunk group has no more members and its group data still exists.
3. The PTS CLLI is renamed to a dummy CLLI and it is displayed on the user's terminal if the command was successful. All the records containing either CLLI have the status changed to LOCKED.
4. Remove all the translations for the renamed PTS trunk group.
5. Remove the trunk group data for the renamed PTS trunk group.

The algorithm for assigning the dummy CLLI is as follows: The CLLI name is broken up into two parts -- a string of characters and a numeric part (for example, OLDPTS123). The numeric part is assigned sequentially as required.

Restrictions and limitations

Restrictions and limitations concerning datafill of table TKCVDATA are as follows:

- The PTS trunks must be on a peripheral module specified as a CCS7 type.
- Only PTS trunks on digital trunk controllers (DTC), line trunk controllers (LTC), and PCM30 DTCs (PDTC) can be converted to ISUP trunks. No more than 2048 trunk blocks can be specified at a time.
- The CONV, UNDO, and AUTOCNV commands work only if the conversion of PTS trunk members to ISUP trunk members is a one-to-one mapping. If the same PTS or ISUP members are specified in multiple records, the CONV, UNDO, and AUTOCNV commands fail.
- During datafill of table TKCVDATA, no check is made to see if there are any ISUP trunks already datafilled for the range in the record. If there are trunks in the range, it can cause problems when the UNDO command is issued.
- Only the CVPOST, UNDO, RCLLI, and AUTOCNV commands will operate on records of table TKCVDATA with field CONVP set to AUTO.

TKCVDATA (continued)

- The CVPOST command does not allow the user to post a set of records that includes both MAN and AUTO options.
- No check is made to verify that the ISUP trunk group size (as specified by field TRKGRPSIZ in table CLLI) is large enough to accommodate all of the new ISUP members; the operating company personnel must verify that the trunk group size is adequate before trunk conversion is performed.
- Do not schedule or perform external peripheral module (XPM) routine exercise (REX) tests during trunk conversion on affected PMs.
- No check is made to ensure that the trunk group specified in field OLDGRP is a PTS trunk group.
- For records with field CONVP set to AUTO, no check is made to ensure that there is no overlap of trunk members specified in the ranges of OTRKMEM and NTRKMEM.
- Do not perform CM restarts or CM REX during trunk conversion.
- Do not perform an image dump during trunk conversion.
- All ISUP trunk members specified within a record of table TKCVDATA have the same ISUP protocol variant.
- The continuity test performed by the CVCOT command, or during automatic trunk conversion if a continuity test is requested, is dependent on the ISUP trunk type specified in field NEWGRP of the record.
- If the journal file is active, it is updated with the changes to tables TRKMEM, C7TRKMEM, and TKCVDATA during trunk conversion.

Datafill sequence and implications

The following tables must be datafilled before table TKCVDATA:

- CLLI
- C7LINK
- C7LKSET
- C7NETWRK
- C7RTESET
- IPMLINV
- ISUPDEST
- LTCINV
- TRKGRP

- TRKMEM
- TRKSGRP

Table size

Memory is dynamically allocated up to a maximum of 2048 tuples.

Datafill

The following table lists datafill for table TKCVDATA.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
RECNUM		numeric (0 to 2047)	*Record number* This field is the key to the table. Enter a record number.
CONVP		MAN or AUTO	*Conversion process* Enter MAN to select the manual conversion process or AUTO to select the automatic conversion process.
DATA		see subfields	*Manual conversion process data* If the value in field CONVP is MAN, this field consists of subfields OLDGRP, OSTRTMEM, OLASTMEM, NEWGRP, NSTRTMEM, NLASTMEM, SIGSEL, and CSTATUS.

TKCVDATA (continued)

CONVP = MAN

If the value in field CONVP is MAN, datafill subfields OLDGRP, OSTRTMEM, OLASTMEM, NEWGRP, NSTRTMEM, NLASTMEM, SIGSEL, and CSTATUS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OLDGRP	alphanumeric (1 to 16 characters)	*Old trunk group* Enter the common language location identifier (CLLI) of the old trunk group that contains the per trunk signaling (PTS) trunks that are being converted to ISDN user part (ISUP) signaling. The entry in field OLDGRP and the entry in field NEWGRP cannot be the same.
	OSTRTMEM	numeric (0 to 9999)	*Old starting trunk member number* Enter the starting external trunk member number of the old trunk group.
	OLASTMEM	numeric (0 to 9999)	*Old last trunk member number* Enter the last external trunk member number of the old trunk group.
	NEWGRP	alphanumeric (1 to 16 characters)	*New trunk group* Enter the CLLI of the new trunk group that contains the ISUP trunks that are being converted from the PTS trunks. The entry in field NEWGRP and the entry in field OLDGRP cannot be the same.
	NSTRTMEM	numeric (0 to 9999)	*New starting trunk member number* Enter the starting external trunk member number of the new trunk group.
	CONTMARK	+	*Continuation mark* Enter + to indicate that additional information for this tuple is contained in the next record.
	NLASTMEM	numeric (0 to 9999)	*New last trunk member number* Enter the last external trunk member number of the new trunk group.

TKCVDATA (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SIGSEL	CIC	*Signal selector* Enter CIC (circuit identification code) and complete refinement TRKCIC.
	TRKCIC	numeric (0 to 16383)	*Trunk circuit identification code* Enter the trunk CIC for the trunk member. Each CIC must be unique for each destination point code and must be the same between the two switching units as well.
	CSTATUS	INITIAL RUNNING FAILURE COMPLETE or LOCKED	*Conversion state* Enter INITIAL. After initial datafill, this field is overwritten by the system and becomes a read-only field that indicates the progress of the conversion.

TKCVDATA (continued)

CONVP = AUTO

If the value in field CONVP is AUTO, datafill subfields OLDGRP, OTRKMEM, NEWGRP, NTRKMEM, SIGSEL, CSTATUS, and OPTION as described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	OLDGRP	alphanumeric (1 to 16 characters)	*Old trunk group* Enter the CLLI of the old trunk group that contains the per trunk signaling (PTS) trunks that are being converted to ISDN user part (ISUP) signaling. ***Note:*** The entry in OLDGRP and the entry in NEWGRP cannot be the same.
	OTRKMEM	see subfields	*Old trunk member* This vector field, which consists of up to six multiples of subfields STRTMEM and ENDMEM, indicates up to six ranges that are used to specify the old trunk members requiring conversion.
	STRTMEM	numeric(0 to 9999)	*Start member* Enter start value for the range.
	ENDMEM	numeric(0 to 9999)	*End member* Enter end value for the range.
	NEWGRP	alphanumeric (1 to 16 characters)	*New trunk group* Enter the CLLI of the new trunk group that contains the ISUP trunks being converted from the PTS trunks. ***Note:*** The entry in field NEWGRP and the entry in field OLDGRP cannot be the same.
	CONTMARK	+	*Continuation mark* Enter + to indicate that additional information for this tuple is contained in the next record.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	NTRKMEM	see subfields	*New trunk member* This vector field, which consists of up to six multiples of subfields STRTMEM and ENDMEM, indicates up to six ranges that are used to specify the new trunk members requiring conversion.
	STRTMEM	numeric (0 to 9999)	*Start member* Enter start value for the range.
	ENDMEM	numeric (0 to 9999)	*End member* Enter end value for the range.
	SIGSEL	CIC	*Signal selector* Enter CIC (circuit identification code) and datafill refinement TRKCIC.
	TRKCIC	numeric (0 to 16383)	*Trunk circuit identification code* Enter the trunk CIC for the trunk member. Each CIC must be unique for each destination point code and must be the same between the two switching units. To determine the CIC assigned to an ISUP trunk, use the formula provided on the following page.
	CSTATUS	INITIAL RUNNING FAILURE COMPLETE or LOCKED	*Conversion state* Enter INITIAL. After initial datafill, this field is overwritten by the system and becomes a read-only field that indicates the progress of the conversion.

TKCVDATA (continued)

Field descriptions for conditional datafill (Sheet 3 of 3)

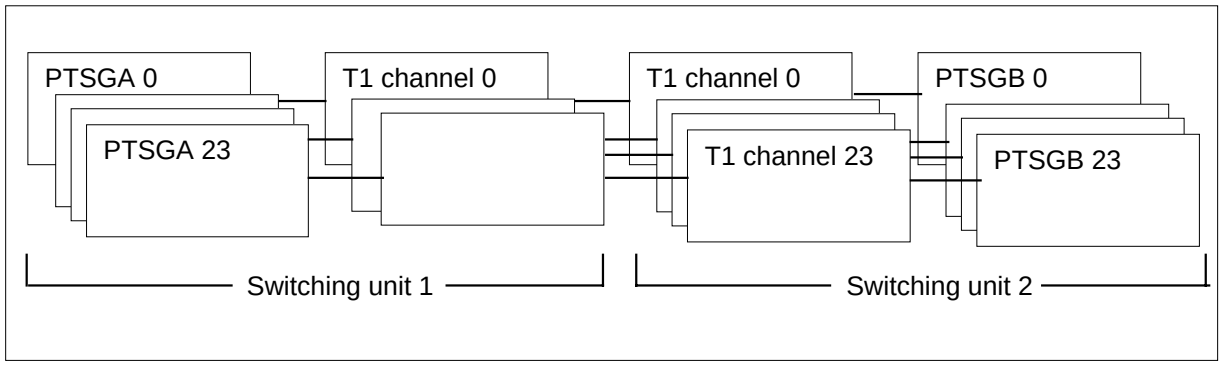
Field	Subfield or refinement	Entry	Explanation and action
	OPTION	LPBKDN or NIL	*Option field* If loopback is required, enter LPBKDN to specify the loopback directory number option, and datafill refinement DN. Otherwise, enter NIL.
	DN	numeric (1 to 18 digits)	*Directory number* Specify the loop-back DN for the continuity test.

Datafill example

The following example shows sample datafill for table TKCVDATA.

This is an example of physical connections between two switching units that have the same external trunk numbers assigned, as illustrated in the following figure. This type of configuration only requires that one tuple be added to table TKCVDATA at both switching units. The external trunk numbers and the CLLI are the same at both ends of the channel.

Physical connections between two switching units



An example of input for switching unit 1 is shown below.

MAP display example for table TKCVDATA

```
RECNUM CONVP
                                                    DATA

_____________________________________________________________________

1 MAN
        PTSGA 0 23 NEWGA 10 33 CIC 50 INITIAL
```

An example of input for switching unit 2 is shown below.

MAP display example for table TKCVDATA

```
RECNUM CONVP
                                                    DATA
_____________________________________________________________________

1 MAN
        PTSGB 0 23 NEWGB 10 33 CIC 50 INITIAL
```

Table history

BCS36

Dump and restore was changed.

Supplementary information

Additional information related to table TKCVDATA is provided below.

Dump and restore

As of BCS36, tuples that exist on the dump side in table TKCVDATA are not restored during a BCS upgrade.

TKFXPT

Table name

Trunk Frame Access Table

Overview

The following table lists the test access network (TAN) tables.

Test Access Network tables

Title of table	Table name
Trunk Frame Access	TKFXPT
Access Relay	ACCRLY
Test Access Network Trunk Test Position Group	TTANTTPG
Test Circuit	TSTCCT
Test Circuit Index	TSTCCTIX

TAN provides a dc metallic test path between a trunk test position (TTP) and any trunk circuit in the office.

Each TAN module is capable of interfacing up to three test trunks (TT) with up to 32 trunk module equipment (TME) frames. Within the module itself, these 32 TME frames are subdivided into four groups of eight frames for provisioning reasons. Metallic access to each of these groups is made possible by the provisioning of up to three relay circuit cards (NT5X01AA) for each group (the actual number of NT5X01AAs depends on the number of TTPs that are to be given metallic access to the TME frames). Each set of NT5X01AAs is called a relay group (it follows from the above that one TAN module provides sufficient room for four such groups). The connection from the TTP to the TAN module is made by means of a test circuit (NT5X02AA). Each test circuit can access up to three TTPs, but only one TTP can use the test circuit for testing at any one time.

These guidelines are further developed by means of the following two cases:

Case 1—how to provide access to more than 32 TME frames

In the first case where more than four relay groups are required, the solution is simply to provide a second TAN module. As the test circuit connections need only be multiplied from the first TAN module to the second, no additional NT5X02AA test circuit is necessary. This gives the test circuit on the first TAN module metallic access to a total of eight relay groups (64 TME frames). (See note below).

Case 2—how to provide access to more than three TTPs

In the second case where more than three TTPs are required, the solution is again to provide another TAN module. This time however, the 32 TME frame connections are multiplied from the first TAN module to the second. This module also has the test circuit equipped, as connections between the TAN and a TTP can only be made through an NT5X02AA.

The combination of the above two cases form a TAN matrix. Increases in the number of TME frames takes place along one axis (in units of one relay group and eight TME frames). Likewise, increases in the number of TTPs given access to the TME frames takes place along the other axis (in units of one NT5X02AA and three TTPs).

Note: As mentioned above, only one of three TTPs can use a test circuit at any one time. This rule can be circumvented, by provisioning an NT5X02AA test circuit into the second TAN module. This circuit can then be enabled by applying certain options within the TAN tables that can dedicate a specific TTP to a particular test circuit and/or provide hot spare test circuits if one ever fails.

For a complete descripton of TAN, see the following Northern Telecom publications:

- *DMS-100 Family Commands Reference Manual*
- *Log Report Reference Manual*

Functional description

Table TKFXPT defines the relationship of the trunk frame and the cross point in the relay group.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TKFXPT.

Table size

Memory is automatically allocated for a maximum of 16 trunk frame types and a maximum of 512 frame numbers for each trunk frame type.

TKFXPT (continued)

Datafill

The following table lists datafill for table TKFXPT.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TRKFRAME		see subfields	*Trunk frame*T his field is the key to the table and consists of subfields FRTYPE and FRNO.
	FRTYPE	TME	*Frame type* Enter TME (trunk module equipment) as the type of frame to which the TAN is to provide access. An entry outside the range indicated for this field is invalid.
	FRNO	0 to 511	*Frame number* Enter the number assigned by the operating company to the particular frame that is to be accessed using the test access network (TAN).
XPT		0 to 7	*Crosspoint* Enter the crosspoint number within a given relay group to which the frame to be accessed is assigned.
NINGRP		0 to 63	*Number in group* Enter the relay group number to which the frame to be accessed is assigned.

Datafill example

The following example shows sample datafill for table TKFXPT.

MAP display example for table TKFXPT

```
TRKFRAME XPT NINGRP
_____________________________________________________

 TME   0   0      0
```

Supplementary information

This section provides information on setting up the TAN tables.

Setup of TAN tables

The following example example shows how to set up the TAN tables for an office.

In this example

- Two TTPs have test access to 10 TME frames.
- The two associated test trunks are assigned on module T8A number 4 circuit 20 and module T8A number 12 circuit 18.

An example of datafill for table TKFXPT is shown below.

MAP display example for table TKFXPT

```
TRKFRAME XPT NINGRP
_____________________________________________________

 TME   0   0      0
 TME   1   1      0
 TME   2   2      0
 TME   3   3      0
 TME   4   4      0
 TME   5   5      0
 TME   6   6      0
 TME   7   7      0
 TME   8   8      1
 TME   9   9      1
```

An example of datafill for table ACCRLY is shown below.

MAP display example for table ACCRLY

```
TLYCCT   MODTYPE MODNO MODCKTNO
_____________________________________________________

  0  0       TAN     0        0
  0  1       TAN     0        4
  1  0       TAN     0        1
  1  1       TAN     0        5
```

An example of datafill for table TTANTTPG is shown below.

TKFXPT (end)

MAP display example for table TTANTTPG

```
TTPNO    TMTYPE TMNO
                    TMCKTNO   RELPT
_____________________________________________________

    0       T8A    4
                          20       0
    1       T8A   12
                          18       1
```

An example of datafill for table TSTCCT is shown below.

MAP display example for table TSTCCT

```
INDEX    MODTYPE MODNO MODCKTNO
_____________________________________________________

    0        TAN     0       15
```

An example of datafill for table TSTCCTIX is shown below.

MAP display example for table TSTCCTIX

```
TCCTINDX INDEX
_____________________________________________________

    0  0     0
    1  0     0
```

TKMTRNAM

Table name

Trunk Meter Names Table

Functional description

This table, which specifies the external character string associated with a trunk software meter, lists up to five trunk meter names. Meter name NILMETER must be in this table, and is automatically added by the metering system. NILMETER is the default name used for unassigned trunk software meters. The remaining four names are used for specifying call processing charges.

Datafill sequence and implications

Table LNETWORK must be datafilled before table TKMTRNAM.

With the exception of table LNETWORK, table TKMTRNAM must be datafilled before any of the other metering tables.

Table size

1 to 5 tuples

Datafill

The following table lists datafill for table TKMTRNAM.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
METERNAM		alphanumeric (up to 16 characters)	*Meter name* Enter the name of the trunk software meter. The meter name NILMETER is automatically added to this table by the system.

Datafill example

See table LNETWORK for an example of datafill for table TKMTRNAM.

TKSIGSYS

Table name

Trunk Signaling System Table

Functional description

Table TKSIGSYS enables additional signaling parameters to be datafilled for a trunk subgroup. For trunk subgroups that use a signaling type that is supported by table TKSIGSYS, each tuple in table TKSIGSYS is referenced by an index in table TRKSGRP.

Tuples in table TKSIGSYS contains parameters for a specific signaling system. Most of these parameters are timers associated with specific signals. Trunk subgroups associated with different trunk groups can use not only the same signaling system, but also the same set of signaling parameters. This is accomplished by having each trunk subgroup tuple reference the same tuple in table TKSIGSYS (through the use of field TKICSSI or TKOGSSI in table TRKSGRP).

Field TKSIGTYP in table TKSIGSYS specifies the signaling type. The signaling type determines the parameters contained in the rest of the tuple. At present, the only signaling type supported in table TKSIGSYS is NTTMF, which is for Japan DMS-100 interexchange trunks (IET).

Datafill changes to table TKSIGSYS for signaling type NTTMF do not take effect immediately for all fields. To ensure that the modified data is downloaded to the PCM30 digital trunk controllers (PDTC), manually busy and then return to service all PDTCs associated with the affected trunk subgroups. This can be accomplished using any one of the following methods:

- Busy and return to service either the active unit or the entire peripheral module (PM).

  Note: If the active unit is busied when both units are running in synchronization, a warm restart switch of activity (WARMSWACT) is performed on the inactive unit. The WARMSWACT does not result in the downloading of the new parameters.

- Perform a cold restart switch of activity (COLDSWACT) on all affected PDTCs.
- Busy and return to service all affected trunks. Operating company personnel must determine which trunk subgroups are affected by the change or changes to a given tuple in table TKSIGSYS.

The busy and return to service action is not necessary if changes are only made to fields for which changes take effect immediately (that is, on subsequent new

calls). Refer to the field description section of this document for a list of fields for which the result of datafill modification is immediate.

Note: The default values for this table are not recommendations. They may not be acceptable for a specific switching unit's applications.

Datafill sequence and implications

Table TKSIGSYS must be datafilled before table TRKSGRP.

Table size

0 to 255 tuples

Datafill

The following table lists datafill for table TKSIGSYS.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TKSIGIDX		alphanumeric (1 to 16 characters)	*Trunk signaling index* This is the key field to table TKSIGSYS. Enter a name from field TKICSSI or TKOGSSI of table TRKSGRP to serve as an index into table TKSIGSYS.
TKSSVAR		see subfield	*Trunk signaling system variable area* This field consists of subfield TKSIGTYP and refinement.
	TKSIGTYP	NTTMF	*Trunk signaling type* Enter NTTMF and datafill refinement DIRDATA. The NTTMF signaling type is applicable to Japan DMS-100 interexchange trunks (IET).
	DIRDATA	see subfield	*Trunk direction specific data* This field consists of subfield DIR and refinements.
	DIR	IC or OG	*Trunk direction* If the direction of traffic flow on the trunk group is incoming, enter IC and datafill refinements SRATDEL, RMAXKPDL, RMINCLF, RCLFDEL, RMAXDGDL, and TRDENBL as described in section DIR = IC, table "Field descriptions for conditional datafill"..

TKSIGSYS (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
			If the direction of traffic flow on the trunk group is outgoing, enter OG and datafill refinements RMINRAT, RMINPTS, SMAXKP, SADRDEL, SMAXDIG, SDIGDEL, SDGCMPLT, SMAXST, RMXPTSDL, and RRLCDEL as described in section DIR = OG, table “Field descriptions for conditional datafill”.. The entry in this field must be the same as the entry in field DIR of tables TRKGRP and TRKSGRP for the associated trunks.

DIR = IC

If the value in field DIR is IC, datafill refinements SRATDEL, RMAXKPDL, RMINCLF, RCLFDEL, RMAXDGDL, and TRDENBL as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SRATDEL		numeric (0 to 255)	*Send register attached delay* Enter the time duration, in units of 10 ms, that the incoming trunk waits following detection of seizure before responding by a sending a register-attached signal to the calling switching unit. The default value is 0 (zero).
RMAXKPDL		numeric (1 to 40)	*Receive maximum key pulse delay* Enter the maximum time duration, in units of 1 s, between the transmission of the register-attached signal and the reception of the key pulse (KP) signal. The default value is 10 (10 s). Changes to this field take effect immediately.
RMINCLF		numeric (2 to 255)	*Receive minimum clear forward* Enter the minimum time duration, in units of 10 ms, that a received clear forward signal must be maintained to be recognized. The default value is 27 (270 ms). Changes to this field take effect immediately.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RCLFDEL		numeric (1 to 40)	*Receive clear forward delay* Enter the time duration, in units of 1 s, between the transmission of a clear back signal and the reception of a clear forward signal. If the timer expires without a clear forward signal being received from the preceding switching unit, the trunk goes into the lockout state. The default value is 1 (1 s).
RMAXDGDL		numeric (1 to 40)	*Receive maximum digits delay* Enter the maximum time duration, in units of 1 s, between the end of the KP signal and the end of the stop (ST) signal for receiving the address digits. The default value is 20 (20 s). Changes to this field take effect immediately.
TRDENBL		Y or N	*Timed release disconnect enable* If the timed release disconnect (TRD) timer, specified by office parameter LONG_TIMED_RELEASE_DISC_TIME in table OFCENG, is enabled, enter Y (yes). Otherwise, enter N (no). Setting the value to N also disables the receive clear forward delay (RCLFDEL) timer. The default value is Y. Changes to this field take effect immediately.

TKSIGSYS (continued)

DIR = OG

If the value in field DIR is OG, datafill refinements RMINRAT, RMINPTS, SMAXKP, SADRDEL, SMAXDIG, SDIGDEL, SDGCMPLT, SMAXST, RMXPTSDL, and RRLCDEL as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	RMINRAT	numeric (2 to 255)	*Receive minimum register attached* Enter the minimum time duration, in units of 10 ms, that a received register attached (RAT) signal must be maintained to be recognized. The default value is 7 (70 ms). Changes to this field take effect immediately.
	RMINPTS	numeric (2 to 255)	*Receive minimum proceed to send* Enter the minimum time duration, in units of 10 ms, that a received proceed to send (PTS) signal must be maintained to be recognized. The default value is 7 (70 ms). Changes to this field take effect immediately.
	SMAXKP	numeric (4 to 255)	*Send maximum key pulse* Enter the maximum duration, in units of 10 ms, that the key pulse (KP) signal will be maintained while waiting to receive the PTS signal. The default value is 100 (1 s).
	SADRDEL	numeric (3 to 255)	*Send address delay* Enter the time, in units of 10 ms, between the reception of the PTS signal and the transmission of the first digit of the address. The default value is 16 (160 ms). Changes to this field take effect immediately.
	SMAXDIG	numeric (5 to 255)	*Send maximum digits* Enter the maximum duration, in units of 10 ms, of each digit pulse. The default value is 7 (70 ms).
	SDIGDEL	numeric (3 to 255)	*Send digit delay* Enter the duration, in units of 10 ms, of the interdigital pause. The default value is 3 (30 ms).

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SDGCMPLT	numeric (3 to 255)	*Send digit completion* Enter the duration, in units of 10 ms, between the last address digit and the ST signal. The default value is 3 (30 ms).
	SMAXST	numeric (5 to 255)	*Send maximum ST* Enter the maximum pulse duration, in units of 10 ms, of the ST signal. The default value is 7 (70 ms).
	RMXPTSDL	numeric (1 to 40)	*Receive maximum proceed-to-send delay* Enter the maximum time duration, in units of 1 s, that an outgoing trunk waits for the PTS signal after sending the seizure signal. The default value is 10 (10 s). Changes to this field take effect immediately.
	RRLCDEL	numeric (20 to 255)	*Receive release complete delay* Enter the time duration, in units of 10 ms, to wait for the release complete (RLC) signal after sending the clear forward (CLF) signal. The default value is 100 (1 s).

Datafill example

The following example shows sample datafill for table TKSIGSYS.

This example shows two tuples, one for incoming trunks and one for outgoing trunks.

MAP display example for table TKSIGSYS

```
TKSIGIDX     TKSSVAR
_____________________________________________________

NTTMFIC1     NTTMF IC 0 10 27 1 20 Y
NTTMFOG1     NTTMF OG 7 7 100 16 7 3 3 7 10 100
```

TKTONODE

Table name

DCR Trunk Groups from DCR Offices Table

Functional description

Table TKTONODE contains the trunk group common language location identifier (CLLI) of incoming and two-way dynamically controlled routing (DCR) and dynamically controlled access (DCA) trunks. For DCR purposes, a tuple contains the name of the switch from which the incoming trunk group originates and the DCR network name to which this node belongs (for related information, refer to table DESTKEY). For DCA purposes, the tuple contains the DCA network name to which an incoming trunk group belongs.

For DCR purposes, any incoming trunk group not found in this table or datafilled without information pertaining to DCR is considered to be a non-DCR trunk group.

For DCA purposes, any incoming trunk group not included in the table or datafilled without information pertaining to DCA is considered to belong to the DCA DEFAULT network.

Datafill sequence and implications

The following tables must be datafilled before table TKTONODE:

- TRKGRP
- DCRNETID
- DCANETID
- DESTKEY

Table size

Table TKTONODE is dynamically allocated using SEGSTOR facilities. A maximum of 64K elements can be found in the table.

Datafill

The following table lists datafill for table TKTONODE.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TKKEY		see subfield	*TKTONODE key* Enter the datafill for subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Dynamically controlled routing trunk group CLLI* Enter the common language location identifier (CLLI) for each DCR or DCA trunk group.
NETINFO		see subfield	*Network information* Datafill subfield DCXSELEC and the corresponding refinements.
	DCXSELEC	DCR or DCA	*Dynamically controlled system selection* Enter DCR for DCR information. If DCR is entered, datafill refinement DCRNET and ICFROM. If DCA is entered, datafill refinement DCANET.
	DCRNET	alphanumeric (1 to 12 characters)	*Network name* Enter the DCR network name of the DCR incoming node.
	ICFROM	alphanumeric (1 to 16 characters)	*Destination node name* Enter the DCR destination office CLLI to specify the destination switch from which the trunk group is incoming.
	DCANET	alphanumeric (1 to 12 characters)	*DCA network* Enter the DCA network name defined in table DCANETID.

Datafill example

The following example shows sample datafill for table TKTONODE.

TKTONODE (end)

MAP display example for table TKTONODE

```
TKKEY                                          NETINFO
_____________________________________________________________
ISUPITIC     (DCR DCRNETWORK1 NODE1)     (DCA FOREIGN) $
ISUPIT2WA                                 (DCA DEFAULT) $
ISUPITIC2                        (DCR DCRNETWORK2 NODE2) $
```

Table history

NA004

Field NETINFO was added for DCA. Subfield DCXSELEC was added with additional refinements. Refinement NETNAME was changed to DCRNET, and refinement DCANET was added.

NA003

Changes were made in the way table TKTONODE physical store is allocated. It is now dynamically allocated and independent of table TRKGRP.

BCS36

Field NETNAME was added for multiple network access.

TMINV

Table name

Trunk Module Inventory Table

Functional description

Table TMINV lists the following assignment data for each trunk module (TM):

- TM module type and number
- floor, row, bay position, and base mounting position of each TM
- frame type and number on which the TM is physically mounted
- network assignments
- product engineering code (PEC) of the TM
- the load name of peripheral module (PM) software
- the set of executive programs required for the TM
- single card conference trunk module (compact)
- single card enhanced digital recording announcement machine (EDRAM)
- analog interface module (AIM)

> ***Note:*** For BCS35 and up, EDRAM control information is stored in table TMINV. Prior to BCS35, this information was stored in table EDRAMINV. For further information, refer to table EDRAMINV.

The peripheral processor executive program lineup maintenance trunk module (MTM) audio tone detectors (MTMATD) support all basic MTM functions, including audio tone detection. The basic MTM functions include all circuits that are provisionable on an MTM or service trunk module (STM), except digital data line cards, dual-tone multifrequency (DTMF) senders, and transmission test trunks.

The MTMATD executive program is designed to replace the MTM250 executive program lineup in a non-DMS-250 environment. All offices supporting Integrated Business Network (IBN) and requiring audio tone detectors must use this executive program lineup instead of the MTM250 executive program lineup. The MTMATD executive program does not support DMS-250 receivers.

The MTMEX executive program for the cabinetized Meridian SL-100 no longer allows package trunk modules (PTM). PTMs have been discontinued by the manufacturer. PTMs that are datafilled as PTMs in table TMINV cause International 101 test lines to fail. PTMs must be datafilled as MTMs to avoid this problem.

TMINV (continued)

For BCS36 and up, a new TM/MTM shelf is introduced. The controller card for the ISM shelf is NTFX42AA; however, the integrated service module (ISM) can be used as an empty shelf, having no controller card or power supply. An empty ISM shelf is used exclusively to host single-card PMs such as conference trunk modules (CTM) and digital trunk modules (DTM).

If the MTM does not use the ISM shelf, the audio tone detector card (NT5X29AC) increases the size of the MTMATD executive program lineup, resulting in the need for an updated version of the MTM processor card. Since the current executive program lineup is close to the maximum storage that is available in the MTM, it is important to check the size of the executive program lineup being used. If the executive program lineup exceeds 2 kbyte, either a new processor card (NT0X70AC) or the NT4X65AB controller card is required. This card increases the executive program store from 2 to 16 kbyte.

If the NT0X70AC processor card or the NT4X65AB controller card is used, the MTM must be loaded with the remote MTM (RMTM) load. This load allows the NT0X70AC processor card and the NT4X65AB controller card to access the extra 14 kbyte of executive program store.

Provisioning EDTUs in MTMs or ISMs

The Enhanced Digital Test Unit (EDTU) provides the functionality of the Transmission Test Trunk (TTT), the Transmission Test Unit (TTU) and/or the Digital Test Unit (DTU). The card code for the EDTU is NT4X45AA and it occupies one slot position in an MTM or an ISM shelf.

The following rules apply to provisioning of EDTUs in MTMs or ISMs:

- The EDTU card has its own load, the downloading is done from the TTP level of the MAP display.
- The EDTU is a four-channel circuit pack. The next slot to the right is left vacant in MTM shelves. In ISM shelves, the next slot to the left is left vacant.

- The TTU- and DTU-based EDTU can be used in MTM or ISM shelves wherever the original TTUs and DTUs were provisioned before the EDTU was introduced.
- The TTT-based EDTU requires an executive program lineup change for the MTM or ISM that the TTT-based EDTU is installed in. In addition, the following provisioning restrictions apply:
  - — domestic applications
    - – Enter MTMDT in table TMINV field EXEC for the MTM or ISM.
    - – Reload the peripheral module.

      Note: If the entry in table TMINV field EXEC is MTMDT, the MTM or ISM does not support the following trunks:

    - – office alarm packs NT3X82, NT3X83, NT3X84, NT3X85, NT0X10, and NT2X57
    - – digital recorded announcement machines NT1X75, NT1X76, NT1X77, and NT1X79
    - – coin receivers NT3X08AA and NT3X08AB
  - — international applications
    - – Enter IMTMDT in table TMINV field EXEC for the MTM or ISM.
    - – Reload the peripheral module.

      Note: If the entry in table TMINV field EXEC is IMTMDT, the MTM or ISM does not support the following trunks:

    - – office alarm packs NT3X82, NT3X83, NT3X84, NT3X85, NT0X10, and NT2X57
    - – digital recorded announcement machines NT1X75, NT1X76, NT1X77, and NT1X79
    - – coin receivers NT3X08AA and NT3X08AB
    - – TTTs NT1X90 and NT2X96

Datafill sequence and implications

The following tables must be datafilled before table TMINV.

- NETWORK
- ENCDINV

TMINV (continued)

Table size

0 to 1024 tuples

Memory is automatically allocated in segmented blocks. Each block can accommodate 16 TMs. The maximum number of TMs is 2048. Only 512 conference trunk modules (CTM) can be datafilled.

Datafill

The following table lists datafill for table TMINV.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
TMNM		see subfields	*Trunk module number* This field consists of the subfields TMTYPE and TMNO.
	TMTYPE	AIMCTMDTM MTMOAURS MSTMT8ATM 2TM4TM8	*Trunk module type* Enter one of the following trunk module (TM) types: • AIM (analog interface module) • CTM (conference trunk module) • DTM (enhanced digital recording announcement machine [EDRAM] TM) This field must be set to “DTM" for Audiogram Delivery Services (ADS) announcements because ADS announcements are only supported by EDRAM. Refer to the Audiogram Delivery Services-Offer of Service Prompts functionality (ENSV0013) in the Table history section of this document. • MTM (maintenance trunk module) • OAU (office alarm unit) • RSM (remote service module) • STM (service TM) • T8A (gateway TM) • TM2 (TM 30 pair) • TM4 (TM 60 pair) • TM8 (TM 120 pair)

TMINV (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TMNO	0 to 2047 0 to 255 or 0 to 99	*Trunk module number* Enter the number of the TM datafilled in field TMTYPE. If the entry in field TMTYPE is CTM, DTM, AIM, T8A, TM2, TM4, or TM8, enter a value from 0 (zero) to 2047. If the entry in field TMTYPE is MTM or STM, enter a value from 0 (zero) to 255. If the entry in field TMTYPE is OAU, enter 0 (zero). If the entry in field TMTYPE is RSM, enter a value from 0 (zero) to 99.
FRTYPE		ISME MCAM MCGM MCPM MCSM PCSM RLCM RSE or TME	*Frame type* Enter one of the following frame types: • ISME (Integrated service module equipment) • MCAM (Meridian cabinet auxiliary module) • MCGM (Meridian cabinet general module) • MCPM (Meridian cabinet power module) • MCSM (Meridian cabinet service module) • PCSM (packaged core service module) • RLCM (remote line concentrating module) • RSE (remote service equipment) • TME (TM equipment) • Any entry outside the range of indicated values for this field is invalid.
FRNO		0 to 511	*Frame number* Enter the number of the frame on which the TM is mounted.

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SHPOS		0 to 77	*Shelf position* Enter the base mounting position of the TM. If the entry in field TMTYPE is T8A, TM2, TM4, or TM8, enter 04, 18, 32, 51, or 65. If the entry in field TMTYPE is CTM, DTM, or AIM, enter 65. If the entry in field TMTYPE is MTM or STM, enter 65. If the entry in field TMTYPE is OAU, enter 51. If the entry in field TMTYPE is RSM, enter 18, 32, 51, or 65. Any entry outside the range of indicated values for this field is invalid.
FLOOR		0 to 99	*Floor* Enter the floor or remote location where the TM equipment frame is located.
ROW		A to Z or AA to ZZ, (except I, II, O, or OO)	*Row* Enter the row in which the TM equipment frame is located.
FRPOS		0 to 99	*Frame position* Enter the bay position of the TM equipment frame.
LKDATA		see subfields	*C-side link data* For switches that are equipped with the junctored network (JNET), this field consists of subfields NMPAIR and NMPORT. For switches that are equipped with the enhanced network (ENET), this field consists of subfields ENSHELF, ENSLOT, ENLINK, and ENDS30.

JNET switches

For switches that are equipped with the JNET, datafill subfields NMPAIR and NMPORT as described in the following table, then go to field EQPEC, section

TMINV (continued)

"All switches", table "Field descriptions", to continue datafill for table TMINV.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NMPAIR	0 to 31	*Network module number* If the entry in field TMTYPE is CTM, DTM, AIM, MTM, OAU, STM, T8A, TM2, TM4, or TM8, enter the network module number assigned to the TM. If the entry in field TMTYPE is RSM, enter 0 (zero).
	NMPORT	0 to 63	*Network module port* If the entry in field TMTYPE is CTM, DTM, AIM, MTM, OAU, STM, T8A, TM2, TM4, or TM8, enter the network module port number assigned to the TM. If the entry in field TMTYPE is RSM, enter 0 (zero). Go to field EQPEC, section "All switches", table "Field descriptions", to continue datafill.

ENET switches

For switches that are equipped with the ENET, datafill subfields ENSHELF, ENSLOT, ENLINK, and ENDS30 as described in the following table, then go to field EQPEC, section "All switches", table "Field descriptions", to continue datafill for table TMINV.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ENSHELF	0 to 7	*ENET shelf number* Enter the shelf number to which the PM is assigned.
	ENSLOT	10 to 16 25 to 32 or 13 to 19	*ENET slot number* For the crosspoint slot number of the PM, enter a value between 10 and 16 or 25 and 32. For a DMS SuperNode SE switching unit, enter a value between 13 and 19.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ENLINK	0 to 18	*ENET link number* Enter the link on the crosspoint to which the PM is assigned.
	ENDS30	0 to 15	*ENDS30* Enter a value from 0 (zero) to 15 for fiber links. This field defaults to 0 (zero) if the link is a DS-30. All entries must be contiguous from 0 (zero). No entry can be duplicated. Go to field EQPEC, section “All switches”, table “Field descriptions”, to continue datafill.

TMINV (continued)

All switches

For all switches, datafill fields EQPEC, LOAD, and EXECS as described in the following table.

TMINV (continued)

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
EQPEC		FX4101 FX42AA 1X80AA 1X80BA 1X81AA 1X81BA 2X52AA 2X52AB 2X52AC 2X52AD 2X52AE 2X52AF 2X52AG 2X52AK 2X52AL 2X52AM 2X52AN 2X52AP 2X52AR 2X52CA 2X52CB 2X58AA 2X58AB 2X58AC 2X58AD 2X58AE 2X58AG 2X58AK 2X58AL 2X58AM 2X58AT 2X58AU 2X58BA FX46AA	*Equipment product engineering code* Enter the product engineering code (PEC) of the TM. If the entry in field TMTYPE is CTM, enter 1X81AA or 1X81BA. ***Note:*** NT1X81AA and NT1X81BA must not coexist in the same office. If EQPEC is datafilled as 1X81AA, then 1X81BA must be removed and vice versa. 1X81BA is used for the Japanese market only. If the entry in field TMTYPE is DTM, enter 1X80AA or 1X80BA (EDRAM). For EDRAM applications, enter 1X80AA or 1X80BA. ***Note:*** This field must be set to “1X80AA" for ADS announcements because ADS announcements are only supported by EDRAM. Refer to the Audiogram Delivery Services-Offer of Service Prompts functionality (ENSV0013) in the Table history section of this document. For T8A in DMS-300 offices, enter FX4101, FX42AA, or 2X52CB. For TM2 in DMS-300 offices, enter FX4101 or FX42AA, or 2X52AA or 2X52AE (2X52AA is replaced by 2X52AE). If the entry in the field TMTYPE is AIM, enter FX46AA.

TMINV (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
		2X58CA 2X58CB 2X58CC 2X58CF 2152SA 2158SA 2158SB2158SC 6X13AA 7X3001 7X3004 or 7X3501	If the entry in field TMTYPE is TM4, enter FX4101 or FX42AA, or 2X52AB or 2X52AF (entry 2X52AB is replaced by 2X52AF). If the entry in field TMTYPE is TM8, enter FX4101 or FX42AA, or 2X52AC or 2X52AG (entry 2X52AC is replaced by 2X52AG). For Canadian operating company offices with TM8, enter FX4101, FX42AA, or 2X52AP. For Canadian operating company offices with TM2, enter FX4101, FX42AA, or 2X52AM. For Canadian operating company offices with TM4, enter FX4101, FX42AA, or 2X52AN. For private branch exchange (PBX) and IBN offices with T8A and TM8 combinations, enter FX4101, FX42AA, 2X52AG, or 2X52AP. For DMS-300 international gateway offices with T8A, enter FX4101, FX42AA, 2X52AD, or 2X52AR. If the entry in field TMTYPE is MTM, enter FX4101, FX42AA, or 2X58AA or 2X58CA (2X58CA replaces 2X58AA). For MTM with DRA systems, enter FX4101, FX42AA, 2X58AG, 2X58AK, 2X58AL, or 2X58CB (2X58AK replaces 2X58AG and 2X58CB replaces 2X58AK).

Field descriptions (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
			For Canadian operating company offices with MTM, enter 2X58AL. If the MTM uses the ISM shelf enter FX4101 or FX42AA. For the MTM/Caribbean expansion program (MTM/CEP), enter 2X58CC. If the MTM uses the ISM shelf enter FX4101 or FX42AA. If the entry in field TMTYPE is OAU, enter FX4101, FX42AA, 2X58AB, 2X58AD, or 2X58AF. If the entry in field TMTYPE is RSM, enter FX4101, FX42AA, 2X58AE, 2X58CF. For the STM shelf assembly, enter FX4101, FX42AA, 7X3001, or 7X3004. For the package switch (PTM) shelf assembly, enter FX4101, FX42AA, 7X3501. Any entry outside the range of indicated values for this field is invalid. ***Note:*** The following card codes have been discontinued by the manufacturer by BCS35: NT2X58AA, NT2X58AB, NT2X58AC, NT2X58AD, NT2X58AE, NT2X58AG, NT2X58AK, NT2X58AN, NT2X58AR, NT2X58AS, and NT2X58AW.

TMINV (continued)

Field descriptions (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
LOAD		alphanumeric (vector of up to 8 characters)	*Load* Enter the loadfile name of the PM software.
EXECS		AMTMEX ATMEX CMTMEX DDLCEX IMTMDT IMTMEX MTM250EX MTM300 MTMATD MTMDT MTMEX MTMTTT OAUEX T8A300 T8AEX TANEX TM2EX TM4EX TM8EX, UKECEX, UKMTM or UKTMEX	*Executive programs* Enter the set of executive programs required for the TM.

TMTYPE = any entry other than CTM, DTM, or AIM

If the entry in field TMTYPE is any entry other than CTM, DTM, or AIM, datafill is complete for table TMINV after entering SHELF in field TMVARIANT as described in the following table.

TMTYPE = CTM or DTM

If the entry in field TMTYPE is CTM or DTM, datafill additional refinement TMVARIANT as described in the following table.

Field descriptions for table TMINV conditional datafill for a single card TM

Field	Subfield or refinement	Entry	Explanation and action
	TMVARIANT	SINGLE_ CARD	*Trunk module location* Enter SINGLE_CARD if the TM is a single card TM (only CTM and DTM are single card TMs) and datafill refinements LOC_TM_TYPE, LOC_TM_NUMBER, and LOC_SLOT_NUMBER. Otherwise, enter SHELF. No other datafill is required. The corresponding prompt for this field is TM_SELECTOR_TYPE.
	LOC_TM_ TYPE	MTM MMA STM or NIL	*Single card trunk module location: host module shelf type* If the entry in field TMTYPE is CTM, enter MTM or STM. If the entry in field TMTYPE is DTM, enter MTM, MMA, or STM.
	LOC_TM_ NUMBER	0 to 2047	*Single card trunk module location: host module shelf number* Enter the external PM number of the shelf containing the CTM or DTM. The default value for this field is 0 (zero).
	LOC_SLOT_ NUMBER	0 to 37	*Single card trunk module location: card position* Enter the card position, or slot number, within the shelf of the CTM or DTM. The default value for this field is 5.

TMINV (continued)

TMTYPE = AIM

If the entry in field TMTYPE is AIM, datafill additional refinement TMVARIANT as described in the following table.

Field descriptions for table TMINV conditional datafill for two card TM

Field	Subfield or refinement	Entry	Explanation and action
	TMVARIANT	COMPACT	Enter COMPACT if the TM is a two card TM (only AIM is a two card TM) and datafill refinements LOC_TM_TYPE, LOC_TM_NUMBER, LOC_SLOT_NUMBER, and B_CARD_EQUIPMENT. Otherwise, enter SHELF. No other datafill is required. The corresponding prompt for this field is TM_SELECTOR_TYPE.
	LOC_TM_ TYPE	MTM TM or NIL	*Two card trunk module location: host module shelf type* If the entry in field TMTYPE is AIM, enter MTM or TM. The default value for this field is NIL.
	LOC_TM_ NUMBER	0 to 2047	*Two card trunk module location: host module shelf number* Enter the card position, or slot number, within the shelf of the AIM. The default value for this field is 0.
	LOC_SLOT_ NUMBER	0 to 37	*Two card trunk module location: card position* Enter the card position, or slot number, within the shelf of the AIM. The default value for this field is 5.
	B_CARD_ EQUIPMENT	FX48AA FX15AA	*Equipment code of AIM card B (mate card)* Enter FX48AA or FX15AA.

Datafill example

The following example shows sample datafill for table TMINV.

MAP display example for table TMINV

```
           TMNM FRTYPE FRNO SHPOS FLOOR ROW FRPOS LKDATA  EQPEC LOAD
EXECS                SCTMLOC
_____________________________________________________________________________

       MTM    0   PCPM    0    32     0   A     0   0 55 7X3501 MTMKA02
MTMEX                    SHELF

       MTM    1   PCPM    0    18     0   A     0   3 27 7X3501 MTMKA02
MTMEX                    SHELF

       STM    0   PCSM    0     4     0   C     4   0  7 7X3004 MTMKA02
MTMEX                    SHELF

       STM    1   PCSM    0     4     0   C     4   2  4 7X3004 MTMKA02
MTMEX                    SHELF

       DTM    0   PCPM    0    51     0   C     4   0 25 1X80AA EDRMAC07
MTMEX              SINGLE_CARD  MTM    4 10

       DTM    1   PCPM    0    51     0   C     4   0 26 1X80AA EDRMAC07
MTMEX              SINGLE_CARD  MTM    4 11
       AIM    1   MTM     0    12     3   D     1   0 55 FX46AA MTMKA02
MTMEX              COMPACT      MTM    4 12                FX48AA AIMKA01
```

Table history

TL06

Added information for AIM and for NT1X80BA and NT1X81BA cards.

NA005

Feature AN1542 in the functionality Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013) introduces announcements that are only suppported by EDRAM. The TMTYPE subfield and the EQPEC field are updated to reflect this requirement.

CSP05

The following changes were made to table TMINV:

- added information about provisioning EDTUs in MTMs and ISMs
- added entries MTMDT and IMTMDT to field EXEC for EDTUs

TMINV (end)

BCS36

The following changes were made to table TMINV:

- deleted all references to trunk module type TRCC
- added value ISME (integrated service module equipment) to field FRTYPE and PEC entries FX4101 and FX42AA to field EQPEC, and modified section “Functional description of table TMINV" in accordance with feature AR0918
- deleted all references to value AVTMEX in field EXECS

TMTCNTL

Table name

Treatment Control Table

Functional description

The subtables of the Treatment Control Table are listed below:

- TMTCNTL.TREAT (EXTTMTNM = OFFTREAT)
- TMTCNTL.TREAT (EXTTMTNM = ITTRKGRP)
- TMTCNTL.TREAT (EXTTMTNM = INTRKGRP)
- TMTCNTL.TREAT (EXTTMTNM = LNT)
- TMTCNTL.TREAT (EXTTNTNM = TITRKGRP)
- TMTCNTL.TREAT (EXTTMTNM = PXTRKGRP)
- TMTCNTL.TREAT (EXTTMTNM = TOPS)
- TMTCNTL.TREAT (EXTTMTNM = AOSSTKGP)
- TMTCNTL.TREAT (EXTTMTNM = INT101TT)
- TMTCNTL.TREAT (EXTTMTNM = PRIVLNTT)

As detailed in the description of subtable TMTCNTL.TREAT, the table TMTCNTL field EXTTMTNM entry use is predetermined by the software packages available in the switch. All EXTTMTNM values appear in the switch as valid entries. The entries appear in all software loads of a BCS vintage because the EXTTMTNM values are a part of the DMS base software.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TMTCNTL.

The following tables must be datafilled after table TMTCNTL:

- HNPACONT.HNPACODE
- TMTCNTL.TREAT
- TMTMAP

Table size

0 to 2048 tuples

TMTCNTL.TREAT

Table name

Treatments Subtable

Functional description

The Treatments Subtable (TMTCNTL.TREAT) is used by the operating company to define the treatment that is returned to the originator of a call if a specified treatment code is encountered during call translation. A treatment is one of the following:

- Tone
- Announcement
- State, for example, IDLE or LOCKOUT, or
- Combinations of Tones, Announcements or States

Remote Message Indicator (RMI) modifies subtable TMTCNTL.TREAT as follows:

- RMIA treatment is added to the range of values for the TREATMT field.
- RMID treatment is added to the range of values for the TREATMT field.

Treatment codes are a set of DMS-defined mnemonics. Refer to “Description of treatment codes" in this table description for further details.

A call terminates in a specified treatment code either because the translations that are supplied by the operating company lead the call to a specified treatment, or because the DMS switch detects certain conditions and prescribes a treatment code without reference to operating company translations. These conditions make it impossible to complete the call (for example, all trunks busy). The treatment code can be part of a normal call completion process that includes, for example, an announcement to the originator before the call is completed.

Refer to the section “Operational measurements treatment categories" in this table description for a logical grouping of treatment codes.

If the call must terminate in a specified treatment code, call translations accesses the subtable TMTCNTL.TREAT to determine the announcement or tone to be returned to the originator, or the route in table OFRT that lists the sequence of announcements or tones, or both.

Individual TMTCNTL.TREAT tables do not list all the possible treatment codes. The DMS switch has to access several TMTCNTL.TREAT subtables

until it encounters the prescribed treatment code result. The order for determining the result of the treatment code is as follows:

1. Search for a treatment code in the subtable at a position relevant to the originator of call (for example, position LNT for calls that originated from subscriber line). Refer to TREATMENT SUBTABLE POSITIONS in this table description for a description of available subtable positions.
2. Search for the treatment code in the subtable at position OFFTREAT.
3. Search for treatment code RODR in the subtable at position OFFTREAT.
4. Apply IDLE (dial tone returned to originator).

Treatment results for lines terminate after a prescribed sequence of announcement(s), tone(s) or both for the following:

- LOCKOUT: line sounds dead to the originator
- IDLE: dial tone is returned to the originator
- ROH: receiver off-hook tone is returned to the originator

Calls that originate from by trunks must never terminate to LOCKOUT, IDLE or ROH. Table TMTCNTL.TREAT at position OFFTREAT, (consulted last in order of precedence), must never contain ROH, IDLE, or LOCKOUT values; and the subtable at position OFFTREAT must list treatment results that are common to all trunk group types.

Note: See treatment GNCT on how to avoid a potential looping situation.

If an Integrated Business Network (IBN) line is call processing busy (CPB) and encounters an all-trunks-busy condition, the line status displays NIL.

The type of switch determines the TMTCNTL.TREAT subtable and treatment code used in a specific switch.

If a switch type is not listed against a treatment, the treatment is redundant in that switch and must be set to overflow or similar tone.

Datafill sequence and implications

The following tables must be datafilled before table TMTCNTL.TREAT.

- DNINV
- DNROUTE

TMTCNTL.TREAT (continued)

Table size

0 to 256 tuples. Two tuples are added to TMTCNTL.TREAT to describe RMIA and RMID treatments.

Switch types

The table below lists switch types that are used in this description.

Switch types

Type	Designation	Description
Local	DMS-100	Local
Toll	DMS-200	Toll
Local/Toll	DMS-100 DMS-200 DMS-100/200	Local, Toll, Combined Local/Toll
TOPS	DMS	Traffic Operator Position System
Gateway	DMS-300	International Gateway for North America
Tandem	DMS-250	Tandem Switch for Common Carriers
ISDN	DMS	Integrated Services Digital Network
ETSI ISDN	DMS-100E	European Integrated Services Digital Network

Signaling system 7

Table TMTMAP is accessed before table TMTCNTL where treatment occurs on a call incoming on a CCS7 trunk group with table TRKSGRP field SIGDATA set to C7UP and field PROTOCOL set to a protocol name found in table TMTMAP field PROTOCOL. Table TMTCNTL is accessed only if table TMTMAP field TMTPROC is set to LOCAL for that treatment.

Refer to the description of table TMTMAP.

Note: Treatment code mnemonics for all office types are defined in the DMS switch base software. This means that all offices at a particular software release can see all of the treatment mnemonics available, even though the features do not exist to use them properly.

The operating company should note that this document does not cover treatment mnemonics for the following switching systems:

- DMS-MTX
- DMS-250
- GSM

Operational measurements treatment categories

Refer to the *Operational Measurements Reference Manual* for a description of separation of call treatments into logical categories and the corresponding separation of operational measurement (OM) registers into groups TRMTCU, TRMTCU2, TRMTCU3, TRMTCM, TRMTCM2, TRMTER, TRMTFR, TRMTFR3, TRMTFR2, TRMTRS, and TRMTPR.

TRMTCU, TRMTCU2 and TRMTCU3—customer unauthorized treatments

The customer unauthorized treatments (listed in the table that follows) notify customers that their actions are not authorized for one of the following reasons:

- an invalid sequence of digits was dialed, or
- improper procedures were followed.

TRMTCU, TRMTCU2 and TRMTCU3—customer unauthorized treatments (Sheet 1 of 4)

Treatment mnemonic and number	Treatment description
AARD	Automatic number identification (ANI) account recently disallowed
ADBF 65	ANI not found in database
ANBB 107	ANI Feature Group B blockage
ANIA 76	ANI account status not allowed
ATHF	Authentication failure
BBFS 132	Blue box fraud scanning
BCNI 161	Bearer capability not implemented
CACB 124	Carrier access code blocked
CACE 79	Carrier access code in error
CCCF 149	Carrier call completion failure

TMTCNTL.TREAT (continued)

TRMTCU, TRMTCU2 and TRMTCU3—customer unauthorized treatments (Sheet 2 of 4)

Treatment mnemonic and number	Treatment description
CCIR 141	Credit card invalid release
CCNA 91	Calling card not allowed
CCNV 90	Calling card invalid
CGFL 154	ISDN closed user group call failed
CNAC 113	Call not accepted
CNDT 5	Coin denied termination
CNOT 55	Coin overtime
COSX 123	Class of service exceeded
DACD 84	Dial carrier access code
DCFC 56	Disallowed coin-free call
DNTR 33	Denied terminating
DODT 61	Denied origination data terminal
D950 80	Dial 950
EROR	Enhanced roamer validation (ERV) originator
ERTO	ERV timeout
ERTR	ERV terminator
ESNF	Customer unauthorized electronic serial number (ESN) fraud
FACJ	Facility rejected
FDNZ 88	First digit not zero
FNAL 68	Feature not allowed
GFNV	Global fiber optic network card (FONCARD) not valid
HNPI 16	Home NPA intercept

TRMTCU, TRMTCU2 and TRMTCU3—customer unauthorized treatments (Sheet 3 of 4)

Treatment mnemonic and number	Treatment description
ICCB	Incoming call barred within closed user group (CUG)
IDPB 112	International direct distance dialing (DDD) prohibited
ILRS 82	Inter-LATA restriction
INAC 4	Invalid account code
INAU 53	Invalid authorization code
INCC 97	Invalid city code
INPD 110	Invalid personal identification number (PIN) digits
ITCF 164	Information transfer capability request invalid
IVCC 108	Invalid corridor call
JACK 163	Justified alternate calling knowledge
LCAB 96	Local call area barred
LCNV 53	Local exchange carrier (LEC) calling card not valid
MSCA 7	Misdirected centralized automatic message accounting (CAMA) call (prefix digit dialed in error)
MSLC 8	Misdirected local calls (prefix digit not dialed)
MSOA	Misdirected operator-assisted announcement (0+ dialing not allowed)
NACD 83	Do not dial carrier access code
NACK 78	Negative acknowledgment
NOCN 50	No coin
NPAR 111	NPA restricted
N00B 120	N00 call blocked
N950 81	Do not dial 950
ORSS 27	Originating service suspension

TMTCNTL.TREAT (continued)

TRMTCU, TRMTCU2 and TRMTCU3—customer unauthorized treatments (Sheet 4 of 4)

Treatment mnemonic and number	Treatment description
PTFL 156	POTS pseudo service call failed
RDIR	Maximum number of redirections
RSDT 63	Restricted date and time
SCUN 109	Service currently unavailable
TDND 21	Toll denied
TESS 28	Terminating service suspension
TINV 54	Temporarily invalid authorization code
UCCN 144	Unpaid credit card number
UNCA 13	Unauthorized CAMA call
UNIN 22	Unauthorized INWATS call
UNMC	User not member of closed user group (CUG)
UNOW 20	Unauthorized OUTWATS call
VPFL 155	ISDN virtual private network (VPN) call failed

TRMTCM and TRMTCM2—customer miscellaneous treatments

These customer miscellaneous treatments (listed in the table that follows) are call situations that are a result of customer action but are not related to authorization. They do not include treatments that are used to mark progress or completion of call features.

TRMTCM AND TRMTCM2—customer miscellaneous treatments (Sheet 1 of 3)

Treatment mnemonic and number	Treatment description
ANCT 31	Machine intercept
ANTO 66	Answer time out
ATBS 59	Attendant busy

TRMTCM AND TRMTCM2—customer miscellaneous treatments (Sheet 2 of 3)

Treatment mnemonic and number	Treatment description
ATDT 106	Audio tone detector (ATD) time out
BLDN 18	Blank directory number
CBTN 114	Clearback tone
CFWV 77	Variable call forwarding verification
CHAF 118	Changed 800 number forward
CHAN 117	Changed 800 number announcement
CNAD 137	Call not allowed
CREJ 132	Call rejected
DISC 45	Disconnect timing
MTBL	Mobile trouble
NTRS 133	No terminal responding
NC8F 128	Network Control System (NCS) 800 service failure
N9DF 146	NCS 900 database failure
N9NS 148	NCS 900 number not in service
N9OB 147	NCS 900 number out of band
OPRT 29	Regular intercept
OSVR 119	Operator services voice response
PDIL 2	Partial dial time out
PSIG 3	Permanent signal time out
RING 162	No terminal responding, release call
CCRG	Cumulative charge restriction for general subscribers
CCRH	Cumulative charge restriction for PHS (Personal) subscribers
CCRM	Cumulative charge restriction for mobile subscribers

TMTCNTL.TREAT (continued)

TRMTCM AND TRMTCM2—customer miscellaneous treatments (Sheet 3 of 3)

Treatment mnemonic and number	Treatment description
CCRP	Cumulative charge restriction for general subscribers
CCRT	Cumulative charge restriction for third party billed calls
PODN	Ported out directory number
TDBR 62	Test desk bridged
TRBL 30	Trouble intercept
UNDN 17	Unassigned directory number
UNDT 0	Undefined treatment
UPAB 135	Universal public access blocked
VACS 65	Vacant speed number
VACT 6	Vacant code treatment
VCCT 95	Vacant country code treatment
VPFX 138	Vacant prefix code

TRMTER—equipment-related treatments

These equipment-related treatments (listed in the table that follows) are failures that are a result of switching equipment malfunction, and do not include treatments used to handle software or hardware resource shortages.

TRMTER—equipment-related treatments (Sheet 1 of 2)

Treatment mnemonic and number	Treatment description
AIFL 87	Autoidentified outward dialing failure
ANFL 116	Announcement fail
CONP 98	Connection not possible
C7AP 130	CCS7 application failure treatment
DTFL 131	Datafill error

TRMTER—equipment-related treatments (Sheet 2 of 2)

Treatment mnemonic and number	Treatment description
ERDS 70	Trunk PERM ground
FDER 92	Feature data error
INBT 127	Installation busy treatment
INOC 75	Invalid operator code
INVM 169	Invalid message
MTOC 115	Multifrequency compelled (MFC) time out or confusion
NCUN 105	Network Control System (NCS) unexpected error
NMZN 67	No metering zone
NONT 104	Not on network
PERR 168	Protocol error
PNOH 32	Permanent signal no receiver off-hook
PTOF 64	Premature trunk offering
RODR 25	Reorder
SCFL 100	Database system (DBS) communications failure
SONI 170	Service option not implemented
SSTO 23	Start signal time out
STOB 71	Signal time out, Bell operating companies (BOC)
STOC 72	Signal time out, inter-LATA or international carrier (IC/INC)
SYFL 14	System failure

TRMTFR, TRMTFR2 and TRMTFR3—feature-related treatments

These feature-related treatments (listed in the table that follows) are a result of call situations due to certain call features, such as POTS, IBN, and so on. They

TMTCNTL.TREAT (continued)

do not include treatments used to deny access to features for authorization reasons.

TRMTFR, TRMTFR2, and TRMTFR3—feature-related treatments (Sheet 1 of 3)

Treatment mnemonic and number	Treatment description
ACPR 140	AUTHCODE prompt
ACRJ 166	Anonymous caller rejection
ADPA 142	Address digits prompt announcement
AIND 203	Advanced Intelligent Network Disconnect
AINF 204	Advanced Intelligent Network Final
BUSY 19	Busy line
CBDN 145	Call back destination number
CCAP 139	Credit card announcement prompt
CCDT 143	Credit card dial tone
CCTO 89	Calling card time out
CFOV 121	Call forwarding overflow
CONF 38	Confirm tone
CRTC	Call redirect
DSCN 176	Spontaneous Call Waiting Identification with Disposition (DSCWID) disconnect (DISCON)
FRDR 129	Feature reorder
ICNF 151	Invalid conference code
ICSA	In call service activated
ICSD	In call service deactivated
IIEC	Feature related; invalid information element component
ILRR 122	International line restrictions
ISAX	In session activation exit

TRMTFR, TRMTFR2, and TRMTFR3—feature-related treatments (Sheet 2 of 3)

Treatment mnemonic and number	Treatment description
IWUC 126	International wake-up call
LBSY 178	LCL busy
LDAA 211	Long distance signal activate added
LDAD 212	Long distance signal activate deleted
LECV 152	Local exchange carrier (LEC) calling card valid
MANL 26	Manual line
MHLD 60	Music on hold
MWKP	Mobile weak power
NCII 102	Network Control System (NCS) invalid ID code
NCIX 101	NCS incoming exclusion
NCTF 103	NCS translation failure
NINT 99	Changed number intercept
NVIP 165	Not very important person status
ORAC 42	Originating revertive action for two-party lines with coded ringing
ORAF 40	Originating revertive action for two-party lines with frequency ringing
ORMC 36	Originating revertive action for multiparty lines with coded ringing
ORMF 43	Originating revertive action for multiparty lines with frequency ringing
OTAE	over the air activation service provisioning (OTASP) error
PNUN 142	Private network unavailable
PRSC 57	Priority screen fail
RFCD	Remote feature control denied

TMTCNTL.TREAT (continued)

TRMTFR, TRMTFR2, and TRMTFR3—feature-related treatments (Sheet 3 of 3)

Treatment mnemonic and number	Treatment description
RFCE	Remote feature control error
RFCS	Remote feature control success
RMIA	Remote message indicator activation
RMID	Remote message indicator deactivation
RRPA 39	Revertive ring prefix announcement
RTEE 217-255	ISUP Hop Counter value expired
SCA 157	Selective call acceptance
SCRJ 150	Selective call rejection
SINT 125	Service interception
SORE 136	Station origination restriction error
SRRR 44	Single party revertive ringing
TBSY 179	Toll busy
TRGB	Trigger block
TRRF 41	Terminating revertive action for frequency ringing
UNPM	Unprogrammed mobile
WUCR 189	Wake-up call reminder (WUCR) treatment

TRMTRS—resource shortage treatments

These resource shortage treatments (listed in the table that follows) handle failures that occur due to software or hardware resource shortages, indicating

inadequate capacity to handle the present load. They do not include treatments used to handle switching equipment malfunction.

TRMTRS—resource shortage treatments

Treatment mnemonic and number	Treatment description
CGRO 94	Customer group resource overflow
CHNF 160	Channel negotiation failure
CQOV 15	Centralized automatic message accounting (CAMA) queue overflow
EMR1 11	Emergency treatment 1
EMR2 12	Emergency treatment 2
EMR3 48	Emergency treatment 3
EMR4 49	Emergency treatment 4
EMR5 73	Emergency treatment 5
EMR6 74	Emergency treatment 6
FECG 35	Far-end congestion
GNCT 58	Generalized no-circuit
NBLH 9	Network blockage heavy traffic
NBLN 10	Network blockage normal traffic
NCRT 24	No circuit
NECG 34	Near-end congestion
NOSC 1	No service circuit
NOSR 93	No software resource
OTAR	OTASP resources unavailable
SORD 52	Storage overflow reorder
TOVD 37	Toll overload

TMTCNTL.TREAT (continued)

TRMTPR—protocol-related treatments

These protocol-related treatments (listed in the table that follows) handle failures due to protocol translation or negotiation failure. They do not include treatments used to handle switching equipment malfunction.

TRMTPR—protocol-related treatments

Treatment mnemonic and number	Treatment description
NOBC 181	No bearer capability (BC) available
NORA 182	No routing available
PER1 183	Protocol error 1
PER2 184	Protocol error 2
PER3 185	Protocol error 3
PER4 186	Protocol error 4
PER5 187	Protocol error 5
CER1 188	Closed User Group (CUG) error 1

Treatment subtables

Treatment tables consist of control table TMTCNTL and treatments subtables TREAT at positions in the following list.

- OFFTREAT
- ITTRKGRP
- LNT
- TITRKGRP
- PXTRKGRP
- TOPS
- INT101TT
- PRIVLNTT
- FEATANNS

Each position is described in the following text:

Office Treatments Subtable

EXTTMTNM = OFFTREAT

Local/Toll, Gateway, Tandem

Subtable OFFTREAT lists every treatment and provides a common set of treatments for incoming trunks. Treatments not applicable to incoming trunks must be routed to overflow or similar tone.

Treatments in subtable OFFTREAT must never contain code for receiver off-hook (ROH) in the route list and the route list must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

Intertoll Treatments Subtable

EXTTMTNM = ITTRKGRP

Local/Toll

Subtable ITTRKGRP is optional and is used in toll or combined local/toll switches to list treatments for incoming and two-way intertoll trunk groups (type IT), that differ from treatments in subtable OFFTREAT.

Treatments in subtable ITTRKGRP must never contain code for receiver off-hook (ROH) in the route list, and must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

Incoming CAMA Treatments Subtable

EXTTMTNM = INTRKGRP

Local/Toll

Subtable INTRKGRP is optional and used in toll or combined local-toll switches to list treatments for incoming or two-way CAMA/AMR5 trunk groups and trunk group type SC that differ from treatments in subtable OFFTREAT.

Treatments in subtable INTRKGRP must never contain code for receiver off-hook (ROH) in the route list, and the route list must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

TMTCNTL.TREAT (continued)

Line Treatments Subtable

EXTTMTNM = LNT

Local/Toll

Subtable LNT is used in all local and combined local/toll switches to specify routing for treatments associated with lines. Subtable LNT lists every treatment, and treatments that are not applicable to lines are routed to overflow or similar tone.

If the route list contains a treatment other than tone or announcement and an all-trunks-busy state occurs, then the calling line is automatically routed to reorder (RODR) treatment. If RODR is not required, the last two routes in the route list must be tone or announcement followed by lockout (LKOUT) or idle (IDLE).

All treatments routing to announcement or tone other than T60 or T120 in the route list must terminate with the code for lockout (LKOUT).

IDLE is a valid state, but use of IDLE extends disconnect time and causes originating OMs to increment twice per call.

All treatments without tones or announcements in the route list must not end in lockout (LKOUT) or idle (IDLE).

Lockout (LKOUT) or idle (IDLE) must not appear as the first element in the route list. They must always be preceded by tone or announcement.

Local Incoming Trunk Treatments Subtable

EXTTMTNM = TITRKGRP

Local/Toll

Subtable TITRKGRP is optional and can be used in a combined local/toll switch to list treatments for incoming and two-way local trunk groups that differ from treatments in subtable OFFTREAT.

Subtable TITRKGRP must never contain code for receiver off-hook (ROH) in the route list, and the route list must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

PBX Two-way Trunk Treatments Subtable

EXTTMTNM = PXTRKGRP

Local/Toll

Subtable PXTRKGRP is optional and can be used in local or combined local/toll switches to list treatments for two-way PBX DID/DOD trunk groups, and trunk group types PX and P2, that differ from treatments in table OFFTREAT.

Treatments in subtable PXTRKGRP must never contain code for receiver off-hook (ROH) in the route list, and must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

TOPS Treatments Subtable

EXTTMTNM = TOPS

Local/Toll with TOPS

Subtable TOPS is optional and can be used in toll or combined local/toll switches with TOPS to list treatments for TOPS trunk groups and trunk group type TOPS that differ from treatments in subtable OFFTREAT.

Treatments in subtable TOPS must never contain code for receiver off-hook (ROH) in the route list, and must never terminate with codes for lockout (LKOUT) or idle (IDLE).

Note: See treatment GNCT on how to avoid a potential looping situation.

DMS-300 International 101 Test Trunk Treatments Subtable

EXTTMTNM = INT101TT

Gateway

Subtable INT101TT is optional and can be used to list treatments for international 101 test trunk groups that differ from treatments in subtable OFFTREAT.

DMS-300 Private Line Trunk Treatments Subtable

EXTTMTNM = PRIVLNTT

Gateway

Subtable PRIVLNTT is optional and can be used to list treatments for private line trunk groups that differ from treatments in subtable OFFTREAT.

Routing options for each treatment

If the DMS software encounters a treatment code, it accesses the TMTCNTL.TREAT table that applies to the originator of the call to determine

TMTCNTL.TREAT (continued)

the operating company-defined tone or announcement that the originator hears.

Each tone or announcement is identified by a CLLI code in table CLLI.

The operating company specifies a single-treatment CLLI or a succession of treatment CLLIs as follows:

- When routed to a single-treatment CLLI
  - FSTRTSEL = S
  - Field name = CLLI
- When routed through a route table through a succession of CLLIs
  - FSTRTSEL = T
  - Field name = TABID, KEY

The treatment route list is specified in the applicable tables as follows:

- Local/Toll = office route table OFRT
- Gateway = overseas route tables OVR0 to OVR9

Note: If these route tables are accessed as a result of a treatment, each treatment CLLI is connected to the originator or call in the same order listed for a length of time prescribed for each treatment CLLI.

If the route table is accessed normally, that is, not as a result of a treatment, it is a list of alternates. The first free trunk found in the list of alternates is the only trunk connected.

Treatment CLLIs

Each treatment CLLI must be defined in table CLLI and (except for fixed treatment CLLIs: IDLE, LKOUT, and COPP) in one of the following tables:

- TONES (software-generated tones)
- STN (hardware-generated tones)
- ANNS (recorded announcements)
- DRAMS (digital recorded announcements)

Fixed treatment CLLIs IDLE, LKOUT, and COPP are defined by the DMS software as follows:

IDLE
Equivalent to originating line going off-hook, this must be the last treatment CLLI in route list. It is used in North America only.

LKOUT
Originating line is locked out; that is, connected to nothing for as long as it stays off-hook. It must be the last treatment CLLI in the route list.

COPP
Cutoff on permanent signal and partial dial that is associated with line treatments PSIG and PDIL to supply (on every standard line in the DMS-100 office) an open-battery signal as the first operation in processing permanent signal and partial dial subscriber line conditions. This routing list element has no impact on business sets, data units, or display phones.

The open-battery signal informs subscriber line equipment (suitably equipped), that the line has entered a permanent signal or partial dial state.

COPP cannot be used in other line treatments. If used for PSIG and PDIL line treatments, COPP must be first, and LKOUT must follow in the routing list.

Note: See treatment GNCT on how to avoid a potential looping situation.

Description of treatment codes

AARD
ANI account recently disallowed

ACPR
Authcode prompt (140)

Tandem
This treatment is used in international DMS-250 switches with the Credit Card Calling feature (with or without remote database). Route it to the announcement requesting a four-digit authorization code.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

ACRJ
Anonymous caller rejection (166)

Local/Toll, IBN
Anonymous call is detected on a line with announcement type ANN.

TMTCNTL.TREAT (continued)

ADBF

ANI not found in the database (85)

Tandem

Call processing cannot find subscriber's automatic number identification (ANI) in database.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

ADPA

Address digits prompt announcement (142)

Tandem

This treatment is used in international DMS-250 switches with the Credit Card Calling feature (with or without remote database). Route it to an announcement prompting subscriber to enter destination digits.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

AIFL

Autoidentified outward dialing failure (87)

Local, Local/Toll

This treatment occurs on a call incoming on either a private branch exchange (PBX) line with the AIOD feature, or under the following conditions: on trunk group type PX or P2 with AIOD feature, field AIOD set to Y (yes). If the DMS switch fails to receive an AIOD message over the AIOD datalink within the specified delay and the operating company sets table AIODGRP field FAILDEF to TREATMENT then the call is sent to treatment.

Route it to the appropriate announcement or to an operator.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or similar tone.

AIND

Advanced Intelligent Network Disconnect

Local, Local/Toll

This treatment is applied when a call is disconnected due to the request from the SCP/Adjunct.

AINF

Advanced Intelligent Network Final

Local, Local/Toll
This treatment is applied when there is a fatal call-related error.

ANBB

ANI Feature Group B blockage (107)

Tandem
Calls from other common carrier services subscriber (DCCS) attempts to access Feature Group B trunks, but originating ANI is not valid and is blocked in table ANISCRNU.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

ANCT

Machine intercept (31)

Local, Local/Toll
Disconnected or out-of-service DNs are routed to announcement (machine intercept).

For information on assigning lines to this treatment, see OUT orders in the *SERVORD Reference Manual*.

Toll, Gateway, Tandem: with E800 Service
Disconnected DNs are routed to announcement.

Toll, Gateway, Tandem: without E800 Service
This treatment is redundant; set it to overflow or to a similar tone.

ANFL

Announcement fail (116)

Local/Toll, Tandem, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

ANIA

ANI account status not allowed (76)

Tandem, Gateway
ANI is not found in database or ANI is found and set to block.

TMTCNTL.TREAT (continued)

Local/Toll
This treatment is redundant; set it to overflow or to a similar tone.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

ANTO

Answer time out (66)

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

ATBS

Attendant busy (59)

ISDN
Normal unspecified (31).

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone. IBN treatments are handled in table AUDIO.

ATDT

ATD time out (106)

Tandem
Office parameter ATD_TIMEOUT_OPTION in table OFCVARis set to Y (yes), and calling subscriber does not disconnect (remains off-hook) long enough for audio tone detector (ATD) default timer to time out.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

ATHF

Authentication failure

This treatment is used if an authentication failure occurs when setting up a mobile call.

BBFS

Blue box fraud scanning (132)

Tandem
Incoming trunk circuits are scanned for blue box fraud.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

BCNI

Bearer capability not implemented (161)

ISDN
Calling party attempts to establish a circuit-switched call, but the called party does not support circuit-switched bearer capabilities.

The progress message contains cause 65:

```
Bearer capability not implemented
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

BLDN

Blank directory number (18)

Local, Local/Toll
This is for the routing of unassigned directory numbers.

The thousand directory numbers, for each thousand group in table TOFCNAME with selector C, are automatically routed to this treatment upon initialization.

ISDN
The called directory number is unassigned.

The progress message contains cause 1:

```
Unallocated number
```

and progress indicator 8:

```
Inband information or appropriate pattern not available
```

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

TMTCNTL.TREAT (continued)

BLMO

Black listed mobile.

Local

BLMO treatment is set when a blacklisted mobile originates or receives a call. Network operators blacklist a mobile when it has been stolen. A blacklisted mobile can only make an emergency call

ISDN

The called directory number is unassigned.

The progress message contains cause 1:

```
Unallocated number
```

and progress indicator 8:

```
Inband information or appropriate pattern not available
```

BUSY

Busy line (19)

Local/Toll

A line is busy when one of the following conditions exists:

- The line without intercom (INT) option is assigned in table LENLINES with called and calling DN the same.
- A line or trunk dials a busy DN and call waiting is not in effect.
- A called line is seized for testing or is out of service, and is not assigned the plug-up option.

Test equipment (for example, test desk, cabinet, CALRS, or incoming operator verifications trunks) can access busy lines, except if the busy line has the no-double-connection (NDC) option assigned in table LENLINES or in table IBNLINES.

ISDN

The called directory number is busy

The progress message contains cause 17:

```
User busy
```

Gateway
Call incoming on a private line, R1 signaling trunk, or international 101 test line. Call outgoing on a CCS6 signaling trunk.

During call connection, terminating exchange determines whether the called party line is busy, faulty, or out of service.

B900

Blocked 899 calls

Local/Toll, Toll, Tandem, Gateway
This treatment blocks a call associated with a 900 number that has been detected as fraudulent call by the 900FP (900 Fraud Prevention) feature.

CACB

Carrier access code blocked (124)

Local/Toll (end office with Equal Access feature)
Dialed carrier access code (CAC) is blocked because the carrier does not handle CAC calls, or because the carrier handles traffic from subscribers where it is the primary inter-LATA carrier.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CACE

Carrier access code in error (79)

Local/Toll (end office with Equal Access feature)
Dialed carrier access code 10xxx is vacant or changed.

Route to announcement.

ISDN
There is no route to the specified transit network.

Progress message contains cause 2:

```
No route to specified transit network
```

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CBDN

Call back destination number (145)

TMTCNTL.TREAT (continued)

Tandem
This treatment is used in an international DMS-250 switch with the Call Back International Subscriber Dialed (ISD) feature. Route to the announcement requesting the subscriber to enter the destination number. The first digit entered stops the announcement.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CBFC

CASOP Blocked Final Carrier

Local/Toll
This treatment is used when an automatic recall (AR) call is blocked in the second screening stage. The second screening stage occurs during the routing of the call.

CBTN

Clearback tone (114)

Local/Toll, Tandem, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCAP

Credit card announcement prompt (139)

Tandem
This treatment is used in an international DMS-250 switch Credit Card Calling feature (with or without remote database). Route to the announcement prompting subscriber to enter a 10-digit credit card number.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCCF

Carrier call completion failure (149)

TOPS
This treatment is used in a TOPS office with the Alternate Carrier Selection feature. It is for calls on incoming TOPS trunks with carrier call completion failure.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CCDT

Credit card dialtone (143)

Tandem
This treatment is used in an international DMS-250 switch with the Credit Card Calling feature (with or without remote database). Route to the prompt tone that is used with the second dial tone option.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCIR

Credit card invalid release (141)

Tandem
This treatment is used in an international DMS-250 switch with the Credit Card Calling feature (with or without remote database). Route to the announcement that informs the subscriber that the credit card number is invalid (more than allowed number of code digits). The call is disconnected.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCNA

Calling card not allowed (91)

Tandem
This treatment is used in an international DMS-250 switch with the Credit Card Calling feature (with or without remote database) if a credit card number is marked as ABUSED in table CCTAB. The call is disconnected.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCNV

Calling card invalid (90)

Tandem
This treatment is used in a DMS-250 switch with the Mechanized Calling Card Service (MCCS) feature if the Travel Card Number (TCN) is invalid.

The subscriber has one more chance to enter a valid TCN. Route to the announcement: “Please dial a valid calling card number."

TMTCNTL.TREAT (continued)

This treatment is used in an international DMS-250 switch with the Credit Card Calling feature (with or without remote database), if the credit card authorization code does not match the authorization code filed against the credit card number.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CCRG

Cumulative Charge Restriction for General Subscribers

This treatment is used to indicate that a general subscriber call has failed screening due to Cumulative Charge Restriction. The call is then routed to this treatment, which defaults to Call Not Allowed (CNAD).

CCRH

Cumulative Charge Restriction for PHS (Personal) Subscribers

This treatment is used to indicate that a PHS subscriber call has failed screening due to Cumulative Charge Restriction. The call is then routed to this treatment, which defaults to Call Not Allowed (CNAD).

CCRM

Cumulative Charge Restriction for Mobile Subscribers

This treatment is used to indicate that a mobile subscriber call has failed screening due to Cumulative Charge Restriction. The call is then routed to this treatment, which defaults to Call Not Allowed (CNAD).

CCRP

Cumulative Charge Restriction for Payphone Subscribers

This treatment is used to indicate that a payphone subscriber call has failed screening due to Cumulative Charge Restriction. The call is then routed to this treatment, which defaults to Call Not Allowed (CNAD).

CCRT

Cumulative Charge Restriction for Third Party Billed Calls

This treatment is used to indicate that a third party billed call has failed screening due to Cumulative Charge Restriction. The call is then routed to this treatment, which defaults to Call Not Allowed (CNAD).

CCTO

Calling card time out (89)

Tandem
This treatment is used if the subscriber fails to enter a Travel Card Number (TCN) digit within 10 s (controlled by office parameter MCCS_CALLING_CARD_TIMEOUT in table OFCVAR).

Route it to an announcement.

If digits are not dialed after the announcement, the call is routed to partial dial time-out treatment (PDIL).

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CER1

CUG error 1 (188)

Gateway
This treatment is used if the information in the initial address message with additional information (IAI) is incorrect.

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

CFOV

Call forwarding overflow (121)

Local/Toll
The call cannot be forwarded through the POTS Call Forwarding base station because the maximum simultaneous forwarding limit has been reached for the base station.

Tandem, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CFWV

Variable call forwarding verification (77)

Local, Local/Toll (end office with Variable Call Forwarding feature)
A subscriber with Variable Call Forwarding is routed to CFWV if the call forwarding activation service access code is dialed and if call forwarding is already active on the line.

TMTCNTL.TREAT (continued)

Local/Toll (without Variable Call Forwarding feature) Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

CGFL

ISDN closed user group call failed (154)

Gateway

This treatment is used if there is an unauthorized attempt to use an ISDN closed user group (CUG) service. The DMS-300 Service Screening by Destination on Issue feature must be present in the office.

Local/Toll, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

CGRO

Customer group resource overflow (94)

Local/Toll

An IBN call is routed if shortages occur on resources provisioned on a customer group basis. Resources include

- the number of six-port conference circuits datafilled against the customer group
- the number of parking queues datafilled against the customer group

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

CHAF

Changed 800 number forward (118)

Originating Screening Office With Enhanced 800 Service

This treatment is used if the 800+ response from the operating company (Bell Canada) database is as follows:

- changed 800 number-treatment 2
- route to national directory assistance

Local/Toll, Tandem, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

CHAN

Changed 800 number announcement (117)

Originating Screening Office With Enhanced 800 Service

This treatment is used if the 800+ response from the operating company (Bell Canada) database is as follows:

- changed 800 number-treatment 1
- route to the announcement that informs the subscriber that the dialed 800 number has changed and the number must be checked before redialing

Local/Toll, Tandem, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

CHNF

Channel negotiation failure (160)

ISDN

This treatment is used if the B-channel negotiation fails at the terminating end.

The progress message contains cause 41:

```
Temporary failure
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Local/Toll, Tandem, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

CMGA

Call Management Group activation (224)

The CMG line receives this treatment when the end user activates simultaneous ringing status on the line.

CMGD

Call Management Group deactivation (225)

The CMG line receives this treatment when the end user deactivates simultaneous ringing status on the line.

CNAC

Call not accepted (113)

TMTCNTL.TREAT (continued)

IBN with Open Number Translations feature
Table IBNXLA selector NET DOD is datafilled, and table LINEATTR field XLASYS is not NIL or PX. A DFIL log is generated.

Tandem
This treatment is used in an international DMS-250 switch with the Call Back International Subscriber Dialed (ISD) feature if the calling line ID (CLID) is not eight or nine digits in length; the call is disconnected if applied.

ISDN
The bearer capability of the call originator is not compatible with the call terminator. Bearer capability is defined in table BCDEF, and assigned to ISDN terminals, data units, and electronic business sets in table KSETFEAT.

Progress message contains cause 88:

```
Incomplete destination
```

Local/Toll, Gateway
This treatment is redundant; set it to overflow or similar tone.

CNAD
Call not allowed (137)

Tandem
This treatment is used in an international DMS-250 switch with the Call Back International Subscriber Dialed (ISD) feature. The calling line ID (CLID) has the correct number of digits, but is invalid (listed as either delinquent or refused service), or called party address digits fail digit translation screening on third-party billed call.

Call is disconnected.

Local/Toll PVN SSP
In a switch equipped with the Private Virtual Network (PVN) feature and a service switching point (SSP), this treatment occurs if the database returns call not allowed.

Local/Toll not PVN SSP, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CNDT
Coin denied termination (5)

Local, Local/Toll, Tandem
The dialed coin line directory number terminates in a switch with the denied terminating (DTM) option.

Note: Calls to a non-coin line with option DTM result in treatment DNTR.

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CNOT

Coin overtime (55)

Local, Local/Toll
This treatment is used if the switch has the Local Coin Overtime feature, and the coin line is terminated if coins are not deposited for an overtime period.

If the switch does not have the Local Coin Overtime feature, route to overflow or to a similar tone.

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CONF

Confirm tone (38)

Local, Local/Toll
This treatment is used if the activation code is dialed on a line with Call Forwarding or Speed Calling features.

If dial tone is required following a confirmation tone, route list elements consist of a confirmation tone and IDLE. Otherwise, route list elements consist of a confirmation tone, no tone, and lockout.

ISDN
Normal unspecified (31).

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CONP

Connection not possible (98)

TMTCNTL.TREAT (continued)

Tandem
This treatment is used if the call cannot be completed by carriers because of 3L-to-3L blocking (transmission quality requirements).

ISDN
Channel type not implemented.

Progress message contains cause 66:

```
Channel type not implemented
```

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

COSX

Class of service exceeded (123)

Tandem
Translation encounters an invalid Class of Service (COS).

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

CQOV

CAMA queue overflow (15)

Local/Toll with TOPS
This treatment can be used for switches that are equipped with TOPS; the call is routed if the queue overflows.

Local/Toll with no TOPS, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CREJ

Call rejected (134)

ISDN
Functional terminal rejects call before it is answered.

The originating subscriber receives an audible ringback. To minimize the impact on the originating subscriber, the ringback generated by the tone set in table TONES with pseudo CLLI code *RING is continued before applying the busy tone, followed by lockout.

The progress message contains cause 21:

```
Call rejected
```

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

CRTC

Call redirect confirmation treatment

The Call Redirect feature controller (originator) receives this treatment after a successful translation of the routing DN.

C7AP

CCS7 application failure treatment (130)

Local/Toll AT or EAEO
This treatment is used in an access tandem (AT) or equal access end office (EAEO) switch in service switching point (SSP) calls (for example, E800, 800+, and PVN) with CCS7 application failures, such as:

- service control point (SCP) database time out or trouble
- transaction capabilities application part (TCAP) message decoding problems
- no transaction identification available for service switching point (SSP) calls

The RODR treatment has been replaced by treatment C7AP. The RODR treatment is dedicated to distorted signals during dialing or impulsing.

Local/Toll other than AT or EAEO, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

DACD

Dial carrier access code (84)

Local/Toll (end office with Equal Access feature)
10xxx must be dialed.

Route call to announcement.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

TMTCNTL.TREAT (continued)

DCFC

Disallowed coin free call (56)

Local, Local/Toll

This treatment is used for a coinfree line or line class code CFD in table LINEATTR, when other than operator assisted (0+) call or three-digit service codes are dialed.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

DISC

Disconnect timing (45)

Local, Local/Toll

This treatment is used if the subscriber fails to go on-hook within 10 s after the other party terminates a call.

The call is forcibly disconnected from a CAMA position served by a non TOPS switch.

An answer has not been received on a direct dial overseas DDO call within 5 min after call setup.

Origination (due to hardware failure) is used from an outgoing emergency service bureau (E911) trunk.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

DNTR

Denied terminating (33)

Local, Local/Toll

This treatment is used when a noncoin line directory number is dialed, terminating with the denied terminating (DTM) option. This treatment is also used if the DN of an ACD INCALLS key is called directly.

Note: Calls to coin lines with option DTM result in treatment CNDT.

ISDN

Incoming calls are barred.

The progress message contains cause 54:

```
Incomimg calls barred
```

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

DODT

Denied originating data terminal (61)

Local/Toll, Gateway
This treatment is used if a data unit is attempting to originate a connect sequence without the RS-232 DTR signal present.

Tandem
This treatment is redundant; set it to overflow or to a similar tone.

DSCN

Call waiting ID disconnect option (176)

Local/Toll, Local
This treatment is used if a subscriber has the Spontaneous Call Waiting Identification with Disposition (DSCWID) feature and the subscriber chooses the announcement-before-disconnect (DISCON) option, which gives the calling party an announcement before disconnecting the call.

Tandem, Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

DTFL

Datafill error (131)

Tandem
This treatment is used if a datafill error is encountered in offices with service access code network management (SACNWM) and code controls feature. If calls do not successfully complete, INWATXLA and NCS translations attempt to index table HNPACONT using the same STS used for SACNWM. The call initiates a continuous loop if allowed to continue.

Tandem
A datafill error is encountered.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

TMTCNTL.TREAT (continued)

D950

Dial 950 (80)

Local/Toll (end office with Equal Access feature)

10xxx is dialed instead of 950-1xxx. Table OCCINFO field ACCESS is set to INTERIM.

Route the call to an announcement.

Local/Toll (without Equal Access feature), Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

EMR1

Emergency treatment 1 (11)

Local/Toll, Tandem

This treatment is used if a call is deflected by network management code blocking, destination code cancellation, or alternate route control, or if the subscriber set deflected calls to route EA1.

Gateway

This treatment is redundant; set it to overflow or to a similar tone.

EMR2

Emergency treatment 2 (12)

Local/Toll, Tandem

This treatment is used if a call is deflected by network management code blocking, destination code cancellation, or alternate route control, or where the subscriber set deflected calls to route EA2.

Gateway

This treatment is redundant; set it to overflow or to a similar tone.

EMR3

Emergency treatment 3 (48)

Local/Toll with TOPS

This treatment is used if the digits dialed are other than 0- and the deflect call threshold for queue is exceeded. (See table TQCQINFO fields CWON and CWOFF for enabling calls waiting. Also see table QMSCQDEF for information on queue length threshold tables.)

Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

EMR4

Emergency treatment 4 (49)

Local/Toll with TOPS
This treatment is used if the digits dialed are 0- and if the deflect call threshold for queue is exceeded. (See the description of table QTTIDX for information on queue length threshold tables.)

Local/Toll (without TOPS), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

EMR5

Emergency treatment 5 (73)

Local/Toll with TOPS MP DA
This treatment is used in a TOPS switch equipped to connect directory assistance (DA) and intercept (INT) calls to TOPS multipurpose (MP) positions; excess calls in DA call waiting (CW) queue and DA call are not recalls.

Local/Toll (without TOPS MP DA), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

EMR6

Emergency treatment 6 (74)

Local/Toll with TOPS MP DA
This treatment is used in a TOPS switch equipped to connect DA and INT calls to TOPS MP positions; excess calls in the DA CW queue and INT calls are not recalls.

Local/Toll (TOPS MP DA), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

ERDS

Trunk permanent ground (70)

Local/Toll, Gateway
This treatment is used if a permanent ground is detected during a call; the call is disconnected and the cut-off relay is activated to save power.

TMTCNTL.TREAT (continued)

Tandem
This treatment is redundant; set it to overflow or to a similar tone.

EROR

ERV originator

ERTO

ERV timeout

ERTR

ERV terminator

ESNF

Customer unauthorized electronic serial number (ESN) fraud treatment

FACJ

Facility Rejected

This treatment is used (set) by the Closed User Group service to indicate that an incoming ISUP call with "CUG Without Outgoing Access" must be released with a cause value of #29 (Facility Rejected). This treatment is applied when, for example, an incoming call with "CUG Without Outgoing Access" attempts to access an outgoing network/agent without CUG capability.

FDER

Feature data error (92)

Local K&S (Austria)
This treatment is used if an invalid call forward attempt is made; it is used by K&S (Austria) Call Forwarding features.

FDER cannot be used in North American switches.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

FDNZ

First digit not zero (88)

Tandem
This treatment is used in a DMS-250 switch either with the Mechanized Calling Card Service (MCCS) feature on travel card number (TCN) call originations, or with the Call Back International Subscriber Dialed (ISD)

feature, if the first digit of the address is not zero. The subscriber has one more chance to dial called number correctly. Route the call to an announcement.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

FECG

Far end congestion (35)

Local/Toll, Tandem

The immediate cause of failure is the inability to get a path through the network over metallic access trunk due to far end congestion. This treatment is used if the far end encounters congestion on the network or outgoing trunks during call connection on the first attempt.

Gateway

This treatment is used on a call incoming on a private line, R1 signaling trunk or international 101 test line, or a call outgoing on CCITT#5 signaling (N5) if

- the far-end office encounters congestion on the network or outgoing trunks during call connection on the first attempt.
- the call incoming on a private line, R1 signaling trunk, or international 101 test line is outgoing on an N5 signaling trunk.

This treatment is used if the connected call fails on the first attempt because of the following:

- proceed to send message was not received
- proceed to send message was removed before seizure removed
- release guard was not received

This treatment is used on the second attempt, if the far-end office encounters congestion on the network or on outgoing trunks.

FNAL

Feature not allowed (68)

Local/Toll

This treatment is used if a caller attempts to use a feature that is not assigned to the line.

This treatment is distinct from NACK, which occurs if a caller attempts to use a custom calling feature and the request cannot be served.

TMTCNTL.TREAT (continued)

For example, if subscriber dials *73, the feature access code for call forwarding, but the subscriber line does not have the call forwarding feature, then the call is given FNAL treatment.

ISDN

This treatment is used if the requested facility is not subscribed or the service or option is not implemented.

The progress message contains cause 50:

```
Requested facility not subscribed
```

Tandem

This treatment is used in an international DMS-250 switch with the Call Back International Subscriber Dialed (ISD) feature. If the Calling Line ID (CLI) has the correct number of digits but indicates a mobile phone line or pay phone line, the call is disconnected.

Gateway

This treatment is redundant; set it to overflow or to a similar tone.

FRDR

Feature reorder (129)

Local/Toll with the IBN Message Service feature

This treatment is used if Voice Message Exchange (VMX) failure is detected during the activation or deactivation of the message waiting indicator.

Treatment RODR has been replaced by treatment FRDR. Treatment RODR is dedicated for distorted signals during dialing or impulsing.

A T120 tone is required by VMX. VMX users datafill treatment FRDR the same as RODR. This treatment increments the feature-related operational measurements (OM) treatment group rather than the equipment-related OM treatment group.

If FRDR is not datafilled in table TMTCNTL.TREAT, the default treatment is RODR.

Local/Toll without the IBN Message Service feature Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

GFNV

Global fiber optic network card (FONCARD) is not valid.

GNCT

Generalized no circuit (58)

Local/Toll

This treatment is used if a trunk group is the last group in a route, and an all-trunks-busy condition is encountered.

Looping occurs if the last element in a route list for GNCT is busy and the treatment GNCT is selected again. To prevent looping, add tone T120 (never busy) as the last element in a route list.

Treatment GNCT is selected.

If the trunk group type is VR, the treatment NOSC (not GNCT) is selected and routed to a line or a trunk.

Gateway

This treatment is used if call processing detects a no-circuit condition, excluding receivers and verification trunks.

Tandem

This treatment is used if a call is originating on an incoming or two-way trunk, and all trunks that are associated with outgoing routes are busy.

ISDN

No circuit or channel is available.

The call cannot be completed from the calling interface due to unavailable equipment or facilities.

Progress message contains cause 34:

```
Circuit/channel congestion
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

No channel is available at the calling interface because both B-channels are being used by other sets on the loop, or because the set attempting to originate has an active call and the set did not request an exclusive B-channel. The network sends the calling subscriber a release complete message cause 34:

```
Bearer capability not implemented
```

TMTCNTL.TREAT (continued)

The network cannot allocate the channel that the calling subscriber indicated as exclusive in the originating setup message. The network sends the calling subscriber the release complete message cause 44:

```
Requested channel not available
```

HNPI

Home NPA intercept (16)

Local/Toll

This treatment is used if home NPA digits are dialed and home NPA dialing is not permitted.

This treatment is assigned against the home numbering plan area (NPA) in table HNPACONT.HNPACODE with code type VCT.

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ICCB

Incoming Call Barred within Closed User Group (CUG)

This treatment is used (set) by the Closed User Group service to indicate that an incoming ISUP call must be released with a cause value of #55 (Incoming Call Barred within CUG). This treatment is applied when an incoming call terminates in a CUG with this treatment activated.

ICNF

Invalid conference code (151)

Tandem

This treatment is used in an international DMS-250 switch with the Three-Way Calling feature. The operating company can datafill ICNF, but it has no effect on what the subscriber hears. DMS-250 three-way conference calling software allocates 5 s of REORDER tone.

The originator and controller of the three-way conference call dials an invalid or inappropriate conference feature code.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

ICSA

In call service activated

Local, Local/Toll
A line that has entered the ICSCTRL activation code (*02) is routed here.

ICSD

In call service deactivated

Local, Local/Toll
A line that has entered the ICSCTRL deactivation code (*02) is routed here.

IDPB

International direct distance dialing prohibited (112)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
An international direct distance dialing (IDDD) call is originated by a subscriber whose AUTHCODE or Automatic Number Identification (ANI) database does not allow dialing IDDD destination numbers.

IIEC

Feature-related, invalid information element component

ILRR

International line restriction (122)

Local, Local/Toll (international end office)
This treatment is used in an international end office with the International Line Restrictions (ILR) feature, if an attempt is made to originate a call restricted by ILR for the originating line.

Local/Toll (other than international end office), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

ILRS

Inter-LATA restriction (82)

Local, Local/Toll (end office with Equal Access feature)
This treatment is used if an inter-LATA call is originated, and if the line option inter-LATA toll denied (ITD) is assigned.

The subscriber with the Carrier Toll Denied (CTD) feature attempts to place a toll call using a carrier and is denied access. The call is either completed or blocked, and sent to an inter-LATA restricted (ILRS) treatment.

TMTCNTL.TREAT (continued)

The decision to block a call to a carrier, defined as toll denied, depends on call characteristics, as described in the table that follows.

Call type descriptions

Call type	Description
(10xxx) 1 + 7/10D	Direct dial - ILRS treatment
(10xxx) 0 + 7/10D	Operator assisted - call let through
(10xxx) 011 + CC + NN	Direct dial - ILRS treatment
(10xxx) 01 + CC + NN	Operator assisted - call let through
10xxx + #	Direct dial - ILRS treatment
10xxx + 0	Direct dial - call let through
950<#0106>1xxx	Direct dial - ILRS treatment
1 + 800 + 4D	Direct dial - call let through
(10xxx) 1 + NPA + 555 + 4D	Direct dial - ILRS treatment
Note: The parentheses mean that the carrier digits are optional in the dialing sequence.	

Route the call to an announcement.

Local/Toll (without Equal Access feature), Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

INAC

Invalid account code (4)

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

Tandem

Account code validation is required and the dialed account code is not valid for the trunk group.

INAU

Invalid authorization code (53)

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

Tandem
This treatment is used if

- the AUTHCODE is invalid.
- the city code screening specifies call blocked because the AUTHCODE was not dialed in a valid city of origin.
- the dialed security code digits associated with the AUTHCODE do not match the security code digits stored against the AUTHCODE

INBT

Installation busy treatment (127)

LOCAL (international NETAS)
An incoming call attempts to terminate on a line in an installation busy (INB) state.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

INCC

Invalid city code (97)

Tandem
This treatment is used if an invalid city code is dialed.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

INOC

Invalid operator code (75)

Local/Toll, Gateway Tandem
This treatment is redundant; set it to overflow or to a similar tone.

INPD

Invalid PIN digit (110)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
This treatment is used if the dialed personal identification number (PIN) digits do not match PIN digits in the AUTHCODE database.

TMTCNTL.TREAT (continued)

INVM

Invalid message (169)

Local/Toll, IBN

This treatment is used if an invalid numbering plan indicator is received in the called party number, or if an invalid calling category is received.

ISAX

ISA exit

Local, Local/Toll (end office with custom calling features)

This treatment is used when a caller has successfully selected an option from a first level menu but has not selected any option from a second or subsequent level menu.

ISDN

The facility is rejected, or service or option is not allowed.

Progress message contains cause 29:

```
Facility rejected
```

Local/Toll (without custom calling features)

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ITCF

Information transfer capability request fail (164)

Gateway

This treatment is used if the information transfer capability (ITC) is not functional or an invalid calling category is received.

Local, Toll

This treatment is redundant; set it to overflow or to a similar tone.

IVCC

Invalid corridor call (108)

Local, Local/Toll (end office with Equal Access feature)

This treatment is used if an invalid inter-LATA non-corridor call using OTC is made.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

IWUC

International wake-up call (126)

Local, Local/Toll (international end office)
This treatment is used in an international end office with the international Wake-up Call (IWUC) feature during the wake-up process. Route the call to the wake-up announcement.

Tandem
This treatment is used in an international DMS-250 with the call back ISD feature. Route to the announcement requesting subscriber disconnect (at the end of first stage). The announcement cannot be broken by dialing digits.

Local/Toll (other than international end office), Gateway
This treatment is redundant; set it to overflow or to a similar tone.

JACK

Justified alternate calling knowledge (163)

Tandem
This treatment is used if a hotel call fails line information (LIDB) verification twice. The treatment may route to an announcement tone or to a terminating trunk.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

LCAB

Local call area barred (96)

Tandem
This treatment is used if a local call attempt is made over a carrier. Carriers are not authorized to complete calls that originate and terminate within the same local calling area.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

LBSY

Local busy (178)

TMTCNTL.TREAT (continued)

Local, Local/Toll
This treatment is used if a busy condition is encountered during a local call attempt. The DMS switch determines if the call is a local call, then routes the call to this treatment if it is unable to complete the call.

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

LCNV

LEC calling card not valid (153)

Tandem
This treatment is used to prompt the subscriber to enter a valid local exchange carrier (LEC) calling card number, if the subscriber enters an invalid number the first time, or if the call times out due to a partial dial condition. The DMS-250 LEC Calling Card Validation (Bong Tone) feature must be present in the office.

Datafill in table TMTCNTL.TREAT for treatment LCNV has no effect on what a subscriber hears if this treatment is applied for LEC calling card calls. The LCNV entry must be datafilled in table MCCSANNS with an appropriate announcement CLLI recorded on a digital recorded announcement machine (DRAM).

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

LDAA

Long distance signal activated (211)

Local, Local/Toll
A line that has entered the LDS activation code *49 (or 1149) is routed here.

LDAD

Long distance signal deactivated (212)

Local, Local/Toll
A line that has entered the LDS deactivation code 1149 (or *49) is routed here.

LECV

LEC calling card valid (152)

Tandem

This treatment informs the subscriber that the LEC calling card number validation was successful and that the call is progressing normally. The DMS-250 LEC Calling Card Validation (Bong Tone) feature must be present in the office.

Datafill in table TMTCNTL.TREAT for treatment LECV has no effect on what the subscriber hears if the treatment is applied for LEC calling card calls. The LECV entry must be datafilled in table MCCSANNS with the appropriate announcement CLLI recorded on a DRAM.

Note: A new cause value, currently listed as CSE_26 in table TMTMAP, is changed to MISRCALL.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

LNPM

LNP Misrouted Call to a Ported Number

This treatment indicates that an LNP call to a ported number was misrouted. LNPM can be mapped to a DRAM announcement that indicates the call did not complete.

MANL

Manual line (26)

Local, Local/Toll

A line with originating manual service (option MAN assigned in table LENLINES) is routed to this treatment if it is originating a call.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

MHLD

Music on hold (60)

ISDN

Normal unspecified (31)

Local/Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone. IBN treatments are handled in table AUDIO.

TMTCNTL.TREAT (continued)

MSCA

Misdirected CAMA call (7) (prefix digit dialed in error)

Local/Toll

This treatment is used in table STDPRTCL or table PFXTREAT for local calls that either attempt to switch through the toll network or dial the prefix digit 0 or 1 in error. Both call setups are not permitted.

ISDN

This treatment is used if the call is a local seven-digit direct dialed (DD) number as determined in table LCASCRN; the prefix digit 1 is dialed in error on a local call and the treatment to which the call is routed is datafilled as misdirected CAMA (MSCA) in table PFXTREAT.

Progress message contains network specific cause 3:

```
Prefix 1 dialed in error
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

MSLC

Misdirected local calls (8) (prefix digit not dialed)

Local, Local/Toll, Tandem

An operator-assisted call (0+) is originated to codes NPA555, 555, or 800.

A station ringer call is made if the last four digits do not match the calling line, and the call is not defined as no-prefix local in table PFXTREAT.

Prefix digit 0 or 1 is not dialed on a toll call, and table PFXTREAT specifies prefix digit mandatory on toll calls.

ISDN

This treatment is used under two conditions:

- The call is a 10-digit call and dialing of prefix digits is specified as mandatory in table LCASCRN.
- The prefix digit 1 is not dialed on a toll call and the treatment to which the call is routed is datafilled as MSLC (misdirected local call) in table PFXTREAT.

Progress message contains network specific cause 4:

```
Prefix 1 not dialed
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

MSOA

Misdirected operator assisted announcement (0+ dialing not allowed)

Local/Toll
This treatment is used in table LCASCRCN to route umpermitted operator assisted (OA) calls to a pre-recorded announcement.

ISDN
This treatment is used if the prefix digit 0 is dialed in error as determined in table LCASCRN and the treatment to which the call is routed is datafilled as Y in field PFXFOR10 of table LCASCRN.

Progress message contains network specific cause 2:

```
Prefix 0 dialed in error
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

MTBL

Mobile trouble

MTOC

MFC time out or confusion (115)

Local/Toll, Tandem, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

MWKP

Mobile weak power

TMTCNTL.TREAT (continued)

NACD

Do not dial carrier access code (83)

Local, Local/Toll (end office with Equal Access feature)

10XXX is dialed for a carrier equal to field PIC in table LENFEAT for the subscriber.

Route the call to an announcement.

Local/Toll (without the Equal Access feature), Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

NACK

Negative acknowledgement (78)

Local, Local/Toll (end office with custom calling features)

This treatment is used when a feature request cannot be performed due to some feature interaction or feature restriction.

The NACK treatment is distinct from FNAL, where the subscriber attempts to use a custom calling feature that is not assigned to a line. For example, subscriber B call forwards to subscriber C; subscriber C is busy. Subscriber A dials subscriber B, hears busy tone, and attempts to RAG. The NACK treatment is returned because RAG is not permitted on a subscriber line that is call forwarded.

ISDN

The facility is rejected, or service or option is not allowed.

Progress message contains cause 29:

```
Facility rejected
```

Local/Toll (without custom calling features)

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

NBLH

Network blockage heavy traffic (9)

Local/Toll

The immediate cause of failure is the inability to get a path through the network. This treatment is used if one of the following conditions exists:

- a second failed attempt for a CAMA position, operator or receiver
- no path on three-way call between a conference circuit and a trunk
- no network path on an operator-to-line call
- no network path to a metallic access trunk
- no network path to the line test unit on a station ringer test call
- no network path from a conference port to a called line

Gateway

The call incoming on a private line or R1 signaling trunk; the call is outgoing on a terminating 102 test line in the following states:

- an outgoing trunk is available, but it is in the wrong state (for example, not IDLE)
- an outgoing trunk is available, but the input or output control block (IOCB) cannot link
- an outgoing trunk is available, but there is no available network connection

If the call is incoming on a private line or international 101 test line; or the call is outgoing on a CCITT#5 (N5) signaling trunk, CCITT#6 (N6) signaling trunk, or international 101 test line, the following message is generated:

```
During call setup, terminating trunk found, but no call condense
block available
```

If the call is incoming on an R1 signaling trunk; or the call is outgoing on an N6 signaling trunk or international 101 test line, the following message is generated:

```
During call setup, terminating trunk found, but no call condense
block available
```

If the call is incoming on a private line, R1 signaling trunk, or an international 101 test line; or if the call is outgoing on a transmission test unit (ATME2), the following message is generated:

```
During call setup, cannot connect trunks because no network
connection is available, or integrity not found over network
connection
```

TMTCNTL.TREAT (continued)

If the call is incoming on an R1 signaling trunk; or the call is outgoing on a terminating 104 test line, the following message is generated:

```
During call setup, outgoing trunk available, but no network
connection available
```

If the call is incoming on a private line or an R1 signaling trunk, or if the call is outgoing on an international 101 test line, the following message is generated:

```
During call setup, two attempts to get network connection fail
```

If the call is incoming on an R1 signaling trunk, after call supervision, route the subscriber to an announcement if one of the following conditions exists:

- failed network connection
- failed announcement connection

The call should connect to announcement for the maximum number of announcement cycles.

Tandem

Up to two attempts are made to reserve a network path from an incoming trunk to an outgoing trunk.

Up to two attempts are made to reserve a network path from an outgoing trunk to an audio tone detector.

ISDN

There is switching equipment congestion.

Progress message contains cause 42:

```
Switching equipment congestion
```

NBLN

Network blockage normal traffic (10)

Local/Toll

This treatment is used if a call is aborted because of blocking (failure to get a channel) in the terminating peripheral module at the far end.

ISDN

There is no circuit or channel available.

The call cannot be completed from the calling interface because equipment or facilities are unavailable.

Progress message contains cause 34:

```
Circuit/channel congestion
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

No channel is available at the calling interface because both B-channels are being used by other sets on loop, or because the set attempting to originate has an active call and the set did not request exclusive B-channel.

The network sends the calling subscriber a release complete message containing cause 34:

```
Bearer capability not implemented
```

The network cannot allocate the channel that the calling subscriber indicated as exclusive in the originating setup message.

The network sends the calling subscriber release complete message containing cause 44:

```
Requested channel not available
```

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

NCII

NCS invalid ID code (102)

Tandem

Action code 7 (invalid ID code) is received in the response message from the network control system (NCS). The ID code is a portion of the supplementary code collected from the subscriber.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

NCIX

NCS incoming exclusion (101)

TMTCNTL.TREAT (continued)

Tandem
Action code 6 (incoming exclusion) is received in response message from NCS.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

NCRT

No circuit (24)

Local/Toll, Tandem
Routine call is deflected by network management to NCA.

Treatment can be specified by the network manager as an alternative to emergency 1 or 2 for calls aborted through operation of cancel-from or cancel-to network management controls.

With calls originating from a line or ATUP trunk or with calls outgoing on an ATUP trunk that signals a trunk during call connection, glare occurs on the outgoing trunk. A repeat attempt is not possible because a repeat was already attempted.

Gateway
Call is incoming on a private line, R1 signaling trunk, or international 101 test line. Call is outgoing on an R1 signaling trunk.

During call connection, glare occurs on an outgoing trunk and a repeat attempt is not possible because of the following:

- one repeat was already attempted
- network management cancelled a repeat attempt
- an error occurred while expanding internal translation data
- an error occurred while condensing internal translation data

Call is incoming on a private line, R1 signaling trunk, or international 101 test line. Call is outgoing on an N5 signaling trunk.

During call connection, glare occurs between central control (CC) and an N5 peripheral module (PM) or between an N5 PM and far-end PM. A repeat attempt is not possible because of the following:

- one repeat was already attempted
- network management cancelled a repeat attempt

- an error occurred while expanding internal translation data
- an error occurred while condensing internal translation data

Call is incoming on a private line, R1 signaling trunk, or international 101 test line. Call is outgoing on an R1 signaling trunk.

During call connection, an outgoing trunk registers call failure before the answer because of the following:

- no leading edge was received (similar to proceed to send)
- no start dial signal was received
- an unexpected off-hook was received

A repeat attempt is not possible because

- one repeat was already attempted
- network management cancelled a repeat attempt

Call is incoming on a private line, R1 signaling trunk, or international 101 test line. Call is outgoing on an N5 signaling trunk.

During call connection, an outgoing trunk registers a call failure before an answer because of the following:

- proceed to send message was not received
- proceed to send message was removed before seizure was removed
- proceed to send message was not removed
- release guard message was not received

A repeat attempt is not possible because of the following:

- one repeat was already attempted
- network management cancelled a repeat attempt

ISDN

This treatment is used if no circuit or channel is available, or if the requested circuit is not available.

The call cannot be completed from the calling interface because of unavailable equipment or facilities.

TMTCNTL.TREAT (continued)

Progress message contains cause 34:

```
Circuit/channel congestion
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

No channel is available at the calling interface because both B-channels are being used by other sets on the loop, or the set attempting to originate has an active call and the set did not request an exclusive B-channel.

The network sends a calling subscriber release complete message cause 34:

```
Bearer capability not implemented
```

The network cannot allocate the channel that the calling subscriber has indicated as exclusive in the originating setup message.

The network sends a calling subscriber release complete message cause 44:

```
Requested channel not available
```

NCTF

NCS translation failure (103)

Tandem

The action code returned indicates one of the following NCS translation failures:

- 9-misdialed number
- 12-supplementary code required
- 13-outgoing trunk not found
- 14-ANI not found
- 15-NPA_Nxx not found
- 16-pilot number not found
- 17-associated partition not found
- 18-agent data framework (ADF) format error
- 19-switch ID not found

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

NCUN

NCS unexpected error (105)

Tandem
A Virtual Private Network (VPN) call is routed if action code 8 (unexpected error) in a response message is received from an NCS.

The action code returned by NCS is 5, or 23 to 63 (unused).

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

NC8F

NCS 800 service failure (128)

Tandem
The action code returned by NCS is one of the following:

- 20 800 number not found
- 21 800 number out of band
- 22 800 number no longer in service

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

NECG

Near end congestion (34)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Gateway
If the call is incoming on a private line, R1 signaling trunk, or international 101 test line, the following message is generated:

```
During call routing, all routes in route list are unavailable
```

If the call is incoming on a private line or international 101 test line, the following message is generated:

```
During call supervision or repeat attempt, call or previous call
attempt fails due to network congestion
```

TMTCNTL.TREAT (continued)

If the call is incoming on a private line, R1 signaling trunk, or international 101 test line, the following message is generated:

```
During translation verification, all routes in route list are
unavailable
```

NINT

Changed number intercept (99)

Tandem
The called number has been changed and can no longer be reached.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

NMZN

No metering zone (67)

NONE
This treatment handles billable calls if no metering zone is found in translations.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

NOCN

No coin (50)

Local, Local/Toll
This treatment is used on a coin calling line if there is no coin present on chargeable call.

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

NOBC

No bearer capability available (181)

Gateway
This treatment is used if the bearer capability (BC) is missing from the additional calling party information (ACPI) message.

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

NONT

Not on network (104)

Tandem
This treatment is used if a call conforms to the dialing plan but is not on the network. This treatment is datafilled as a route choice. For example, if area code 214 is not supported, table HNPACONT contains NONT as route choice for area code 214.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

NORA

No routing available (182)

Gateway
This treatment is used if there is no routing information in the first indicator octet (FIO).

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

NOSC

No service circuit (1)

Local/Toll
This treatment is used if all hardware resources are busy. Conditions include the following:

- all receivers, senders, or verification 90 (CLLI, VER90) trunks are busy
- the number of trunks queuing for the Centralized Automatic Message Accounting (CAMA) position trunk is equal to or greater than the quantity specified for field DEFLECT for the number of CAMA positions occupied in table CAMACSW
- no CAMA position is available after a second try
- operator queue overflow, including all queues for CAMA and TOPS operators
- no conference circuit is available
- time-out in CAMA queue, including all queues for CAMA and TOPS operators
- no metallic test access connection is available
- no resources for 108 test line call are available

TMTCNTL.TREAT (continued)

- no tone or announcement available on an intercom call
- the last trunk group of group type VR (operator verification trunk) in a route list encounters on all trunks busy condition

Gateway

This treatment is redundant; set it to overflow or to a similar tone.

Tandem

This treatment is used if

- no recording units are available for Call Detail Recording (CDR) billing and the call is blocked as specified by office parameter CDR_UNAVAIL_BLOCK in table OFCVAR.
- echo suppression is specified but not available for test line calls (terminating to T100, T101, or T102).
- resources for conference calling are not available if the feature is activated (for example, six-port conference circuit is not allocated or office parameters controlling data resources for conference calls are not set properly)

ISDN

This treatment is used is the call is not completed from the calling interface because of unavailable equipment or facilities.

Progress message contains cause 34:

```
Circuit/channel congestion
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

If no channel is available at the calling interface because both B-channels are being used by other sets on the loop, or the set attempting to originate has an active call and the set did not request an exclusive B-channel, the network sends calling subscriber release complete message cause 34:

```
Bearer capability not implemented
```

If the network cannot allocate the channel that the calling subscriber indicated as exclusive in the originating setup message, then the network sends calling subscriber release complete message cause 44:

```
Requested channel not available
```

NOSR

No software resource (93)

Local/Toll

This treatment is used if all software resources are busy. Conditions include the following:

- no multiblocks, recording units, or local automatic message accounting (LAMA) blocks are available
- no custom calling software resources are available, such as:
  - portperm extension block
  - custom calling feature extension block
  - supplementary data block
  - feature data block
- CPWAKEUP request cannot be scheduled

ISDN

The progress message contains cause 47:

```
Resource unavailable
```

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

NPAR

NPA restricted (111)

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

Tandem

This treatment is used if the subscriber dials an INWATS call, but the NPA is marked BLOCKED in table IEXCLUDE.

This treatment is also used if the subscriber dials a universal access code to obtain dial tone from a DMS-250 switch and then dials an 800 number.

NTRS

No terminal responding (133)

TMTCNTL.TREAT (continued)

ISDN
This treatment is used if the functional terminal fails to respond when it is offered a call.

The originating subscriber receives an audible ringback. To minimize the impact on the subscriber, continue to apply the ringback as generated by the tone as in the example in table TONES with CLLI code *RING, before applying busy tone, followed by a lockout.

The progress message contains cause 18:

```
No user responding
```

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

NVIP
Not very important person status (165)

Local/Toll, IBN
This treatment is used on all calls made to NON-VIP subscribers in local exchange codes with undnVIP screening enabled.

N00B
N00 call blocked (120)

Tandem
This treatment is used in DMS-250 switches that have the CCS7 TCAP-based N00 service feature if the N00 number is blocked by a negative N00 database query.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

N9DF
NCS 900 database failure (146)

Tandem
This treatment is used if an NCS 900 database failure occurs in offices with the NCS 900 services feature.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

N9NS

NCS 900 number not in service (148)

Tandem
This treatment is used if an NCS 900 number that is not in service occurs in offices with the NCS 900 services feature.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

N9OB

NCS 900 number out of band (147)

Tandem
This treatment is used if an NCS 900 number out-of-band occurs in offices with the NCS 900 services feature.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

N950

Do not dial 950 (81)

Local, Local/Toll (end office with Equal Access feature)
This treatment is used if the number 950-1xxx is dialed instead of 10xxx, if table OCCINFO field ACCESS is set to EAP.

Route the call to an announcement.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

OPRT

Regular intercept (29)

Local, Local/Toll
This treatment is used if disconnected or out-of-service directory numbers are routed to an operator (regular intercept).

For information on assigning lines to this treatment, see the *SERVORD Reference Manual*.

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

TMTCNTL.TREAT (continued)

ORAC

Originating revertive action for two-party lines (42) with coded ringing

Local, Local/Toll

This treatment is used if a two-party line with coded ringing attempts to terminate to a party on the same line.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ORAF

Originating revertive action for two-party lines (40) with frequency ringing

Local, Local/Toll

This treatment is used if a two-party line with frequency ringing attempts to terminate to a party on the same line.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ORMC

Originating revertive action for multiparty lines (36) with coded ringing

Local, Local/Toll

This treatment is used if a multiparty line with coded ringing attempts to terminate on the same line.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ORMF

Originating revertive action for multiparty lines (43) with frequency ringing

Local, Local/Toll

This treatment is used if multiparty line with frequency ringing attempts to terminate to a party on the same line.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

ORSS

Originating service suspension (27)

Local, Local/Toll

This treatment is used if a call is originated on a line with the denied originating option or suspended service option assigned in table LENLINES or table IBNLINES.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

OSVR

Operator services voice response (119)

Local/Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

OTAE

Over The Air Activation Service Provisioning (OTASP) Error

This treatment is used when an error occurs during the processing of an OTASP call. When an error occurs during the processing of an OTASP call, the call is routed to this treatment, which provides the wireless subscriber a meaningful OTASP related explanation for the error.

OTAR

OTASP resources unavailable

This treatment is used if OTASP (over the air service provisioning) software or hardware resources or both are unavailable for a mobile call.

PDIL

Partial dial time out (2)

Local/Toll, Tandem

This treatment is used if one digit is received, but not all digits are required, to complete the call.

For calls on multifrequency (MF) trunks, PDIL instead of permanent signal (PSIG) is administered if the MF key pulse (KP) signal is received.

If the MF signaling terminal (ST) signal is not received, PDIL is the correct treatment. If the received ST signal is invalid in the context of the call, the proper treatment is RODR.

Note: Treatment CLLI COPP can be used as the first element in a route list.

TMTCNTL.TREAT (continued)

Gateway

This treatment is used for calls incoming on private or international 101 test lines.

```
This treatment is used for calls that fail during call digit
collection
```

This treatment is used on calls incoming on R1 signaling trunks.

```
This treatment is used if the digit string has insufficient
digits for translation during translation verification
```

This treatment is used for calls incoming on private or international 101 test lines.

```
There is an insufficient number of digits to complete
translation during call translation
```

This treatment is used for calls incoming on a private line, R1 signaling trunk, or international 101 test line. This treatment is used for calls outgoing on CCITT6 signaling (N6) trunks.

```
This treatment is used if there are insufficient digits to
complete a call.  If the caller has transmitted digits to the
terminating exchange, and the terminating exchange has received
ST or timed out waiting for more digits
```

ISDN

This treatment is used if there is an invalid number format or an incomplete address.

Progress message contains cause 28:

```
Incomplete number format
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Tandem

This treatment is used in an international DMS-250 switch with the Call Back ISD feature. If the subscriber starts to dial after receiving the call back announcement, but fails to enter the minimum number of digits before PDIL (5 s, group parameter), then the call is taken down.

PERR

Protocol error (168)

Local/Toll, IBN
This treatment is used if the T33 signal timer expires before the information message (INF) is received.

PER1

Protocol error 1 (183)

Gateway
This treatment is used if the signaling capability and the signaling path indicator have conflicting information.

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

PER2

Protocol error 2 (184)

Gateway
This treatment is used if the ITC and signaling path indicator have conflicting information.

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

PER3

Protocol error 3 (185)

Gateway
This treatment is used if the protocol control indicators are set to invalid combinations in the initial address message (IAM).

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

PER4

Protocol error 4 (186)

Gateway
This treatment is used if the protocol control indicators are set to invalid combinations in the address complete message (ACM).

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

TMTCNTL.TREAT (continued)

PER5

Protocol error 5 (187)

Gateway
This treatment is used if the requested call path indicator (CPI) and service handling protocol (SHP) are an invalid combination.

Local, Toll
This treatment is redundant; set it to overflow or to a similar tone.

PNOH

Permanent signal no receiver off-hook (32)

Local/Toll, Gateway, Tandem
This treatment is not available, set it to overflow or to a similar tone.

PNUN

Private network unavailable (142)

This treatment is used if the Virtual Private Network cannot be accessed.

PODN

Ported Out Directory Number

This treatment indicates that a directory number, whose office code (NPANXX) is native, has ported to another switch. PODN can be mapped to a tone or announcement.

RMID

Remote Message Indicator Deactivation

This treatment is used by the Remote Message Indicator (RMI) feature. When an RMI subscriber dials the vertical access code which deactivates the RMI feature, the subscriber is offered the RMID treatment in order to confirm deactivation of the RMI feature.

PRSC

Priority screen fail (57)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
This treatment is used if the priority of the AUTHCODE subscriber is lower than the current office priority.

PSIG

Permanent signal time out (3)

Local/Toll
This treatment is used if no digits are received before a time-out condition occurs. Calls for which distorted signals are received (rather than none at all) are routed to reorder (RODR) treatment.

Note: Treatment CLLI COPP can be the first element in a route list for PSIG.

Gateway
This treatment is used if a call is incoming on a R1 signaling trunk:

```
If during call digit collection, the last received digit on an
MF trunk and digit stream contain invalid ST and invalid KP
```

This treatment is used if a call is incoming on a R1 signaling trunk:

```
If during translation verification, there are not ST, no KP1,
and no KP2 in digit stream
```

This treatment is used if a call is incoming on a private line, R1 signaling trunk, or international 101 test line:

```
During call digit collection, receiver times out waiting for
digits
```

Tandem
This treatment is used if a call origination occurs on an incoming or two-way trunk, but no digits are dialed within the time specified by trunk subgroup value for PSPDSEIZ.

Tandem
This treatment is used in an international DMS-250 switch with the Call Back International Subscriber Dialed (ISD) feature. If subscriber does not answer callback within the time specified by office parameter CALL_BACK_ANSWER_TIME in table OFCVAR (default 40 seconds), then the call is taken down.

ISDN
The destination is missing and direct call is not subscribed.

TMTCNTL.TREAT (continued)

Progress message contains cause 90:

```
Dest missing
```

PTFL

POTS pseudo service call failed (156)

Gateway
This treatment is used if an unauthorized attempt is made to use plain ordinary telephone service (POTS). The DMS-300 Service Screening by Destination on Issue feature must be present in the office.

Local/Toll, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

PTOF

Premature trunk offering (64)

NONE
This treatment is used if calls receive a trunk offering signal before translation is finished.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

RDIR

Maximum number of redirections. The call links to an announcement that indicates that the maximum number of redirections has been reached.

RFCD

Remote feature control denied

RFCE

Remote feature control error

RFCS

Remote feature control success

RING

No terminal responding, release call (162)

ISDN

This treatment is used if an ISDN terminal receives the message:

```
No terminal responding; release call
```

Local/Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

RMIA

Remote Message Indicator Activation

This treatment is used by the Remote Message Indicator (RMI) feature. When an RMI subscriber dials the vertical access code which activates the RMI feature, the subscriber is offered the RMIA treatment in order to confirm activation of the RMI feature.

RMID

Remote Message Indicator Deactivation

This treatment is used by the Remote Message Indicator (RMI) feature. When an RMI subscriber dials the vertical access code which deactivates the RMI feature, the subscriber is offered the RMID treatment in order to confirm deactivation of the RMI feature.

RODR

Reorder (25)

Local/Toll

This treatment is used if distorted signals are received during dialing or impulsing. This includes instances of extra or mutilated pulses on incoming digits, noise during signaling, distorted frequencies, invalid ST control digits, or failure during ANI impulsing.

Also, the treatment can occur if an attempt is made to outpulse too many digits for trunk group type OP.

Gateway

This treatment is used if a call is incoming on a private line, R1 signaling trunk, or international 101 test line. Also affected are calls outgoing on R1 signaling trunks, N5 signaling trunks, N6 signaling trunks, or international 101 test lines.

```
During call routing, a selector in the chosen route list is
unknown
```

TMTCNTL.TREAT (continued)

This treatment is used for calls incoming on private lines, R1 signaling trunks, or international 101 test lines, and for calls outgoing on N6 signaling trunks.

```
A time out condition occurs, waiting for digits
```

For calls incoming on private lines, R1 signaling trunks, or international 101 test lines, failure during call translation occurs because of the following:

- invalid translation result
- invalid KP signal
- invalid signaling type (for example N7 signaling)

Tandem

This treatment is used for the following conditions:

- the number of digits dialed is more than the maximum number of digits required for call
- for foreign exchange office (FXO) and foreign exchange station (FXS) circuits, a digit receiver is necessary but not available, or a receiver is obtained but no network path is available
- a valid speed number is dialed, but not enough digits are returned from the speed number database for translations to make a determination
- an unexpected error condition occurs on an outgoing trunk while a call is up (for example, network integrity loss, invalid A and B bit state received, or force release ordered from MAP position for terminating circuit)
- treatment set does not appear in trunk group-specific treatments subtable, or in subtable TMTCNTL.OFFTREAT

ISDN

This treatment is used if the message is invalid or unspecified.

Progress message contains cause 28:

```
Incomplete number format
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

RRPA

Revertive ring prefix announcement (39)

Local/Toll, Gateway, Tandem

Not currently available; set it to overflow or to a similar tone.

RSDT

Restricted date and time (63)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
Restriction class in AUTHCODE does not allow subscriber to access network.

RTEE

Routing Error (dynamic) 217-255

Local, Toll, Local/Toll, Tandem
This treatment occurs when an intermediate switch receives an initial address message containing an ISUP hop counter (HC) value, and the HC value has expired. This causes a release (REL) message to be sent back through the network with a cause value set to ``Exchange routing error''.

Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SCA

Selective call acceptance (157)

Local
Calling directory number is not found in the SCA list of terminating line with Custom Local Area Signaling Services (CLASS) SCA feature.

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SCFL

DBS communications failure (100)

Tandem
This treatment is used if

- a failure occurs in the communications link to NCS preventing processing of VPN calls
- a request is dropped because the wait_for_ack queue is full (VPN Transaction Processing feature)
- NCS communications software in the DMS-250 switch failed to respond after waiting 4 times the timeout value NCSTIMEOUT in table OFCENG

TMTCNTL.TREAT (continued)

- error is detected in data received from NCS
- no communication links are available to NCS

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SCRJ

Selective call rejection (150) local

Local
The called line has activated the CLASS SCRJ feature and the calling number appears on its rejection list.

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SCUN

Service currently unavailable (109)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
Zero (0) + ONNET calls are routed. Zero (0) + ONNET calls do not allow operator access.

SCUN treatment is used in offices with Service Access Code (SAC) network management and Code Controls feature, if table INWATXLA indexes into card_type CRTCARD (not supported).

SINT

Service interception (125)

Tandem
Universal translation tables are datafilled to route incorrectly dialed numbers (entered wrong, duplicated, and so on).

Route call to TOPS if the call is handled using the Service Interception (SVI) facility.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SONI

Service option not implemented (170)

Local/Toll, IBN
Invalid circuit existence indicator is received or TELESERVICE indicator is received from initial address message (IAM).

SORD

Storage overflow reorder (52)

Tandem
This treatment is used if the DMS-250 runs out of NCS extension blocks during translation of a VPN call.

This treatment is used if the DMS-250 runs out of FTR control blocks during a Travel Card Number Service (TCN) call origination.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

SORE

Station origination restriction error (136)

Local/Toll with MDC
This treatment is used in offices with Meridian Digital Centrex (MDC) station origination restrictions (SOR) feature if a subscriber in a customer group with the SOR option attempts a call that is not allowed by the subscriber restriction level.

Local/Toll without MDC, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

SRRR

Single party revertive ringing (44)

Local, Local/Toll
This treatment is used for subscribers with the intercom option (single party revertive ringing).

If the switch office option INTERCOM is set to Y (yes) in table OFCOPT, a line with option intercom (INT) in table LENLINES, is routed to SRR if dialing own directory number to ring extension phone.

TMTCNTL.TREAT (continued)

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

SSTO

Start signal time out (23)

Local/Toll
This treatment is used if expected signals are not received from a far-end office during call setup. Expected signals are

- time out waiting for operator answer
- ANI outpulse failure or time-out (includes failures during outpulsing of called number or of ANI information)
- failure on outgoing trunks during ROTL tests

Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

STOB

Signal time out BOC (71)

Local, Local/Toll (end office with Equal Access feature)
This treatment is used if a call is completed in an Equal Access environment over an AT trunk, and the AT trunk does not get an EAEO wink.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

STOC

Signal time out IC/INC (72)

Local, Local/Toll (end office with Equal Access feature)
This treatment is used if a call is completed in an Equal Access environment over an AT trunk, and the EAEO/AT trunk does not get an IC/INC wink.

Local/Toll (without Equal Access feature), Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

SYFL

System failure (14)

Local/Toll
This treatment is used if a call is aborted because of a software or hardware switch failure.

Failure type areas follows:

- call failure or integrity lost from port 1
- miscellaneous messages from port 2
- software failures or error conditions
- line-to-line, line-to-trunk, or trunk-to-line error takedown
- miscellaneous failures during overlap outpulsing
- miscellaneous error returns during set up
- called line module (LM) busy or under test
- failed Automatic Number Identification (ANI) test due to data error
- ANI failure on local Call Detail Recording (CDR) call
- data error
- failure in line number control processor
- integrity lost while receiving digits
- incoming or two-way CAMA trunk (trunk group type SC) with Bell format is routed if the start signal received is not the same as the one specified in field SDATA (subfield GRPTYPE) in table TRKGRP
- ring failure

Gateway

If this treatment is used for calls incoming on private lines, R1 signaling trunks, or international 101 test lines, the following error message is generated:

```
During call routing, routing procedure aborts
```

If this treatment is used for calls incoming on private lines, signaling trunks, or international 101 test lines, the following error message is generated:

```
During translation verification, routing procedure aborts
```

If this treatment is used for calls incoming on private lines, R1 signaling trunks, or international 101 test lines, the following error message is generated:

```
During call screening, call access table DCACCTL, and data in
table is invalid
```

If this treatment is used for calls outgoing on N6 signaling trunks, the following error message is generated:

```
Call failure occurs
```

TMTCNTL.TREAT (continued)

Tandem
This treatment is redundant; set it to overflow or to a similar tone.

TBSY
Toll busy (179)

Local, Local/Toll
This treatment is used if a busy condition is encountered during a toll call attempt. The DMS switch determines if the call is a toll call, then routes to this treatment if it is unable to complete the call.

Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

TDBR
Test desk bridged (62)

Local, Local/Toll
If an AT&T mechanized loop tester or a 14 local test desk (LTD) signaling type trunk (trunk group type TD) is connected to a line with option SUS, RSUS, PLP or RMB activated, and the trunk is connected in idle bridge mode to that line, the line routes to this treatment if either the test desk closes its tip or ring loop, or the line itself goes off-hook.

This treatment consists of a one second dial tone burst, then lockout.

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

Recommended datafill
For TDBR to function properly, the following tables must be datafilled as shown below:

- A pseudo CLLI must be datafilled in table CLLI.
- Table OFRT must contain an office route to point to entry DTBURST in table TONES.
- Table TMTCNTL.LNT must contain an entry for TDBR.
- Table TONES must be datafilled to provide the one second dial tone burst.

For table CLLI, the recommended datafill is

```
DTBURST <adnum> <trkgrpsiz> DIAL_TONE_BURST
```

For table OFRT, the recommended datafill is

```
<number> S D DTBURST S D LKOUT $
```

For table TMTCNTL.LNT, the recommended datafill is

```
TDBR N T OFRT <number>
```

For table TONES, the recommended datafill is

```
DTBURST 0 100 1000000000000000 DIAL_TONE 7 10
```

TDND

Toll denied (21)

Local/Toll

This is the treatment that a line or trunk is routed to if one of the following conditions are encountered:

- a POTS or IBN line with the toll denied option (option TDN assigned in table LENLINES) originates a dial direct call that is not intercepted by class of service screening
- a coin line with toll denied option (option TDN assigned in table LENLINES) originates an operator assisted (OA) call that is not intercepted by class of service screening (where the switch has AMR5 signaling and a line other than coin, with toll denied option, originates a zero plus (0+) or zero minus (0-) call and field ZEROMPOS in table LINEATTR is other than AMR5)
- incoming or two-way CAMA/AMR5 (trunk group type SC) with AMR5 signaling format, if the category code requires toll denied treatment
- the category code to originating type toll denied is specified in table AMRCAT
- a POTS or IBN line routed to this treatment during toll call other than 1 555; 1 NPA555; or 1 800, and IBN line has toll denied restriction specified with direct outward dial access code in table IBNXLA

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

TESS

Terminating service suspension (28)

TMTCNTL.TREAT (continued)

Local, Local/Toll
This treatment is used if an incoming operator (trunk group type OI) verification call is made to a busy line with suspended service option (SUS) assigned in table LENLINES or table IBNLINES.

A call is made from a line or trunk to a line that has the option SUS assigned in table LENLINES or IBNLINES.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

ISDN
This treatment occurs if incoming calls are barred.

TINV

Temporarily invalid authorization code (54)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

Tandem
Status of authorization code is temporarily invalid.

TOVD

Toll overload (37)

Local, Local/Toll
This treatment is used if the calling line is denied access to toll network due to activation of Toll Network Protection feature.

Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

TRBL

Trouble intercept (30)

Local, Local/Toll
A call is routed to an incoming operator (trunk group type OI) verification call to busy line which has the plug up option (PLP) assigned in table LENLINES or IBNLINES.

A call is routed if a test desk (trunk group type TD) position tries to post a line using directory number (as opposed to LEN) dialing and the line has plug up (PLP) option assigned in table LENLINES or IBNLINES.

A call is routed to TRBL if a line or trunk calls a line that has option plug up (PLP) assigned in table LENLINES or IBNLINES.

ISDN

This treatment is used for calls to DNs that are in a manually set trouble busy state.

Progress message contains cause 27:

```
Destination out of order
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

TRGB

Trigger block

TRRF

Terminating revertive action for frequency ringing (41)

Local, Local/Toll

This treatment is required for local or combined local/toll switching units that have multiparty lines with frequency ringing.

This is the treatment that a called party is routed to if, upon going off-hook, both the calling and called parties share the same multiparty line provisioned with frequency ringing.

Toll, Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

UCCN

Unpaid credit card number (144)

Tandem

This treatment is used in an international DMS-250 switch with Credit Card Calling feature (with or without remote database) if a credit card number is marked as UNPAID in table CCTAB.

The call is taken down once this treatment is applied.

TMTCNTL.TREAT (continued)

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

UNCA

Unauthorized CAMA call (13)

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

UNDN

Unassigned directory number (17)

Local/Toll
This treatment is used if, for the digits dialed, the operating company has specified (in table DNROUTE), that treatment UNDN is to be applied.

Gateway
Call incoming on private line, R1 signaling trunk, or international 101 test line. Call outgoing on N6 signaling trunk.

```
During call connection, terminating exchange determines that
national number received has ceased to be used, and called
subscriber must be reached by another number
```

ISDN
Number is unassigned (unallocated).

Progress message contains network specific cause 1:

```
Vacant code
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

Tandem
This treatment is redundant; set it to overflow or to a similar tone.

UNDT

Undefined treatment (0)

Local/Toll
This is the default value for entries in class of service screening and prefix treatment tables if treatment is not required.

The standard datafill for this treatment should be T120.

Gateway, Tandem

This treatment is redundant; set it to overflow or to a similar tone.

UNIN

Unauthorized INWATS call (22)

Local/Toll

This treatment is used in a toll or combined local/toll switch for the following types of calls:

- INWATS originating call if a 800 Nx2 number is dialed from outside the state and NX2 codes are reserved for intrastate calls
- INWATS originating call if an 800 NNx-xxxx number is dialed from within the state
- INWATS terminating call
  - — if the call originated from a band that is farther away than the terminator has paid for to an INWATS line if the called number is not a valid INWATS number (800), the call is not direct dialed, or
  - — if the call originates in the local free calling area and is therefore not billable

Local/Toll AT or EAEO

This treatment is used in an access tandem (AT) or equal access end office (EAEO) switch in service switching point (SSP) calls such as E800, 800+, and PVN, if there is a CCS7 application failure such as an invalid carrier identification for 800 calls.

Tandem

In offices with the Service Access Code (SAC) Network Management and Code Controls feature, treatment UNIN is provided if a call reaches the SACNWM selector in table HNPACONT without first having been declared a SAC call.

Gateway

This treatment is redundant; set it to overflow or to a similar tone.

UNMC

User Not Member of Closed User Group (CUG)

This treatment is used (set) by the Closed User Group service to indicate that an incoming ISUP call must be released with a cause value of #87 (User Not Member of CUG). This treatment is applied when, for example, an incoming

TMTCNTL.TREAT (continued)

call with "CUG Without Outgoing Access" attempts to access a called user which is not subscribed to the CUG service.

UNOW

Unauthorized OUTWATS call (20)

Local, Local/Toll
This is the treatment in a local or combined local/toll switch to which an OUTWATS line is routed if dialing an out-of-band code.

For information on assigning bands to codes, see table OWTZONES.

For information on assigning bands to OUTWATS lines, see table LENFEAT.

Local/Toll, Gateway, Tandem
This treatment is redundant; set it to overflow or to a similar tone.

UNPM

Unprogrammed mobile

UPAB

Universal public access blocked (135)

Tandem
This treatment is used if call origination by universal public address class (UPAC) phones is disallowed.

Local/Toll, Gateway, ISDN
This treatment is redundant; set it to overflow or to a similar tone.

VACS

Vacant speed number (65)

Tandem
This treatment is used if a subscriber dials a number that is a public speed form, but the speed number is not in the database.

Local/Toll, Gateway
This treatment is redundant; set it to overflow or to a similar tone.

VACT

Vacant code treatment (6)

Local/Toll

This treatment is used if one of the following conditions is encountered:

- A line dials a toll terminating center code (code type TTC in table HNPACODE); operator code (code type OPC3, OPC4 or OPC5 in table HNPACODE); a terminating INWATS number (1XB-xxxx), a tandem INWATS number (0XB-NNx-xxxx); an NPA NPA code; or a number where the entry for the number in the foreign NPA code table (FNPA) specifies unauthorized CAMA.
- a 0 DA call including 0 411; 0 555; 0 NPA555; and 0 800. These calls are toll denied by setting the office parameter BLOCK_0_INF_INW_CALLS in table OFCVAR to Y (yes)
- An unassigned code in the country code table is dialed.
- No translation system is specified in the standard pretranslator subtable for digit or digits that have preroute selectors N, V, Z, R or P. This generates a software error message.
- There is an originating INWATS call, and no data is specified in table INWORICN for the INWATS number dialed.
- There is an originating INWATS call, if the originating screening office is also the terminating screening office, but no terminating service office (TSO) code has been specified in the INWATS originating control table for the NXX code dialed.
- There is a terminating INWATS call, if no data has been specified in the INWATS terminating control table for the incoming digits.
- A station ringer call and the last four digits do not match those of the calling line, and the call is defined as no prefix local.
- Blue box call cutoff occurs.
- A line-to-testline or operator-to-testline call occurs.
- There is failure to dial single party direct dial (SPDD) or single circuit.
- There is a failure or not enough digits on speed calling or call forwarding updates.
- There is a three-way call attempt to automatic number announcement, outgoing service desk, or revertive call.

Gateway

Call incoming on R1 signaling trunk.

TMTCNTL.TREAT (continued)

During call digit collection, call failure occurs because of the following:

- no start dial
- integrity failure
- mutilated digit

The last digits received on MF trunk and digit stream contains a valid KP signal but the ST digit is one of the following:

- non-existent
- a second KP
- invalid

Call incoming on private line, R1 signaling trunk, or international 101 test line. Call outgoing on N6 signaling trunk.

```
Call has transmitted national number to terminating exchange,
and terminating exchange has determined that transmitted
national number is vacant or spare
```

Call incoming on private line, R1 signaling trunk, or international 101 test line.

During call screening, call failure occurs because of the following:

- call uses table DESTCTL and table not datafilled
- result from table DCACCTL is D

Call incoming on private line, R1 signaling trunk, or international 101 test line.

During call translation, call failure occurs because of the following:

- overseas call on trunk group that has NCTR specified against field CCTRNSL
- country code table specified on trunk group not datafilled
- terminating call to North America and table OVNTRNSL not datafilled
- subscriber dialed terminating call to North America with D or E digit equal to 0 or 1
- subscriber dialed terminating call to North America with digits NPA-555-xxxx
- number of digits received greater than maximum number specified in tables MMAX, INPRTRNS, or OVNTRNSL

Tandem

This is the treatment to which a call is routed if an unassigned NPA code, office code, or country code is dialed, or incoming exclusion specifies that a call is to be blocked because a subscriber dialed a number in the local calling area.

ISDN

Number is unassigned (unallocated).

Progress message contains network specific cause 1:

```
Vacant code
```

and progress indicator 8:

```
In-band information or appropriate pattern not available
```

VCCT

Vacant country code treatment (95)

Tandem

This is the treatment to which a call is routed if call processing returns from translating an IDDD call as designated by the pretranslator (prefix digits 011 or 01), and there was no datafill for the network for country code dialing. This DMS-250 treatment applies to universal translations as well as normal international translations.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

VPFL

Virtual private network call failure (155)

Local, Local/Toll, IBN

This treatment is used if a subscriber attempts a virtual private network (VPN) call, but does not subscribe to the service. Operational measurements and logs are kept to compile statistics on call attempts.

Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

VPFX

Vacant prefix code (138)

TMTCNTL.TREAT (continued)

Tandem

This treatment is used in an international DMS-250 switch with Call Back International Subscriber Dialed (ISD) feature, if the XY (prefix) or ZZ (special service) digits are not datafilled correctly.

This treatment is used in an international DMS-250 switch with Credit Card Calling feature (with or without remote database), if the 00XY digits or the service code digits are not datafilled in translator.

The call is taken down once this treatment is applied.

Local/Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

WUCR

Wake-up call request (189)

Local, Local/Toll, IBN, ISDN

This treatment is used after a third attempt is made at a subscribers wakeup call. After an unsuccessful third attempt, the call is routed to this treatment and the event recorded in a log and also recorded as an operational measurement (OM).

Toll, Gateway

This treatment is redundant; set it to overflow or to a similar tone.

Datafill

The following tables lists datafill for subtable TMTCNTL.TREAT.

A description of field names for subtable TMTCNTL.TREAT if the treatment datafill consists of a CLLI from one of the tones in table TONES is shown in the table that follows.

Field descriptions (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
TREATMT		alphanumeric (1 to 4 characters)	Treatment. Enter the treatment name.
LOG		Y or N	Log. Enter Y (yes) for a trunk or line message 138 printout each time translation is routed to a treatment. Otherwise, enter N (no).
FSTRTE		see subfields	First route. This field consists of subfields FSTRTSEL and CLLI.

Field descriptions (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	FSTRTSEL	S	First route selector. Enter the first route selector S.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. Enter the CLLI of the tone to which translation routes.

A description of field names for subtables TMTCNTL.TREAT if the treatment datafill points to a route list in table OFRT as shown in the table that follows.

Note: TABID entries for IBNTRE, IBNRT1, IBNRT2, IBNRT3, IBNRT4, TOPSAMA, RRTE, TTL4, and TOPS are not valid for table TMTCNTL, subtable TREAT.

Field descriptions

Field	Subfield	Entry	Explanation and action
TREATMT		alphanumeric (1 to 4 characters)	Treatment. Enter the treatment name.
LOG		Y or N	Log. Enter Y (yes) for a trunk or line message 138 printout each time translation is routed to a treatment. Otherwise, enter N (no).
FSTRTE		see subfields	First route. This field consists of subfields FSTRTSEL, TABID, and KEY.
	FSTRTSEL	T	First route selector. Enter the first route selector T.
	TABID	OFRT, OFR2, OFR3, or OFR4	Table name. Enter the office route table name.
	KEY	Table name. Enter the office route table name.	Key. Enter the index into the office route table which defines the route list for the treatment. The entry zero (0) cannot be datafilled by the operating company.

Datafill example

The following example shows sample datafill for table TMTCNTL.TREAT.

TMTCNTL.TREAT (continued)

MAP display example for table TMTCNTL.TREAT

```
TREATMT  LOG            FSTRTE
_____________________________________________________________
UNDT     N    S         T120
RMIA     Y    T         OFRT 910
RMID     Y    T         OFRT 911
```

Table history

NA013

Added treatment CRTC to the range of values for the TREATMT field.

EUR010

Added treatment RDIR to the range of values for the TREATMT field. Activity AU3275.

NA010

Added treatments CMGA and CMGD to the range of values for the TREATMT field.

NA009

Added PODN treatment for LNP.

NA008

Added treatments RMIA and RMID.

EUR006

Added treatments FACJ and UNMC as part of ETSI ISDN world trade support. Added reference to operational measurements group, TRMTCU3.

NA007

Added treatments LNPM and QRNF for Local Number Portability (LNP).

Added treatments ICSD and ICSA.

TL006

Added treatments MSOA, ATHF, OTAR, UNPM, PNUN and ISAX.

NA005

Added treatment RTEE.

Added Exchange Routing Error (25) to the causemap table.

NA004

Treatments LDAA and LDAD were added.

CSP02

Added treatments AIND and AINF. A sentence was added to the explanation of treatment DNTR about the DN of an ACD INCALLS key.

TMTMAP

Table name

Treatment to Cause Map Table

Functional description

Table TMTMAP provides mapping of DMS-100 treatments to call failure messages supported by certain Signaling System 7 protocols. Datafill in the table determines whether the treatment is reported to the preceding exchange (and if so, by what message), or whether the DMS switch applies the treatment locally, in which case the usual datafill in table TMTCNTL, subtable TREAT, determines the outcome.

Table TMTMAP also provides mapping of DMS-100 treatments for remote failure call scenarios between TS14 or ETSI PRI and AISUP, ANSI-ISUP, and I-ISUP calls.

There are as many variations in mapping of treatments to causes as there are protocols. However, for any protocol, there is only one fixed cause-to-treatment mapping that can occur in the DMS-100 switch.

Table TMTMAP changes the treatment-to-cause mapping, but before NA14 the cause-to-treatment mapping was fixed in DMS software. In NA14, the FLXCMAP table allows operating company personnel to assign a treatment to a cause.

The key to table TMTMAP is the signaling system protocol variant, the treatment code, and bearer capability. The protocol variant is an attribute of the incoming trunk and is derived from datafill in table TRKSGRP.

TS14 or ETSI PRI and AISUP, ANSI-ISUP, and I-ISUP calls do not datafill protocol variant PRI in table TRKSGRP.

Each time a new treatment code is added to subtable TMTCNTL.TREAT, tuples for the new treatment can be datafilled in table TMTMAP. For example, if a new treatment called FRED is created in an office with the software packages having ISUP, BTUP, TUPPLUS, DPNSS, and IBNISUP defined in them, the following key fields can be datafilled in table TMTMAP:

- ISUP FRED ALLBC
- BTUP FRED ALLBC
- TUPPLUS FRED ALLBC
- DPNSS FRED ALLBC
- IBNISUP FRED ALLBC

If an event is encountered that requires the application of a treatment for which a match in table TMTMAP cannot be found, CCS7 call processing software provides a default TMTMAPVAR for the unmatched treatment, which goes to Reorder (treatment 25). The default value is:

```
Q764 RODR ALLBC ISUP NOLOCAL NORMUNSP LOCLNET N
```

Cause-to-treatment reference

If an originating or interworking office receives a CAUSE value in an ISUP release with a CAUSE message, the receiving office accesses table CAUSEMAP to map the CAUSE value back to a treatment and then applies the treatment.

Note: Unlike the contents of table TMTMAP, table CAUSEMAP is hard-coded and cannot be viewed or modified using the DMS table editor.

The following cross-reference tables have been completed to allow operating companies to reference treatments to causes.

The following conditions apply to the table:

- The cause descriptor is an internal DMS-100 long-form description for the cause indicator.
- The cause number is the American National Standards Institute (ANSI) cause value, a telecommunications industry standard number.
- The cause abbreviation is the value that can be viewed in table TMTMAP under field CAUSE, which is datafilled by the operating company.
- The treatment is a value that is datafilled in table TMTCNTL, subtable TREAT, which is datafilled in field TMT by the operating company.
- The treatment number is a value that is assigned to a TREATMENT and is referenced by number by operating company personnel.

ISUP cause to DMS-100 treatment cross-reference (from table CAUSEMAP) (Sheet 1 of 4)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
ADDRESS_INCOMPLETE	28	ADDINCOM	PDIL	2
BC_NOT_AUTHORIZED	57	BCNAUTH	CNAC	113
BC_NOT_IMPLEMENTED	65	BCNIMPL	BCNI	161
Note: Represents a CAUSE with a default treatment.				

TMTMAP (continued)

ISUP cause to DMS-100 treatment cross-reference (from table CAUSEMAP) (Sheet 2 of 4)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
BC_NOT_PRESENTLY_AVAIL	58	BCNAVAIL	CNAC	113
CALL_REJECTED	21	CALLREJ	CREJ	134
CHNLTYPE_NOT_IMPL	66	CHNLNIMP	CONP	98
DEST_OUT_OF_SERVICE	27	DOOSRVC	TRBL	30
EXCHANGE_ROUTING_ERROR	25	XLAFAIL	RTEE	dynamic 217-255
FACILITY_NOT_IMPL	69	FACNIMP	FCNI	167
FACILITY_REJECTED	29	FACREJ	RODR	25
IC_CALLS_BARR_CUG	55	INCBCUG (see note)	FNAL	68
INCOMPATIBLE_DEST	88	INCOMDST	CNAC	113
INTERWORKING_UNSPEC	127	INTWUNSP (see note)	RODR	25
INVALID_CALL_REF_VALUE	81	INVCRVAL (see note)	RODR	25
INVALID_MESSAGE	95	INVMSG (see note)	INVM	169
			RODR	25
INV_PARM_CONTENTS	100	INVPARMC (see note)	SSTO	23
MISDIALED_TRK_PREFIX	5	MISDTRPR (see note)	RODR	25
MISROUTED_CALL_TO_PORTED_NUMBER	26	MISRLNP	LNPM	dynamic 217-255
MSGTYPE_NOT_IMPL	97	MSGNIMPL (see note)	SSTO	23
NORMAL_CLEARING	16	NORMCLR	RODR	25
NO_ANS_FROM_USER	19	NOANSWER	ANTO	66
			RODR	25
NO_PREEMPT_CIRCUIT_AVAIL	46	NPMPTCKT	BLPR	47
CI_NO_CIRCUIT_AVAILABLE	34	NOCIRCAV	NOSC	1

Note: Represents a CAUSE with a default treatment.

ISUP cause to DMS-100 treatment cross-reference (from table CAUSEMAP) (Sheet 3 of 4)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
NO_USER_RESPONDING	18	NOUSRESP	NTRS	133
NR_TO_DESTINATION	3	NRTODEST	VACT	6
NR_TO_TRANSIT_NTWK	2	NRTOTN	CACE	79
NTWK_OUT_OF_ORDER	38	NTWKOOO	SYFL	14
NORMAL_UNSPECIFIED	31	NORMUNSP	DISC	45
NUMBER_CHANGED	22	NUMCHANG	CNAC	113
OUTGOING_CALLS_BARRED	52	OTGCBARD	CNAD	137
PARAMETER_NOT_IMPL	99	PARMNIMP	IIEC	180
PARM_NOT_IMPL_PASSED_ON	103	PNIPASS	SSTO	23
PREEMPTION	45	PREEMPT	PMPT	51
PROTOCOL_ERROR	111	PROTERR	PERR	168
			SSTO	23
REQ_CHANNEL_UNAVAIL	44	CHANUNAV	NCRT	24
RESOURCE_UNAVIALABLE	47	RESUNAV	NOSR	93
RESTRICTED_BC_INFO	70	RESBCINF	CNAC	113
SEND_SPECIAL_INFO_TONE	4	SSINFTN	RODR	25
SERV_OPT_NOT_AVAIL	63	SONAVAIL	NACK	78
SERV_OPT_NOT_IMPL	79	SONIMPL	FNAL	68
SWITCHING_EQUIP_CONG	42	SWEQCONG	FECG	35
TEMPORARY_FAILURE	41	TEMPFAIL	CHNF	160
UNALLOCATED_NUMBER	1	UNALLOC	BLDN	18
			UNDN	17
USER_BUSY	17	USERBUSY	BUSY	19

Note: Represents a CAUSE with a default treatment.

TMTMAP (continued)

ISUP cause to DMS-100 treatment cross-reference (from table CAUSEMAP) (Sheet 4 of 4)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
USER_INFO_DISCARDED	43	UNIFDISC	RODR	25
USER_NOT_MEMBER_CUG	87	USERNCUG	UNMC	dynamic
Note: Represents a CAUSE with a default treatment.				

Note 1: For causes 1, 17, and 27, when the calling party category in the ISUP IAM is equal to "test call", the only valid cause values that can be provided are "User Busy", "Destination out of Service", or "Un-allocated Number". The terminating party is assumed to be test equipment and if the terminating party is neither busy nor out of service (for example ringing time-out), a cause value of "Un-allocated Number" is returned.

Note 2: For cause 19, when the TMTPROC is set to LOCAL and the treatment is hit after the ACM message is sent, for example, ringing time-out of the called party, a PAM or a CPG (depending on XPM load) message with the properly coded cause value is sent to the originating switch. Otherwise, the cause value is coded in the Optional Backward Call Indicator of the ACM. This behavior also applies to ISLOCAL, INTLOCAL, ISDNLCL, and ISDNRTE TMTPROCs if the conditions for handling them locally are met (see definitions of these TMTPROCs for more information).

The following table lists the conditions that apply to each cause class treatment defined in table CAUSEMAP. In addition:

- The cause classes are taken from ANSI standards for ISUP causes.
- A generic treatment is assigned to a cause class in order to fit the class functionality. If new causes in a class are developed, the default treatment for the cause is used until a more appropriate treatment for a cause is developed.

ISUP cause indicator class default treatment table (Sheet 1 of 2)

Cause class number	Cause indicator range description	Cause class range	Class default treatment
1	Normal event	0 to 31	RODR
2	Resource unavailable	32 to 47	NOSR

ISUP cause indicator class default treatment table (Sheet 2 of 2)

Cause class number	Cause indicator range description	Cause class range	Class default treatment
3	Service or option not available	48 to 63	FNAL
4	Service or option not implemented	64 to 79	NACK
5	Invalid message	80 to 95	RODR
6	Protocol error	96 to 111	SSTO
7	Interworking	112 to 127	RODR

The following table lists cause values mapped for ISUP to PRI and PRI to ISUP interworkings for the APC market.

PRI cause to DMS-100 treatment cross-reference (Sheet 1 of 3)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
ADDRESS_INCOMPLETE	28	ADDINCOM	PDIL	2
BC_NOT_AUTHORIZED	57	BCNAUTH	SCUN	109
BC_NOT_IMPLEMENTED	65	BCNIMPL	BCNI	161
BC_NOT_PRESENTLY_AVAIL	58	BCNAVAIL	NOBC	181
CALL_REJECTED	21	CALLREJ	CREJ	134
REQUESTED_CIRCUIT_NOT _AVAILABLE	44	CHANUNAV	GNCT	58
CHNLTYPE_NOT_IMPL	66	CHNLNIMP	SONI	170
CHANNEL_UNACCEPTABLE	6	CHUNACC	CHNF	160
CALL_AWARDED_AND_BEING_ DELIVERED_IN_AN_ESTABLISH ED_STATE	7	CALLAWRD	CREJ	134
DEST_OUT_OF_SERVICE	27	DOOSRVC	TESS	28
FACILITY_NOT_IMPL	69	FACNIMP	CREJ	134
FACILITY_REJECTED	29	FACREJ (see note)	NACK	78

Note: Represents a CAUSE with a default treatment.

TMTMAP (continued)

PRI cause to DMS-100 treatment cross-reference (Sheet 2 of 3)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
IDENTIFIED_CHANNEL_DOES_NOT EXIST	82	ICHNEXT	CHNF	160
INCOMPATIBLE_DEST	88	INCOMDST	CNAC	113
INTERWORKING_UNSPEC	127	INTWUNSP (see note)	CREJ	134
INVALID_CALL_REF_VALUE	81	INVCRVAL (see note)	PERR	168
INVALID_MESSAGE	95	INVMSG (see note)	SONI	170
INV_PARM_CONTENTS	100	INVPARMC (see note)	SONI	170
INVALID_TRANSIT_NETWORK_SELECTION	91	INVTNSEL	CREJ	134
MSGTYPE_NOT_IMPL	97	MSGNIMPL (see note)	SONI	170
MSGTYPE_NOT_COMPATIBLE	101	MSGNCWCS	SONI	170
MSGTYPE_NOT_COMPATIBLE_WITH_CALL_STATE	98	MSGNCWSMT	PERR	168
NORMAL_CLEARING	16	NORMCLR	CREJ	134
CI_NO_CIRCUIT_AVAILABLE	34	NOCIRCAV	GNCT	58
NO_USER_RESPONDING	18	NOUSRESP	NTRS	133
NR_TO_DESTINATION	3	NRTODEST	VACT	6
NR_TO_TRANSIT_NTWK	2	NRTOTN	CACE	79
NTWK_OUT_OF_ORDER	38	NTWKOOO	FECG	35
USER_ALERTING_NO_ANSWER	19	NOANSWER	CREJ	134
NORMAL_UNSPECIFIED	31	NORMUNSP	CREJ	134
NON-SELECTED_USER_CLEARING	26	NSUSERESP	CREJ	134
NUMBER_CHANGED	22	NUMCHANG	CHAN	117
PARAMETER_NOT_IMPL	99	PARMNIMP	IIEC	180

Note: Represents a CAUSE with a default treatment.

PRI cause to DMS-100 treatment cross-reference (Sheet 3 of 3)

Cause descriptor	Number	Cause abbreviation	Treatment	Number
PROTOCOL_ERROR	111	PROTERR	PERR	168
RESPONSE_TO_ENQUIRY	30	RSPTENQ	RODR	25
RESOURCE_UNAVAILABLE	47	RESUNAV	NOSR	93
RESTRICTED_BC_INFO	70	RESBCINF	SCUN	109
PARAMETER_NOT_PRESENT	96	REQINFNP	SONI	170
REQUESTED_FACILITY_NOT_SUBSCRIBED	50	RFACNSCRB	FNAL	68
RECOVERY_ON_TIMER	102	RONTMREXT	RODR	25
QUALITY_OF_SERVICE_UNAVAILABLE	49	QSVCUNAV	CREJ	134
SERV_OPT_NOT_AVAIL	63	SONAVAIL	SCUN	109
SERV_OPT_NOT_IMPL	79	SONIMPL	SONI	170
SWITCHING_EQUIP_CONG	42	SWEQCONG	NBLH	9
TEMPORARY_FAILURE	41	TEMPFAIL	SYFL	14
UNALLOCATED_NUMBER	1	UNALLOC	BLDN	18
USER_BUSY	17	USERBUSY	BUSY	19
USER_INFO_DISCARDED	43	UNIFDISC	RODR	25

Note: Represents a CAUSE with a default treatment.

Datafill sequence and implications

The following tables must be datafilled before table TMTMAP:

- BCDEF
- TMTCNTL
- DNROUTE

Although the datafill in tables TMTMAP and TMTCNTL is closely related in the operation of this feature, there is no dependency that limits the datafill sequence. Default data is automatically added when the software load is prepared for each protocol variant in the switch. Because protocol variants

TMTMAP (continued)

depend on the software package, it is unlikely that all protocol variants will appear in one switch.

Table size

up to 3540 tuples

The total number of tuples is 0 to 256 times the number of protocols in the switching unit tuples. The current number of protocols available is 15. The absolute maximum number of tuples is 3584 (256×15).

When DPNSS is included in the load, the table is increased by a number of tuples equal to the number of treatment codes defined in the DMS-100 switch.

When BTUP is included in the load, the table minimum is 0, and the table maximum is 32767 tuples. Table size, set at entry time, depends on software; the number of tuples depends on the number of protocols added to table TMTMAP and the number of DMS-100 treatments.

No office parameters influence the table size or control store use.

Each tuple in table TMTMAP requires three bytes of data store memory. Memory is dynamically allocated.

Datafill

The following table lists datafill for table TMTMAP.

Field descriptions (Sheet 1 of 5)

Field	Subfield	Entry	Explanation and action
TMTMPKEY		see subfields	*Key to table TMTMAP* This field consists of subfields PROTOCOL, TMT, and BC_CT.
	PROTOCOL		*Protocol* Enter one of the following values:
		AISUP	Enter AISUP if this tuple applies to group type IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(ISUP).
		ATUP	Enter ATUP if this tuple applies to gateway type GW trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(ATUP).

Field descriptions (Sheet 2 of 5)

Field	Subfield	Entry	Explanation and action
		BTUP	Enter BTUP if this tuple applies to trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(BTUP).
		CCITT7	Enter CCITT7 if this tuple applies to IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(CCITT7).
		DPNSS	Enter DPNSS if this tuple applies to trunks that are datafilled in table TRKSGRP with SIGDATA(DPNSS).
		IBNISUP	Enter IBNISUP if this tuple applies to IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(IBNISUP).
		ISUP	Enter ISUP if this tuple applies to IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(ISUP).
		JPNISUP	Enter JPNISUP if this tuple applies to type IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(JPNISUP).
		NCCI7	Enter NCCI7 if this tuple applies to type IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(NCCI7).
		Q764	Enter Q764 if this tuple applies to type IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(Q764).
		Q767	Enter Q767 if this tuple applies to type IBN7 trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(Q767).
		R2	Enter R2 if this tuple applies to gateway (GW) type trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(R2).

TMTMAP (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield	Entry	Explanation and action
		SSUTR2	Enter SSUTR2 if this tuple applies to the French TUP protocol.
		TUP	Enter TUP if this tuple applies to type GW trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(TUP).
		TUPE	Enter TUPE if this tuple applies to type GW trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(TUPE).
		TUPPLUS	Enter TUPPLUS if this tuple applies to type GW trunks that are datafilled in table TRKSGRP with SIGDATA(C7UP) and PROTOCOL(TUPPLUS).
		PRI	Enter PRI if this tuple applies to ISUP to PRI and PRI to ISUP interworkings. ***Note:*** In the UK market, the protocols available on the DMS-100 switch may be limited, depending on the switch load.
	TMT	alphanumeric (1 to 4 characters)	*Treatment code* Enter one of the treatment codes defined in table TMTCNTL.TREAT, field TREATMT. This is the treatment that is applied to the specific ISUP cause value indicated in field CAUSE.

Field descriptions (Sheet 4 of 5)

Field	Subfield	Entry	Explanation and action
	BC_CT	ALLBC, SPEECH, VOICE, DATA, 64KDATA, 56KDATA, 3_1KHZ, or 7_KHZ	*Bearer capability call type* Enter the specific bearer capability call type that is mapped differently from other bearer capability call types. The default value is ALLBC, meaning that all bearer capability call types are mapped to the same treatment. Bearer capability types must be datafilled in table BCDEF before they can be datafilled in subfield BC_CT. ***Note:*** Changing the value of this subfield on BTUP or DPNSS trunks may not have any effect.
TMTMPVAR		see subfield	*Treatment MAP* This field consists of selector field FORMAT.
	FORMAT	alphanumeric	*Protocol format* Enter one of the following values:
		ATUP	ATUP for PROTOCOL(ATUP)
		BTUP	BTUP for PROTOCOL(BTUP)
		TUPPLUS	TUPPLUS for PROTOCOL(TUPPLUS)
		R2	R2 for PROTOCOL(R2)
		IBNISUP	IBNISUP for PROTOCOL(IBNISUP)
		TUPE	TUPE for PROTOCOL(TUPE)
		DPNSS	DPNSS for PROTOCOL(DPNSS)
		ISUP	PROTOCOL(AISUP), PROTOCOL(CCITT7), PROTOCOL(ISUP), PROTOCOL(JPNISUP), PROTOCOL(NCCI7), PROTOCOL(Q764), or PROTOCOL(Q767) ***Note:*** In the UK market, the protocol formats available on the DMS-100 switch may be limited, depending on the switch load.

TMTMAP (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield	Entry	Explanation and action
		PRI	PRI for PROTOCOL(PRI)
		SSUTR2	SSUTR2 for the French TUP protocol

FORMAT = ATUP

If the entry in field FORMAT is ATUP, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*ATUP treatment procedure format* This field consists of selector field TMTPROC and refinements. This field determines what action an ATUP gateway trunk takes upon encountering a treatment.
	TMTPROC		*ATUP treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave remaining refinements blank if the treatment is applied locally, according to datafill in table TMTCNTL, subtable TREAT. An in-band tone or announcement is generated, depending on the treatment code in table TMTCNTL, subtable TREAT.
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG and LOG if the user notification is given from a switching office closer to the calling party.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	MSG	ADI, CFL, CGC, FRL, ISC, LOS, NNC, RIN, SCC, SEC, SLI, SSB, SST, or UNN	*ATUP failure message* This field specifies the ATUP failure message sent.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated, depending on the datafill in table TMTCNTL, subtable TREAT. Otherwise enter N (no). The treatment route list in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. For TMTPROC(LOCAL), leave this field blank.

FORMAT = BTUP

If the entry in field FORMAT is BTUP, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*BTUP treatment procedure format* This field consists of selector field TMTPROC and refinements. This field determines what action a BTUP gateway trunk takes upon encountering a treatment.
	TMTPROC		*BTUP treatment procedure selector* Enter one of the following values:

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
		LOCAL	Enter LOCAL and leave remaining refinements blank if the treatment is applied locally, according to datafill in table TMTCNTL, subtable TREAT. An in-band tone or announcement is generated, depending on the treatment code in table TMTCNTL, subtable TREAT.
		NOLOCAL	Enter NOLOCAL and complete refinements BTUPMSG, AFTERACM, and LOG if the user notification is given from a switching office closer to the calling party. This is achieved by sending in the backward direction (toward the originating exchange) a BTUP message that advises the exchange of a call and indicates the reason, so that the originating exchange can take appropriate action. The sending of this message initiates a sequence that releases the incoming trunk, thereby reducing the holding time for calls that are routed to treatment.
	BTUPMSG	see subfields	*BTUP pre-ACM failure message* This field consists of selector field PREACM and PREACM value-dependent refinement. This field specifies the failure message that is sent if the treatment occurs prior to the generation of a BTUP address complete message (ACM). If treatment occurs after sending an ACM, the AFTERACM field is consulted instead.
	PREACM		*BTUP pre-ACM fail message selector* Enter the BTUP message sent, if the treatment occurs prior to the generation of a BTUP address complete message (ACM) by entering one of the following values:
		CNA	Connection not admitted. Also complete refinement CNACAUSE.
		CONG	Congestion. Leave the refinement field blank.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
		REL	Release. Also complete refinement RELCAUSE.
		SEN	Subscriber engaged. Leave the refinement field blank.
		SOOO	Subscriber out of order. Leave the refinement field blank.
		STR	Subscriber transferred. Leave the refinement field blank.
		TCON	Terminal congestion. Leave the refinement field blank.
	CNACAUSE	0 to 255	*BTUP CNA cause* Enter the reason parameter, in the form of an integer, that appears in the BTUP connection not admitted (CNA) message. Aside from checking the range 0 to 255, the DMS switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).
	RELCAUSE	0 to 255	*BTUP release cause* Enter the reason parameter, in the form of an integer, that appears within the BTUP release (REL) message. Aside from checking the range 0 to 255, the DMS switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).
	AFTERACM	see subfield	*BTUP after-ACM failure message* This field consists of selector REL and refinement RELCAUSE. The field specifies the BTUP failure message sent if the treatment occurs after the DMS switch generates a BTUP address complete message (ACM).

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield	Entry	Explanation and action
	REL	REL	*BTUP after-ACM failure message selector* Enter the type of BTUP message sent if the treatment occurs after the DMS switch has generated a BTUP address complete message (ACM) by entering REL. The only current type is REL.
	RELCAUSE	0 to 255	*BTUP after-ACM release cause* Enter the reason parameter, in the form of an integer, that appears in the REL message. Aside from checking the range 0 to 255, the DMS switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log report is generated if field LOG in table TMTCNTL, subtable TREAT is set to Y for the treatment code. The route list field FSTRTE of table TMTCNTL, subtable TREAT is not used. Enter N (no) if a log report is not required. For TMTPROC(LOCAL), leave this field blank.

FORMAT = DPNSS

If the entry in field FORMAT is DPNSS, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfields	*Treatment procedure* This field consists of selector field TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave refinements CAUSE and LOG blank if the treatment is always applied locally.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		NOLOCAL	Enter NOLOCAL and datafill refinements CAUSE and LOG if the treatment is mapped into backward failure information.
	CAUSE	AB, ACK, AI, BY, CHOS, CNR, CON, CT, FNR, ICB, INC, MISRLNP, MNU, NT, NU, PFR, REJ, ROS, SI, SNU, SOS, SNV, SSI, STU, SU, TRFD, or UNR	*Clearing cause* This field specifies the DPNSS clear request message (CRM) returned. For TMTPROC(LOCAL), leave this field blank.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated if the datafill in table TMTCNTL, subtable TREAT is used. The treatment route list in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. Otherwise, enter N (no). For TMTPROC(LOCAL), leave this field blank.

FORMAT = IBNISUP

If the entry in field FORMAT is IBNISUP, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*Treatment procedure* This field consists of selector field TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		LOCAL	Enter LOCAL and leave refinement MSG and LOG blank if treatment is always applied locally.
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG and LOG if the user notification is given from a switching office closer to the calling party. This is done by sending, in the backwards direction (towards the originating exchange), an IBNISUP message that advises the exchange of a call, and indicates the reason so that the originating exchange can take appropriate action. The sending of this message initiates a sequence that releases the incoming trunk, thereby reducing the holding time for calls that are routed to treatment.
	MSG	ACB, ADI, CFL, CGC, DPN, LOS, MPR, NNC, SEC, SSB, SST, or UNN	*IBNISUP failure message* This field specifies the IBNISUP failure message sent. ***Note:*** A requirement of the IBNISUP protocol is that an EUM message cannot be generated on IBNISUP trunks. Therefore, entry EUM is not allowed in field MSG.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated, depending on the datafill in table TMTCNTL, subtable TREAT. Otherwise enter N (no). The treatment route list in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. For TMTPROC(LOCAL), leave this field blank.

FORMAT = ISUP

If the entry in field FORMAT is ISUP, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	ISUPPROC	see subfield	*ISUP procedure* This field consists of selector subfield TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		INTLOCAL	Enter INTLOCAL (interworking local) and datafill refinements CAUSE and LOG if the treatment is applied locally. The other conditions required for the use of INTLOCAL are: • The ISDNUP indicator bit must be set to NOT_ISUP_ALL_THE_WAY. • The treatment is mapped to a cause and included in a release message if the ISDNUP indicator bit is set to other than NOT_ISUP_ALL_THE_WAY.
		ISDNLCL	Enter ISDNLCL (ISDN local) and datafill refinements CAUSE and LOCATION for the treatment that sends a properly coded ACM (ISUP address complete message) to the originating switch only if: • The originating agent is a basic rate access functional (BRAF) set. • The connection is ISUP_ALL_THE_WAY. • A treatment is applied at the local switch.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		ISDNRTE	Enter ISDNRTE (ISDN remote) and datafill refinements CAUSE and LOCATION for the treatment that sends a properly coded ACM (ISUP address complete message) to the originating switch only if: • The originating agent is a BRAF set. • The connection is ISUP_ALL_THE_WAY. • A treatment is applied at a remote switch over per-trunk signaling (PTS) facilities.
		ISLOCAL	Enter ISLOCAL (ISUP local) and complete refinement fields CAUSE, LOCATION, and LOG if the treatment is applied locally. The other conditions required for the use of ISLOCAL are: • The ISDNUP indicator bit must be set to ISUP_ALL_THE_WAY. • The treatment is mapped to a cause and included in a release message if the ISDNUP indicator bit is set to other than ISUP_ALL_THE_WAY.
		LOCAL	Enter LOCAL and leave refinements CAUSE and LOG blank if the treatment is always applied locally.
		NOLOCAL	Enter NOLOCAL and datafill refinements CAUSE, LOCATION and LOG if the treatment is mapped to a cause and always included in a release message.

ISUP normal event class (0 to 31)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is normal event (0 to 31), datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
	CAUSE		ISUP cause. Enter one of the following values:
		ADDINCOM	Address incomplete This cause indicates that the called party cannot be reached because the number is not in a valid format or is not complete.
		CALLREJ	Call rejected This cause indicates that the equipment sending this cause does not wish to accept this call, although it could have accepted the call because the equipment sending this cause is neither busy or incompatible.
		DOOSRVC	Destination out of service This cause indicates that the called party cannot be reached because the interface to the destination is not functioning correctly. The term *not functioning correctly* indicates that a signaling message could not be delivered to the called party. This could be caused by a physical layer or data link layer failure at the called party, user equipment off-line, or other.
		FACREJ	Customer interface facility rejected This cause indicator is sent on receipt of a facility request message from a signaling link.
		MISDTRPR	Misdialed trunk prefix Not specified for North American networks.
		MISRLNP	LNP misrouted a call to a ported number. This cause indicates that an LNP call to a ported number was misrouted.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
		NOANSWER	No answer from user, user alerting This cause is used if the called party has been alerted but does respond with a connect indication (answer). The ringing time-out value is set using office parameter RNG_TMEOUT_NO_OF_SECS in table OFCENG. The network sends a call clearing message to the calling user.
		NORMCLR	Normal call clearing This cause indicates that the call is being cleared because one of the users involved in the call has requested that the call be cleared. In a normal situation, the source of this cause is not the network.
		NRTODEST	No route to destination This cause indicates that the called party cannot be reached because the network through which the call has been routed does not serve the destination desired. This cause is supported on a network-dependent basis.
		NOUSRESP	No user responding This cause is used if a called party does not respond to a call establishment message with either an alerting or connect indication within the prescribed period of time.
		NORMUNSP	Normal, unspecified This cause is used to report a normal event only if no other cause in the normal class applies.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
		NUMCHANG	Number changed This cause is returned to a calling party if the called number indicated by the calling party is no longer assigned. The new called number can optionally be included in the diagnostic field. If a network does not support this capability, unallocated number must be used.
		NRTOTN	No route to specified transit network This cause indicates that the equipment sending this cause has received a request to route the call through a particular transit network, either because the transit network does not exist or because the particular transit network, while it does exist, does not serve the equipment that is sending the cause. This cause is supported on a network-dependent basis.
		SSINFTN	Send special information tone This cause indicates that the called party cannot be reached for reasons that are of long-term nature and that the special information tone should be returned to the calling party.
		UNALLOC	Unallocated number This cause indicates that the called party cannot be reached, although the number is in a valid format, because it is not currently assigned (unallocated).

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield	Entry	Explanation and action
		USERBUSY	User busy This cause is used if the called party has indicated the inability to accept another call. It is noted that the user equipment is compatible with the call.
		XLAFAIL	This cause occurs when an intermediate switch receives an initial address message (IAM) containing an ISUP hop counter (HC) value, and the HC value has expired. This causes a release (REL) message to be sent back through the network with a cause value set to “Exchange routing error”.

ISUP resource unavailable class (32 to 47)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is resource unavailable (32 to 47), datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter one of the following values:
		CHANUNAV	Requested channel unavailable Not specified.
		NOCIRCAV	No circuit available This cause indicates that there is no appropriate circuit presently available to handle the call.
		NPMPTCKT	Reserved field
		NTWKOOO	Network out of order This cause indicates that the network is not functioning correctly and that the condition is likely to last a relatively long period of time. Immediately re-attempting the call is not likely to be successful.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		PREEMPT	Preemption This cause indicates that the equipment sending this cause has pre-empted the circuit for a new call and the existing call should be cleared.
		RESUNAV	Resource unavailable, unspecified This cause is used to report a resource unavailable event only when no other cause in the resource unavailable class applies.
		SWEQCONG	Switching equipment congestion This cause indicates that the switching equipment generating this cause is experiencing a period of high traffic.
		TEMPFAIL	Temporary failure This cause indicates that the network is not functioning correctly and that the condition is not likely to last a long time. The user can attempt another call almost immediately.
		UINFDISC	User information discarded This cause indicates that the network could not deliver user information to the remote user as requested. The type of information that could not be delivered includes user-to-user information, low layer compatibility, high layer compatibility, or subaddress, as indicated in the diagnostic. The particular type of user information discarded is optionally included in the diagnostic.

TMTMAP (continued)

ISUP service not-available class (48 to 63)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is service not-available (48 to 63), datafill the following refinements.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter one of the following values:
		BCNAUTH	Bearer capability not authorized This cause indicates that the user has requested a bearer capability that is implemented by the equipment that generated this cause but the user is not authorized to use it.
		BCNAVAIL	Bearer capability not presently available This cause indicates that the user has requested a bearer capability that is implemented by the equipment which generated this cause but that is not available at this time.
		INCBCUG	IC_CALLS_BARR_CUG A TR846 ISDN cause.
		OTGCBARD	OUTGOING_CALLS_BARRED Call not allowed. A TR846 ISDN cause.
		SONAVAIL	Service or option not available, unspecified This cause is used to report a service or option not available event only if no other cause in the service or option not available class applies.

ISUP service not-implemented class (64 to 79)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is service not-implemented (64 to 79), datafill the following refinements.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter one of the following values:
		BCNIMPL	Bearer capability not implemented This cause indicates that the equipment sending this cause does not support the bearer capability requested.
		CHNLNIMP	Channel type not implemented Not specified.
		FACNIMP	Facility not implemented This cause indicates that the requested facility is not implemented and therefore cannot be accessed at this time.
	CAUSE	RESBCINF	Restricted bearer capability information Only restricted digital information bearer capability is available. This cause indicates that the calling party has requested an unrestricted version of the requested bearer capability.
		SONIMPL	Service or option not implemented, unspecified This cause is used to report a service or option not-implemented event only if no other cause in the service or option not-implemented class applies.

TMTMAP (continued)

ISUP invalid message class (80 to 95)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is invalid message (80 to 95), datafill the following refinements.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter one of the following values:
		INCOMDST	Incompatible destination This cause indicates that the equipment sending this cause has received a request to establish a call that has low layer compatibility or high layer compatibility attributes (for example, data rate) that cannot be used for this call.
		INVCRVAL	Invalid call reference value This cause indicates that the equipment sending this cause has received a message with a call reference that is not currently in use.
		INVMSG	Invalid message, unspecified This cause is used to report an invalid message event only if no other cause in the invalid message class applies.
		USERNCUG	CDN_USER_NOT_IN_CUG

ISUP protocol error class (96 to 111)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is protocol error (96 to 111), datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter one of the following values:
		INVPARMC	Invalid parameter contents This cause indicates that the equipment sending this cause has received a parameter that it has implemented, but for which one or more of the fields in the parameter are coded in a way that has not been implemented by the equipment sending this cause.
		MSGNIMPL	Message type non-existent or not implemented This cause indicates that the equipment sending this cause has received a message with a message type it does not recognize either because this is a message not defined or defined but not implemented by the equipment sending this cause.
		PARMNIMP	Parameter non-existent or not implemented This cause indicates that the equipment sending this cause has received a message with optional parameters not recognized because the parameter name is not defined or it is defined but not implemented by the equipment sending the cause.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		PNIPASS	Parameter not implemented passed on This cause can be due to either of the following events: • An invalid circuit indicator is received. • A tele-service indicator is received in an Initial Address Message (IAM).
		PROTERR	Protocol error, unspecified This cause is used to report a protocol error event only if no other cause in the protocol error class applies.

ISUP interworking class (112 to 127)

If the entry in field FORMAT is ISUP, the entry in field TMTPROC is any entry other than LOCAL, and the class is interworking (112 to 127), datafill the following refinements.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE		*ISUP cause* Enter the following value:
		INTWUNSP	Interworking, unspecified This cause indicates that there has been interworking with a network that does not provide a cause for action it takes. The precise cause for the message cannot be determined.

FORMAT = ISUP (continued)

If the entry in field FORMAT is ISUP, continue datafill by datafilling the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	LOCATION		*Cause indicator location* Enter the LOCATION value included in the cause indication parameter (CIP) included in ISUP ACMs (CCS7 address complete message) and RELs (CCS7 Release message), if the message is sent as part of a treatment. The LOCATION field is stored as a unique 4-bit value in the CIP. The value of the LOCATION field varies with call scenarios, but the common denominator of all these scenarios is that the public network is serving the local user. This field is only applicable if TMTPROC is not LOCAL. The default value is LOCLNET.
		INTLNET	Enter INTLNET if the cause value in the release message is to reference an international switching office.
		LICBS	Enter LICBS if the cause value in the release message is to reference a local interface controlled by a signaling link.
		LOCLNET	Enter LOCLNET if the cause value in the release message is to reference a local public switching office.
		PRIVNET	Enter PRIVNET if the cause value in the release message is to reference an local private switching office.
		RLOCLNET	Enter RLOCLNET if the cause value in the release message is to reference a remote public switching office.
		RPRIVNET	Enter RPRIVNET if the cause value in the release message is to reference a remote private switching office.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		SP1	Reserved for future use
		SP2	Reserved for future use
		TRANSNET	Enter TRANSNET if the cause value in the release message is to reference a transit network switching office.
		UNKNOWN	Enter UNKNOWN if the cause value in the release message is to indicate that the switching office location is unknown.
		USER	Enter USER if the cause value in the release message is to reference the user's switching office.
	LOG	Y or N	*Generate log* Enter Y (yes) to generate a TRK138 log if a release with cause is sent. Otherwise, enter N (no). For TMTPROC(LOCAL), leave this field blank.

FORMAT = R2

If the entry in field FORMAT is R2, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfields	*Treatment procedure* This field consists of selector subfield TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave refinements MSG and LOG blank if the treatment is always applied locally.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG and LOG if the user notification is given from a switching office closer to the calling party. This is achieved by sending, in the backwards direction (towards the originating exchange), an R2 message that advises the exchange of a call, and indicates the reason so that the originating exchange can take appropriate action. The sending of this message initiates a sequence that releases the incoming trunk, thereby reducing the holding time for calls that are routed to treatment.
	MSG	ACB, ADI, CFL, CGC, DPN, LOS, MPR, NNC, SEC, SSB, SST, or UNN	*IBNISUP failure message* This field specifies which IBNISUP failure message is sent. ***Note:*** A requirement of the IBNISUP protocol is that EUM message cannot be generated on R2 trunks. Therefore, EUM is not an allowable entry in field MSG.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated if the datafill in table TMTCNTL, subtable TREAT. The treatment route listed in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. Otherwise, enter N (no). For TMTPROC(LOCAL), leave this field blank.

TMTMAP (continued)

FORMAT = SSUTR2

If the entry in field FORMAT is SSUTR2, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*SSUTR2 treatment procedure format* This field consists of selector field TMTPROC and refinements. This field determines what action an FTUP trunk takes upon encountering a treatment.
	TMTPROC		*SSUTR2 treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave remaining refinements blank if the treatment is applied locally, according to datafill in table TMTCNTL, subtable TREAT. An in-band tone or announcement is generated, depending on the treatment code in table TMTCNTL, subtable TREAT.
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG and LOG if the user notification is given from a switching office closer to the calling party. The default value is NOLOCAL.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	MSG	ACB, ADI, CFL, CGC, LOS, NNC, SEC, SSB, or UNN	*SSUTR2 failure message* This field specifies the SSUTR2 failure message sent. The default treatment is CFL.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated, depending on the datafill in table TMTCNTL, subtable TREAT. Otherwise enter N (no). The default value is N. The treatment route list in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. For TMTPROC(LOCAL), leave this field blank.

FORMAT = TUPE

If the entry in field FORMAT is TUPE, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*Treatment procedure* This field consists of subfield TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave refinements MSG and LOG blank if the treatment is always applied locally.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG and LOG if the user notification is given from a switching office closer to the calling party. This is achieved by sending in the backwards direction (towards the originating exchange) a TUPE message that advises the exchange of a call and indicates the reason, so that the originating exchange can take appropriate action. The sending of this message initiates a sequence that releases the incoming trunk, thereby reducing the holding time for calls that are routed to treatment.
	MSG	ACB, ADI, CFL, CGC, DPN, LOS, MPR, NNC, SEC, SSB, SST, or UNN	*TUPE failure message* This field specifies the TUPE failure message sent. ***Note:*** A requirement of the TUPE protocol is that EUM message cannot be generated on TUPE trunks. EUM is not an allowable value in this field.
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log is generated if the datafill in table TMTCNTL, subtable TREAT. The treatment route list in table TMTCNTL, subtable TREAT is not used, but the Log Report field is. Therefore, a TRK138 log only appears if the particular treatment code has the Log Report enabled in both tables. Otherwise enter N (no). For TMTPROC(LOCAL), leave this field blank.

FORMAT = TUPPLUS

If the entry in field FORMAT is TUPPLUS, datafill the following refinements.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfields	*TUPPLUS treatment procedure* This field consists of selector subfield TMTPROC. This field determines the action taken by a TUP+ gateway trunk after the trunk is routed to treatment.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave remaining refinements blank if the treatment is applied locally according to datafill in table TMTCNTL, subtable TREAT. An in-band tone or announcement is generated, depending on the treatment code in table TMTCNTL, subtable TREAT.
		NOLOCAL	Enter NOLOCAL and datafill refinements MSG, Q931, and LOG if the user notification is given from a switching office closer to the calling party. This is achieved by sending, in the backwards direction (towards the originating exchange), a TUP+ message that advises the exchange of a call, and indicates the reason so that the originating exchange can take appropriate action. The sending of this message initiates a sequence that releases the incoming trunk, thereby reducing the holding time for calls which are routed treatment.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
	MSG	see subfield	*TUP+ failure message* This field consists of selector subfield MSGCODE. This field specifies what TUP+ failure message is sent. ***Note:*** Optionally, the Q931 field may be datafilled to define a different failure message that applies specifically to calls originated from ISDN Q.931 access. (The distinction, if needed, operates from information in the Initial Address message with Additional information (IAI)).
	MSGCODE		*TUP+ failure message selector* Select the TUP+ message sent by entering one of the following values:
		ACB	Access barred (heading code H1 1010). Leave the refinement field blank.
		ADI	Address incomplete (heading code H1 0100). Leave the refinement field blank.
		CFL	Call failure (heading code H1 0101). Leave the refinement field blank.
		CGC	Circuit group congestion (heading code H1 0010). Leave the refinement field blank.
		EUM	Extended unsuccessful backward set-up information message (heading code H1 1111). Datafill refinement EUMCAUSE.
		LOS	Line out of service (heading code H1 1000). Leave the refinement field blank.
		NNC	National network congestion (heading code H1 0011). Leave the refinement field blank.
		NRU	Network resource unavailable (heading code H1 1101). Leave the refinement field blank.
		SEC	Switching equipment congestion (heading code H1 0001). Leave the refinement field blank.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
		SSB	Subscriber busy (heading code H1 0110). Leave the refinement field blank.
		SST	Send special information tone (heading code H1 1001). Leave the refinement field blank.
		UNN	Unallocated number (heading code H1 0111). Leave the refinement field blank.
	EMUCAUSE	0 to 255	*TUP+ EUM failure message cause* Enter the reason parameter, in the form of an integer, that appears in the TUP+ extended unsuccessful backward setup information message (EUM). Aside from checking the range 0 to 255, the DMS switch does not validate the integer against the values defined in the TUP+ specification T/SPS-43-02 Q723+.
	Q931	see subfield	*Alternate TUP+ failure message* This field consists of selector subfield Q931. This field allows the specification of different TUP+ messages for use with calls identified (from information in the initial address message with additional information (IAI)) as Q.931 access.

TMTMAP (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield	Entry	Explanation and action
	Q931	ACB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, UNN, or $	*Alternate TUP+ failure message selector* Enter one of two choices: • $ to indicate that no Q931 distinction is necessary. (In this case, the message given by the MSG field is used for all calls without regard to the Q.931 access marking.) • the TUP+ message code sent for calls having originated from Q.931 access as described in fields MSGCODE and EUMCAUSE
	LOG	Y or N	*Generate log* Enter Y (yes) to indicate that a TRK138 log report is generated if field LOG in table TMTCNTL, subtable TREAT is set to Y for the treatment code. The route list field FSTRTE of table TMTCNTL, subtable TREAT is not used. Enter N (no) if a log report is not required. For TMTPROC(LOCAL), leave this field blank.

FORMAT = PRI

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TMTPROC	see subfield	*Treatment procedure* This field consists of subfield TMTPROC.
	TMTPROC		*Treatment procedure selector* Enter one of the following values:
		LOCAL	Enter LOCAL and leave refinements CAUSE and LOG blank if the treatment is always applied locally.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
		NOLOCAL	Enter NOLOCAL and datafill refinements CAUSE and LOG if the user notification is given from a switching office closer to the calling party.
	CAUSE	PRI_CAUSE	Enter the cause value to send to the originating PRI trunk.
	LOG	Y or N	Enter Y to generate a TRK138 log. For TMTPROC (LOCAL), leave this field blank.

Datafill example

The following example shows sample datafill for table TMTMAP.

MAP display example for table TMTMAP

```
TMTMPKEY     TMTMPVAR
_____________________________________________________________________
Q764     NOSC         ALLBC      ISUP    NOLOCAL    NOCIRCAV    LOCLNET  N
```

MAP display example for table TMTMAP ISUP hop counter value exceeded

```
TMTMPKEY     TMTMPVAR
_____________________________________________________________________
Q764     RTEE         ALLBC      ISUP    NOLOCAL    XLAFAIL    LOCLNET  Y
```

MAP display example for table TMTMAP Q767 ISUP extended treatment - User Not Member of Closed User Group (CUG)

```
TMTMPKEY     TMTMPVAR
_____________________________________________________________________
Q767     UNMC         ALLBC      ISUP    NOLOCAL    USERNCUG    RPRIVNET N
```

TMTMAP (continued)

MAP display example for table TMTMAP Q767 ISUP extended treatment - Facility Rejected

```
TMTMPKEY     TMTMPVAR
_____________________________________________________________________
Q767    FACJ        ALLBC     ISUP   NOLOCAL   FACREJ   RPRIVNET N
```

Table history

NA014

Added reference to the FLXCMAP table which allows operating company personnel to assign a treatment to a cause.

MMP13

Added protocol SSUTR2 for French TUP.

CCM11

Added causes MISRLNP, OTGCBARD, INCBCUG, and USERNCUG.

APC009

Added protocol variant PRI and conditional datafill applicable to ISUP to PRI interworkings.

NA009

Added treatment MISROUTED_LNP_NUMBER.

Treatment PODN added to range of values in field TMTMAP_KEY.TMT

EUR006

Added two treatments, FACJ (facility rejected) and UNMC (user not member of closed user group (CUG)), to support World Trade ETSI ISUP services.

NA007

Added treatment MISROUTED_CALL_TO_PORTED_NUMBER (LNPM).

Added table sequence information about table DNROUTE.

EUR004

Added protocol selector Q767 to support ETSI ISUP V1.

NA005

CSE_25 under the CAUSE field was replaced with XLAFAIL to map the new cause value of exchange routing error to the relevant treatment in accordance with ISUP Hop Counter.

APC004

Added conditional datafill for FORMAT=ATUP.

UK002

The following changes were made:

- Added table size information (DPNSS and BTUP)
- Revised BTUP entry in field TMTMPKEY, subfield PROTOCOL
- Added UK market note under fields PROTOCOL and FORMAT

TODHEAD

Table name

Time of Day Head Table

Functional description

Time of Day system

The Time of Day (TOD) feature is provided in switching units with the following software packages:

- Integrated Business Network (IBN) Time of Day Routing (software package NTX433AA)
- IBN Time of Day Network Class of Service (NCOS) (software package NTX434AA)
- International switching units with Time of Day Routing (software package NTX488AA)
- DMS-300 switching units with Time of Day and Percentage Routing (software package NTX295AA)
- Europe telecommunications standard institute (ETSI) integrated services digital networks user part (ISUP) Network Advice of Charge (NAOC) Tariff and Time of Day Switchover Percentage Routing

The Time of Day system is dependent on four other tables:

- DAYTYPES
- DAYOWEEK
- DAYOYEAR
- TIMEODAY

Feature TOD allows or denies route choices, NCOS screening choices. In a switching unit with international translations and the DMS-100 Metering System, the TOD feature allows or denies Tariff Changeover Control, also called Time of Day Changeover, based on the time of day. The times can be set according to the rate schedules of the carriers (public network and other common carriers) accessible to the user. The changeovers can also be varied based on the day of the week or day of the year, to account for weekends and holidays.

The TOD system specifies changeovers for up to 16 results (time ranges) based on the time of day and day of week or day of year. Different results can be defined for any day, or set of days on a weekly basis, or for any specific day of the year.

The TOD system allows special days of the year to override the normal day type. For example, if Christmas (December 25) is on a Sunday, the following day types are defined:

- SATURDAY (Saturday)
- SUNDAY (Sunday)
- WEEKDAY (weekday—Monday to Friday inclusive)
- STATHOL (December 25)

If no override was allowed, then normal tariff (SUNDAY) would apply. Allowing the day of year override causes holiday tariffs to apply.

The user must reconcile variables, for example Standard, Daylight, Central Time, Greenwich Mean Time, and holidays such as Easter, Thanksgiving, and Labor day, on a yearly basis. The user must define separate TOD systems for remotes and other switches that operate in different time zones.

Table SFWALARM has two entries that define the actions related to the TOD system:

- The entry in field TODSYS defines the action taken by the alarm system when the TOD system shuts itself down. It is accompanied by log AUDT169 which indicates that the TOD system has been shut down.
- The entry in field TODSYS defines the action taken by the alarm system when the TOD system shuts down a TOD feature when the trap threshold for that feature is exceeded. It is accompanied by log AUDT168 which indicates the feature that was disabled.

Routing

TOD routing and percentage routing allows cost-effective use of facilities available by allowing or denying route choices based on the time of day. The times can be set according to the rate schedules of the carriers (public network and other common carriers) accessible to the user. In order to provide the most cost-effective routing, route lists must allow variable routing as a function of time of day. This is achieved by defining different results for the same times on different days of the week, or days of the year.

Percentage routing is especially required when splitting traffic between several common carriers to another country.

TOD routing and percentage routing for IBN is done from table IBNRTE as a refinement of the conditional selector (CND) with a TOD sub-selector for Time of Day and RND sub-selector for Random-conditional routing.

TODHEAD (continued)

TOD routing and percentage routing for DMS-300 is done from tables OVR0-OVR9 as a refinement of selector CND with a TOD sub-selector for Time of Day and RND sub-selector for Random-conditional routing.

This allows efficient routing to other routes in tables IBNRTE or OVR0-OVR9 as a function of time of day. The day can be partitioned into a maximum of 1440 (1 min apart over 24 h) segments, with a maximum of 16 different results (time ranges) based on the time of day and day of the week or year. Different results can be defined for any day, or set of days on a weekly basis or for any specific day of the year.

The TOD IBN NCOS Screening feature allows the operating company to impose a more restrictive NCOS on calls made after normal business hours. This type of routing allows flexible screening of class of service values, so that calls having a more restrictive NCOS could be routed to treatments, and calls with a less restrictive NCOS could be routed over a particular trunk group (that is, no extra translator is needed for screening).

The International TOD DMS-100 Metering System feature which allows the operating company to implement Tariff Changeover Control, (also called Time of Day Changeover), which refers to the time of day and type of day changes which must be performed to determine the current tariff.

The ETSI ISUP Network Advice of Charge Tariff and Time of Day Switchover (NAOC) feature determines charge related information between a charge determination point (CDP) and a charge generation point (CGP). The CDP determines which tariff to apply for a call. The CGP is an exchange where the charging information received from the network converts into a format delivered to the actual subscriber.

Restrictions

The following restrictions apply to the TOD system:

- Consecutive changeovers to a network cannot take place more than once every half hour.
- Time of Day changes must occur on the quarter hour (this is enforced by table control).
- A maximum of ten changeovers over each 24-h period is enforced.
- The TOD system overrides are not allowed if metering is involved.

To prevent the changeover system from overloading the message system, changeover requests are spread over a changeover period. At the beginning of this changeover period, a snapshot of the current relevant metering tables is

taken. Changes made to the metering tables during this period take effect at the end of the current period. This ensures system integrity in all cases.

Due to the static nature of tariff tables, and to maintain a degree of security on the metering system, no abortive action is provided for the user once a changeover period is in effect. The user can only make corrective actions after the current period and prior to the next changeover period. (This does not preclude the user from specifying a changeover period immediately following the current changeover period.)

Tables DAYTYPES, TODHEAD, DAYOWEEK, and TIMEODAY show examples of datafill for routing service calls (for example, Repair Service) differently after business hours.

Functional description of table TODHEAD

Table TODHEAD is the head table for the Time of Day system. It defines how tables DAYOWEEK, DAYOYEAR, and TIMEDAY are used.

If a switching unit has the universal translations and the metering utilities, all metering networks datafilled in table LNETWORK must have a corresponding entry in this table with field TODTYPE format set to MTR. Failure to do so results in no charges for calls using metering on that network.

Newly added TOD names (field TODNAME) are in disabled status. When all the TOD and related tables are datafilled, enter CI (command interpreter) command TDQ TODRESET *todname* to start up the new TODNAME.

A disabled TOD name may react differently from an overridden one depending on the feature. If override is required, do not disable the TOD name. (With IBN TOD routing, a disabled TOD name always causes the conditional route to fail; the branch is never taken). A disabled TOD name can be overridden.

The default data may be changed at anytime, but the TOD type (field TODTYPE) must remain the same.

If the entry is disabled by the TOD system, it is re-enabled by a change, even if the data was not modified. The TOD name must be restarted manually using the CI command TDQ TODRESET *todname*.

If the entry is disabled or overridden manually, the status of the TOD name is not changed. (A TDQ TODRESET command must be entered for the TOD scheduler to resume maintenance of the system).

TODHEAD (continued)

The day type vector (field DAYTYPE) cannot be changed. Attempted changes are ignored. Use the following procedure to add a day type to a TOD name:

1. Dump the current data for that TOD name from all TOD tables except DAYTYPES.
2. Dump all the data that references that TOD name in non-TOD tables. (The tables affected depend on the TOD name's feature.)
3. Delete the just-dumped data (including the TOD head entry [field TODHEAD]).
4. Add the TODHEAD entry with the new, enlarged day type list.
5. Restore the data for the other tables.

Recommended practice is to enter some spare day types (for example, spare1, spare2). These can be renamed if required during the next dump and restore or BCS conversion.

Partitioned table editor

If feature BC1459 (Partitioned Table Editor) has been purchased for an IBN switch, the ownership of each tuple in this table is defined in tables DATAOWNR and OWNTAB as follows:

- The entries in table DATAOWNR that apply to table TIMEODAY are those in which the entry in field TABNAME is equal to the entry in field TODNAME, and both are equal to the value of field TODNAME in this table.
- The entry in field TABNAME in table OWNTAB must be TODHEAD.

Datafill sequence and implications

Enter the data for the following tables before table TODHEAD:

- COSMAP
- DAYTYPES
- MTRLNET

Enter the data for the following tables in this order to activate the NAOC feature:

- CARNAME
- RESNAME
- TARFINDX
- TODHEAD
- TIMEODAY

Enter the data for the following tables after table TODHEAD:

- TIMEODAY
- DAYOWEEK
- DAYOYEAR

Table size

0 to 255 tuples

Prior to BCS35, the memory size for this table is defined by the user in table DATASIZE.

TODHEAD (continued)

Datafill

The following table lists datafill for table TODHEAD.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
TODNAME		see subfield	*Time of day name key* This field consists of subfield TODNAME. This is the key to the table.
	TODNAME	alphanumeric (1 to 8 characters) or blank	*Time of day name* For the first record for the Integrated Business Network (IBN) or DMS-300 Time of day (TOD) or Percentage Routing entry, enter the name assigned to the TOD system. This TOD name is assigned in one or more entries in table IBNRTE for an IBN switching unit, and in tables OVR0-OVR9 for a DMS-300 switching unit. For the first record for the Time of Day Network Class of Service (NCOS) Screening entry, enter the name assigned to the time of day system. This name is assigned to the customer group in table CUSTHEAD with the option TODNCOS. For the first record for the Time of Day DMS-100 Metering System entry, enter the name assigned to the time of day system. If the TODTYPE is NAOC, the TODNAME keeps the CARRIER or RESELLER name for this record as entered in either table CARNAME or RESNAME. For all other records, leave the field blank.

TODHEAD (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
TODTYPE		MTR, RTE, NCOS, NAOC	*Time of day type* For the first record for the International TOD DMS-100 Metering System entry, enter the TOD type MTR (meter) and datafill refinements NETWORK and TNTNUM. This entry keeps the Tariff Change Over index. For the first record for the IBN or DMS-300 TOD or Percentage routing entry, enter the TOD type RTE (route) and datafill refinement TIME. For all other records, leave field blank.
	LNETNAME	alphanumeric (1 to 8 characters) or blank	*Logical metering network* If the entry in field TODTYPE is MTR, datafill this refinement. For the first record for the Time of Day DMS-100 Metering entry, enter the Logical Metering Network name assigned to this TOD DMS-100 Metering System entry. This name is assigned in table LNETWORK. For all other records, leave the field blank.
	TNTNUM	0 to 9 or blank	*Tariff number table number* If the entry in field TODTYPE is MTR, datafill this refinement. For the first record for the Time of Day DMS-100 Metering System entry, enter the number of the Tariff Number table that applies to the entry. TNTNUM is defined in table MTARFNUM field TABLEKEY. For all other records, leave the field blank. Go to field DAYTYPES.

TODHEAD (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	COSMAP	alphanumeric (1 to 16 characters) or blank	*Class of service mapping* If the entry in field TODTYPE is NCOS, datafill this refinement. For the first record for the Time of Day NCOS screening entry, enter the Class of Service name assigned to TOD NCOS screening. For all other records, leave the field blank. Go to field DAYTYPES.
	TCOINDX	0 to 15	If the entry in field TODTYPE is NAOC, datafill this refinement. The value entered must be already used by an entry for the same carrier or carrier reseller in table TARFINDX. For all other records, leave the field blank.
	TIME	0 to 9 A to F or blank	*Time* If the entry in field TODTYPE is RTE, datafill this refinement. For the first record for the Route entry, enter the time range applicable to the entry. For all other records, leave the field blank.
DAYTYPES		alphanumeric (1 to 8 characters)	*Types of day* Enter up to thirty-two day types assigned to this TOD route entry. One entry is required for each of the three TOD types datafilled in field TODTYPE. These day types are defined in table DAYTYPES. Examples are: WEEKDAY, WEEKEND, XMAS, HOLIDAY, JULY4, and SATDAY. If less than 32 TOD types are required, end the list with a $ (dollar sign).

Datafill example

The following example shows sample datafill for table TODHEAD.

The first tuple shows a typical entry for IBN and DMS-300 TOD and Percentage routing for TOD system GROUP1.

The second tuple shows a typical entry for an IBN TOD NCOS Screening entry for a TOD system with the name LONTODN.

The third tuple shows a typical entry for an International TOD DMS-100 Metering system for a TOD system with the name GOCTODN.

The fourth tuple specifies the datafill used if service calls (for example, repair service) is to be routed differently after business hours.

The fifth tuple shows the carrier or name for the NAOC feature.

The sixth tuple shows the reseller name for the NAOC feature.

MAP display example for table TODHEAD

```
TODNAME      TODTYPE           DAYTYPES
_____________________________________________________

GROUP1         RTE  0
                    (WEEKDAY) ( SATDAY) ( SUNDAY)$

LONTODN NCOS NCOSTODMAP
                    (WEEKDAY) ( SATDAY) ( SUNDAY)$

GOCTODN  MTR NATIONAL 2
                    (WEEKDAY) ( SATDAY) ( SUNDAY)$

REPAIR         RTE  0
                              (WEEKDAY) (WEEKEND)$
```

Table history

MMP15

With feature 59023132, the table TODHEAD definition space is increased to allow up to 10 tariffs instead of 8.

EUR012

The NAOC value for the TODTYPE field was new to table TODHEAD. This value was necessary to schedule a NETWORK AOC tariff changeover.

Field TOCIDX was new to table TODHEAD.

TODHEAD (end)

EUR006

The following fields were added to table TODHEAD:

- LNETNAME
- TNTNUM
- DAYTYPES

The range of values in field TODTYPE was changed to only include MTR or RTE.

The size of table TODHEAD was increased from 32 to 255 tuples.

BCS36

The table size was changed.

TOFCNAME

Table name

Terminating Office Name

Functional description

Table TOFCNAME stores the area code and office code for the switch. A terminating office number (TOFCNO) consists of both an area code and an office code. Table HNPACONT or table SNPANAME must define the area code.

Table TOFCNAME replaces table THOUGRP. Table DNROUTE stores all routing information originally stored in table THOUGRP.

Software optionality control (SOC) options NPE00001 and NPE00002 implement duplicate office code and table TOFCNAME expansion capabilities. When NPE00001 is active, you can datafill one office code against more than one area code in table TOFCNAME. When NPE00002 is active, you can datafill table TOFCNAME with up to 8151 entries.

Office parameter ACTIVE_DN_SYSTEM in table OFCENG controls the DN system in use on the switch. You can set this parameter to the following:

- NORTH_AMERICAN. In this occurrence, table TOFCNAME can store up to 100 entries (tuples)
- UNIVERSAL. In this case, the following occurs:
  - — If the state of SOC option NPE00002 is IDLE, table TOFCNAME can store up to 1024 entries
  - — If the state of SOC option NPE00002 is ON, table TOFCNAME can store up to 8151 entries

Note: Unless SOC option NPE00001 is active, the DMS switch does not allow two area codes to share the same office code.

Note: When the capacity of table TOFCNAME increases, the capacity of tables DNINV and DNROUTE decreases (from 1 000 000 to 300 000).

TOFCNAME (continued)

Local Number Portability

For Local Number Portability (LNP), it is preferable for the switch to use the universal directory number (DN) system with the North American dialing plan.

The DN is “ported-in" if you move the DN from a donor switch to a recipient switch . Option NONNATIVE in field OPTIONS is assigned to area code and office code entries for ported-in DNs.

Note: In North American applications, if table HOMELRN uses the resident area code and office code, you cannot change the resident area code and office code to nonresident.

Datafill sequence and implications

Datafill one or the other of the following tables before table TOFCNAME:

- HNPACONT
- SNPANAME

Table size

The size of table TOFCNAME depends on:

- the value of office parameter ACTIVE_DN_SYSTEM in table OFCENG
- if SOC option NPE00002 is active

The following table shows sizes for table TOFCNAME.

TOFCNAME size

value of ACTIVE_DN_SYSTEM	maximum size of TOFCNAME
NORTH_AMERICAN	100 tuples
UNIVERSAL	1024 tuples if NPE00002 is not active 8151 tuples if NPE00002 is active

Datafill

The following table lists datafill for table TOFCNAME.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
AREACODE		0 to 9999999 (vector of up to 7 digits)	*Area code* Enter the area code. The area code (NPA) identifies a geographical area served by the switch. This field can contain one to seven digits. In an office that uses the North American numbering plan, the area code must be three digits. Enter an area code defined in table SNPANAME.
OFCCODE		0 to 9999999 (vector of up to 7 digits)or $	*Office code* Enter the office code. The area code region consists of a number of areas. The office code identifies the area served by the office. An office code can have from zero to seven digits. For an office that uses the North American numbering plan, the office code must contain three digits. Enter a number that is not used as an area code. For example, if the area code is 613, the office code cannot be 613. ***Note:*** Service interruption can occur if you enter an office code that is an area code. The switch can route calls to the wrong location because the switch cannot determine the termination point of the call. A tuple (AREACODE plus OFCCODE entry) cannot be an expansion or reduction of another entry. For example, if 200 34 (area code 200 plus office code 34) is a tuple, you cannot add the following tuples to the table: 20 03, 2003 45 or 20 034.
OPTIONS		NONNATIVE	*Ported-in DN* Enter NONNATIVE to identify a ported-in DN. End the tuple with a $ (dollar sign). ***Note:*** Translations ports in only DNs with nonnative NPA-NXX that reside on the switch.

TOFCNAME (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
		CODEHLDR	Enter CODEHLDR to indicate that an NPA-NXX is LERG assigned even though 1000 blocks may be pooled out to other switches. To assign the CODEHLDR option to a tuple the NPE00005 SOC option must be active.
Note:			
The CODEHLDR option cannot be present with the NONNATIVE TOFCNAME option and vice versa.			

Datafill example

The following example shows typical datafill for table TOFCNAME without ported-in DNs datafilled.

MAP display example for table TOFCNAME

```
AREACODE    OFCCODE                                    OPTIONS
_____________________________________________________________

     200        234                                        $
     784        324                                        $
     201        786                                        $
     613        621                                        $
     245        879                                        $
```

The following MAP display example shows typical datafill for table TOFCNAME with datafilled ported-in DNs.

In this example, all DNs for

- 613 621 are local to the switch
- 819 725 are not local to the switch (ported-in)

MAP display example for table TOFCNAME,

```
AREACODE      OFCCODE                                  OPTIONS
_____________________________________________________________

    613           621                                      $
    819           725                       (NONNATIVE )   $
```

Table history

NA013

Option CODEHLDR is introduced by feature 59012574.

NA010

NA010 reduces the maximum number of tuples from 8171 to 8151. This reduction accomodates the allocating store on the POWERPC platform.

NA009

Added information on SOC options NPE00001 and NPE00002

NA007

Added field OPTIONS and option NONNATIVE and corrected the table capacity information.

Added error information.

TOFCNAME (end)

Supplementary information

The following table explains error messages that can occur when you attempt to datafill table TOFCNAME.

Error messages

Message	Explanation	User action
`This tuple will create an ambiguity with 613 621`	The area code and office code of the tuple being added isa superset of the area code and office code of a tuple already in table TOFCNAME.	Enter the tuple again, using a different area code, office code, or both.
`ERROR: This entry creates an ambiguity with a more precise entry and is not allowed.`	The area code and office code of the added tuple isa subset of the area code and office code of a tuple already in table TOFCNAME.	Enter the tuple again, using a different area code, office code, or both.
`This tuple will create a duplicate with 613 621ERROR: Duplicate office codes are not allowed while NPE00001 is idle`	The office code of the tuple being added is equal to or a superset of the office code of a tuple already in table TOFCNAME.	Activate NPE00001. Enter the tuple again.
`ERROR: This entry creates a duplicate office code with a more precise entry.Duplicate office codes are not allowed while NPE00001 is idle.`	The office code of the tuple being added is a subset of the office code of a tuple already in table TOFCNAME.	Activate NPE00001. Enter the tuple again.

TOLLENTC

Table name

Entry Code Table

Functional description

Table TOLLENTC is required in all toll switching units configured for centralized automatic message accounting (CAMA), local switching units configured for local automatic message accounting (LAMA), and combined local and toll switching units configured for CAMA and LAMA.

Note: For non-TOPS (Traffic Operator Position System) calls, module ATTCLSSI of feature package NC0078 (Class of Service Indication on AMA Calls) must be present in the switch.

For each of the charge classes listed in table BILLCODE for incoming or two-way CAMA trunk groups, or listed in table LINEATTR for lines, table TOLLENTC provides the entry code and indicates whether a charge is applicable.

If the switching unit is toll or combined local and toll with outgoing Super CAMA trunk groups (trunk group type OS) that require an automatic message accounting (AMA) recording, and if for some of the calls there are no called or calling digits, a tuple with the following entry values is required in table TOLLENTC.

Field	Value
CHGCLSS	SPCL
ENTCODE	63
APPLYCHG	Y

If the switching unit has the above configuration, field DATADUMP in table CRSFMT must be set to Y so that the incoming and outgoing CLLIs are added to the AMA entry. This avoids confusion in downstream processing of AMA tapes for calls that have no called or calling digits.

For local or combined local and toll switches that have the CDR feature, local calls can be distinguished from other LAMA calls through the use of the entry code assigned to charge class LCDR (local CDR).

Charge class MBG is for use with multi-location business group lines.

TOLLENTC (continued)

Charge class RCFW is for use with remote call forwarding lines.

Charge class TRMB is for use with local billable calls that terminate on a line belonging to a hunt group.

Charge class LLOR is for use with local land-originated calls for DMS-MTX switching units.

Charge classes and their uses are outlined below:

- DLLS data local low speed 300 to 9.6K
- DLHS data local high speed 19.2K to 64K
- DIHS data international high speed 56k
- CAM1 future charge class for voice
- CAM2 future charge class for voice
- CAM3 future charge class for voice

With BCAMA (Bellcore AMA) format, the entry for field APPLYCHG has no meaning even though it needs to be datafilled. AMA module code 306, which contains a three-digit originating line information parameter (OLIP) plus hexadecimal value C, is appended. The OLIP is derived from the two-digit field ENTCODE in table TOLLENTC and padded with a leading zero. For all calls with field CHGCLSS datafilled as NONE in table LINEATTR, module code 306 is appended with an OLIP value datafilled for the NONE tuple in TOLLENTC. If appending of the module code is not desired for these calls, the NONE tuple should be removed.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TOLLENTC.

Table size

0 to 27 tuples

The maximum table size is limited by the number of charge classes that are defined in the switch, up to a maximum of 64. Since 27 different charge class types are currently defined, this places an upper limit on the table size.

Datafill

The following table lists datafill for table TOLLENTC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CHGCLSS		CAM0, CAM1, CAM2, CAM3, CSD0, DAT0, DAT1, DAT2, DAT3, DIHS, DLHS, DLLS, INW0, LAM0, LCDR, LLOR, MBG, MOBL, MOB0, MOB1, RCFW, SPCL, TOPS, TRMB, TWX0, WAT0, or NONE	*Charge class* Enter an alphanumeric character string to specify the charge class.
ECANDCHG		see subfields	*Entry code and charge* This field consists of subfields ENTCODE and APPLYCHG.
	ENTCODE	numeric (0 to 99)	*Entry code* Enter the entry code assigned to charge class.
	APPLYCHG	N or Y	*Apply charge* If a charge is applied for call, enter Y (yes). Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table TOLLENTC. The entry codes listed are assigned to various charge classes. All classes except LCDR have applied charge.

TOLLENTC (end)

MAP display example for table TOLLENTC

```
CHGCLSS         ECANDCHG
_____________________________________________________________

  CAM0            00 Y
  TWX0            08 Y
  WAT0            11 Y
  DAT0            15 Y
  LCDR            18 N
  RCFW            00 Y
  SPCL            63 Y
  INW0            80 Y
  DLLS            31 Y
  DLHS            32 Y
  DIHS            33 Y
  DAT1            34 Y
  DAT2            35 Y
  CAM1            36 Y
  CAM2            37 Y
  CAM3            38 Y
  DAT3            39 Y
```

Table history

CSP02

A note for non-TOPS calls requiring feature package NC0078 was added.

TOLLTRKS

Table name

Toll Trunks Table

Functional description

Table TOLLTRKS stores the common language location identifiers (CLLI) of all trunk groups carrying incoming toll-completing traffic. The key to the table is a CLLI name. No other data is included in this table. The list of CLLIs is used to evaluate long distance indicators (LDI) when reverse translation of the calling digits fails.

The custom local area signaling services (CLASS) LDI provides the capability to deliver extra information to the customer premises equipment (CPE) of the called party for incoming long distance calls. The LDI feature is optionally available to the subscriber of any CLASS display features using the multiple data message (MDM) format.

In Canada, CLASS is known as call management services (CMS).

Feature operation

The LDI is provided to the CLASS (or CMS) set if the following conditions are met:

- An incoming toll completing call is received.
- The call terminates to a line that is assigned a CLASS (or CMS) display feature using the multiple data message format.
- There is enough space in the message being sent from the central controller (CC) in NT40 switches, or the computing module (CM) in SuperNode switches, to include the call qualifier parameter.

If these conditions are met, the LDI is sent to the terminating CPE in the call qualifier parameter as part of the call setup message.

Recognizing a toll call

Either of the following methods can be used to determine whether an incoming call is toll-completing:

- reverse translation of the calling digits
- use of table TOLLTRKS

If reverse translation fails for any reason (for example, no calling digits received from network, office not equipped with reverse translation software, or unsuccessful reverse translation) the long distance status of the call is evaluated using table TOLLTRKS, where the CLLIs of trunk groups that carry

TOLLTRKS (continued)

terminating toll completing calls are identified. All calls received on these defined CLLIs, provided the calls meet the conditions listed under the heading “Feature operation", result in an LDI being sent to the terminating CPE.

The following table illustrates the possibilities.

Methods used to evaluate the LDI

Display feature	Calling info received	Method used
Calling Number Delivery Single Data Msg	—	LDI not evaluated
Calling Number Delivery Mult. Data Msg	Yes	Reverse translation or table TOLLTRKS
Calling Number Delivery Mult. Data Msg	No	Table TOLLTRKS
Dialable Directory Number	Yes	Reverse translation or table TOLLTRKS
Dialable Directory Number	No	Table TOLLTRKS

Restrictions and limitations

If non-toll calls complete to a terminating office on trunks normally selected for toll completing calls (for example, calls that overflow from regular trunk groups), and the trunk group is datafilled in table TOLLTRKS, these calls may be erroneously identified as toll calls to a subscriber with a CLASS (or CMS) display feature. Trunks that can carry toll and non-toll calls must not be datafilled in table TOLLTRKS.

Datafill sequence and implications

The following tables must be datafilled before table TOLLTRKS.

- CLLI
- TRKGRP

Trunk CLLIs that are added to this table must first be datafilled in table TRKGRP. Trunks that are removed from table TRKGRP must first be removed from table TOLLTRKS.

Table size

0 to 2048 tuples

Datafill

The following table lists datafill for table TOLLTRKS.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	*Common language location identifier* Enter a 1- to 16-character name to identify a trunk group that carries toll completing traffic into the switching unit. This field is the same as the key to table TRKGRP. Any value entered in this field must have been previously datafilled in table TRKGRP.

Datafill example

The following example shows sample datafill for table TOLLTRKS.

MAP display example for table TOLLTRKS

```
CLLI
-----------------------------------------------------------------
TOWNAINCTOLL
TOWNBINCTOLL
TOWNCINCTOLL
```

TONES

Table name

Tones Table

Functional description

Table TONES defines tones that are generated by line or trunk peripheral modules.

The special tones listed below are generated on cards located on a trunk module (TM) or maintenance trunk module (MTM), and defined in table STN instead of table TONES:

- BVTONE: IBN busy verification tone
- CWT: call waiting tone
- DISTCWT: distinctive call waiting tone
- EBOT: executive busy override tone
- ERWT: expensive route warning tone
- OHQT: offhook queuing tone
- ROH: receiver offhook tone

The special tones listed below are generated on cards located on a TM or MTM, and are defined in table SVRCKT instead of table TONES:

- SVDTMF: DIGITONE outpulsing circuit
- SVOBSV: service observing circuit

Where field KIKEY in table KEY_ITEM table is datafilled with an entry of TONEKEY, the maximum number of tones that can be allocated is determined by the value of field SIZE in table KEY_ITEM.

Where field DATSKEY field in table DATASIZE is datafilled with an entry of TONES, memory for table TONES is allocated in accordance with the value of field SIZE in table DATASIZE.

To extend the length of the table, the size in the DATASIZE table must be increased and a cold restart performed.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TONES.

The following tables must be datafilled after table TONES.

- CLLIMTCE
- OFRT
- OFR2
- OFR3
- OFR4

Table size

0 to 20 tuples

United Kingdom

If the switching unit is a DMS-100 Switch in the United Kingdom and office parameter MARKET_OF_OFFICE in table OFCENG is set to UK PABX, the recommended values for the entry in table CUSTPROT with field TABNAME equal to TONES are shown in the following table.

UK PABX datafill for table CUSTPROT

Field name	Entry
TABNAME	TONES
READPROT	15
UPDTPROT	30
ALLPROT	30

TONES (continued)

Datafill

The following table lists datafill for table TONES.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the code assigned to the tone in table CLLI.
TRAFSNO		0 to 127	*Traffic separation number* LOCAL, TOLL, LOCAL/TOLL, GATEWAY, or INTERNATIONAL only: If switching unit has the optional Traffic Separation software feature, enter the outgoing traffic separation number 0 to 127 assigned to the tone. If traffic separation not required, enter 0 (zero). The range of values for the outgoing traffic separation number is dependent upon office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. It is recommended that outgoing traffic separation numbers 1 to 9 be reserved for generic separation numbers. See table TFANINT for the assignment of incoming to outgoing traffic separation numbers. With the traffic separation feature, a peg count of all calls, by type of call, can be accumulated between an incoming source (incoming trunk or an originating line attribute) and an outgoing source (outgoing trunk, terminating line attribute, tone or announcement). Direct Dial (DD), Operator Assisted (OA) and No Prefix (NP) are the call types supported.
SEGTIME		10 to 100	*Segment time* Enter the duration of one segment of tone specified in multiples of 10 ms (for example: 25 = 250 ms).

TONES (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
TONEPATT		numeric (16 digits)	*Tone pattern* Enter a 16-digit string of 0s and 1s. Each digit corresponds to one segment of tone pattern and represents the binary state on the tone, where: 0 = tone off 1 = tone on
TONETYP		alphanumeric	*Tone type* Enter the type of tone generator required. Since some of the tone generators listed below are mutually exclusive, only a subset of these tone generators can be found in a given software load. Tone generator types other than those described below are not valid entries.
		HI	*High tone* This is a general purpose high frequency tone generator.
		HZ400_5DB	*400 Hz tone, five decibels* This is the tone generator for 400 Hz at -5 dBm.
		INTL_ROH_ TONE	*International ROH tone* This is for use in an international DMS when the entry in field CLLI is IROH.
		LO	*Low tone* This is a general purpose low frequency tone generator.

TONES (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
MAXDURN		1 to 255	*Maximum duration* Enter the maximum time in seconds that a call condense block can be attached. For information on office parameter NCCBS (Number of Call Condense Blocks), see table OFCENG. The maximum time duration for silent tone is 10 s.
MAXCONN		127	*Maximum connections* Enter 127 to satisfy the table editor. Entry values other than 127 are not valid. ***Note:*** This field is operative in tables ANNS and STN because members of such trunk groups represent real physical resources, but is not operative in table TONES because LM-generated tones do not represent real physical resources. The DMS maintains a count of tone usage but does not prohibit the number of users from exceeding MAXCONN.

The Netherlands

The ‘engaged’ tuple should have TONETYP set to DIAL_TONE when the DUTCHMF and DUTCHMFC toneset is used. This changes the engaged (busy) tone heard by the subscriber from 450 Hz to 425 Hz, which is the standard busy tone frequency in the Dutch market.

Datafill example

The following example shows sample datafill for table TONES.

MAP display example for table TONES

```
CLLI
   TRANFSNO   SEGTIME      TONEPATT
                                  TONETYP
    MAXDUR    MAXCONN
-------------------------------------------------------------

*RING
     21         100         001100
                                  HI
     120        127
```

TRBLCODE

Table name

Integrated Business Network Console Trouble Code Table

Functional description

Feature BV0982 (Trouble Key on IBN Console) allows an attendant to indicate a problem in the handling of a particular call. Typical problems include noise, poor sound quality, echo, clipping, no ring, call dropped, and malicious calls.

A set of trouble codes, defined by the operating company through table TRBLCODE, allows the attendant to classify the problem under the most appropriate category. Only trouble codes entered in table TRBLCODE are valid for use with feature BV0982. Associated with each trouble code is a trouble code meaning and an alarm severity.

The meaning assigned to each trouble code can include blank spaces, but such blanks must be typed as underscore characters (_) due to the design of the table editor. Trailing blanks at the end of the name are automatically removed when the name is stored.

The meaning assigned to a trouble code is presented to the attendant for confirmation, and also appears in the log report generated for maintenance personnel.

The alarm condition specified for each trouble code in table TRBLCODE determines the alarm severity that is signaled when the trouble code is used. Use of a trouble code results in an alarm condition of no alarm, minor alarm, major alarm, or critical alarm.

Feature BV0982 can be assigned to an attendant console as a dedicated special function key (through table FNMAP), or as one of up to 100 meanings of the wildcard key (through table WCKCODES).

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TRBLCODE.

Table size

0 to 100 tuples

Datafill

The following table lists datafill for table TRBLCODE.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CODE		0 to 99	*Trouble code number* Enter the trouble code number.
MESSAGE		alphanumeric (up to 16 characters)	*Trouble description message* Describe the nature of the call handling problem.
ALARM		CR, MJ, MN, or NA	*Alarm condition* Enter one of the following alarm conditions: • CR (critical alarm) • MJ (major alarm) • MN (minor alarm) • NA (no alarm)

Datafill example

The following example shows sample datafill for table TRBLCODE.

Trouble code 24 has been defined as a minor alarm condition with the associated message indicating noise from the destination. An attendant who can barely hear a caller due to transmission problems can enter this trouble code into the attendant console to report the difficulty.

Trouble code 6 has been defined as a no alarm condition with the associated message indicating a malicious call. An attendant who receives a threatening call can enter this trouble code into the attendant console to report the event.

TRBLCODE (end)

MAP display example for table TRBLCODE

```
  CODE           MESSAGE   ALARM
_____________________________________________________

    24  NOISE_FROM_DEST     MN
     6   MALICIOUS_CALL     NA
```

TRGSIESC

Table name

Trigger Shared Interoffice Escape

Functional description

Table TRGSIESC stores an escape code list for the Shared Interoffice Trunk trigger. The INTEROFF trigger subscribed against a pretranslation code is bypassed if the called (inpulsed) digits match any digit pattern datafilled in table TRGSIESC.

At the Information Collected TDP, after translation of the pretranslation code has taken place—that is, the 0ZZXXX(X) digits are removed—the inpulsed called digits are compared to the digits datafilled in table TRGSIESC. If any of the first ten digits match the digit pattern of the escape code, the call bypasses the INTEROFF trigger and continues through regular translations. Other triggers are not affected by the escape list in table TRGSIESC.

The digit format in table TRGSIESC is one to ten digits from N to NPA-NXX-XXXX. The NPA or NPA-NXX values do not have to appear in other SSP data tables; they can correspond to SCP-based service dial patterns.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TRGSIESC.

Table size

A maximum of 32 766 digits can be datafilled in table TRGSIESC.

Datafill

The following table lists datafill for table TRGSIESC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
ESCAPECD		numeric	*Escape code.* Enter any number of tuples containing digit patterns (1 to 10 digits each) which should escape processing the Shared Interoffice Trunk trigger and continue through regular translations.

Datafill example

The following example shows sample datafill for table TRGSIESC.

TRGSIESC (end)

MAP display example for table TRGSIESC

```
ESCAPECD
________________________________________________________________
  800
  888375
  888641
  888723
```

Table history

NA005

Table introduced in accordance with AINSSP: AIN and E800 Interworking.

Supplementary information

None

TRIGDIG

Table name

Trigger Digits

Functional description

The advanced intelligent network (AIN) allows the operating company to create and modify telecommunications services for its subscribers. Two key components of AIN are service switching points (SSP) and service control points (SCP). The SSPs are connected to customer premises by existing telephone lines. SCPs or adjuncts can be programmed to create new services and to tailor services to meet individual subscriber needs.

The SSP can recognize calls that require AIN handling by attempting prespecified triggers at detection points (DP). A trigger occurs when an SSP determines that it must query the SCP or adjunct to continue processing a call.

The major types of information associated with each trigger are

- types of triggers
- trigger assignments
- trigger criteria

Trigger types are defined by applications. Trigger assignments specify triggers that are assignable to an individual agent, group, or office. Trigger criteria describe conditions that are needed to trigger. If the trigger criteria are met, the SSP launches a query to the SCP or adjunct for further instructions as to how the call should proceed.

The relationship between AIN and trigger tables TRIGGRP, TRIGDIG, and TRIGINFO is established by subscribing to AIN for an agent, directory number and call type basis, group, or office, and indicating the desired AIN behaviors in the trigger tables.

Table TRIGDIG is used to specify trigger digit criteria and is based on the dialed digits. The table also indicates the action required when a match occurs between dialed digits and digits datafilled in the corresponding tuple.

A *match* is defined as the most specific match. For example, if the dialed digits are 6137225998 and the datafilled digits in table TRIGDIG are 613, 613722, and 6137225998, the most specific digits (6137225998) match. If the SCP or adjunct instructs the SSP to continue processing, the next most specific digits (613722) match.

TRIGDIG (continued)

The key to table TRIGDIG is a three-part key containing the digit group identifier from table TRIGGRP, the trigger name, and the digits to be matched. The trigger appears twice—once as part of the key, and once as part of the data area. The trigger is used as a selector in the data area where additional fields can be prompted for, depending on the trigger value.

Field TRIGGER specifies the trigger type.

Field ACTION specifies the SSP action to be taken if the dialed digits match the value in subfield DIGITS.8

Starting with NA003, the AIN default routing (DFLTRT) option allows calls encountering an AIN Final (AINF) treatment to be routed to a DN, an announcement, or both. This option applies to the N11 and Specific Digit String (Public Office Dialing Plan) triggers.

R02 is added to the range of values that can be datafilled in field MSGSET of table TRIGDIG for North American (CNA) releases. R02 represents the AIN R0.2 (Service Enablers) message set.

An entry in table TRIGDIG cannot be deleted if it is used as the last instance of a digit name (subfield DIGNAME) in table TRIGGRP.

For Local Number Portability (LNP), an LNP trigger type is added.

Datafill sequence and implications

If global title translation (GTT) is used, table C7GTTYPE must be datafilled before table TRIGDIG.

The AIN Essentials software option, AIN00002, must be present for table TRIGDIG to be used during call processing.

Table size

0 to 32766 tuples

Table TRIGDIG contains a three-part key containing subfields DIGNAME, TRIGGER, and DIGITS. Under the following conditions, the maximum table size is less than 32 766 tuples:

- subfields DIGNAME and TRIGGER contain a small number of different entries, or
- digit values entered in subfield DIGITS are spread widely apart

Table size is allocated dynamically.

The DMSMON DBLOCKS tool can monitor the size of table TRIGDIG. If the number of digit blocks being used is approaching 100%, the number of digilator pools used by table TRIGDIG can be increased with office parameter TRIGDIG_NUM_DGLTR_POOLS in table OFCENG. *This office parameter cannot be decreased.*

Datafill

The following table lists datafill for table TRIGDIG.

Field descriptions (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	*Key* This field is the key to table TRIGDIG and contains subfields DIGNAME, TRIGGER, and DIGITS.
	DIGNAME	alphanumeric (up to 8 characters)	*Digit name* Enter the digit translator. The entry in this subfield is the index from table TRIGGRP, subfield DIGNAME. A maximum of 2048 translator names can be entered.
	TRIGGER	alphanumeric (up to 8 characters)	*Trigger* Enter a symbolic name representing a subscribed trigger. Valid entries are CDPCODE, INTEROFF, GENTRIG, LNP, N11, PODP, PODPFEAT and SFC.
	DIGITS	0 to 9, B, C, D or E (up to 18 characters)	*Digits* Enter the digits to be matched against the digits specified for the trigger. Use B to represent an asterisk (*) and C to represent an octothorpe (#). The additional overdecadic digits D and E can be used anywhere in the digit string. Enter up to 18 digits for CS-1R in the Australian or Japanese markets.

TRIGDIG (continued)

Field descriptions (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
TRIGGER		alphanumeric (up to 8 characters)	*Trigger* Enter the name of a subscribed trigger type. The name can be a selector. Additional datafill fields can be required, as defined by applications. The entry must match the entry in subfield TRIGGER. If the trigger is CDPCODE, datafill refinement RPRTDIGS. The TRIGGER field adds SFC as a trigger (NA008).
	RPRTDIGS	TRANS, NOTRANS	*AIN report digits* This subfield indicates whether the SSP should perform digit translation on the extension number before it sends a query message. Enter TRANS if the SSP should perform digit manipulation. Enter NOTRANS if the SSP should query using exact digits dialed.
ACTION			*Action* This field consists of subfield ACTION.

TRIGDIG (continued)

Field descriptions (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	ACTION	EVENT, ESCAPE	*AIN action type* Enter the action to be taken by the SSP if the dialed digits match the value in subfield DIGITS. Enter EVENT to launch a query to the SCP or adjunct if the SSP determines that the trigger criteria of are met. Datafill refinements PROTOCOL, MSGSET, and TRANSPRT. Enter ESCAPE to allow the dialed number to escape the trigger when the dialed number matches the specified escape criteria. ***Note:*** When field ACTION is set to ESCAPE, there are no further sub-fields (PROTOCOL, MSGSET, and TRANSPRT are not datafilled).
	PROTOCOL	TCAP	*AIN protocol* Enter the protocol to be used to communicate with the SCP or adjunct. Enter TCAP for the transaction capabilities application part.
	MSGSET	alphanumeric	*Message set* Enter the protocol version to be used to communicate with the SCP or adjunct, for example, R01 or R02. The range for this field is symbolic; each application binds in its own symbol. Enter INAPV8 for CS-1R in the Australian and Japanese markets.
	TRANSPRT	SS7	*AIN transport* Enter SS7, the transport medium used to communicate with the SCP or adjunct. Datafill refinements GTT and GTSOURCE.

TRIGDIG (continued)

Field descriptions (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	GTT	alphanumeric (up to 16 characters)	*Global title translator* If the entry in subfield TRANSPRT is SS7, datafill this refinement. This field is an index into table C7GTTYPE. Enter a global title translation (GTT) name previously datafilled in table C7GTTYPE.
	GTSOURCE	CALLED, CHARGE, or DFLT	*Global title source* If the entry in subfield TRANSPRT is SS7, datafill this refinement. This subfield indicates whether the global title value in the SCCP called party address is taken from the charge number, the called party number, or the service key. Enter CALLED if the global title value in the SCCP called party address is taken from the called party number. The CALLED value is valid only for the Called Party Number or the SPC criteria. Enter CHARGE if the global title value is taken from the charge number. Enter DFLT if the service key value is to be used as the index into table C7GTT. Datafill subfield SERVICE_KEY.
OPTIONS		see subfield	*Options* This field contains subfield OPTION.

Field descriptions (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DFLTRT, POTUSE, or SERVKEY	*Option* Specifies information required when the InitialDP is built. Enter DFLTRT for default routing. This option applies only to triggers N11 and PODP, and occurs if the call encounters an error condition. Datafill the SELECTOR, ANNIDX, and DN refinements. Enter POTUSE to specify the AIN 0.1 PODP trigger for a specific service or potential use. Datafill the POTUSE refinement. Enter SERVKEY to specify the intelligent network application part (INAP) service key. Datafill subfield SERVICE_KEY. Enter $ (dollar sign) for no options.
	SELECTOR	ANN, ANNDN, or DN	*Selector* This subfield specifies the voice announcement and directory number selection. Enter ANN for announcement, ANNDN for announcement and directory number, or DN for directory number. Complete refinement ANNIDX for selectors ANN and ANNDN. Complete refinement DN for selectors ANNDN and DN.
	ANNIDX	1 to 65535	*Announcement index* Enter the voice announcement index (from table AINANNS) of the announcement to be played.
	DN	numeric (up to 15 digits)	*Directory number* Enter the directory number used to route the call. If the DN is nil, call processing continues to the next point in call.

TRIGDIG (continued)

Field descriptions (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	POTUSE	CPC, TFS	*Potential use indicator* Enter CPC for carrier portability code. TFS identifies Toll-Free service on AIN Service Enablers calls. CPC and TFS attributes are mutually exclusive: only one attribute can be used. The TFS attribute can be datafilled for MSGSET=R02 only.
	SERVICE_KEY	numeric (0 to 2147483647)	*Service key* This field is a mandatory parameter of the InitialDP operation. Enter the value of the service key for the required service to be sent from the SSP to the SCP in an InitialDP operation.
	SERVIDX	numeric (0 to 9999)	*Service index* This field is the key to table SERVINFO. Enter the value of the service index. This field permits multiple service profiles against a single service key, and multiple service keys with identical service profiles in a single SERVINFO tuple.

Datafill example

The following example shows sample datafill for table TRIGDIG.

MAP display example for table TRIGDIG

```
   KEY              TRIGGER
                    ACTION                          OPTIONS
-------------------------------------------------------------

DIG0     N11    411    N11
EVENT  TCAP  R01  SS7  GTT1  DFLT
                              (  DFLTRT    ANN 34    )  $
```

The following example shows sample datafill for table TRIGDIG option SERVKEY.

MAP display example for table TRIGDIG option SERVKEY

```
KEY              TRIGGER
                 ACTION                          OPTIONS
-------------------------------------------------------------

BTUPBTUP GENTRIG 06004200 GENTRIG EVENT TCAP INAPV8
SS7 EINJAZZ CALLED (SERVKEY 6200) (SERVIDX 6200) $
```

Table history

MMP15

The range of DIGITS field is extended to include overdecadic digits D and E for feature A59023775.

EUR008

Added SERVIDX field to replace SERVKEY as the index to table SERVINFO.

The range of SERVKEY is extended from 9999 to 2147483647.

NA008

SFC Trigger 0.2 (AF6852) adds specific feature code (SFC) as a valid trigger to the TRIGGER subfield of field KEY, and to field TRIGGER.

Toll-Free Service on AIN Service Enablers (AR2219) adds toll-free service (TFS) value to field POTUSE.

AIN Service Enablers SDS Escape List (AU2332) adds ESCAPE value to the ACTION field to datafill an escape code for the following digit-based triggers:

- specific digit string (SDS)
- N11 (dialing codes for specific services, for example, 411 and 911)
- customer dial plan (CDP)
- public office dial plan feature (PODPFEAT)
- specific feature code (SFC)
- local number portability (LNP)

NA007

Added Local Number Portability (LNP) trigger.

TRIGDIG (end)

EUR005

Added the CALLED option to field GTSOURCE. Changed the DFLT option, which now uses the Service Key as an index into table C7GTT.

NA006

POTUSE option and subfield added.

NA005

Table size clarified.

NA004

Trigger type PODPFEAT added to the list of triggers.

NA003

Refinements SELECTOR, ANNIDX, and DN added to subfield OPTION. Option DFLTRT added.

BCS36

Table TRIGDIG was introduced.

Supplementary information

This section provides information on dump and restore procedures for table TRIGDIG.

Dump and restore

A reformat is required to change the GTSOURCE field from the value DFLT to the value CALLED.

TRIGESC

Table name

Trigger Escape Codes Table

Functional description

The Advanced Intelligent Network (AIN) provides the capability for the operating company to create and modify telecommunications services to its subscribers. Two key components of AIN are service switching points (SSP) and service control points (SCP). The SSPs are connected to customer premises by existing telephone lines. The SCPs, or adjuncts, can be programmed to create new services and tailor services to meet individual subscriber needs.

The SSP can recognize calls that need AIN handling by attempting the pre-specified triggers at the trigger detection points (TDP). A trigger occurs when the SSP determines that it must query the SCP or adjunct to continue processing a call.

Three major types of information are associated with each trigger:

- types of triggers
- trigger assignments
- trigger criteria

Types of triggers are defined by applications. Trigger assignments specify triggers assignable to an individual agent, a group, or an office. Trigger criteria describe the conditions needed to trigger.

If the trigger criteria is met, the SSP launches a query to the SCP or adjunct for further instructions as to how the call proceeds.

The relationship between AIN and the trigger tables (TRIGGRP, TRIGDIG, TRIGESC, and TRIGINFO) is mainly established by subscribing to AIN for an agent, a directory number (DN) and call type (CT), a group or an office, and indicating the desired AIN behaviors in the trigger tables.

Table TRIGESC stores public office dialing plan digits corresponding to escape codes used at the off-hook delay trigger for AIN. If the received digits match the digits stored in table TRIGESC, the call proceeds with normal call processing. If the receivied digits do not match the digits stored in table TRIGESC, the call acts on the trigger, that is, a query is launched to the SCP.

Table TRIGGRP queries table TRIGESC to determine the escape codes when the ESC (escape) criteria is datafilled.

TRIGESC (continued)

For further information, see tables TRIGDIG, TRIGGRP, and TRIGINFO.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table TRIGESC.

Table size

Size for table TRIGESC is dynamically allocated.

Datafill

The following table lists datafill for table TRIGESC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfield	*Digilator table key* This field is the key to the table and consists of subfield DIGILATOR_KEY.
	DIGILATOR_ KEY	0 to 9 (vector of up to 18 digits)	*Digilator key* Enter the escape code. Digits received at the INFO_COLLECTED trigger detection point after translation to public office dialing plan digits are compared with the digits datafilled in this field in order to determine if the escape criterion is met. There is no default value for this field.

Datafill example

The following example shows sample datafill for table TRIGESC.

MAP display example for table TRIGESC

```
                    KEY
_____________________________________________________

411
911
```

Table history

CSP02

Table TRIGESC was added.

Supplementary information

This section contains information on dump and restore procedures for table TRIGESC.

Dump and restore

Normal dump and restore procedures apply.

TRIGGRP

Table name

Trigger Group

Functional description

The Advanced Intelligent Network (AIN) enables the operating company to create and modify telecommunications services for its subscribers. Two key components of AIN are service switching points (SSP) and service control points (SCP). The SCPs, or adjuncts, can be programmed to create new services and tailor services to meet individual subscriber needs.

The SSP can recognize calls that need AIN handling by detecting prespecified triggers at trigger detection points (TDP). A trigger occurs when the SSP determines that it must query the SCP or adjunct to continue processing a call.

Three major types of information are associated with each trigger:

- types of triggers
- trigger assignments
- trigger criteria

Types of triggers are defined by applications. Trigger assignments specify triggers that are assignable to an individual agent, a group, or an office. Trigger criteria describe the conditions needed to trigger.

If the trigger criteria is met, the SSP launches a query to the SCP or adjunct for further instructions as to how the call should proceed.

The relationship between AIN and the trigger tables (TRIGGRP, TRIGDIG, and TRIGINFO) is mainly established by subscribing to AIN for an agent, a directory number and call type, a group, or an office, and indicating the desired AIN behaviors in the trigger tables.

Table TRIGGRP is the main table used for defining AIN behavior. The table is indexed by a two-part key consisting of

- the AIN group (field TRIGNAME) that associates a symbolic name to a grouping of subscribed TDPs and their triggers
- a TDP (field TDP) that is a symbolic name representing a certain TDP defined by applications

For a particular key, one or more triggers can be assigned, along with criteria. If the criteria of a trigger is met, the trigger is armed and an action is performed according to the pre-specified AIN behavior. The AIN behavior associated

with each trigger group and TDP is provided in field TRIGDATA and its subfields TRIGGER, CRITERIA, and INFONAME. The information name (subfield INFONAME) is the index into table TRIGINFO.

Each application using table TRIGGRP supplies checks for invalid triggers at a given TDP, and invalid criteria at a given TDP and trigger combination.

The order in which triggers are listed in each tuple in table TRIGGRP is the order in which they are encountered during call processing.

If a TDP has more than one trigger, trigger precedence is handled in the following order:

- triggers assigned on an individual basis
- triggers assigned on a group basis
- triggers assigned on an office basis

For related information, refer to tables TRIGDIG and TRIGINFO.

Datafill sequence and implications

The following tables must be datafilled before table TRIGGRP:

- TRIGDIG
- TRIGINFO

The AIN Essentials software option, AIN00002, must be present for table TRIGGRP to be used during call processing.

LNP triggers are datafilled in the same manner as AIN 0.1 Public Office Dialing Plan (PODP) triggers in table TRIGGRP, except that the trigger type LNP replaces PODP.

LNP triggers can use all of the escape criteria available to PODP triggers.

Note: Always set the ESCEA, ESCOP, ESCDN, and ESCCN escape criteria to the trigger group when datafilling an LNP trigger group in table TRIGGRP.

Table size

0 to 31 999 tuples

TRIGGRP (continued)

Datafill

The following table lists datafill for table TRIGGRP.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfield	*Key* This field is the key to the table and consists of subfields TRIGNAME and TDP.
	TRIGNAME	alphanumeric (up to 16 characters)	*AIN trigger name* Enter the trigger name that is used to define a group of triggers. Table TRIGGRP associates a symbolic name to a grouping of subscribed trigger detection points (TDP) and their triggers. The symbolic name is bound against a type, an AIN group identifier, to be used in subscription tables.
	TDP	alphanumeric (up to 8 characters)	*Trigger detection points* Enter a symbolic name representing a certain TDP that is subscribed to. The range of values for this field is AIN_TDP_TYPE, which is a symbolic range defined by applications. The range of values includes OCPB, ONOA, INFOCOL, and INFOANAL.
TRIGDATA		see subfields	*Trigger data* This field consists of up to 16 multiples of subfields TRIGGER, CRITERIA, and INFONAME. If less than 16 multiples are required, end the list with a $ (dollar sign).

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRIGGER	alphanumeric (up to 8 characters)	*Trigger* Enter a symbolic name representing a subscribed trigger. During call processing, the triggers are checked in the order that they are datafilled in this table. Valid values are AFR, CDPCODE, GENTRIG, INTEROFF, LNP, N11, OCPB, OFFHKDEL, OFFHKIMM, ONOA, ORIGATT, PRIB, PODP, PODPFEAT, SFC, TBUSY, TERMATT, TNOA. ***Note:*** Although entries PRIB, TBUSY and TNOA show on the switch, you cannot datafill these values.

TRIGGRP (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CRITERIA	ASSIGNED, BC, CT, DG, ESC, ESCCN, ESCDN, ESCEA, ESCGP, ESCMDC, ESCOP	*Criteria types* Enter up to four criteria selectors. If fewer than four selectors are required, end the list with a $ (dollar sign). ORIGATT, INFOANAL, INFOCOL, and TERMATT support ASSIGNED (unconditional triggering) criteria under the GENTRIG trigger. ORIGATT supports BC (bearer capability) criteria under the GENTRIG trigger. Enter CT for call type and datafill subfield CALLTYPE. Enter DG for digit and datafill DIGNAME. Enter ESC if calls in which an escape code has not been dialed should trigger. Escape codes for the off-hook delay trigger are datafilled in table TRIGESC. Escape codes for the Shared Interoffice trigger are datafilled in table TRGSIESC. Escape code criteria is mandatory for the Off-Hook Delay trigger and optional for the Shared Interoffice trigger. Enter ESCCN to prevent coin dialtone first (CDF), coin coin-first (CCF), and coin semi-postpay (CSP) agent calls (both POTS and RES) from triggering. The option only applies on the originating switch. Datafill subfield TYPECALL. For Local Number Portability (LNP), the following ESCCN options apply: DD, OA, DD_OA, NP, DD_NP, OA_NP, ALL Enter ESCDN to escape a trigger when the dialed DN is resident on the switch. Enter ESCEA to escape a trigger when the call is an equal access call.

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			To escape the PODP trigger when the GAP is present, enter ESCGP for Escape Generic Address Parameter (applied to PODP trigger type). Enter ESCOP to escape atrigger when the call is an operator call. Enter ESCMDC to escape the Off_Hook_Delay trigger if the call is placed in the Intercom Range Enter FTC to allow calls to trigger at TDP-2 by Feature Code Criterion. A DIGNAME value corresponding to an existing entry in table TRIGDIG must also be entered. Enter MDC to allow calls to trigger at TDP-2 by Minimum Digit Criterion. Datafill refinement MINDIGS. Enter SPC to allow calls to trigger at TDP-2 by Specific Digit String Criterion.
	MINDIGS	0 to 255	*Minimum digits* Specifies the value of the minimum digits required. Enter a value no greater than 18 for CS-1R on the DMS-SSP.
	DIGNAME	alphanumeric (up to 8 characters)	*Digit name* Enter the digit translator used to index into table TRIGDIG. The digit name must be previously datafilled in table TRIGDIG. If this field contains datafill, subfield INFONAME must be set to NIL.
	CALLTYPE	VBINFO or CMDATA	*AIN call type* Enter VBINFO for voice-band information. Enter CMDATA for circuit mode data.

TRIGGRP (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TYPECALL	DD, NP, OA, DD_NP, DD_OA, OA_NP, or ALL	*Type of call* Type of coin call for the ESCCN criteria. Enter DD for direct dialed. Enter NP for no prefix local. Enter OA for operator assisted. Enter DD_NP for direct dialed and no prefix local. Enter DD_OA for direct dialed and operator assisted. Enter OA_NP for operator assisted and no prefix local. Enter ALL for direct dialed, no prefix local, and operator assisted.
	INFONAME	alphanumeric (up to 8 characters) or NIL	*AIN trigger information identifier* Enter the trigger information identifier. The entry is either NIL or an index into table TRIGINFO where the SCP or adjunct information is provided. If field DIGNAME contains datafill, the entry in subfield INFONAME must be NIL. If trigger AFR is used, the entry in subfield INFONAME must be NIL. If trigger ESCMDC is datafilled in the CRITERIA field, then the entry in subfield INFONAME must be datafilled with an index into a tuple in table TRIGINFO. The TRIGINFO entry specifies which service key to use if the call triggers at TDP-2 with the ESCMDC criterion.

Datafill example

The following example shows sample datafill for table TRIGGRP.

MAP display example for table TRIGGRP

```
KEY
                                                TRIGDATA
_____________________________________________________________________
AINGRP1     ORIGATT    (  OFFHKIMM  (CT  VBINFO)  $
NIL)  $
```

NA013

Activity 59014551 introduced ORIGATT and TERMATT fields for the GENTRIG trigger. The ORIGATT and TERMATT fields support the ASSIGNED and BC criterias.

NA010

Feature AU2867 adds the OCPB and ONOA trigger detection points, the OCPB, ONOA and SFC triggers, and the ESCMDC criteria type.Added note about valid entries for the TRIGGER field.

NA008

SFC Trigger 0.2 (AF6852) adds the specific feature code (SFC) trigger to subfield TRIGGER of field TRIGDATA.

AIN 0.2 O_CPB and O_NOA Triggers (AQ1576) adds triggers OCPB and ONOA to the TDP subfield of the KEY field, and to the TRIGGER subfield of the TRIGDATA field.

NA007

Added Local Number Portability trigger.

Added subfield criteria ESCGP.

EUR05

The symbolic range INFOCALL was added to the subfield TDP. The FTC, MDC, and SPC entries were added in subfield CRITERIA.

NA006

Four added entries in subfield CRITERIA. New subfield TYPECALL added.

TRIGGRP (end)

NA005

Table size corrected. Optional escape criteria added for shared interoffice trigger, using new table TRGSIESC.

NA004

Restrictions on trigger types that can be used in the same trigger group were removed. Trigger types can include AFR, CDPCODE, INTEROFF, OFFHKDEL, OFFHKIMM, N11, PODP, PODPFEAT, and TERMATT.

NA003

The following restrictions are removed from the functional description:

- changes to triggers in a trigger group are not permitted if there are currently any subscribers to that trigger group
- triggers may not be added to or deleted from any trigger group entry if there are subscribers to that trigger group

APC03

Reduced table size to 255 tuples and decreased the maximum number of TRIGDATA entries per tuple to 16.

BCS36

Table TRIGGRP was introduced.

Supplementary information

This section provides information on dump and restore procedures for table TRIGGRP.

Dump and restore

Normal dump and restore procedures apply.

TRIGINFO

Table name

Trigger Information

Functional description

The advanced intelligent network (AIN) enables the operating company to create and modify telecommunications services for its subscribers. Two key components of AIN are service switching points (SSP) and service control points (SCP). The SSPs are connected to customer premises by existing telephone lines. The SCPs, or adjuncts, can be programmed to create new services and tailor services to meet individual subscriber needs.

The SSP can recognize calls that need AIN handling by attempting pre-specified triggers at trigger detection points (TDP). A trigger occurs when the SSP determines that it must query the SCP (adjunct) to continue processing a call.

Three major types of information are associated with each trigger:

- types of triggers
- trigger assignments
- trigger criteria

Types of triggers are defined by applications. Trigger assignments specify triggers assignable to an individual agent, a group, or an office. Trigger criteria describe the conditions needed to trigger.

If the trigger criteria is met, the SSP launches a query to the SCP or adjunct for further instructions as to how the call should proceed.

The relationship between AIN and the trigger tables (TRIGGRP, TRIGDIG, and TRIGINFO) is mainly established by subscribing to AIN for an agent, a directory number and call type basis, a group, or an office, and indicating the desired AIN behaviors in the trigger tables.

Table TRIGINFO specifies the address of the SCP (adjunct) that is used when no references to table TRIGDIG are provided for a trigger in table TRIGGRP.

Field ACTION specifies what action is taken by the SSP when the dialed digits match the value in field DIGITS.

Starting with NA003, the AIN default routing (DFLTRT) option allows calls encountering an AIN Final (AINF) treatment to be routed to a DN, an

TRIGINFO (continued)

announcement, or both an announcement and a DN. This option applies to the Terminating Attempt trigger.

R02 is added to the range of values that can be datafilled in field MSGSET of table TRIGDIG in PCLs containing the CNA DRU. R02 represents the AIN R0.2 message set.

Starting with CNA008, the AIN default routing (DFLTRT) option includes the E911ESN selector in order to ensure failure recovery by allowing a tertiary default emergency services number (ESN) to be assigned to Enhanced 911 Emergency Service (E911) calls that have triggered an AIN query to the Emergency Services SCP (ESSCP).

For related information, refer to tables TRIGDIG and TRIGGRP.

Datafill sequence and implications

If global title translation (GTT) is used, table C7GTTYPE must be datafilled before table TRIGINFO.

The AIN Essentials software option, AIN00002, must be present for table TRIGINFO to be used in call processing.

If the specified DFLTRT ESN has not first been correctly datafilled in table E911ESN, the following error message is output: `Invalid ESN specified. ESN must be present in Table E911ESN.`

Entries cannot be deleted from table TRIGINFO if the entry is referenced by another table.

Normal dump and restore procedures apply.

Note: A warning message is introduced in the NA009 release. The warning message is displayed when a user tries to change field MSGSET from R02 to R01. The warning message follows:

Warning: Changing MSGSET from R02 to R01 may impact Service Enablers triggering. Please verify table TRIGGRP for Service Enablers triggers using this infoname.

Table size

0 to 4095 tuples

Table size is allocated dynamically.

Datafill

The following table lists datafill for table TRIGINFO.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
KEY		alphanumeric (up to 8 characters)	*AIN trigger information identifier* This field is the key to the table. Enter the trigger information identifier. This identifier is referred to by table TRIGGRP and the AFR trigger routing tables.
ACTION		EVENT	*AIN action type* Enter the action to be taken by the SSP if triggering takes place. Enter EVENT to launch a query to the SCP or adjunct. Datafill refinements PROTOCOL, MSGSET, and TRANSPRT.
	PROTOCOL	TCAP	*AIN protocol* Enter the transport protocol used to communicate with the SCP or adjunct. Enter TCAP for the transaction capabilities application part.
	MSGSET	alphanumeric (3 characters)	*Message set* Enter the protocol version, such as R01, or R02 are used to communicate with the SCP or adjunct. The range for this field is symbolic. Each application binds in its own symbol.
	TRANSPRT	SS7 or TCPIP	*Transport* Enter the transport medium used to communicate with the SCP or adjunct. Enter SS7 for signaling system 7 and datafill refinements GTT and GTSOURCE. Enter TCPIP for the transmission protocol (TCP) and Internet protocol (IP) (TCP/IP) and datafill refinement INSTANCE. The default is SS7.

TRIGINFO (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	GTT	alphanumeric (up to 16 characters)	*Global title translation* 7If the entry in subfield TRANSPRT is SS7, datafill this refinement. This field is an index into table C7GTTYPE. Enter a global title translation (GTT) name previously datafilled in table C7GTTYPE.
	GTSOURCE	CALLED, CHARGE, or DFLT	*Global title source* If the entry in field TRANSPRT is SS7, datafill this refinement. Enter CALLED if the global title value in the SCCP called party address is taken from the called party identification. Enter CHARGE if the global title value is taken from the charge number. Enter DFLT for the default normally used according to the specifications for a given trigger. For NA003 and up, DFLT is the only valid entry.
	INSTANCE	0 to 3	*Instance* If the entry in field TRANSPRT is TCPIP, datafill this refinement. Enter the instance number of the TCP application. The application name and instance number are mapped internally to the TCP/IP socket address of an application service provider (ASP) in an off-board processor.
OPTIONS		see subfield	*Options* This field consists of subfield OPTION.
	OPTION	DFLTRT or $	*Option* Enter DFLTRT for default routing. This option applies to the Terminating Attempt trigger and occurs if the call encounters an error condition. Enter $ (dollar sign) for no options.

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	SELECTOR	ANN, ANNDN, DN, or E911ESN	*Selector* This field is used for voice announcement, directory number, and ESN default routing selection. Enter ANN for announcement, ANNDN for announcement and directory number, DN for directory number, or E911ESN for ESN default. Complete refinement ANNIDX for selectors ANN and ANNDN. Complete refinement DN for selectors ANNDN and DN. Complete refinement ESN for selector E911ESN.
	ANNIDX	1 to 65535	*Announcement index* Enter the voice announcement index from table AINANNS to be played.
	DN	numeric (up to 15 digits)	*Directory number* Enter the directory number used to route the call. If the DN is nil, call processing continues to the next point in call.
	ESN	0 to 15999	*Emergency Service Numbe* Enter the tertiary default ESN used to route the call.
	SERVICE_KEY	0 to 2147483647	*Service Key* This field specifies the Service Key used if a call triggers at TDP-2 with the Minimum Digits Criterion (MDC).
	SERVIDX	0 to 9999	*Service Index* This field is the index to table SERVINFO.

Datafill example

The following example shows sample datafill for table TRIGINFO.

TRIGINFO (continued)

MAP display example for table TRIGINFO

```
TABLE TRIGINFO

KEY                            ACTION
                 OPTIONS
------------------------------------------------------------
 INFO EVENT TCAP R01  SS7     GTT   DFLT
                (DFLTRT E911ESN 110)$
```

The following example shows the warning message for table TRIGINFO (introduced in NA009).

MAP display example for table TRIGINFO

```
>cha
MACHINES NOT IN SYNC – DMOS NOT ALLOWED
JOURNAL FILE UNAVAILABLE – DMOS NOT ALLOWED
ENTER Y TO CONTINUE PROCESSING OR N TO QUIT
>y
ACTION: EVENT
>
PROTOCOL: TCAP
>
MSGSET: R02
>r01
TRANSPRT: SS7
>
GTT: AINTATS
>
GTSOURCE: DFLT
>
OPTION:
>$
WARNING: CHANGING MSGSET FROM R02 TO R01 MAY IMPACT
SERVICE ENABLERS
         TRIGGERING. PLEASE VERIFY TABLE TRIGGRP FOR
         SERVICE ENABLERS TRIGGERS USING THIS INFONAME.
TUPLE TO BE CHANGED:
   AINSE  EVENT TCAP R01   SS7      AINTATS   DFLT

                $

ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
>
```

Table history

NA009

Update to switch response to describe a warning message. When operating company personnel modify the MSGSET field datafill, the switch generates a warning message.

EUR008

Added the SERVIDX option to the OPTION field.

Extended the range of the SERVICE_KEYfield to from 9999 to 2147483647.

TRIGINFO (end)

NA008

Added the E911ESN selector and its ESN parameter to option DFLTRT.

NA007

Added new value R02 in field MSGSET.

EUR005

Added option SERVICE_KEY.

NA006

Adjusted the datafill example.

NA005

Clarified table size.

NA003

Added refinements SELECTOR, ANNIDX, and DN to subfield OPTION.

BCS36

Introduced table TRIGINFO.

TRIGITM

Table name

Trigger Item Identifier

Functional description

The TRIGITM table defines the trigger items for the DMS trigger item interface.

Datafill sequence and implications

The following tables must be datafilled before table TRIGITM:

- C7GTTYPE
- TIESCDIG

When option LARP is specified, datafill the following tables before table TRIGITM:

- LINEATTR
- XLAPLAN
- RATEAREA
- OCCNAME
- OCCINFO

The following tables must be datafilled after table TRIGITM:

- AINPRI
- OFCTIID
- CUSTTIID

For an office that upgrades to NA012 while still subscribed to trigger groups, the trigger item transition tool converts PODPATTR tuples to the LARP option while converting trigger groups to functionally equivalent trigger items.

For an ONP, add the LARP option to the TRIGITM tuple (based on the PODPATTR tuples that appy) as the table is restored on the inactive side of the switch.

Table size

The system dynamically allocates table size for table TRIGITM between 0 and 32 000 tuples for each TDP.

TRIGITM (continued)

Datafill

The following table lists datafill for table TRIGITM.

Field descriptions (Sheet 1 of 6)

Field	Subfield	Entry	Explanation and action
TDP		1, 3, 4, 17, 19, 20, 22, 30, 32, 33	Trigger item identifier. This field supplies the trigger item definition through a two-part key. Part 1 is the trigger detection point (TDP). Subfield TDP includes: Origination _Attempt (1) Info_Collected (3) Info_Analyzed (4) Network_Busy (17) O_Called_Party_Busy (19) Termination_Attempt (20) Term_Resource_Available (22) T_Busy (30) T_No_Answer (32) O_No_Answer (33)
		Vector of up to 8 characters	Trigger item name. Enter the trigger item name.
TRIGGER		OFFHKIMM, OFFHKDEL, PRIB, INTERNTL, INTEROFF, SFC, PFC, CDPCODE, SDS, N11, LNP, AFR, OCPB, ONEPLUS, OPERSERV, SPECARR, TERMATT, TRA, TBUSY, TNOA, ONOA, TERMATT,	Trigger type. Enter the trigger type. If the value of field TRIGGER is CDPCODE, datafill subfield RPRTDIGS. ***Note:*** When operating company personnel enter a trigger item tuple in table TRIGITM, a change to the corresponding trigger TYPE field cannot occur.

Field descriptions (Sheet 2 of 6)

Field	Subfield	Entry	Explanation and action
	RPRTDIGS	TRANS, NOTRANS	AIN Report Digits. This subfield indicates whether the SSP should perform digit translation on the extension number before it sends a query message. Enter TRANS if the SSP should perform digit manipulation. Enter NOTRANS if the SSP should query using exact digits dialed.
CRITERIA		DG, CT,ESCEA, ESCOP, ESCDN, ESCCN, ESCGP, ESCCARR, ESCCDN, ESCIDDD, ESCLATA, ESCFI, ESCDIG, ESCMDC, ESCDP, ESCPREF	Trigger criteria. Criteria consists of a set of digits, a call type, and escape codes when applicable. If the value of field CRITERIA is DG datafill subfield DIGITS. If the value of field CRITERIA is CT datafill subfield CALLTYPE. If the value of field CRITERIA is ESCCN datafill subfield COIN_CALL_TYPE. If the value of field CRITERIA is ESCCARR datafill subfield CARRIER_GROUP. If the value of field CRITERIA is ESCCDN datafill subfield ESCGROUP. If the value of field CRITERIA is ESCLATA datafil subfields INTRATOLL and INTERTOLL. If the value of field CRITERIA is ESCFI datafill subfield FIS. If the value of field CRITERIA is ESCDIG datafill subfield ESCGROUP. If the value of field CRITERIA is ESCPREF datafill subfield ESCGROUP.
	DIGITS	Vector of up to 15 digits.	Digits. Enter the number for the DN_DIGIT_REGISTER.
	CALLTYPE	VBINFO, CMDATA	Call type. Enter the call type.

TRIGITM (continued)

Field descriptions (Sheet 3 of 6)

Field	Subfield	Entry	Explanation and action
	COIN_CALL_TYPE	DD, NP, OA, DD_NP, DD_OA, OA_NP, ALL	Coin call type. Enter the type of coin call.
	CARRIER GROUP	NOINCASA	Carrier group. Enter the value NOINCASA.
	INTRATOLL	N, Y	Intratoll. Enter Y to indicate an intratoll call, or N to indicate the call is not intratoll.
	INTERTOLL	N, Y	intertoll. Enter Y to indicate an intertoll call, or N to indicate the call is not intertoll.
	FIS	Vector of up to 4 (ICS, ACBFAIL, REDIR, AMSG)	Enter ICS to escape O_BNA triggers if either ICSDEACT (In Call Service Activation Deactivated) or SDSDENY line options are assigned to the triggering agent. Enter ACBFAIL to escape O_BNA triggers if the DN in the OCMB of the triggering agent is unreliable or if ACB is not available on the line. Enter REDIR to escape O_BNA triggers on the redirected leg of a redirected interswitch call. Enter AMSG to escapes O_BNA triggers if either MSGDEACT or AMSGDENY line options are assigned to the triggering agent.
STATE		ULK, LK	Administrative state code. This field enables and disables a trigger item. Entry ULK (unlocked) activates a trigger item. Entry LK (locked) deactivates a trigger item.

Field descriptions (Sheet 4 of 6)

Field	Subfield	Entry	Explanation and action
ACTION	EVENT	EVENT, ESCAPE Up to 8 characters	Action. This field specifies the query behavior of the service switching point (SSP). The EVENT value instructs the SSP to launch a query. The ESCAPE value prevents the SSP from making a query. Event. When the ACTION field is set to EVENT the service logic host route (SLHR) information is required. Message Set, Transport, and global title translation (GTT) make up the valid SLHR fields.
	MSGSET	R01R02	Message set. This field indicates the functionality of the trigger referring to this tuple. R01 (AIN Essentials trigger and functionality), or R02 (AIN Service Enablers trigger and functionality).
	TRANSPORT GTT	SS7, TCPIP C7_GT_ TYPE_NAME	Transport. This field supports North American signaling system 7 (SS7). Global title type. The Global Title name is used to determine the translator used on the node to perform translations based on the global title address.
OPTIONS		DFLTRT, POTUSE, LARP	Options. This field defines the optional attributes for the trigger. Enter DFLTRT for default routing. This option applies only to triggers N11 and SDS, and occurs if the call encounters an error condition. Datafill subfield SELECTOR. Enter POTUSE to specify the SDS trigger for a specific service or potential use. Datafill refinement POTUSE. Enter LARP to specify overriding line attributes. This option applies to triggers SDS, N11, and PFC. Datafill subfields LINEATTR, XLAPLAN, RATEAERA, PIC, LPIC, REDIR. FWDATTR, REDIR_REASON, REDIR_PARTY_ID, TCM, and CHARGE_NUMBER

TRIGITM (continued)

Field descriptions (Sheet 5 of 6)

Field	Subfield	Entry	Explanation and action
	LINEATTR	alphanumeric (1 to 16 characters)	Line Attribute Index. Enter the line attribute index as defined in table LINEATTR.
	XLAPLAN	alphanumeric (1 to 16 characters)	XLAPLAN index. Enter the XLAPLAN line attributes index to identify the translations plan as defined in table XLAPLAN.
	RATEAREA	alphanumeric (1 to 16 characters)	RATEAREA index. Enter the RATEAREA line attributes index to identify the RATEAREA line attributes as defined in table RATEAREA.
	PIC	alphanumeric (1 to 16 characters)	Primary Interexchange (or InterLATA) Carrier. Enter the PIC as defined in table OCCNAME. For no carrier, enter NILC.
	LPIC	alphanumeric (1 to 16 characters)	Local Primary IntraLATA Carrier. Enter the LPIC as defined in table OCCNAME. For no carrier, enter NILC.
	REDIR	N,Y	Redirection field. This is a BOOLEAN field and can be datafilled as Y or N. The default value is N.
	FWDATTR	N,Y	Forwarding Attribute field. This is a selector field. This is a BOOLEAN field and can be datafilled as Y or N. The default value is N. For PFC triggers, if REDIR=Y then FWDATTR cannot=N. This is an error scenario.
	REDIR_ REASON	UNCOND, UNKNOWN, BUSY, NOREPLY	Redirecting Reason. This field can be datafilled by any values specified in Entry. This field will be prompted only when REDIR=Y and FWDATTR=Y.

Field descriptions (Sheet 6 of 6)

Field	Subfield	Entry	Explanation and action
	REDIR_PARTY_ID	3 to 15 digits	Redirecting Party ID. This field can be datafilled by any valid 3 to 15 digit. The nil-value is represented by $. This field will not be prompted if REDIR=N This field will not be prompted only when REDIR=Y and FWDATTR=Y.
	TCM	0 to 2 digits	Traveling Class Mark. This field can be datafilled by any 2 digit number. The nil-value is represented by$. This field will be prompted if REDIR=N and FWDATTR=Y or REDIR=Y and FWDATTR='Y. Note: The vaules 11 and 12 are reserved and 10 is spare. The values A, B, and C cannot be used with TCM.
	CHARGE_NUMBER	3 to 15 digits	Charge Number. This field can be datafilled by any valid 3 to 15 digits. The nil-value is represented by $. This field will be prompted if REDIR=N and FWDATTR=Y or REDIR=Y and FWDATTR=Y.

Datafill example

The following example shows sample datafill for table TRIGITM.

TRIGITM (continued)

MAP display example for table TRIGITM

```
 4 AUTON411
   N11                                                ( DG     411)$
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

17  AUTOAFR
    AFR                                                             $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

19 AUTOOCPB
  OCPB                                                              $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

20  AUTOTAT
TERMATT                                                             $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

22   TRATRG
    TRA                                                             $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

30 AUTOTBSY
 TBUSY                                                              $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

32 AUTOTNOA
  TNOA                                                              $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $

33 AUTOONOA
   ONOA                                                             $
  ULK  EVENT  R02   SS7     AUTOAINGT1
                                                                    $
```

Table history

NA015

Feature A59022554 added two new prompts, REDIR and FWDATTR, to table TRIGITM in option LARP for SDS/N11/PFC triggers. FWDATTR adds four new refinement subfields REDIR_REASON, REDIR_PARTY_ID, TCM, and CHARGE_NUMBER.

NA014

Feature 59016005, Term Resource Available Trigger Processing, adds trigger TRA (22).

NA012

Feature A59006358, E911 parameter expansion, adds an E911 type to the Potential Use (POTUSE) entry in the OPTIONS field. The entry “POTUSE E911” indicates a trigger used for E911 calls.

Added option LARP, and the subfields that follow: LINEATTR, XLAPLAN, RATEAREA, PIC, and LPIC.

NA011

Added an ESCPREF escape criteria.Added the entries that follow to the TRIGGER field: SPECARR, ONEPLUS, INTERNTL, and OPERSERV.

NA010

Feature AJ5080 adds new triggers TBUSY and TNOA.

Feature AU2867 adds the value ESCMDC to field CRITERIA in table TRIGITM.

Feature AJ5123 adds three new triggers (CDP, OCPB, ONOA) and new criteria (CARR, CDN, ESCDPESCIDD, ESCFI, ESCLATA, ESCCDN, ESCCARR, IDDD, LATA and FI).

Feature AU2858 adds trigger PRIB to field TRIGGER.

Feature AU2934 adds triggers OHI, OHD, SIO, SFC, PFC, and TAT. This feature also includes individual and customer group support for trigger AFR and adds the new criteria value ESCDIG.

NA009

AIN Service Enablers Service Administration-Tables introduces table TRIGITM for the office wide triggers SDS, N11, and LNP at TDP Info_Analyzed, and AFR at the Network_Busy TDP.

TRIGITM (end)

Supplementary information

Error messages

When operating company personnel attempt to datafill PRIB with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the PRIB trigger ***

When operating company personnel attempt to datafill SFC with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the SFC trigger ***

When operating company personnel attempt to datafill OCPB with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the OCPB trigger ***

When operating company personnel attempt to datafill ONA with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the ONA trigger ***

When operating company personnel attempt to datafill TBSY with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the TBSY trigger ***

When operating company personnel attempt to datafill TNOA with R01 message set in table TRIGITM, the MAP will display the following error message.

*** The R01 msgset is not valid for the TNOA trigger ***

TRKAIN

Table name

Trunk Group AIN Trigger

Functional description

Table TRKAIN supports AIN trigger processing on a trunk-group basis.

Prior to CSP03, AIN functionality was assigned to trunk groups using the AIN option in table TRKGRP. The AIN option has been removed from table TRKGRP, and table TRKAIN is used instead.

Table TRKAIN enables the datafill of the CLLI of the trunk group that subscribes to AIN. This table also allows the name of a trigger group in table TRIGGRP or a trigger item in table TRIGITM.

Datafill sequence and implications

Tables TRKGRP, TRIGITM and TRIGGRP must be datafilled before table TRKAIN.

Table size

0 to 8191 tuples. The size is equivalent to that of table TRKGRP.

TRKAIN (continued)

Datafill

The following table lists datafill for table TRKAIN.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		alphanumeric	Trunk group key. Enter the CLLI of a trunk group that subscribes to AIN. The trunk group must already exist in table TRKGRP and must represent one of the following trunk group types: • IBNTI • IBNT2 • PRA • TI • IT • P2 (analog) • PX (digital) • T2 ***Note 1:*** The trunk types in all groups must be incoming or two-way. ***Note 2:*** P2 (analog) and PX (digital) trunks and trunk groups with GRPTYP=CELL in table TRKGRP can be added to table TRKAIN (NA008).
AINGRP		alphanumeric (1 to 16 characters)	AIN group. Enter the AIN group name to use datafill in table TRIGGRP. Enter TIID to datafill the trigger item provisioning model refinements that follow.
	TDP	1, 3, 4, 17, 19, 20, 30, 32, 33	Trigger detection point. Datafill the appropriate TDP.

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TINAME	alphanumeric vector (1 to 8 characters)	Trigger item name. Datafill the trigger items defined in table TRIGITM at the specified TDP.
	TRIGACT	ON, OFF	Trigger item assignment activation state code. Datafill the value ON to activate the trigger item identified by the TIID. Datafill the value OFF to deactivate the trigger item identified by the TIID

Datafill example

The following example shows sample datafill for table TRKAIN.

MAP display example for table TRKAIN, trigger group data model

```
GRPKEY                                          AINGRP
_____________________________________________________

ISUPICITT                                     INDTRIG01
```

The following example shows sample datafill for table TRKAIN with trigger item provisioning

MAP display example for table TRKAIN, trigger item data model

```
GRPKEY                                                AINGRP
_____________________________________________________

IBNTK              TIID (3 OFFDEL OFF) (17 AFR ON) $
```

Table history

NA010

Feature AU2933 adds option TIID to field AINGRP. Subfields TDP, TINAME, and TRIGACT contain supporting trigger item provisoning datafill.

TRKAIN (end)

NA008

AIN 0.2 Trigger Upgrade (CNA) (AF6762) allows trunk groups that have a GRPTYP=CELL in table TRKGRP to be added to table TRKAIN. P2 and PX trunks can be added to table TRKAIN (enabled by feature AIN 0.2 O_CPB and O_NOA Triggers).

NA004

Table TRKAIN was created.

Supplementary information

The trunk group key cannot be an outgoing trunk.

Dump and restore procedures

This section contains information on dump and restore procedures for table TRKAIN.

During a software upgrade to CSP03, the dump and restore process copies the AIN subscription data from table TRKGRP on the active side into table TRKAIN on the inactive side. The AIN option is then removed from table TRKGRP.

TRKDCTS

Table name

Trunk Destination Code Traffic Summary Table

Functional description

Table TRKDCTS defines the trunk groups and destination codes used for collecting traffic data by operational measurement (OM) group TRKDCTS. OM group TRKDCTS indexes data by the trunk group and destination code.

Datafill sequence and implications

The following tables must be datafilled before table TRKDCTS:

- TRKGRP
- DCTS

Table size

Up to 2048 tuples (fixed)

Datafill

The following table lists datafill for table TRKDCTS.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TDCTSKEY		alphanumeric (1 to 16 characters)	*Trunk destination code traffic summary key* Enter a character string to define the table key that represents the trunk group and destination combination.
TRKGNAME		alphanumeric (1 to 16 characters)	*Trunk group name* Enter a character string that corresponds to the CLLI of a valid outgoing (IBNTO) or two-way (IBNT2) trunk group. This value must be datafilled in table CLLI first.

TRKDCTS (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DESCODE		0 to 999999	*Destination code* Enter a destination code for which OM group TRKDCTS is required to accumulate traffic data. This value must be datafilled in table DCTS first. Do not enter destination codes that are part of, or include, an earlier defined destination code. For example, if 123 is a defined destination code, neither 12 nor 1234 can be entered for traffic data collection.

Datafill example

An example of datafill for table TRKDCTS follows.

- In this example, office traffic data is datafilled for the following destination codes and trunk group combinations:
- trunk group OGTOAAA and destination code 1121
- trunk group OGTOAAA and destination code 741
- trunk group OGTOAAA and destination code 335
- trunk group OGTOBBB and destination code 4166

MAP display example for table TRKDCTS

```
TDCTSKEY        TRKGNAME        DESTCODE
_____________________________________________

OGTOAAA1121     OGTOAAA         1121
OGTOAAA741      OGTOAAA         741
OGTOAAA335      OGTOAAA         335
OGTOBBB4166     OGTOBBB         4166
```

Table history

GL03

Values for field DESTCODE changed.

BCS34

Table TRKDCTS was introduced for the DMS100i product.

TRKGRP

Table name

Trunk Group Table

Functional description

Table TRKGRP contains operating company-defined data associated with each trunk group that exists in the switching unit. Entries in this table consist of the following information:

- a unique common language location identifier (CLLI) associated with each trunk group entry
- the group type of the trunk group
- the traffic separation number associated with the trunk group
- the pad group assigned to the trunk group
- the operational measurements (OM) no-circuit class associated with the trunk group
- additional refinements dependent on the group type

The titles of the documentation section associated with each of the trunk group types available in table TRKGRP are listed in the table below.

TRKGRP type (Sheet 1 of 4)

Type	Title
A5	Two-way or Outgoing from Local to N.E.
AI	Automatic Intercept System (AIS)
AN	Automatic Number Announcement
ANI	Automatic Number Identification
ATC	Access Tandem to Carrier
CA	Come-again Signaling
CELL	Cellular
CISANI	Commonwealth of Independent States Automatic Number Identification
DA	Directory Assistance Charging
DS0	Digital Signal Level 0

TRKGRP (continued)

TRKGRP type (Sheet 2 of 4)

Type	Title
E911	Enhanced 911 Emergency Service
ES	Outgoing to Emergency Service Bureau
GER2W	Two-way 1TR7 ISUP
GERIC	Incoming 1TR7 ISUP
GEROG	Outgoing 1TR7 ISUP
GW	Gateway Trunks
IBNTI	IBN Incoming
IBNT2	IBN Two-way
IBNTO	IBN Outgoing
IET	Inter-exchange
INT101	International 101 Test
IR	Outgoing No Outpulsing
IS	Tandem Switching No Digits Incoming
IT	Intertoll
ITL2	International 102 Test
ITOPS	International TOPS
LOOPA	Line Loop Test Unit
LP4W	Four-wire Digital Loop Test Line
LPBK	Loopback
MAINT	Maintenance
MTR	International
NFA	Network Facility Access
NU	Nailed-up Connection
OC	OG/2W from Local to CAMA

TRKGRP type (Sheet 3 of 4)

Type	Title
OI	Operator Incoming
OP	OG/2W from Local or Toll to TOPS or TSPS
OPR	International Operator (No Metering)
OS	Outgoing from Toll
P2	Two-way PBX DID/DOD
PRA	ISDN Primary Rate Access
PRIVLN	Private Line
PX	Two-way Digital PBX
RC	Recording Completing
RONI	TOPS Remote Operator Number Identification
ROTL	Remote Office Test Line (ROTL)
SC	2W/IC from North AMR5 or CAMA
SOCKT	Short or Open Circuit Test Line (OCKT) or SCKT
SPC	Semi-permanent Connections
T101	101 Communication Test Line
T105	Terminating 105 Test Line
T2	Two-way End Office
TD	Incoming and Outgoing Test Desk
TDDO	Tandem Two-stage Direct-dial Overseas
TI	Incoming End Office
TL	CCIS Transmission Link
TO	Outgoing End Office
TOPS	TOPS Trunk Groups
TOPSARU	TOPS External Audio Response Unit

TRKGRP (continued)

TRKGRP type (Sheet 4 of 4)

Type	Title
TOPSVL	TOPS Voice Link
TPS101	International 101 Test Line
TTL2	Terminating 102 Test Line
UT	Utility Telemetry
VR	Operator Verification
X75	X75
ZI	0+ or - Tandem to TSPS or TOPS

Description of trunk group types

The set of trunk group types available for use in a specific office is a function of the hardware and software features and feature packages installed in that office. Some trunk group types that are available in an office have fields that are subject to the presence of a feature.

Before attempting to datafill table TRKGRP (or any other data schema table) a trunking diagram or equivalent, reflecting the hardware and software features and feature packages ordered for the office, must be at hand.

The trunk group type descriptions listed in the following table are useful as a general guide only and should not be used as a definitive statement of the trunk group types available for use in any specific office.

Trunk group type descriptions (Sheet 1 of 13)

Type	Description
AI	*Automatic intercept system* In a DMS office, outgoing trunk group type AI interfaces with an automatic intercept system (AIS). An information digit that is sent to the AIS selects the recorded announcement that is returned to the originator of the call.
AN	*Automatic number announcement* In a DMS end office, outgoing trunk group type AN interfaces with an automatic number announcement (ANA) system. ANI spill consisting of the actual calling number is sent to ANA, which returns a recorded voice announcement of the calling number.

Trunk group type descriptions (Sheet 2 of 13)

Type	Description
ANI	*International automatic number identification* In an international DMS office, two-way, incoming, or outgoing trunk group type ANI interfaces with another international office for applications that require automatic number identification (ANI) information. In a DMS international centralized automatic message accounting (ICAMA) toll office, two-way, or incoming trunk group type ANI interfaces with an international office for calls requiring ICAMA services. Trunk group type ANI handles ANI signaling. A sample trunking configuration for this trunk group type is shown in figure 3.
ATC	*Access tandem to carrier* In a DMS access tandem or a DMS equal-access end office, two-way trunk group type ATC interfaces with an interexchange carrier to carry equal-access traffic. A sample trunking configuration for trunk group type ATC is shown in figure 7.
A5	*Toll from North Electric AMR5* In a DMS end office, outgoing trunk group type A5 interfaces with an AMR5 toll office to handle automatic message accounting (AMA) and operator-assisted calls that use AMR5 signaling. Two-way trunk group type A5, in addition to the outgoing trunk functions, can be set up for the following incoming trunk functions: • dedicated to toll completing • dedicated to verification • combined toll completing and verification Refer to trunk group type VR for additional information on verification calls.
CA	*Siemens adds come-again signaling* In a DMS end office, outgoing trunk group type CA interfaces with a Siemens ADDS switch for one-plus (1+), zero-plus (0+) and zero-minus (0-) calls, each identified by a distinct ID digit that is prefixed to the called number. Coin and non-coin calls are routed using separate trunk groups.
CELL	*Cellular* Outgoing, incoming, or two-way trunk group type CELL allows a Bellcore type 2A interconnection between an access tandem (AT) DMS-200 switch and a cellular mobile carrier (CMC) switch. A sample trunking configuration for trunk group type CELL is shown in figure 8.
CISANI	*Commonwealth of Independent States automatic number identification* Trunk group type CISANI is used to distinguish toll ANI trunks from local and local tandem trunks in the Commonwealth of Independent States (CIS) telephony network. This trunk group is used by the international DMS for ICAMA calls.

TRKGRP (continued)

Trunk group type descriptions (Sheet 3 of 13)

Type	Description
DA	*Directory assistance charging* In a DMS end office, outgoing trunk group type DA interfaces with a directory assistance charging system. ANI spill can be outpulsed provided the call type is operator assisted (OA).
DS0	*Digital signal level 0* In a DMS service switching point (SSP) office, trunk group type DS0 has the capability of Common Channel Signaling 7 (CCS7) link access to a signal transfer point (STP) node. The DS0 link is a single channel 64 kbit/s link.
ES	*Emergency service bureau* In a DMS end office, outgoing trunk group type ES interfaces with an Emergency Service Bureau (ESB) system. Depending on the ESB setup, the trunk group can have ANI spill of the calling number in addition to outpulsing of the called number (for example, 911). Alternately, the trunk group can be set up to have no ANI spill (independent of whether the called number is outpulsed).
E911	*Enhanced 911 Emergency Service* In a DMS E911 tandem (DMS-100 or 100/200 with the Enhanced 911 Emergency Service feature), incoming trunk group type E911, together with tables E911PSAP and E911ESN, provides selective routing to the applicable public safety answering point (PSAP) using the emergency service number (ESN) corresponding to the emergency service zone (EZN) of the originator of the 911 call.
GERIC GEROG GER2W	*Incoming 1TR7 ISUP* *Outgoing 1TR7 ISUP* *Two-way 1TR7 ISUP* Trunk group type GERIC, GEROG, and GER2W are required for the German Intelligent Network field trial in order to handle the requirements of 1TR7 ISUP signaling when the direction of the trunk group is incoming, outgoing, or two-way, respectively.
GW	*International gateway* In a DMS international gateway office, two-way, incoming, or outgoing trunk group type GW is used as follows: • Gateway R1 and R1-5 Hybrid Signaling interfaces with the North American switching network. • Gateway CCITT 5 Signaling interfaces with the international switching network. • Gateway CCITT 6 Signaling interfaces with the international switching network.

Trunk group type descriptions (Sheet 4 of 13)

Type	Description
IBNT2 IBNTI IBNTO	*Two-way Integrated Business Network* *Incoming Integrated Business Network* *Outgoing Integrated Business Network* In a DMS Integrated Business Network (IBN) end office, two-way trunk group type IBNT2, incoming trunk group type IBNTI, and outgoing trunk group type IBNTO interface with an IBN end office as tie trunk groups and FX trunk groups that provide one or two-way access between IBN customer groups on different switching units, or access to the same customer group when the customer group is assigned to two or more switching units.
IET	*Interexchange* IET is a general purpose tandem trunk type used in the setup of trunks that operate with send-receive multifrequency (SRMF) signaling.
INT101	*International 101 test* In a DMS gateway office, incoming or outgoing trunk group type INT101 is used for the international 101 test.
IR	*Intercept, information, or repair with no outpulsing* In a DMS end office, outgoing trunk group type IR interfaces with an intercept, information, or repair desk. No digits are outpulsed.
IS	*Tandem switching no digits incoming* In a DMS toll or end office, incoming trunk group type IS can route a call (upon seizure) through table OFRT to an outgoing trunk group at the route index specified for the trunk group. Table OFRT permits digit prefixing where appropriate. Calls from a number of incoming trunk groups can be datafilled to go out on a common trunk group.
IT	*Toll connecting* In a DMS toll or end office, two-way, incoming, or outgoing trunk group type IT interfaces with a toll or end office to carry toll connecting traffic including toll access, toll completing, and toll tandem. Overlap outpulsing is possible on incoming or two-way dial pulse (DP) trunk groups provided field OVLP in table TRKSGRP is set to Y (yes). In offices without the ROTL software package (without trunk group type T105), the 105 test line can be datafilled as trunk group type IT. A sample trunking configuration for trunk group type IT is shown in figure 7.
ITL2	*International 102 test* In a DMS office, trunk group type ITL2 is used for the international 102 test.

TRKGRP (continued)

Trunk group type descriptions (Sheet 5 of 13)

Type	Description
ITOPS	*International Traffic Operator Position System* In a DMS international office, outgoing trunk group type ITOPS interfaces with an international Traffic Operator Position System (TOPS) office for calls requiring the services of an ITOPS operator. In a DMS international TOPS office, incoming trunk group type ITOPS interfaces with a DMS international office for calls requiring the services of an ITOPS operator. In both cases, the signaling format meets the following international TOPS requirements: • Operator control of disconnect, which is used on outgoing trunks from the local end office to a toll office with ITOPS positions, allows ITOPS operators to have control of the calling and the called parties involved in a call. When the calling party disconnects (on-hook signal sent from end office to toll office), the end office does not initiate disconnect until it receives an on-hook signal from the toll office. This on-hook signal is under ITOPS operator control. • The RGF (ring forward) wink signal is used by an ITOPS operator at the originating toll office to recall the ITOPS operator at the terminating toll office for a previously established connection. • The RGB (ring back) wink signal is used by an ITOPS operator at the terminating toll office to recall the ITOPS operator at the originating toll office for a previously established connection. This signal is also used by an ITOPS operator to ring a calling party that has been disconnected. To meet ITOPS requirements, the line signaling system can support either delay-dial start or wink start. Trunk group type ITOPS software handles ANI. A sample trunking configuration for trunk group type ITOPS is shown in figures 4, 5, and 6.
LOOPA	*Looparound test* In a DMS office, trunk group type LOOPA is used for the looparound test.
LPBK	*Loopback trunk* In a DMS ISDN office, incoming and outgoing trunk group type LPBK provides a means of connecting two agents in the same office when a call between the two agents is not possible using other loopback facilities. The call between the two agents is split into two legs: • The first leg of the call selects an outgoing LPBK trunk to terminate the original call. The outgoing trunk loops back to the same office to come in as an incoming trunk of trunk group type LPBK. • The second leg of the call connects the incoming LPBK trunk to the terminating agent.
LP4W	*Four-wire digital loop test* The four-wire digital loop test line trunk group is used for performing terminating and originating looparound tests on CCITT 7 ISUP trunks in a DMS-300 switching unit.

Trunk group type descriptions (Sheet 6 of 13)

Type	Description
MAINT	*Maintenance tests* In a DMS office, trunk group type MAINT is used for the following maintenance support items and tests: • dialable cable locator tone • digital test unit • emergency stand-alone • position head set • position jack • line test unit • LTU monitor and talk • metallic test unit • 108 test line • trunk test transmission • terminating transmission test
MTR	*International with metering* In a DMS international office, two-way, incoming, or outgoing trunk group type MTR interfaces with other international offices for local or national traffic. Metering is available as an option; calls that do not require metering can also use MTR trunks. Metering (MTR) type trunk groups handle the majority of call types. A normal call requiring no operator and no ICAMA applications goes through the network on MTR trunks. Sample trunking configurations for trunk group type MTR are shown in figures 1, 3, 4, 5, and 6.
NFA	*Network facility access* Trunk group type NFA is used for the assignment of network facility access (NFA) trunks that connect a subscriber line to an intelligent peripheral processor (IP). These connections provide subscribers with direct access to services provided directly by the IP.
NU	*Nailed-up connection* In a toll, end, or international gateway office, a trunk of incoming trunk group type NU can be permanently connected (nailed-up) to a trunk of outgoing trunk group type NU. Table NLUPCLLI lists each nailed up connection that consists of an incoming trunk group type NU trunk and an outgoing trunk group type NU trunk.

TRKGRP (continued)

Trunk group type descriptions (Sheet 7 of 13)

Type	Description
OC	*Local ANI to toll CAMA* In a DMS end office, outgoing trunk group type OC interfaces with a toll office to carry noncoin subscriber dialed chargeable calls (TOPS operator assistance not required) recorded by CAMA in the toll office (calls are not recorded by LAMA in end office). Signaling formats include the CAMA ANI pulsing format, which is used for CAMA offices that do not use Traffic Service Position Systems (TSPS). If the far-end toll office is a DMS switch, the far end of trunk group type OC enters the far-end DMS toll office as trunk group type SC. In a DMS end office, two-way trunk group type OC interfaces with a toll office to carry, in addition to the outgoing trunk traffic, the following incoming trunk traffic: • dedicated to toll completing • dedicated to verification • combined toll completing and verification Refer to trunk group type VR for additional information on verification calls. In a DMS equal access end office (EAEO) or an access tandem office, two-way trunk group type OC interfaces with feature group B (FGB) equal access (EA) carriers. In a DMS toll or TOPS office, outgoing trunk group type OC can tandem a call to another toll office as a CAMA call, outpulsing ANI when required. A sample trunking configuration for trunk group type OC is shown in figure 7.
OI	*Incoming operator verification* In a DMS office, incoming trunk group type OI interfaces with an operator switchboard or a TOPS office to carry one of the following traffic options: • dedicated to toll completing • dedicated to verification • combined toll completing and verification Refer to trunk group type VR for additional information on verification calls.

Trunk group type descriptions (Sheet 8 of 13)

Type	Description
OP	*Local TSPS pulsing to TOPS* In a DMS end office, outgoing trunk group type OP interfaces with a TOPS or TSPS office and can be set up to carry any or all of the following types of traffic: • noncoin subscriber dialed chargeable calls recorded by CAMA in the TOPS office using ANI or ONI (provided they are not recorded by LAMA in the end office) ***Note:*** This function is similar to the function of trunk group type OC. TOPS operator assistance is not required. • coin and noncoin, TOPS operator-assisted calls that can be recorded by CAMA in the TOPS office using ANI or ONI Signaling formats include the pulsing format for TSPS from local office. If the far-end switch is a DMS TOPS office, the far end of trunk group type OP enters the DMS TOPS office as trunk group type TOPS. In a DMS end office, two-way trunk group type OP can be set up for the following incoming trunk functions (in addition to the outgoing trunk functions): • dedicated to toll completing • dedicated to verification • combined toll completing and verification A sample trunking configuration for trunk group type OP is shown in figure 7.
OPR	*International with operator* In a DMS international office, two-way, incoming, or outgoing trunk group type OPR interfaces with other international offices for local or national traffic involving an operator. Metering is not available. Operator (OPR) trunks are used to connect BA-1 switchboard operators to the DMS, and to connect two DMS switches for calls from one BA-1 switchboard operator to another office (possibly to another BA-1 switchboard operator). A sample trunking configuration for trunk group type OPR is shown in figure 2.
OS	*Toll completing joint hold* In a DMS toll office equipped with feature package NTX193AA (4X Operation-AMR 5 Format ANI), outgoing trunk group type OS is used for toll completing and toll tandem calls requiring the joint hold feature.
PRA	*Primary rate access* Trunk group type PRA is used by the ISDN Primary Rate Access feature.
PRIVLN	*Gateway private line* Incoming or outgoing trunk group type PRIVLN is used for private lines in a DMS gateway office.

TRKGRP (continued)

Trunk group type descriptions (Sheet 9 of 13)

Type	Description
PX	*DID/DOD PBX digital* In a DMS end office, two-way, incoming, or outgoing trunk group type PX interfaces with a digital private branch exchange (PBX) for direct inward dialing (DID), direct outward dialing (DOD), or both.
P2	*DID/DOD PBX* In a DMS end office, two-way, incoming, or outgoing trunk group type P2 connects with a PBX for DID, DOD, or both.
RC	*Recording completing* In a DMS office, trunk group type RC interfaces to a 3CL switchboard with an audible class of service tone forwarded to the operator.
RONI	*Remote ONI* In a TOPS office, trunk group type RONI is part of a feature that records ONI calls (using LAMA or CAMA) in an office with no CAMA positions in operation. ANI fail and ONI calls are routed to a TOPS office where they come in on a trunk group of type RONI. The remote TOPS operator communicates by voice with the originator of the call and keys in the calling number, which is sent back to the original office where the call is recorded by LAMA or CAMA.
ROTL	*Remote office test line* Trunk group type ROTL is used in a DMS office that is equipped with feature BR0069 (Remote Office Test Line).

Trunk group type descriptions (Sheet 10 of 13)

Type	Description
SC	*Incoming/two-way CAMA* In a DMS toll office, and under certain conditions in a DMS TOPS office, incoming trunk group type SC interfaces with an end office to carry noncoin subscriber dialed chargeable calls (TOPS operator assistance not required) recorded by CAMA in the toll office (the calls are not recorded by LAMA in the far-end office). Signaling formats include the CAMA ANI pulsing format (non-TSPS CAMA office). ANI calls are recorded by CAMA automatically. Inband coin control is possible. ANI fail and ONI calls are handled by the CAMA operator who enters the calling number manually to enable the recording of the call by CAMA. The call is then sent on for toll completion. If the 4X feature is present, operator-assisted traffic (0+ and 0-) can tandem through the switch to a switching unit with TOPS or TSPS using outgoing trunk group type OP. If the far end is a DMS switch, the far end of trunk group type SC leaves the far-end DMS switch as trunk group type OC. In a DMS toll office, two-way trunk group type SC can be set up for the following outgoing trunk functions (in addition to the incoming trunk functions): • dedicated to toll completing • dedicated to verification • combined toll completing and verification A sample trunking configuration for trunk group type SC is shown in figure 7. Refer to trunk group type VR for additional information on verification calls.
SOCKT	*Transmission test* In a DMS office, trunk group type SOCKT is used for transmission tests.
SPC	*Semipermanent connection* In an international office, a trunk of an outgoing trunk group type SPC can be connected semipermanently to • a trunk of an outgoing trunk group type SPC • a line of line class code SPC Table SPCCON has a tuple for each semipermanent connection to identify the two members of the connection.
TD	*Test desk* In a DMS end office, incoming and outgoing trunk group type TD interfaces with a test desk (for example, #14 LTD or #3 LTC).
TDDO	*Two-stage direct dial overseas* In a DMS toll office, outgoing trunk group type TDDO interfaces with an international originating toll center for tandem switching of two-stage calls.

TRKGRP (continued)

Trunk group type descriptions (Sheet 11 of 13)

Type	Description
TI TO T2	*Incoming end officeOutgoing end officeTwo-way end office* In a DMS office, incoming, outgoing, or two-way trunk group type TI, TO, or T2 interfaces with an end or toll office for local, direct, or tandem switching.
TL	*CCIS transmission link* In a DMS office capable of Common Channel Interoffice Signaling (CCIS), two-way trunk group type TL interfaces with another office capable of CCIS to transmit and receive signals between the two offices. Call processing functions are not supported.
TOPS	*Traffic Operator Position System* In a DMS TOPS office, incoming trunk group type TOPS interfaces with an end office and can be set up to carry any or all of the following types of traffic: • noncoin subscriber dialed chargeable calls recorded by CAMA in the TOPS office using ANI or ONI ***Note:*** This function is similar to the function of trunk group type SC. TOPS operator assistance is not required. • coin and noncoin TOPS operator-assisted calls that can be recorded by CAMA in the TOPS office using ANI or ONI Signaling formats include the pulsing format for Traffic Service Position System (TSPS) from local office. If the far end is a DMS switch, the far end of trunk group type TOPS leaves the far-end DMS office as trunk group type OP. In a DMS toll office, two-way trunk group type TOPS can be set up for the following outgoing trunk functions (in addition to the incoming trunk functions): • dedicated to toll completing • dedicated to verification • combined toll completing and verification A sample trunking configuration for trunk group type TOPS is shown in figure 7. Refer to trunk group type VR for additional information on verification calls.
TOPSAU	*TOPS external audio response unit* In a DMS TOPS office, outgoing trunk group type TOPSARU interfaces with a directory assistance system (DAS) external audio response unit (ARU) to provide an announcement in response to an operator request. No outpulsing is done.
TOPSVL	*TOPS voice link* In a DMS TOPS office, outgoing trunk group type TOPSVL interfaces with a voice service node (VSN), enabling the use of the Automated Alternate Billing Service (AABS). No outpulsing is done.

Trunk group type descriptions (Sheet 12 of 13)

Type	Description
TPS101	*International 101 test line* In a DMS international office, trunk group type TPS101 is used as the international 101 test line.
TTL2	*Carrier milliwatt test* In a DMS office, trunk group type TTL2 is used for the carrier milliwatt supply and balance termination test.
T101	*101 test line* In a DMS office, incoming and outgoing trunk group type T101 is used for the 101 test.
T105	*105 test line* In a DMS office, trunk group type T105 is used for the terminating 105 test line provided the ROTL software package is present in the office. In offices without the ROTL package (without trunk group type T105), the terminating 105 test line can be datafilled as a trunk group of type IT.
UT	*Utility Telemetry* In a DMS office, incoming trunk group type UT connects to a Central Office Service Unit (COSU). The COSU initiates and controls telemetry calls to Telemetry Interface Units (TIU) on subscriber lines. The DMS office translates the digits received from the COSU and attempts to establish a no-ring connection to a subscriber's line. The UT trunk returns the appropriate treatment to the COSU if the line is not idle. If the line is idle, the COSU is cut through to the TIU and the telemetry session proceeds. When the telemetry session is completed or the subscriber goes off-hook, the COSU instructs the DMS office to take down the call.
VR	*Verification* In a DMS end office, outgoing trunk group type VR interfaces with a minibar switch to provide metallic path access to a call in progress between two other parties. The need for metallic path access arises when an authorized operator originated verification call attempts to terminate on a line that is busy. A call is a verification call when it originates on a trunk group type A5, OC, OP, OI, or TD and one of the following three groups of conditions is satisfied: • The type of call is OA (operator assisted). • The trunk group is dedicated to verification (MODE VF). • The trunk group is dedicated to both toll completing and verification (MODE CV).

TRKGRP (continued)

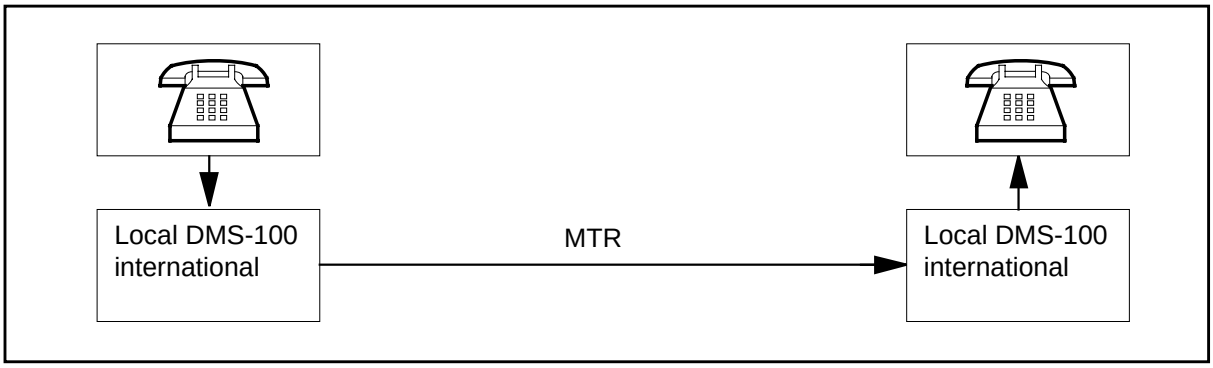
Trunk group type descriptions (Sheet 13 of 13)

Type	Description
X75	*X75*Trunk group type X75 allows the connection of DMS trunking facilities to a DMS packet handler (which uses X.75 protocol).
ZI	*Tandem 0+ and 0- to TOPS* In a DMS toll office, incoming trunk group type ZI can tandem zero-plus (0+) and zero-minus (0-) traffic to TOPS over outgoing trunk group type OP. If the far-end switch is a DMS switch, the far end of trunk group type ZI leaves the far-end DMS office as trunk group type OP.

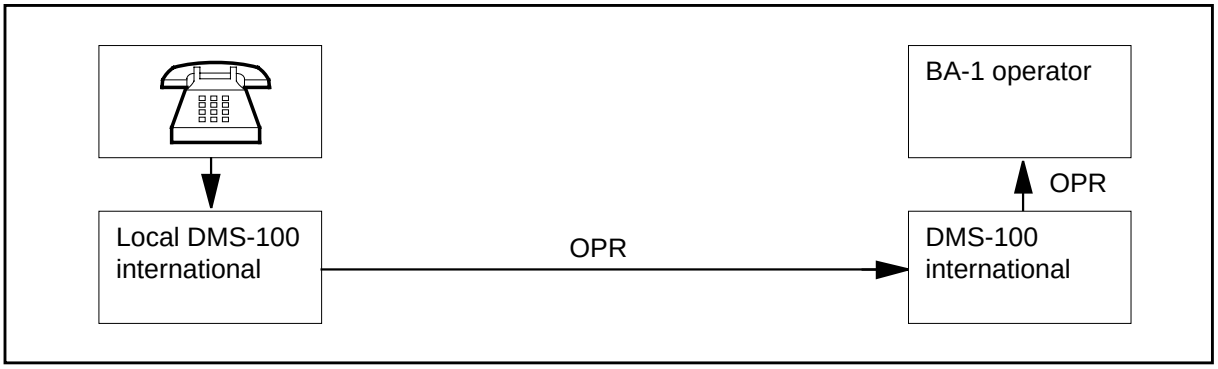
Sample trunking configurations

Sample trunking configurations for a number of typical applications are shown below. The arrows in each figure denote the direction of call progression, and in the case of trunks, indicate the connection from an outgoing trunk on one switch to an incoming trunk on the subsequent switch.

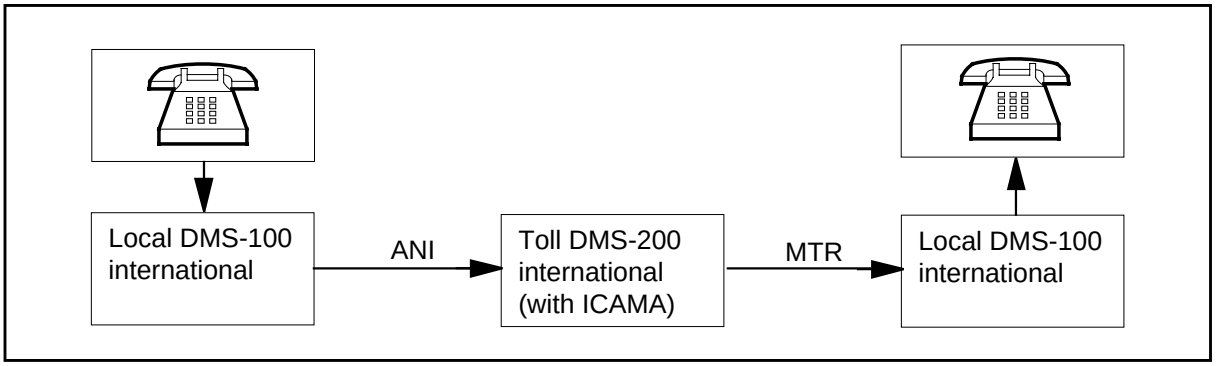
Inter-office local call (DMS international)



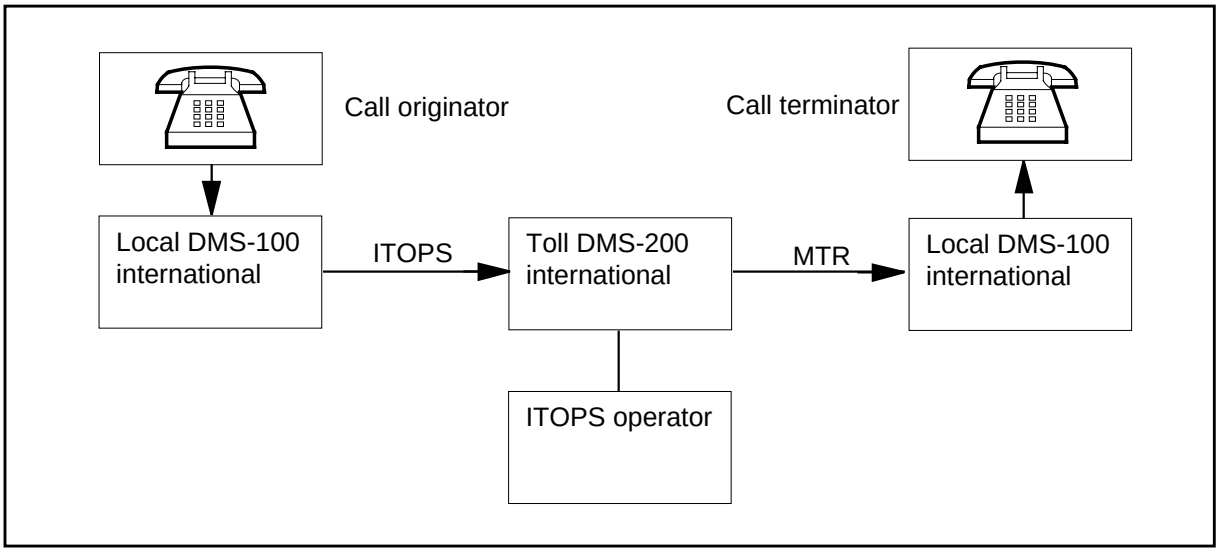
Subscriber to BA-1 board operator call (DMS international)



Subscriber-originated call through ICAMA (DMS international)

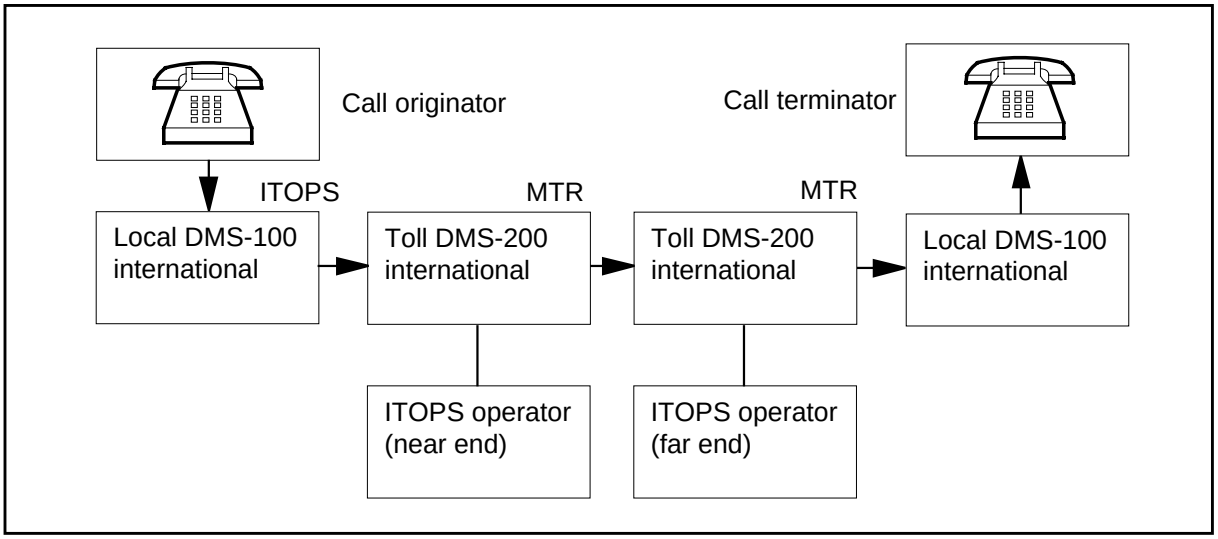


Subscriber-originated call through ITOPS (DMS international)

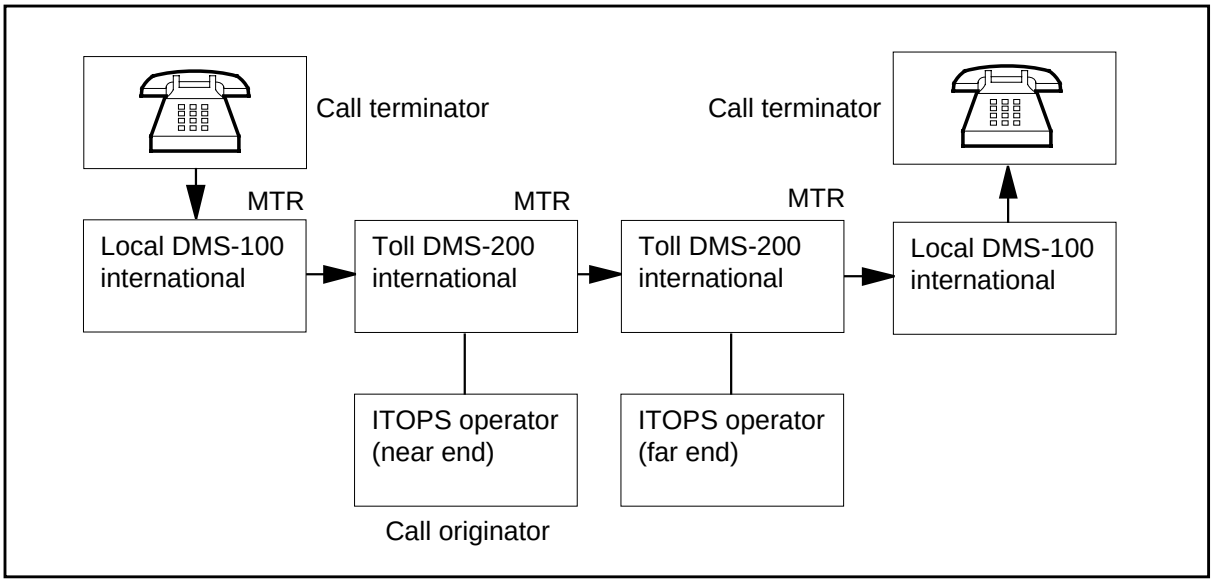


TRKGRP (continued)

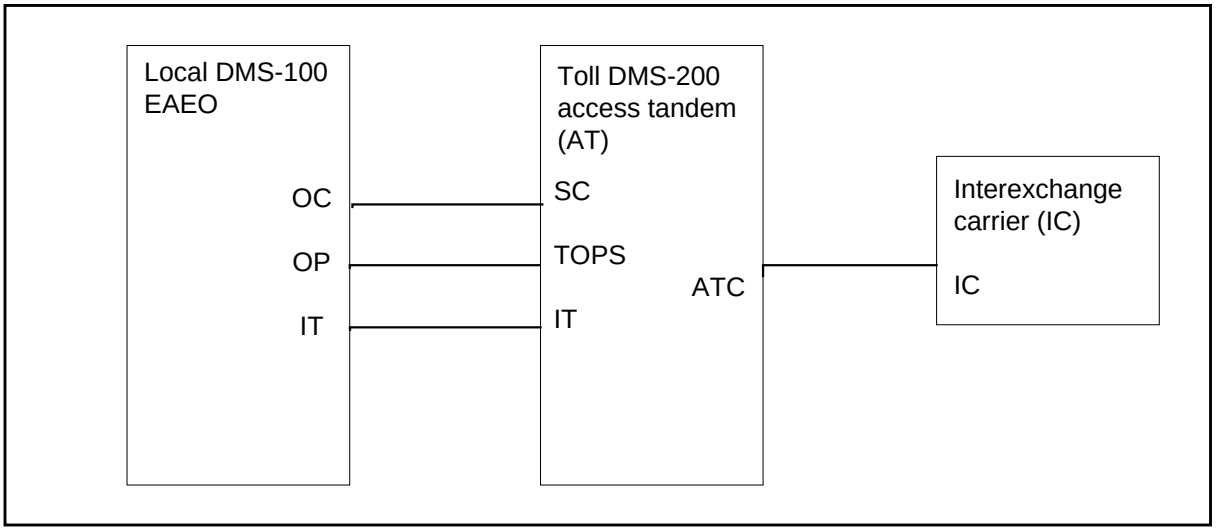
Subscriber-originated call through ITOPS operators (DMS international)



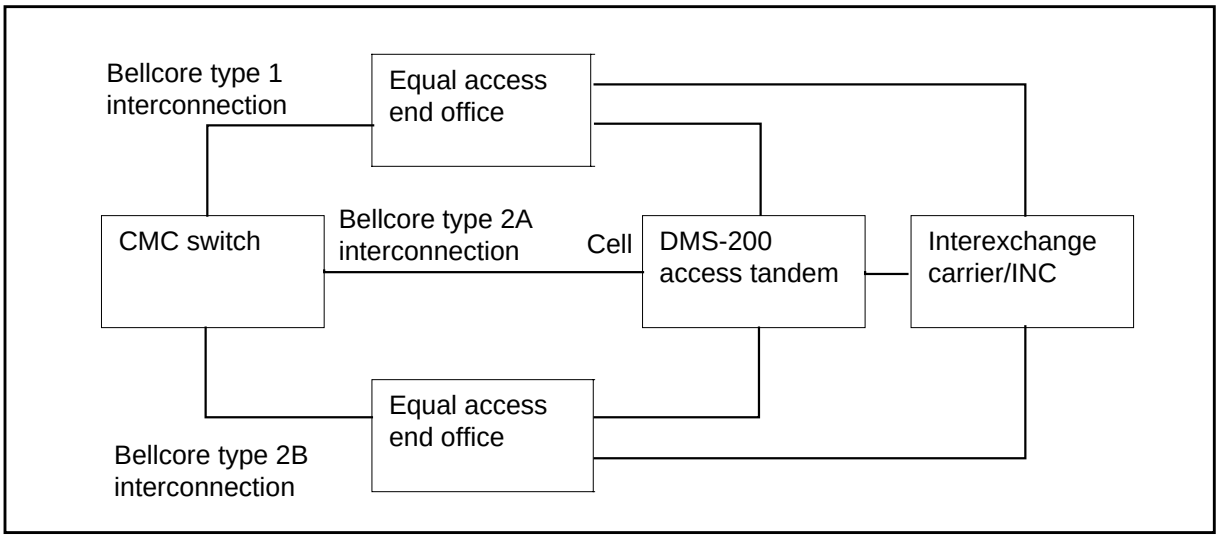
ITOPS operator-originated call (DMS international)



Access tandem environment (DMS AT and EAEO)



Cellular mobile carrier (CMC interconnection)



Datafill sequence and implications

Table CLLI must be datafilled prior to table TRKGRP.

The following tables may also require datafilling prior to table TRKGRP, depending on the group type.

- ANNMEMS
- BCDEF
- DEFDATA

TRKGRP (continued)

- DGHEAD
- E911NPD
- LCASCRCN
- NCOS
- PADDATA
- POSNAME
- PXHEAD
- SNPANAME
- STDPRTCT.AMAPRT
- TRIGGRP
- TSTLCONT

Table size

Field SIZE in table DATASIZE specifies the total number of trunk groups that can be datafilled in table TRKGRP. The table length can be extended by changing the value of this field and performing a cold restart. The maximum number of trunk groups that can be datafilled is 8191. Each tuple in table TRKGRP requires 49 words of data store.

> ***Note:*** If the NORESTARTSWACT utility is available on your switch, you can activate data changes without interrupting service. Refer to *NORESTARTSWACT/MTCSWACT User's Guide,* 297-1001-546.

ASEQ/DSEQ selection sequences should be limited to the following trunk group size:

- In DMS offices with NT40 processors, a maximum of 175 members.

Exceeding this recommended limit may significantly increase call completion time.

General field information

General field information that is common to most field types is included in this section of the document. For detailed information specific to a particular trunk group type, refer to the TRKGRP documentation section that deals with that trunk group type.

GRPINFO and related fields

While the default structure of table TRKGRP is set up as two fields, GRPKEY (which contains the key to the table) and GRPINFO (which contains all of the

other fields), this structure may be modified if table CUSTFLDS is datafilled with an entry for table TRKGRP. The modified structure generally consists of fields GRPKEY, GRPTYP, TRAFSNO, PADGRP, NCCLS, and GRPINFO.

In the modified structure, fields GRPTYP, TRAFNSO, PADGRP, and NCCLS become separate fields rather than subfields of GRPINFO, however the datafill sequence for entry values remains unchanged. The documentation for table TRKGRP is based on the two field (default) structure, since this the most common.

Traffic class (field TRAFCLS)

This field is provided for the convenience of operating companies that associate their own traffic class code with each trunk group. The following table shows some sample traffic class codes.

DMS software does not use most of the data in field TRAFCLS.

Note: Class code BLV, for busy-line verification, is an exception. To enable local number portability (LNP) for an incoming trunk from a TOPS scrambler circuit, set the traffic class field for that trunk to BLV. Trunks with traffic class set to BLV must be dedicated to BLV calls.

Examples of traffic class codes (Sheet 1 of 3)

Traffic class	Usage
AL	Alarm
AN	Announcement
BLV	Busy Line Verify
CA	CAMA
CB	Coin box
CD	Customer dial instruction
CP	CAMA office to CAMA operator desk
CS	Coin supervision
DA	Directory assistance
DD	DDD access

TRKGRP (continued)

Examples of traffic class codes (Sheet 2 of 3)

Traffic class	Usage
DS	Dial tone speed
IA	Intraoffice
IE	Interoffice
IN	Information
IR	Intercept
IT	Intertoll
LW	Leave word
MA	Manual assistance
MB	Mobile radio
MI	Miscellaneous
MN	Manual
MT	Intertandem
NT	No test
OA	Operator assistance
OF	Official
OW	Order wire
PS	Permanent signal
RC	Recording completing
RR	Rate and route
RS	Repair service
SC	Service code
SO	Service observing
SP	TSPS or TOPS
TA	Toll station

Examples of traffic class codes (Sheet 3 of 3)

Traffic class	Usage
TC	Toll completing
TE	End office toll
TG	Tandem completing
TI	Time
TK	Test disk
TM	Toll completing and toll switching combined
TO	Tandem originating
TP	TOPS or TSPS unit to TOPS or TSPS position
TS	Toll switching
TT	Toll tandem
TW	TWX switching plan
VC	Vacant code
VR	Verification
WE	Weather

Traffic separation numbers (field TRANSNO)

If the switching unit has feature package NTX085AA (Traffic Separation Peg Count), the range of values for the incoming and outgoing traffic separation numbers are dependent upon the value of office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER in table OFCENG.

For switching units without feature package NTX085AA, the range of values for the traffic separation numbers is 0 to 15.

Incoming and outgoing traffic separation numbers 1 to 9 are reserved for generic traffic separation numbers. See table TFANINT for the assignment of incoming to outgoing traffic separation numbers.

TRKGRP (continued)

With the traffic separation feature, a peg count of all calls, by type of call, direct dial (DD), operator assisted (OA), or no prefix (NP), can be accumulated between an originating source (incoming trunk or an originating line attribute) and a terminating destination (outgoing trunk, terminating line attribute, tone or announcement).

Pad groups (field PADGRP)

Field PADGRP contains the name of the pad group in table PADDATA that lists the value of the pad circuits that can be switched into the network when one of the members of the group is involved in a call.

Different values for the pad circuits can be specified when the circuit connects to an agent with a different pad group.

Network pad switching is only applicable when a new circuit is connected to the public switching network.

OM no-circuit classes (field NCCLS)

Table TRKGRP field NCCLS specifies the operational measurement (OM) register that is incremented when treatment GNCT occurs. Refer to the *Operational Measurements Reference Manual* for information on DMS OMs.

Treatment GNCT occurs when a trunk group is the last route in a route list and an all-trunks-busy condition is encountered on this list.

OM react to treatment GNCT by incrementing register OFZ2 to record the number of times the GNCT treatment is invoked and by incrementing one of the registers listed below to indicate which type of facility was unavailable, as defined by the entry in table TRKGRP field NCCLS.

If a trunk group is incoming, no-circuit class is not required. Enter NCRT to satisfy the table editor.

For outgoing or the outgoing side of a two-way trunk group, the operating company can assign any of the no-circuit classes listed in the following table.

No-circuit classes (Sheet 1 of 2)

Field NCCLS entry	Register name	Register description
NCBN	OFZNCBN	No-circuit business network (IBN trunks)
NCID	OFZNCID	No-circuit inward dial (2W DID/DOD trunks)

No-circuit classes (Sheet 2 of 2)

Field NCCLS entry	Register name	Register description
NCIM	OFZNCIM	No-circuit intermachine
NCIT	OFZNCIT	No-circuit intertoll
NCLT	OFZNCLT	No-circuit local tandem
NCOF	OFZNCOF	No-circuit offnet trunk (ONAL, ONAT, DOL, or DOT)
NCON	OFZNCON	No-circuit onnet trunk (DAL, MTX)
NCOT	OFZNCOT	No-circuit other trunk (test lines, test desk, or maintenance trunks)
NCRT	OFZNCRT	No-circuit (0+/0- tandem to TOPS, outgoing to AMR5 or CAMA, outgoing local, recording completing outgoing, TOPS outgoing)
NCTC	OFZNCTC	No-circuit toll completing
NCSC	OFZNOSC	No-service circuit (AN or AI trunks)

Select sequence - Trunk selection problems

Two main problems currently exist with central office (CO) trunk selection:

Problem 1: Killer trunks A killer trunk is one that has any of the characteristics listed below:

- A *repeatedly seized trunk* is repeatedly seized, but due to a malfunction is held for a very short time. Within a trunk group, these trunks have a higher than average attempt rate.
- A *slow release trunk* has a low attempt rate along with fairly high usage.
- An *always busy trunk* has a usage of 36.0 hundred call seconds (CCS), or one erlang, and zero attempts.
- An *always idle trunk* has a usage of zero CCS and zero attempts.

TRKGRP (continued)

Problem 2: Glare Glare occurs if two COs try to seize the same trunk at the same time.

Select sequence - Trunk selection algorithms

The trunk selection algorithms for two-way trunk groups in a DMS office are datafilled in field SELSEQ. The following selection algorithms are available:

- most idle/least idle (MIDL/LIDL)
- control odd/control even (CNTLODD/CNTLEVN)
- ascending sequential/descending sequential (ASEQ/DSEQ)
- clockwise circular trunk hunt/counterclockwise circular trunk hunt (CWCTH/CCWCTH)

Note: CNTLODD and CNTLEVN are used for JPN ISUP only.

A summary of the problems and relative merits of the various trunk selection schemes follows.

Select sequence - MIDL/LIDL

The MIDL/LIDL process is based on the length of time a trunk member is idle. One central office (CO) selects from a trunk group the trunk that is idle for the longest period of time. The opposite end CO selects from a trunk group the trunk that is idle for the shortest period of time. The selection order of trunks is not fixed.

MIDL/LIDL and killer trunks

In a LIDL office, some types of killer trunks move to the head of the list. When one does, it becomes the least idle trunk and is repeatedly seized. All calls routed to this killer trunk fail to complete.

MIDL/LIDL and glare

MIDL/LIDL minimizes glare by preventing the possibility of simultaneous seizure prior to the seizure of the last idle trunk in the trunk group.

Select sequence - CNTLODD/CNTLEVN

The CNTLODD/CNTLEVN selection sequence method logically divides trunk groups into a controlling group and a non-controlling group on the basis of odd or even circuit identification codes (CIC). When an outgoing trunk is required, the controlling group circuit that has been released the longest (most idle) is selected. If all circuits in the controlling group are busy, the latest released circuit (least idle) in the non-controlling group is selected instead.

If a select sequence (field SELSEQ value) of CNTLODD is assigned, the controlling group is the set of odd numbered CICs. If a select sequence of

CNTLEVN is assigned, the controlling group is the set of even numbered CICs.

CNTLODD/CNTLEVN and glare

CNTLODD/CNTLEVN trunk selection minimizes the occurrence of glare.

Select sequence - ASEQ/DSEQ

Sequential trunk selection minimizes the occurrence of glare and reduces reseizure of killer trunks encountered with the MIDL/LIDL trunk selection method when used for two-way trunks. In sequential trunk selection, the trunk selection order and selection starting point are fixed. The beginning of the list for one CO is the end of the list for the opposite end CO. This list is searched sequentially by each CO, starting from the beginning of the list, for the first idle trunk. One CO selects the first idle trunk, searching the list in ascending order. The opposite end CO selects the first idle trunk, searching the list in descending order.

CAUTION

ASEQ/DSEQ selection sequence limitations

It is recommended that ASEQ/DSEQ selection sequences should be limited to a maximum of 175 trunk members in DMS offices with NT40 processors. Exceeding this recommended limit may significantly increase call completion time.

ASEQ/DSEQ and killer trunks

The position of a killer trunk in the sequential list determines its impact on trunk selection. A killer trunk in the middle of the list has minimal impact but one near either end has significant impact. This is due to all searches starting at one end or the other of the trunk member list. If the traffic is such that an idle trunk is found near the end of the list for most searches, then a killer trunk will be seized more often than a killer trunk in the middle of the list.

ASEQ/DSEQ and glare

ASEQ/DSEQ minimizes glare by preventing simultaneous seizure prior to the seizure of the last idle trunk in the trunk group.

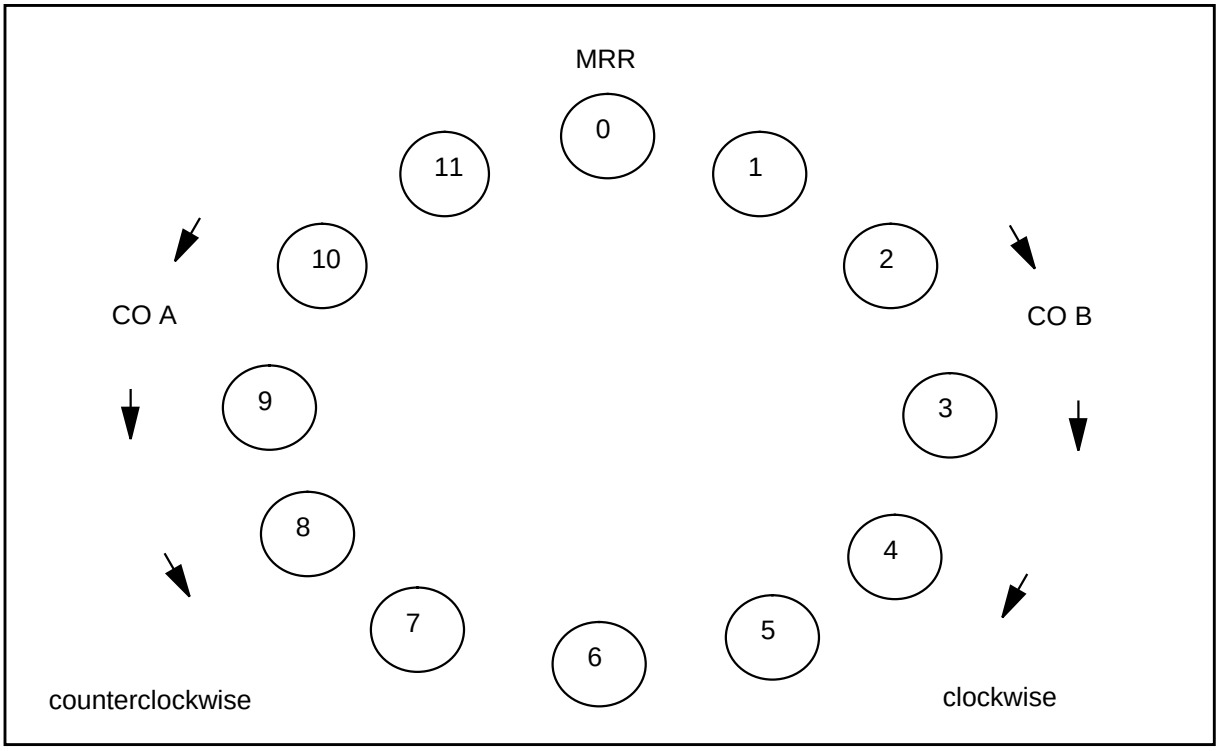
Select sequence - CWCTH/CCWCTH

Like ASEQ/DSEQ, the circular trunk selection strategy is based on a fixed ordered list of trunks. The two COs search the list in opposite directions, similar to the ASEQ/DSEQ method. The trunk selected is the first idle trunk found in a search starting after the most recently released (MRR) trunk in the trunk group.

TRKGRP (continued)

For an analogy, use a clock to denote the list of trunks with the hours representing the trunks. In a two-way trunk group, one CO searches the list of trunks clockwise from a common reference point. The other CO searches the list of trunks counterclockwise from the same reference point as the first CO. The common reference point is the MRR trunk in the group. The reference point is updated each time a trunk is released.

Circular trunk group selection



CWCTH/CCWCTH and killer trunks

Circular trunk hunting (CTH) substantially reduces the impact of killer trunks. Repeatedly seized killer trunks are not reseized as often under the CTH selection method as with the MIDL/LIDL and ASEQ/DSEQ selection methods, in two-way trunk groups. In the CTH selection method, the selection starting point changes each time a trunk is released (the MRR trunk). If the MRR trunk is a killer trunk, the next trunk seized is a trunk to either side of the killer trunk. CTH has no effect on the other types of killer trunks.

CWCTH/CCWCTH, killer trunks, and operational measurements

The killer trunk feature gathers usage and peg counts for each trunk, over a specified interval of time, to detect killer trunks. The count is updated upon seizure of a trunk, when the trunk changes from a not-call-processing-busy state to a call-processing-busy state. CTH reduces the number of times a killer

trunk is seized. Therefore, CTH lowers the threshold used in determining whether a trunk has killer trunk characteristics.

CWCTH/CCWCTH and glare

Glare occurs when one or two idle trunks are left in the trunk group. CTH does not affect the occurrence of glare. Glare occurrence during CTH is the same as glare occurrence during the two other trunk selection methods.

Select sequence - choosing a trunk selection method and sequence

Field SELSEQ defines the trunk selection method and sequence for the two-way trunk group. The trunk selection method for a two-way trunk group in a DMS office must be compatible with the switching office equipment at the far end of the trunk group. This requirement is outlined below.

If the trunk group is two-way and the far end is a link list switcher, enter one of the following select sequences. The link list switcher is a method of call processing that determines trunk selection based on a dynamically linked list of trunk members.

LIDL Enter LIDL (least idle) if far end is a link list switcher with MIDL (most idle) select sequence.

MIDL Enter MIDL (most idle) if far end is a link list switcher with LIDL (least idle) select sequence.

Far end not link list switcher - sequential selection required

If sequential selection (feature package NTX244AB, Enhanced Sequential Trunk Hunting) is present, the trunk group is two-way, the far end is not a link list switcher, and sequential selection is required, enter one of the following selection sequences:

ASEQ Enter ASEQ for ascending sequential selection based on the order of trunk members in table TRKMEM, if the far end is DSEQ (descending sequential selection).

DSEQ Enter DSEQ for descending sequential selection based on the order of trunk members in table TRKMEM, if the far end is ASEQ (ascending sequential selection).

CWCTH Enter CWCTH for clockwise circular trunk hunting from the most recently released (MRR) trunk in the trunk group, based on the order of trunk members in table TRKMEM, if the far end is CCWCTH (counterclockwise circular trunk hunting).

TRKGRP (continued)

CCWCTH Enter CCWCTH for counterclockwise circular trunk hunting from the MRR trunk in the trunk group, based on the order of trunk members in table TRKMEM, if the far end is CWCTH (clockwise circular trunk hunting).

Far end not link list, sequential selection not required

If the trunk group is two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL (to satisfy the table editor).

Select sequence - Changing trunk selection method and sequence

A trunk group trunk selection method cannot be changed. If such a change is required, create a new trunk group that has the required trunk selection method, then delete the individual trunks from the old trunk group and add them to the new trunk group.

For an existing trunk group, the selection sequence can be changed to ASEQ from DSEQ or from DSEQ to ASEQ if all the members are installation busy (INB) or unequipped.

Table TRKGRP - additional information in other tables

Additional information about table TRKGRP is defined in other tables as shown in the following table.

Recommended entry in table CUSTPROT

TABNAME	READPROT	UPDTPROT	ALLPROT
TRKGRP	15	20	30

Define table size in table DATASIZE

The total number of trunk groups for which memory is allocated in table TRKGRP is equal to the value of field SIZE in table DATASIZE. The length of the table can be extended by changing the value of SIZE in table DATASIZE and doing a cold restart. The maximum number of trunk groups is 8191.

Define trunk subgroups in table TRKSGRP

Each of the trunk groups in table TRKGRP is assigned a maximum of two subgroups. Subgroups are provided so that the trunk group can have a mixture of analog and digital trunks or a mixture of analog card types (maximum two).

Define trunk group members in table TRKMEM

The trunk number in a group, and the physical location of all analog or digital trunks assigned to the trunk groups, are listed in table TRKMEM.

Define trunk group billing code in table BILLCODE

The billing code data for each of the incoming or two-way CAMA or AMR5 trunk groups is listed in table BILLCODE.

United Kingdom

For switching units in the United Kingdom with office parameter MARKET_OF_OFFICE in table OFCENG set to UK PABX, the recommended values for the entry in table CUSTPROT with field TABNAME equal to TRKGRP are indicated below:

- READPROT = 15
- UPDTPROT = 20
- ALLPROT = 30

Miscellaneous notes

Trunking diagram

Before datafilling various trunk group type forms, an office trunking diagram or equivalent must be available.

Synchronous clock table SYNCLK

For central office synchronization, two DS-1 channels must be assigned as synchronization timing links. Refer to the description of table SYNCLK for further details.

Restoration of original datafill after testing

Once installation tests are completed, the original trunk translations are restored to original datafill.

Equal Access for DMS-100 Wireless

When datafilling EA on the DMS-100 Wireless switch, the wireless portion of an ISUP integrated service link (ISL) trunk must be datafilled as a DID trunk group type with refinement RTEVIAAT set to Y. The wireline portion of the ISUP ISL trunk must be datafilled as an IT trunk type. Option CELL must be set to 2A to support North American EA ISL terminations. A distinct billable number must be designated for option BILLNO for the downstream processor to distinguish the AMA records generated by the wireless DID ISL and non-ISL trunks.

Table history

NA015

Added the OFBSR and TDMPRFX subfields to the E911 option for IT trunks. OFBSR supports the Off-Board Selective Routing database feature. TDMPRFX is part of the Super E911 Tandem feature.

TRKGRP (continued)

NA014

Added the CLID, DNIS, DTI, and OUTSCHM option to PX trunks. Added the DNIS option to PRA trunks. Added CLID, DNIS, and OUTSCHM options to the IBNTO and IBNT2 trunks.

NA013

Added the ORIGHOLD, ECPH, and RINGBACK options to ISUP trunking for E911 calls to trunk group type IT.

NA008

The following changes were made for NA008:

- Changed definition of field TRAFCLS: entering BLV activates LNP software for TOPS/BLV.
- Added feature-specific datafill information about datafilling Equal Access for DMS-100 Wireless (switch) under Miscellaneous notes section.

GL03.1

Changed description of trunk group type SPC in TRKGRP type table.

NA007

Added Local Number Portability (LNP) option to trunk group types IT, SC, TI, T2, and ATC.

NA006

Added the NRMLTRAF option for the OP trunk group type.

TL05

Removed trunk group type ASP from tables 1 and 2.

NA005

Increased the range of subfield ESN to 15999 in accordance with E911 Non-CallP Enhancements.

NA004

Added option CICSET for trunk group type ATC.

TL02

Trunk group type UT and its description was added to tables 1 and 2.

BCS36

The following changes were made:

- Added reference to the NORESTARTSWACT utility.
- Added field OPERATOR_HOLD and refinements OPRHOLD and HLDTIMER for trunk group type ATC.
- Substituted field DIRECTSZ with field ANIREQSG for trunk group type E911.

TRKGRP type A5

OG/2W from Local to N. E. AMR5 Trunk Group Type

In a DMS end office, outgoing trunk group type A5 connects with an AMR5 toll office to handle automatic message accounting (AMA) and operator-assisted calls using AMR5 signaling.

Two-way trunk group type A5, in addition to the outgoing trunk functions, can be set up for the following incoming trunk functions:

- dedicated to toll completing
- dedicated to verification
- combined toll completing and verification

Refer to TRKGRP type VR for additional information on verification calls.

Datafill

The following table lists the datafill for table TRKGRP type A5.

Field descriptions (Sheet 1 of 8)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* *This field consists of subfield CLLI.*
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, NCATDIGS, NPACHK, ANITYPE, HOLDTYPE, SIGFMT, TRAFTYPE, TRAFCLS, SELSEQ, V2DATA, and OPTIONS. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	A5	*Group type* Enter A5 to specify the trunk group type that applies for outgoing or two-way trunks from a DMS end office to an AMR5 toll office.

TRKGRP type A5 (continued)

Field descriptions (Sheet 2 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric(0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.

TRKGRP type A5 (continued)

Field descriptions (Sheet 3 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	NCATDIGS	numeric (2 or 3)	*Number of category digits* Enter the number of category digits in the AMR5 category codes. (Since one type is allowed for each office, there can be two or three digits.) If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	NPACHK	Y or N	*Numbering plan area check* Enter Y (yes) if a check of the numbering plan area (NPA) is required. Otherwise, enter N (no). If the value in this field is Y, the tens digit of the category code is modified to reflect the tributary information. NPA checks are not performed for automatic number identification failed (ANIFL) and operator number identification (ONI) calls. For these call types, the tens digit remains as it was in table CATCODES (for call types and classes not yet implemented).

TRKGRP type A5 (continued)

Field descriptions (Sheet 4 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ANITYPE	WK REV NO or REVUK	*ANI request type* For special requirements (RCF/TCF), enter WK (wink). This is the correct automatic number identification (ANI) fail-and-answer supervision on the second leg of a remote call-forwarding call. For normal Bell standard offices, enter REV (reversal or answer). This is the default datafill value. If ANI is not performed, enter NO. If interworking with DMS-250 TOPS trunks is required, enter REVUK. REVUK uses the UK250 ANI protocol format. ***Note:*** If optional feature package NTXE34AA (4X Operation - AMR5 Format ANI) is present, enter REV for this field value. Feature package NTXE34AA allows ANI to be forwarded if Feature Group C (FGC) signaling is used. If this package is present, other values for ANITYPE are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.

TRKGRP type A5 (continued)

Field descriptions (Sheet 5 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	HOLDTYPE	NOHOLD or TERMHOLD	*Hold type* If the call is required to terminate when either the originator or terminator goes on-hook, enter NOHOLD. Use NOHOLD in no-operator configurations. If the call is required to terminate when the terminator goes on-hook, but not when the originator goes on-hook, enter TERMHOLD (terminating operator hold). Entries other than NOHOLD and TERMHOLD are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	SIGFMT	AMR5A AMR5B AMR5C or AMR3	*Signaling format* Datafill this field to specify the signaling format. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	TRAFTYPE	AMRONE AMRZERO or AMRCOMB	*Traffic type* Datafill this field to specify the traffic type, as described below. • Enter AMRONE for 1+ traffic. • Enter AMRZERO for 0+ and 0- traffic. • Enter AMRCOMB for 1+, 0+, and 0- traffic.
	TRAFCLS	alphabetic(2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.

TRKGRP type A5 (continued)

Field descriptions (Sheet 6 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CWCTH DSEQ LIDL or MIDL	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group direction is outgoing and sequential selection does not apply, enter MIDL.

TRKGRP type A5 (continued)

Field descriptions (Sheet 7 of 8)

Field	Subfield or refinement	Entry	Explanation and action
			If the trunk group is two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are not valid. For more information, refer to table TRKGRP. ***Note:*** A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence may be changed to ASEQ from DSEQ or from DSEQ to ASEQ if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.

TRKGRP type A5 (continued)

Field descriptions (Sheet 8 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	V2DATA	see subfield	*Data for two-way trunk group* This field consists of subfield DIR and refinements.
	DIR	OG or 2W	*Trunk direction* For outgoing trunk groups, enter OG and datafill field OPTIONS as described on page. For two-way trunk groups, enter 2W and datafill refinements PRTNM, SCRNCL, SNPA, ORIGSRC, MODE, and VDEVAR as described on page 380, then datafill field OPTIONS as described on page 383. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.

TRKGRP type A5 (continued)

DIR = 2W

If the value in field DIR is 2W, datafill refinements PRTNM, SCRNCL, SNPA, ORIGSRC, MODE, and VDEVAR as described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	SCRNCL	alphanumeric (1 to 4 characters or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).
	SNPA	numeric (3 digits)	Enter the serving NPA code for the trunk group. This code, which is specified in table HNPACODE, specifies routing for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.

TRKGRP type A5 (continued)

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (nonlocal). This field is used to screen calls in subtable HNPACONT.HNPACODE. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.
	MODE	AR CRCV or VF	*Mode of operation* Enter one of the following modes of operation: • AR for toll-completing with automatic ringing • CR for toll-completing with control ringing • CV for combined toll-completing and verification • VF for dedicated verification If the number to which a verification call is to terminate is busy, the call is completed using the operator verification trunk group (trunk group type VR) and table MTATRK.
	VDEVAR	see subfields	*Variable digit data* This field consists of subfield VDESEL and refinements.
	VDESEL	Y or N	*Variable digit selector* If the number of incoming digits is fixed, enter N and datafill refinement DIGREGEN. If the number of incoming digits is variable, enter Y and datafill refinements DIGSIN1 and DIGSIN2. ***Note:*** If the number of incoming digits is variable, a corresponding variable-digit-format entry is required in the table STDPRTCT.STDPRT.

TRKGRP type A5 (continued)

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	DIGREGEN	numeric (1 to 4 digits) or N	*Digits to be regenerated* Datafill this field if the value in field VDESEL is N. Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits.
	DIGSIN1	numeric (1 to 18)	*Minimum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the minimum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	DIGSIN2	numeric (1 to 18)	*Maximum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the maximum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.

All tuples

For all tuples, datafill field OPTIONS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	*Options* This field consists of subfield OPTION and refinements.
	OPTION	BCNAME	*Option* To specify the bearer-capability-name option, enter BCNAME and datafill refinement BCNAME. If no options apply, leave this field blank. Option BCNAME is valid for incoming and two-way trunk groups only.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.

Datafill example

The following examples show sample datafill for table TRKGRP type A5.

An example of datafill for table TRKGRP with two-way group type A5 is shown below. This example has been datafilled in accordance with the following datafill requirements:

- The code of the trunk group is OTWAON2303TO.
- The trunk group type is A5.
- The outgoing traffic separation number is 8.
- TLD is the name of the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The number of category digits is 3.
- No NPA check is required.

TRKGRP type A5 (continued)

- The ANI type is wink.
- The hold type is TERMHOLD.
- The signal format is AMR5B.
- The traffic type is combined 0+, 0- and 1+.
- The traffic class is toll switching.
- The trunk selection sequence is descending based on the order of trunk members in table TRKMEM.
- The direction is two-way.
- The standard pretranslator name is VRCT.
- No class of service screening is required.
- The serving NPA is 613.
- The originating source is local.
- The mode is combined toll completing and verification.
- The number of incoming digits is variable, minimum 7 and maximum 9.

MAP display example for table TRKGRP type A5

```
GRPKEY          GRPINFO
_____________________________________________________________________________

OTWAON2303TO    A5 8 TLD NCRT 3 N WK TERMHOLD AMR5B AMRCOMB TS DSEQ
2W VRCT NSCR 613 LCL CV Y 7 9 BCNAME 56KDATA $
```

An example of datafill for table TRKGRP with outgoing group type A5 is shown below. This example has been datafilled in accordance with the following datafill requirements:

- The code of the trunk group is OTWAON2303TO.
- The trunk group type is A5.
- The outgoing traffic separation number is 8.
- TLD is the PAD group assigned to the trunk group.
- NCRT is the no-circuit class.
- The number of category digits is 3.

- No NPA check is required.
- The ANI type is wink.
- The hold type is TERMHOLD.
- The signal format is AMR5B.
- The traffic type is combined AMR5.
- The traffic class is toll switching.
- The trunk selection sequence is MIDL.
- The direction is outgoing.

MAP display example for table TRKGRP type A5

```
GRPKEY      GRPINFO
_____________________________________________________________________

OTWAON2303TO A5 8 TLD NCRT 3 N WK TERMHOLD AMR5B AMRCOMB TS MIDL OG $
```

TRKGRP type AI

Automatic Intercept System Trunk Group Type

Trunk group type AI is available in local and toll switching units for use as an automatic intercept system (AIS) interface.

Calls that cannot be completed as dialed are assigned various treatments. Any treatment can route to an AIS trunk group. Typical AIS routed treatments are as follows:

- OPRT - regular intercept
- DNTR - denied termination
- TESS - terminating service suspension
- TRBL - trouble intercept
- VACT - vacant code
- HNPI - home numbering plan area (NPA) intercept
- UNDN - unassigned directory number
- BLDN - blank directory number
- MSLC - misdirected local call

A separate route may be required for each type of treatment so that the correct information digit can be prefixed. This information digit is defined in table OFRT. If two or more treatments use the same information digit, they can be routed to the same index in table OFRT.

The AIS trunk can be any type of outgoing multifrequency (MF) trunk. When the AIS trunk is seized and a wink start signal detected, the information digit and the called number are outpulsed in MF. Upon detection of an answer, the speech path is connected and the originator receives a recorded announcement.

After completion of the announcement, AIS returns an off-hook signal. If the calling party remains off-hook, the connection is retained. After waiting for 4 s or more, AIS returns a second off-hook signal and an AIS operator is connected.

On completion of the call, the calling party goes on hook and the originating line or trunk and the AIS trunk are both idled.

Since the AIS can be on hook or off hook, AIS deallocation requires that the on-hook signal be presented to AIS for at least 450 ms. Following this interval, the trunk can be released. The trunk guard timing in table TRKSGRP must be at least 450 ms.

Datafill

The following table lists the datafill for table TRKGRP type AI.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter AIS. This is the pseudocode of the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, and PROPAGAT. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	AI	*Group type* Enter AI. This is the trunk group type for AIS trunk groups.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the outgoing traffic separation number assigned to the trunk group. If not required, enter 0 (zero). If the switching unit has feature package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without feature package NTX085AA, enter a number between 1 and 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for additional information.

TRKGRP type AI (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.
	PROPAGAT	Y or N	*Propagate answer back* Enter Y (yes) if the trunk group is to supervise the transmission of the Answer Back message sent to the originating central office switching center. Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table TRKGRP type AI.

MAP display example for table TRKGRP type AI

```
GRPKEY          GRPINFO
_____________________________________________________________

AIS           AI 0 TLA NOSC IR N
```

Automatic Number Announcement Trunk Group Type

Outgoing trunk group type AN in a DMS end office interfaces with an automatic number announcement (ANA) system.

Automatic number identification (ANI) spill consisting of the actual calling number is sent to ANA, which returns a recorded voice announcement of the calling number.

Datafill

The following table lists the datafill for table TRKGRP type AN.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS and AUDRING.
	GRPTYP	AN	*Group type* Enter AN. This is the trunk group type for automatic number announcement.

TRKGRP type AN (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). If the switching unit has software package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without software package NTX085AA, enter a number between 1 and 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for additional information.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to the overview section of table TRKGRP and the *Operational Measurements Reference Manual*.

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFCLS	alphabetic(2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.
	AUDRING	Y or N	*Audible ring* Enter Y (yes) if the switching unit is required to return audible ring to the originator. Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table TRKGRP type AN.

MAP display example for table TRKGRP type AN

```
GRPKEY                      GRPINFO
_____________________________________________________________

OTWAON08W01O                AN 0 ELO NOSC AN Y
```

TRKGRP type ANI

Automatic Number Identification Trunk Group Type

Trunk group ANI is used for international centralized automatic message accounting (ICAMA) and International Traffic Operator Position System (ITOPS) calls.

How ANI Accounting Works

In order for automatic number identification (ANI) accounting to work, both the incoming and the outgoing ends of a trunk group must be of type ANI.

When a call is made, the outgoing end outpulses the called number the same way it does for non-ANI trunks. When the outgoing end receives an ANI request signal, it then outpulses the calling number.

If the outgoing end times out before it gets an ANI request signal, the calling party is routed to treatment. The type of treatment can be datafilled separately for each route.

The incoming end first collects the called number digits the same way it does on non-ANI trunks. It then sends an ANI request signal and waits to receive the calling number digits.

Upon receiving the ANI request signal, the outgoing end performs a delay (specified through datafill in table LNSIGSYS) and then proceeds to outpulse the digits of the calling number.

At this point, the incoming end collects the outpulsed digits and makes them available to billing and verification applications. If the incoming end fails to receive the outpulsed digits, the call is routed to regular treatment.

Selectable translator types

ANI allows the translator type (for example, North American or universal translations) to be selected from the trunk group data.

The translation data selector NETATTR is an index into a new network attributes table. If this selector is used, translation data is datafilled in table NETATTR instead of table TRKGRP.

Datafill

The following table lists the datafill for table TRKGRP type ANI.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, and DIRSEL. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	ANI	*Group type* Enter ANI to specify the automatic number identification trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.

TRKGRP type ANI (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register, in OM groups OFZ2 and SOTS, is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk direction is incoming (IC), this field is not required. Enter NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk is configured to switch through a satellite connection. Otherwise, enter N (no).
	ESUPR	Y or N	*Echo suppressor* If the trunk subgroup has echo suppressors, enter Y. Otherwise, enter N.
	DIRSEL	see subfield	*Direction selection* This field consists of subfield DIR and refinements.
	DIR	IC or OG	*Trunk direction* If the direction of the trunk group is incoming, enter IC and datafill refinement XLAD. If the direction of the trunk group is outgoing, enter OG and datafill refinements SELSEQ, ANIFMT, and ANIDNSIZ

DIR = IC

If the direction of the trunk group is incoming, datafill refinement XLAD as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLAD	see subfield	*Variable translation data* This subfield consists of subfield XLADSEL.
	XLADSEL	UNIV, NALT, or NETATTR	*Translation selector* If the universal translation system is used, enter UNIV and datafill subfields XLASYS and XLANAME. If the North American translation system is used, enter NALT and datafill subfields PRTNM, SCRNCL, SNPA, and ORIGSRC. If this table indexes into table NETATTR, enter NETATTR and datafill subfield NETINDX.

XLADSEL = UNIV

If the value in field XLADSEL is UNIV, datafill subfields XLASYS and XLANAME as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX, or NIL	*Translation system* Enter a character string to specify the name of the head table from which translations begin.
	XLANAME	alphanumeric (1 to 8 characters)	*Translation name* Enter a name from the code table that corresponds to the head table referenced by field XLASYS. If the entry in field XLASYS is NIL, leave this field blank.

TRKGRP type ANI (continued)

XLADSEL = NETATTR

If the value in field XLADSEL is NETATTR, datafill subfield NETINDX as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required (since it is available in table NETATTR).

XLADSEL = NALT

If the value in field XLADSEL is NALT, datafill the subfields PRTNM, SCRNCL, SNPA, and ORIGSRC as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters)	*Standard pretranslation name* Enter the name of the standard pretranslator datafilled in table STDPRTCT to which translation is to route on receipt of the first incoming digit. If pretranslation is not required, enter NPRT (no pretranslator). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving NPA code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRC	LCL or NLCL	*Originating source* Enter the originating source, LCL (local) or NLCL (non-local). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in table HNPACODE. Refer to subtable HNPACONT.HNPACODE, “Notes on Originating Source" for more information.

All XLADSEL values

For all values of XLADSEL, datafill subfields ANIFMT and ANIDNSIZ as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ANIFMT	STDBELL or STDINTL	*ANI format* Enter either STDBELL or STDINTL to specify the size and values of the ID field in the ANI train.
	ANIDNSIZ	numeric (4 to 10)	*Originators directory number size* Enter the number of digits in the originator's directory number that are to be outpulsed or received in the ANI digit train.

TRKGRP type ANI (continued)

DIR = OG

If the direction of the trunk group is outgoing, datafill refinements SELSEQ, ANIFMT, and ANIDNSIZ as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDL, LIDL, CWCTH, CCWCTH, ASEQ, or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group is 2W, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group is 2W, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are invalid. For more information, refer to table TRKGRP. ***Note:*** The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.

TRKGRP type ANI (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ANIFMT	STDBELL or STDINTL	*ANI format* Enter either STDBELL or STDINTL to specify the size and values of the ID field in the ANI train.
	ANIDNSIZ	numeric (4 to 10)	*Originators directory number size* Enter the number of digits in the originator's directory number that are to be outpulsed or received in the ANI digit train.

Datafill example

The following example shows sample datafill for table TRKGRP type ANI.

An example of datafill for table TRKGRP (ANI) is shown below. This example, which consists of datafill for one outgoing trunk group and for one incoming trunk group, is datafilled as follows:

- The code in table CLLI for the outgoing trunk group is OGTOANI and for the incoming trunk group is INFRANI.
- The traffic separation number for the outgoing trunk group is 10 and for the incoming trunk group is 0.
- ELOA is the PAD group assigned to both trunk groups.
- NCRT is the no-circuit class for both trunk groups.
- Neither trunk group is arranged to switch through a satellite connection.
- Neither trunk group has echo suppressors.
- The direction for the outgoing trunk group is OG and for the incoming trunk group is IC.
- Both trunk groups use the universal translator.
- The translation for the incoming trunk group starts in table PX.
- The translation name for the incoming trunk group is ICANICN.
- The selection sequence for the outgoing trunk group is most idle.

TRKGRP type ANI (end)

- The ANI format for both trunks is STDINT.L
- The number of digits in the originator's directory number is seven.

MAP display example for table TRKGRP type ANI

```
GRPKEY      GRPINFO
_____________________________________________________________________

OGTOANI     ANI 10 ELOA NCRT N N OG MIDL STDINTL 7
ICFRANI     ANI 0 ELOA NCRT N N IC UNIV PX ICANICN STDINTL 7
```

TRKGRP type ATC

Access Tandem to Carrier Trunk Group Type

TRKGRP type ATC is used in a DMS-100/200 switch equipped with feature package NTX386AA (Feature Group D Carrier Code Expansion) to carry equal access (EA) traffic between an access tandem (AT) switch and an inter-LATA carrier (IC).

The equal access plan uses an AT to provide one or more dedicated trunks for EA signaling for each carrier that it serves.

The following trunks originate traffic to an ATC trunk:

- super-CAMA (GRPTYP = SC)
- intertoll (GRPTYP = IT)
- TOPS (GRPTYP = TOPS)

The following trunks terminate traffic from an ATC trunk:

- super-CAMA (SC)
- intertoll (IT)

MF (multifrequency) is the only pulse type permitted for TRKGRP (ATC) signaling.

Note: Coin lines from an office using Feature Group D are not supported over an outgoing ATC trunk to a TOPS office. However, incoming trunks with coin traffic can be used in tandem with an outgoing ATC trunk to a TOPS office.

The following table describes the office parameters affecting trunk group type ATC.

Office parameters affecting group type ATC (Sheet 1 of 2)

Parameter	Table	Type	Range
EA_REC_1ST_PRE_WK_TIME	OFCSTD	Byte	1 to 255
EA_REC_SUB_PRE_WK_TME	OFCSTD	Byte	1 to 255
Note: Use standard minimum wink time values.			

Office parameters affecting group type ATC (Sheet 2 of 2)

Parameter	Table	Type	Range
EA_REC_MAX_WK_TIME	OFCSTD	Byte	1 to 255
EA_TEST_CALL_SPILL ***Note:*** Office parameter EA_TEST_CALL_SPILL is datafilled when the office is engineered. These digits are outpulsed on a test call over an ATC trunk and consist of two information digits, three digits for calling NPA, and seven digits for calling number.	OFCVAR		up to 15 digits
Note: Use standard minimum wink time values.			

The following table shows the ST signals that are accepted for the possible station class types (refer to the description of field STNCLS for additional information).

ST signals accepted for entries in field STNCLS

ST signal	COMB	NONCOMB	INTERTOLL
ST for 1+ traffic (COIN)	X	X	X
STP for 0+ or 0- traffic (COIN)			X
ST2P for 1+ traffic (NONCOIN)	X		X
ST3P for 0+ traffic (NONCOIN)	X		X

Datafill

The following table lists the datafill for table TRKGRP type ATC.

Field descriptions (Sheet 1 of 12)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.

TRKGRP type ATC (continued)

Field descriptions (Sheet 2 of 12)

Field	Subfield or refinement	Entry	Explanation and action
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIR, TRAFCLS, SELSEQ, PRTNM, SCRNCL, SNPA, CARRNM, ANI, SIGTYPE, STNCLS, OSIND, and OPTIONS. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	ATC	*Group type* Enter ATC to specify the access tandem to carrier trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number*Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.

TRKGRP type ATC (continued)

Field descriptions (Sheet 3 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For outgoing and two-way trunk groups, the initial value for this trunk group type is NCIT (no-circuit intertoll) or NCTC (no-circuit toll completing). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	DIR	ICO or 2W	*Direction* This field specifies the trunk group direction. Enter IC for incoming, OG for outgoing, or 2W for two-way. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.

TRKGRP type ATC (continued)

Field descriptions (Sheet 4 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CNTLEVN CNTLODD CCWCTH CWCTH LIDL DSEQ MIDL or WIDEBAND	*Select sequence* Datafill this field to specify the order of trunk selection. The order in which trunks are searched is determined by the order in which the trunk groups are datafilled in table TRKMEM, and by the value in this field. For incoming trunk groups, this field is not required. Enter MIDL. For outgoing and two-way trunk groups, datafill this field as follows: Enter ASEQ or DSEQ for ascending or descending sequential selection, based on the order of trunk members in table TRKMEM. The trunk circuit connected to the other end can use the opposite selection sequence in order to reduce B-channel glare. Feature package NTX244AB (Enhanced Sequential Trunk Hunting) must be present for ascending or descending sequential selection. Enter select sequence LIDL (least idle) if trunk selection is made on a status of least idle. The connecting trunk at the end office must be a link list switcher and must be set up with the LIDL select sequence. Enter select sequence MIDL (most idle) if trunk selection is made on a status of most idle. The connecting trunk at the end office must be a link list switcher and must be set up with the MIDL select sequence.

TRKGRP type ATC (continued)

Field descriptions (Sheet 5 of 12)

Field	Subfield or refinement	Entry	Explanation and action
			If the end office is not a link list switcher and feature NTX244AB is in the switching unit, base the selection order on the order of the trunks in table TRKMEM and enter CWCTH for clockwise or CCWCTH for counterclockwise circular trunk hunting based on the most recently released trunk in the trunk group (if the far end is CWCTH or CCWCTH, respectively). The entries CNTLEVN and CNTLODD are only valid if the Japan Public Network ISDN (JPNISUP) trunks (or any trunk where field SIGDATA in table TRKSGRP is equal to C7UP or ISDN) are installed in the switching unit. The JPNISUP trunks are divided into controlling groups and non-controlling groups. These groups in turn are divided into even and odd circuit identification codes (CIC). The difference between the four groups relates to the selection sequence used for locating idle trunks. Enter CNTLEVN in order to select the MIDL selection sequence algorithm for even-numbered CICs in the controlling group. Enter CNTLODD in order to select the MIDL selection sequence algorithm for odd-numbered CICs in the controlling group. If all circuits in the controlling group are busy, the least idle (LIDL) trunk in the non-controlling group is selected. This applies to both CNTLEVN and CNTLODD selection sequences.

TRKGRP type ATC (continued)

Field descriptions (Sheet 6 of 12)

Field	Subfield or refinement	Entry	Explanation and action
			If wideband trunk selection is allowed for primary rate access (PRI) ISUP trunks, enter WIDEBAND and datafill refinements WBSELSEQ, WBGRPING, and WBSEARCH. The WIDEBAND entry value is only valid if feature NTXR49AA (Dialable Wide Band Service PRI) is in the switching unit. ***Note:*** A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence may be changed if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.
	WBSELSEQ	ASEQ or DSEQ	*Wideband selection sequence* Datafill this field if the value in field SELSEQ is WIDEBAND. Specify whether the wideband trunks are selected in ascending order (ASEQ) from the first idle trunk on the search list, or in descending order (DSEQ), from the last idle trunk on the search list. The order of trunks in the search list is determined by the order in which the trunk groups are datafilled in table TRKMEM.

Field descriptions (Sheet 7 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	WBGRPING	FIXED FLOATING or FLEXIBLE	*Wideband boundary preference* Datafill this field if the value in field SELSEQ is WIDEBAND. This field contains the wideband boundary preference. Enter FIXED to specify that idle trunks within a specific time slot frame are selected. This value is only valid for local exchange carriers (LEC). Enter FLOATING to specify that a number of consecutive idle trunks in a trunk group are selected. Enter FLEXIBLE to specify that a number of either consecutive or nonconsecutive idle trunks in a trunk group are selected. ***Note:*** The FLEXIBLE entry value is available only if functionality NI000027 DWS Flexible Acc (NTXR65AA Flexible DWS Access) is loaded.
	WBSEARCH	BESTFIT or FIRSTFIT	*Wideband search* Datafill this field if the value in field SELSEQ is WIDEBAND. This field specifies the wideband search algorithm. The BESTFIT algorithm finds the smallest segment of idle channels (DS-0s) among trunks (DS-1s) within a trunk group to accommodate a wideband call, according to the boundary preference (FIXED or FLOATING) specified. The FIRSTFIT algorithm finds the first segment of idle DS-0s that can accommodate a wideband call, according to the boundary preference specified.

TRKGRP type ATC (continued)

Field descriptions (Sheet 8 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, as is the case for outgoing trunk groups, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	SCRNCL	alphanumeric (1 to 4 characters) or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If classof-service screening is not required, as is the case for outgoing trunk groups, enter NSCR (no screening).
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving numbering plan area (NPA) for the trunk group. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	CARRNM	alphanumeric (1 to 16 characters) or NILC	*Carrier name* Enter a carrier name that was previously datafilled in table OCCINFO.
	ANI	Y or N	*Automatic number identification* Enter Y (yes) if the trunk group is to send automatic number identification (ANI) information. Otherwise, enter N (no). For incoming trunk groups, this field is not required. Enter N.

TRKGRP type ATC (continued)

Field descriptions (Sheet 9 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	SIGTYPE	BELLI BELLII EAPLAN or FGB	*ANI signaling type* Enter the signaling type for this trunk group. For signaling types BELLI, BELLII, or EAPLAN datafill refinement OPERATOR_HOLD. For signaling type FGB, no additional refinements are required.
	OPERATOR_HOLD	see subfield	*Operator hold* Datafill this field if the value in field SIGTYPE is BELLI, BELLII, or EAPLAN. This field consists of subfield OPRHOLD and refinement HLDTIMER.
	OPRHOLD	Y or N	*Operator hold* Datafill this field if the value in field SIGTYPE is BELLI, BELLII, or EAPLAN. If a signal is to be sent to the traffic operator position system (TOPS) to indicate that operator hold must be applied when the carrier sends an off-hook signal (to TOPS) after the called party goes off-hook, enter Y and datafill refinement HLDTIMER. Otherwise, enter N.
	HLDTIMER	numeric (0 to 60)	*Operator hold timer* Datafill this field if the value in field OPRHOLD is Y. Enter a numeric value to specify the duration in minutes before the operator hold timeout timer expires and terminates the call. If the entry value is 0 (zero), timer timeout does not occur.

TRKGRP type ATC (continued)

Field descriptions (Sheet 10 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	STNCLS	COMB NONCOMB or INTERTOLL	*Station class signaling* Datafill this field to specify the type of signaling accepted by the inter-LATA carrier switch. If the trunk group direction is incoming, this field is not required. Enter COMB. If the office has a TOPS access tandem (AT) switch with an incoming TOPS trunk connected to an outgoing ATC trunk, datafill field STNCLS with the following values: • COMB for combined (coin and noncoin) traffic • NONCOMB for non-combined (dedicated) traffic • INTERTOLL for feature group B (FGB) signaling If the office does not have TOPS, or the incoming trunk group is of a type other than TOPS, datafill field STNCLS with the value COMB. For combined traffic, such as coin or noncoin, the ST signal indicates the class of service of the calls. For non-combined traffic, class-of-service is determined by fields CLGID and STATCSA in table TRKGRP (TOPS). Entry value INTERTOLL is valid only in TOPS offices. Refer to the table “ST signals accepted for entries in field STNCLS" for the ST signals accepted in accordance with each field STNCLS entry value.
	OSIND	Y or N	*Operator services indicator* Enter Y if the carrier is to receive an ANI ID indication that operator services were provided. Otherwise, enter N. For incoming ATC trunk groups, enter N.

TRKGRP type ATC (continued)

Field descriptions (Sheet 11 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	OPTIONS	see subfield	*Options* This field consists of subfield OPTION and refinements.
	OPTION	BCNAME. BLOCKNB CICSET or LNP	*Option* The following options can be datafilled: • BCNAME - Bearer-capability-name. Datafill refinement BCNAME. This option is only valid for incoming and two-way trunk group types. • BLOCKNB - This option specifies whether narrow band calls are blocked on the trunk group. This option can be set when the TRKGRP table of the trunk group is datafilled with SELSEQ = WIDEBAND. • CICSET - Carrier identification code. Datafill refinement CICSET. This option controls the inclusion of the carrier identification parameter (CIP) in the Initial Address Message (IAM) for EA feature group D (FGD) MF to signaling system 7 (SS7) interworking calls for an ATC trunk group. • LNP - Local number portability. This option allows specifying a default location routing number (LRN) for the trunk group. Datafill refinement LRN. If no options apply, leave this field blank.

TRKGRP type ATC (continued)

Field descriptions (Sheet 12 of 12)

Field	Subfield or refinement	Entry	Explanation and action
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used. If a BC is not datafilled for an ATC type trunk group, the office default bearer capability defined by office parameter DEFAULT_BEARER_CAPABILITY (either SPEECH or 3_1KHZ) applies. Refer to table OFCENG for more information on this office parameter. If the TRKGRP tuple is listed and the datafilled BC is the office default (SPEECH or 3_1KHZ), the BC option does not appear (on a MAP display).
	CICSET	alphanumeric (1 to 16 characters) or SSET	*Carrier identification code set name* If the entry in field OPTION is CICSET, enter the 1- to 16-character carrier identification code set name from table CICSETS, or enter SSET to specify that the CIP is always included in the IAM for the trunk group. If field OPTION and refinement CICSET are left blank, the default value (no assigned carrier identification code set for the trunk group) is assumed.
	LRN	10-digit directory number	*Location routing number* If field OPTION = LNP, datafill a 10-digit directory number that identifies the adjacent incoming office and is used in recording AMA module 720 of the calling number. This option is used if the LRN is not signalled. Exactly 10 digits must be datafilled.

Datafill example

The following example shows sample datafill for table TRKGRP type ATC.

The first tuple in this example is datafilled as follows for an incoming type ATC trunk group:

- The code in table CLLI for the trunk group is OTWAON0202AT.
- The trunk group type is ATC.
- Incoming traffic separation number 20 is assigned to the trunk group.
- TLD is the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The direction is incoming (IC).
- The traffic class is intertoll (IT).
- The select sequence is not required, and is set to MIDL.
- No pretranslation or class-of-service screening is required.
- The trunk group is assigned to serving NPA 613.
- The trunk group does not send ANI information.
- The signaling type is BELLI.
- No signal is to be sent to TOPS to indicate that operator hold must be applied when the carrier sends an off-hook signal (to TOPS) after the called party goes off-hook.
- The station class is not required (STNCLS = COMB).
- The carrier does not receive notification of operator involvement (OSIND = N).
- The carrier receives no ANI ID indication when operator services are provided.
- There are no options for an incoming ATC trunk.

The second tuple in this example is datafilled as follows for an outgoing type ATC trunk group:

- The code in table CLLI for the trunk group is OGEACAR3.
- The trunk group type is ATC.
- The outgoing traffic separation number 21 is assigned to the trunk group.
- TLD is the pad group assigned to the trunk group.
- NCTC is the no-circuit class.

TRKGRP type ATC (continued)

- The direction is outgoing (OG).
- The traffic class is intertoll (IT).
- The select sequence is set to MIDL.
- Pretranslation and class-of-service screening are not required for outgoing trunk groups, and are set to NPRT and NSCR, respectively.
- The trunk group is assigned to serving NPA 613.
- The carrier name is one of the names in table OCCINFO.
- The trunk group sends ANI information.
- The signaling type is FGB.
- The station class is set for combined traffic (STNCLS = COMB).
- The carrier receives an ANI ID indication when operator services are provided.
- There are no options assigned.

The third tuple in this example is datafilled as follows for a two-way type ATC trunk group:

- The code in table CLLI for the trunk group is OTWAON2301T0.
- The trunk group type is ATC.
- The incoming and outgoing traffic separation number is 23.
- TLD is the pad group assigned to the trunk group.
- NCIT is the no-circuit intertoll class.
- The direction is two way 2W.
- The traffic class is intertoll (IT).
- The select sequence is most idle (MIDL).
- No pretranslation or class-of-service screening is required.
- The serving NPA is 613.
- The carrier name is one of the names in table OCCINFO.
- The trunk group sends ANI information.
- The signaling type is BELLI.
- A signal is to be sent to TOPS to indicate that operator hold must be applied when the carrier sends an off-hook signal (to TOPS) after the called party goes off-hook. The operator timeout duration is 15 minutes.
- The station class is set for combined traffic (STNCLS = COMB).

- The carrier receives no ANI ID indication when operator services are provided.
- There are no options assigned.

MAP display example for table TRKGRP type ATC

```
 GRPKEY          GRPINFO
_____________________________________________________________________________

 OTWAON0202AT    ATC 20 TLD NCRT IC IT MIDL NPRT NSCR 613 MCI N
BELLI N COMB N
 OGEACAR3        ATC 21 TLD NCTC OG ITL MIDL NPRT NSCR 613 IC3 Y
FGB COMB Y
 OTWAON2301T0    ATC 23 TLD NCIT 2W IT MIDL NPRT NSCR 613 MCI Y
BELLI Y 15 COMB N
```

Table history

NA007

Value LNP added to field OPTION by feature AN1954.

TRKGRP type CA

Come-Again Signaling Trunk Group Type

Table TRKGRP, with group type CA, is used in local switches for trunk groups that interface to Siemens Automatic Dialing System (ADDS) equipment.

Coin and non-coin calls are routed to the ADDS through separate trunk groups.

Initial coin return is performed automatically by the switch.

The called number is outpulsed in dial-pulse mode.

The information digit precedes the called number.

The hold type for this trunk group type is joint hold. With this hold type, the call is taken down when both the originator and the terminator are on-hook.

Datafill

The following table lists the datafill for table TRKGRP type CA.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, ZEROMDIG, ZEROPDIG, and ONEPDIG. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	CA	*Group type* Enter CA to specify the group type for Come Again signaling.

TRKGRP type CA (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group.For more information, refer to table TRKGRP.

TRKGRP type CA (end)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	ZEROMDIG	numeric (0 to 9)	*Zero minus digit* Enter the identification digit to be prefixed to the digits outpulsed on operator calls (0-). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), busy all trunks in the group before changing the value of this field by data modification order (DMO).
	ZEROPDIG	numeric (0 to 9)	*Zero plus digit* Enter the identification digit to be prefixed to the called number on 0+ calls. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, busy all trunks in the group before changing the value of this field by data modification order (DMO).
	ONEPDIG	numeric (0 to 9)	If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, busy all trunks in the group before changing the value of this field by data modification order (DMO). *One plus digit* Enter the identification digit to be prefixed to the called number on 1+ calls.

Datafill example

The following example shows sample datafill for table TRKGRP type CA.

MAP display example for table TRKGRP type CA

```
GRPKEY          GRPINFO
_____________________________________________________

OTWAO11CA       CA 22 ELO NCRT IE 4 4 5
```

TRKGRP type CELL

Cellular Trunk Group Type

In table TRKGRP, group type CELL is used to assign cellular trunks. These trunks allow type 2A interconnections between a cellular mobile carrier (CMC) and an access tandem (AT) switch.

Datafill

The following table lists the datafill for table TRKGRP type CELL.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIR, TRAFCLS, SELSEQ, CONNGNPA, PRTNM, SCRNCL, SNPA, BILLNO, and CCWKVLD. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	CELL	*Group type* Enter CELL to specify the cellular trunk group type.

TRKGRP type CELL (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC,or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.

TRKGRP type CELL (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	IC, OG, 2W	*Direction* Enter the direction of traffic flow: IC (incoming), OG (outgoing), or 2W (two-way). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.
	SELSEQ	MIDL, LIDL, CWCTH, CCWCTH, ASEQ, or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group is 2W, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL. If the trunk group is 2W, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or ASEQ or DSEQ for ascending or • descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are invalid. For more information, refer to table TRKGRP.

TRKGRP type CELL (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the outpulsed digits are translated, enter the NPA code of the switch. Otherwise, enter 000. If the trunk group is incoming, this field is not required. Enter 000.
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	BILLNO	numeric (up to 11 digits)	*Billing number* Enter the directory number to be used as the cellular mobile carrier (CMC) number in CMC billing records. If only seven digits are used, the SNPA field is used as the NPA of the CMC billing number.
	CCWKVLD	Y or N	*Carrier connect wink* Enter N (no) to indicate that the carrier connect acknowledgement (wink) in equal access international calls is not regenerated. Otherwise, enter Y. Most non-DMS access tandem switches and equal access end offices that are not equipped with a DMS switch cannot handle this wink.

Datafill example

An example of datafill for table TRKGRP (CELL) is shown below. This example has been datafilled as follows:

- The code in table CLLI for the trunk group is CMCABCAT.
- The trunk group type is CELL.
- The incoming traffic separation number 0 is assigned to the trunk group.
- TLA is the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The direction is two-way (2W).
- The traffic class is NIL.
- The select sequence is not required and therefore is set to DL.
- The connecting NPA is 613.

TRKGRP type CELL (end)

- The pretranslation required is PEA.
- No class-of-service screening is required.
- The trunk group is assigned to serving NPA 613.
- The directory number to be used in the billing records is 6211234.
- Carrier connect wink is not required.

MAP display example for table TRKGRP type CELL

```
GRPKEY      GRPINFO
_____________________________________________________________________

CMCABCAT    CELL 0 TLA NCRT 2W NIL MIDL 613 PEA NSCR 613 6211234 N
```

Commonwealth of Independent States Automatic Number Identification Trunk Group Type

Trunk group type CISANI is used to distinguish toll automatic number identification (ANI) trunks from local and local tandem trunks in the Commonwealth of Independent States (CIS) telephony network. This trunk group is used by the international DMS for ICAMA calls.

Datafill

The following table lists the datafill for table TRKGRP type CISANI.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, TRFC, and DIRSEL. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	CISANI	*Group type* Enter CISANI to specify the trunk group type for Commonwealth of Independent States (CIS) ANI.

TRKGRP type CISANI (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCRT	*Operational measurements no-circuit class* This field is not required for incoming trunk groups. Enter NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual.*
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk is configured to switch through a satellite connection. Otherwise, enter N (no).
	ESUPR	Y or N	*Echo suppressor* If the trunk subgroup has echo suppressors, enter Y. Otherwise, enter N.

TRKGRP type CISANI (continued)

Field descriptions (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TRFC	CAMA, EASV, ITLL, TLLC, TNCA, or NONE	*International traffic class* Enter the type of traffic that is expected to flow through this trunk group. The types of traffic classes are outlined below. CAMA Centralized automatic message accounting is the traffic class for trunk groups if the calling subscriber digits are signaled between switching units. EASV Extended area service is the traffic class for trunk groups that handle local (non-toll) traffic only. ITLL Intertoll is the traffic class for trunk groups that carry traffic in the toll network. TLLC Toll-completion is the traffic class for trunk groups that carry traffic between a toll switching unit and a terminating toll switching unit. TNCA Tandem CAMA is the traffic class used to collect the calling party information, but not to perform toll billing. It is used in China for malicious call identification. NONE NONE is the traffic class used for trunk groups that do not belong to one of the other traffic classes, or for a trunk group to which traffic class is not applicable.
	DIRSEL	see subfield	*Trunk direction selector and refinements* This field consists of subfield DIR and refinements.

TRKGRP type CISANI (continued)

Field descriptions (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	IC	*Trunk direction* Enter IC to specify that the direction of the trunk group is incoming, and datafill refinements MCTANI, XLAD, DGNAME, CISDNSIZ, and CISTLTYP.
	MCTANI	Y or N	*Forward ANI enable* Enter Y to indicate that on malicious call trace (MCT) calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is required. Enter N to indicate that on MCT calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is not required. This option is applicable for R2 calls only.
	XLAD	see subfield	*Translation system* This field consists of subfield XLADSEL and refinements.
	XLADSEL	UNIV, NALT, or NETATTR	*Translation selector* If the universal translation system is used, enter UNIV and datafill refinements XLASYS and XLANAME. If the North American translation system is used, enter NALT and datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC. If this table indexes into table NETATTR, enter NETATTR and datafill refinement NETINDX.

XLADSEL = NALT

If the value in field XLADSEL is NALT, datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters)	*Standard pretranslation name* Enter the name of the standard pretranslator datafilled in table STDPRTCT to which translation is to route on receipt of the first incoming digit. If pretranslation is not required, enter NPRT (no pretranslator). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 4 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

TRKGRP type CISANI (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving NPA code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRC	LCL or NLCL	*Originating source* Enter the originating source, LCL (local) or NLCL (non-local). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in table HNPACODE. Refer to subtable HNPACONT.HNPACODE, “Notes on Originating Source" for more information.

XLADSEL = NETATTR

If the value in field XLADSEL is NETATTR, datafill refinement NETINDX as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required (since it is available in table NETATTR).

XLADSEL = UNIV

If the value in field XLADSEL is UNIV, datafill refinements XLASYS and XLANAME as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CC, CT, CTY, DN, FA, FT, NN, NSC, OFC, PX, or NIL	*Translation system* Enter a character string to specify the name of the head table from which translations begin.
	XLANAME	alphanumeric (1 to 8 characters)	*Translation name* Enter a name from the code table that corresponds to the head table referenced by field XLASYS. If the entry in field XLASYS is NIL, leave this field blank.

All XLADSEL values

For all values of XLADSEL, datafill subfields DGNAME, CISDNSIZ, and CISTLTYP as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DGNAME	alphanumeric (1 to 8 characters) or NIL	*Digit collection name* Enter the digit analysis instance required for an incoming trunk group. The digit analysis instance must have been previously defined in table DGHEAD. Enter NIL if no digit analysis is required.

TRKGRP type CISANI (end)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CISDNSIZ	numeric (1 to 7)	*CIS directory number size* Enter a numeric value to specify the number of digits in the originating subscribers directory number (DN) that are to be received in the ANI digits train. The number specified indicates the DN size in the numbering plan without prefix digits.
	CISTLTYP	AMTC23 AMTCKE or ARM20	*CIS toll type* Datafill this field to specify the type of automatic intercity telephone exchange (AMTC).

Datafill example

The following example shows sample datafill for table TRKGRP type CISANI.

MAP display example for table TRKGRP type CISANI

```
GRPKEY            GRPINFO
_____________________________________________________________

ICMFPP2BA         CISANI 0 ELOD NCRT Y N NONE
 IC N UNIV PX MFPP MFPP2 6 AMTC23
ICMFPP1BA         CISANI 0 ELOD NCRT Y N NONE
 IC N UNIV PX MFPP MFPP 6 AMTCKE
ICUIDPANI         CISANI 5 NPDGP NCRT N N NONE
 IC N NALT NPRT NSCR 111 LCL UIDPTRK 5 ARM20
ICARM20BA         CISANI 5 NPDGP NCRT N N NONE
 IC Y NETATTR 4 UIDPTRK 5 ARM20
```

Table history

BCS36

Group type CISANI was introduced for table TRKGRP.

Directory Assistance Charging Trunk Group Type

In a DMS end office, outgoing trunk group type DA connects to a directory assistance charging system.

To ensure that automatic number identification (ANI) is outpulsed, set the type of call to operator assisted (OA) in the standard pretranslator for directory assistance (411).

The ANI spill consists of the identification (ID) digit plus the billing number of the calling directory number.

The hold type for this trunk group type is no hold, which means that the connection is taken down if either the originator or the terminator goes on hook.

Datafill

The following table lists the datafill for table TRKGRP type DA.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS and AUDRING. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	DA	*Group type* Enter DA to specify the trunk group type for directory assistance charging trunks.

TRKGRP type DA (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual.*

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to the general information section of table TRKGRP.
	AUDRING	Y or N	*Audible ring* Enter Y (yes) if the the switch is to return audible ringing to the originator. Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table TRKGRP type DA.

MAP display example for table TRKGRP type DA

```
GRPKEY              GRPINFO
_____________________________________________________

HULLPQMC61BO        DA 14 ELO NCRT DA Y
```

TRKGRP type DS0

Digital Signal Level 0

Trunk group type DS0 provides a service switching point (SSP) office with Common Channel Signaling 7 (CCS7) link access to a signaling transfer point (STP) node. In addition, the DS-0 links that interface to these nodes can respond to network-initiated maintenance action.

Trunk group type DS0 is used if a digital trunk controller (DTC) has DS-0 links. A DS-0 link consists of a single trunk and is not used for any call processing application.

Datafill

The following table lists the datafill for table TRKGRP type DS0.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, and NCCLS.Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	DS0	*Group type* Enter DS0 to specify the group type used for DS-0 links.

TRKGRP type DS0 (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA.For more information, refer to table PADDATA.
	NCCLS	NCRT	*Operational measurements no-circuit class* This field is not required for incoming trunk groups. Enter NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.

TRKGRP type DS0 (end)

Datafill example

The following example shows sample datafill for table TRKGRP type DS0.

MAP display example for table TRKGRP type DS0

```
GRPKEY          GRPINFO
_____________________________________________________________

DS0TLINK        DS0 0 NPDGP NCRT
```

Enhanced 911 Emergency Service Trunk Group Type

Trunk group type E911 (enhanced 911 emergency service) is used for dedicated 911 trunks that are incoming into a tandem office.

E911 type trunks support both multifrequency (MF) and dial-pulse (DP) signaling formats.

If office parameter E911_PSAPS_USING_1_INFO_DIGIT in table OFCSTD is set to Y (yes), datafill table E911NPD prior to datafilling field NPA in table TRKGRP for group type E911.

An emergency service number (ESN) datafilled in the E911 trunk group data must also be datafilled in table E911ESN.

Ensure that a default ESN for table TRKGRP and group type E911 is datafilled in table E911ESN. Otherwise, calls on this trunk group cannot be routed and are sent to vacant code treatment.

The maximum number of trunk subgroups that can be assigned is 4096.

Datafill

The following table lists the datafill for table TRKGRP type E911.

Field descriptions (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
GRPKEY		see subfield	Group key. This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier (CLLI). Enter the CLLI code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	Variable group data. This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SNPA, ECPHTIME, ORIGHOLD, SDATA, ANISEIZ, ANIPDIAL, ANIREQSG, ESCO, ESN, EXTSIG, and PRTNM. Refer to section “General field information” in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	E911	Group type. Enter E911 to specify the group type for enhanced 911 emergency service.

TRKGRP type E911 (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	Traffic separation number. Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	Pad group. Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCRT	Operational measurements no circuit class. This field is not required for incoming trunk groups. Enter NCRT (no circuit).
	PRTNM	Vector up to eight characters	Pretranslator name. To activate this option, enter the value in table STDPRTCT. Then enter the data for field PRTNM in table TRKGRP for the E911 MF trunk with that value. The default datafill for an E911 MF trunk is NPRT (nil pretranslator).
	SNPA	numeric (5 digits)	Serving numbering plan area. Enter the serving NPA of the E911 trunk group that has a numbering plan digit (NPD) datafilled in table E911NPD.
	ECPHTIME	numeric (0 to 255)	Enhanced called party hold (ECPH) time. This entry indicates the number of seconds ECPH is active. In NA013, ECPH time is available for intertoll (IT) ISDN user part (ISUP) trunks with the E911 option.

TRKGRP type E911 (continued)

Field descriptions (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
	ORIGHOLD	Y or N	Originator hold. Enter Y (yes) if the end office at which this trunk originated supports the operator hold function. Otherwise, enter N (no). In NA013, originator hold is available for IT ISUP trunks with the E911 option.
	SDATA	see subfield	Signaling data. This field consists of subfield SIGFMT and refinements.
	SIGFMT	AMR4 AMR5orBELL	Signaling format. Enter the format of the automatic number identification (ANI) information that is incoming on the trunk. If the format type is AMR4, enter AMR4 and datafill refinement NCATDIGS. If the format type is AMR5, enter AMR5 and datafill refinement NCATDIGS. If the format type is BELL, enter BELL and datafill refinement INFODIGS.
	NCATDIGS	numeric (2 or 3)	Number of category digits. Datafill this field if the value in field SIGMT is AMR4 or AMR5. Enter the number of category digits expected along with the ANI.
	INFODIGS	numeric (1 or 2)	Information digits. Datafill this field if the value in field SIGMT is BELL. Enter the number of information digits expected along with the ANI.
	ANISEIZ	numeric (2 to 30)	ANI seizure timing. Enter the time, in seconds, that the trunk waits for reception of the first ANI digit or signal after the ANI request signal.
	ANIPDIAL	numeric (2 to 30)	ANI partial dial timing. Enter the time, in seconds, that the trunk waits for reception of each ANI digit or signal after the first digit.

TRKGRP type E911 (continued)

Field descriptions (Sheet 4 of 4)

Field	Subfield	Entry	Explanation and action
	ANIREQSG	REV or WK	ANI request signal. Enter REV to specify that a reversal signal is used to request ANI information. This entry value is used for multifrequency or dial pulse signaling. Enter WK to specify that a wink signal is used to request ANI information. This entry value is used for public safety answering point (PSAP) signaling.
	ESCO	numeric (000 to 999)	Emergency service central office. Enter the number representing the end office at which the E911 trunk originated.
	ESN	numeric (000 to 15999)	Emergency service number. Enter the number associated with the emergency service zone (ESZ). This number is used to obtain the directory number (DN) of the primary PSAP to which the call is routed by default.
	EXTSIG	Y or N	Extended signaling. Enter Y to specify that the trunk uses the extended signaling protocol. Enter N to turn off this option.
	ACKWINK	Y or N	Acknowledgment wink. Enter Y to receive an ACKWINK on incoming wireless calls over MF trunks to the E911 tandem. The E911 tandem receives the ACKWINK after receiving digits. The default setting is N. To change the ACKWINK field to Y, set the EXTSIG field to Y.
	OFBSR	Y or N	Off-Board Selective Routing database. Enter Y if facility uses the OFBSR for translations and routing of both MF and ISUP E911 trunks.

Datafill example

The following example shows sample datafill for table TRKGRP type E911.

MAP display example for table TRKGRP type E911

```
GRPKEY                                                          GRPINFO
_____________________________________________________________________

E911WRLS    E911 20 ELO NCRT NPRT 613 Y 123 Y BELL 2 10 10 REV 849 321 Y
            $
E911ICMF    E911 20 ELO NCRT P621 613 Y 0 Y BELL 1 10 10 REV 692 111
            N N $
E911ICNG    E911 0  ELO NCRT P621 613 Y 123 Y AMR4 3 10 10 REV 847 005 N
            $
```

The following examples show sample datafill for Table TRKGRP type E911, using the OFBSR subfield for an MF trunk.

MAP display example for table TRKGRP type E911 for MF trunk

```
 TABLE: TRKGRP
 >pos e911icmf

E911 20 ELO NCRT NPRT 613 613 Y 0 Y BELL 1 10 10 REV 692
       111 N N
```

OFBSR

Table history

NA015

Added subfield OFBSR for E911 trunks.

NA013

Added subfields ECPHTIME and ORIGHOLD to IT ISUP trunk functionality.

Added subfield ACKWINK.

NA011

Added subfield PRTNM.

NA010

Added subfield EXTSIG.

NA007

Subfield ECPHTIME option activated.

TRKGRP type E911 (end)

NA006

Added field ECPHTIME (currently an inactive option).

BCS36

Field DIRECTSZ was removed and replaced by field ANIREQSG.

TRKGRP type ES

Outgoing to emergency service bureau trunk group type

When feature package NTX019AA (Civic Services) is present in a DMS-100 end office, outgoing trunk group type ES connects to an emergency service bureau (ESB) to provide emergency services (ES).

Depending on the ESB setup, the trunk group can have automatic number identification (ANI) spill, outpulsing of the called number, or both ANI spill and called number outpulsing.

Datafill

The following table lists the datafill for table TRKGRP type ES.

Field descriptions (Sheet 1 of 8)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIR, AUDRING, TRAFCLS, SELSEQ, FDISCTIM, ROHTT, DISCTON, INTTT, SWST, SWSTTN, RNGBK, CLI, ANI, ABNHLDTM, BILLDN, and SPBDN. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	ES	*Trunk group type* Enter ES to specify the emergency service trunk group type.

TRKGRP type ES (continued)

Field descriptions (Sheet 2 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric(0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*No circuit class type*Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.

TRKGRP type ES (continued)

Field descriptions (Sheet 3 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	OG	*Direction* Enter OG to specify that the trunk group direction is outgoing. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	AUDRING	Y or N	*Audible ringing* Enter Y if the switch is to return audible ring to the originator. Otherwise, enter N.
	TRAFCLS	alphabetic (2-9 characters)	*Traffic class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.

TRKGRP type ES (continued)

Field descriptions (Sheet 4 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDLLIDLCWCTH CCWCTH ASEQorDSEQ	*Select sequence* If the traffic direction of the trunk group is outgoing (OG) and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter: • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group or • ASEQ or DSEQ for ascending or descending sequential selection If the traffic direction of the trunk group is outgoing (OG) and sequential selection does not apply, enter MIDL. ***Note 1:*** For additional information on field SELSEQ, refer to table TRKGRP. ***Note 2:*** The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	FDISCTIM	numeric (0 to 255)	*Forced disconnect time type* Enter the on-hook duration time, in 160-ms intervals, that must elapse prior to a disconnect being declared.

TRKGRP type ES (continued)

Field descriptions (Sheet 5 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ROHTT	numeric (1 to 1000)	*Rering off-hook tone time type* Enter a numeric value to specify the time duration, in 10-ms intervals, that rering off-hook (ROH) tone is given. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	DISCTON	HI or RO	*Disconnect tone type* Enter HI for high, or RO for reorder, to specify the type of tone that is sent to the emergency service bureau when the originator disconnects.
	INTTT	numeric (1 to 1000)	*Integrity tone time type* Enter a numeric value to specify the time duration, in 1 s intervals, that integrity tone (disconnect tone) is provided before a fault is declared. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SWST	AC DC orADC	*Switchhook status type* Enter the type of switchhook signal. Selecting audible digital control (ADC) signal provides the tones capability that is associated with AC signaling, and the disconnect functionality that is associated with DC signaling.

TRKGRP type ES (continued)

Field descriptions (Sheet 6 of 8)

Field	Subfield or refinement	Entry	Explanation and action
			Note: The ADC feature does not function if ES trunks are provisioned on a remote cluster controller (RCC) or a remote switching center (RSC) that connects to a 911 emergency service bureau serviced by a private branch exchange (PBX) switch. If value ADC is datafilled, use E&M signaling type trunk interface cards for the ES trunks. Also use E&M signaling type transmission equipment on the PBX for the 911 service bureau. Use E&M signaling handling equipment for ES trunks located on digital carrier modules (DCM), digital test sequences (DTC), or line trunk controllers (LTC).
	SWSTTN	LO or BY	*Switchhook status tone* Enter LO for tone type low, or BY for tone type busy, to specify the tone that is sent to the emergency service bureau if the originator disconnects.
	RNGBK	Y or N	*Ringback signal* Enter Y if ringback signal is required. Otherwise, enter N.
	CLI	Y or N	*Calling line identification* Enter Y if calling line identification is required. Otherwise enter N.

TRKGRP type ES (continued)

Field descriptions (Sheet 7 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ANI	ANISPILL, OUTPULSE or NOANI	*Automatic number identification type* This field specifies the ANI type. Enter a value for this field as follows: • If the translated dialed digits (for example, 911) followed by the ANI digits (the originator's number) are to be outpulsed, enter ANISPILL. • If only ANI digits are to be outpulsed, enter OUTPULSE. • If only the translated dialed digits are to be outpulsed, enter NOANI. ***Note:*** For ANI to be outpulsed correctly, the type of call (field TYPCALL) must be operator assisted (OA) or direct dial (DD), except for calls originated by Meridian Digital Centrex (MDC) lines (for example, line class codes of IBN or PSET) that need a field TYPCALL value of OA. The call type is determined by the call originator (subscriber or incoming trunk group type) and can be redefined during digit translations. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

TRKGRP type ES (continued)

Field descriptions (Sheet 8 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ABNHLDTM	0 to 15 s	*Abandon Hold Time* This field determines the amount of time after a 911 caller's line is disconnected abruptly, either intentionally or intentionally, that the ES Trunk ANI Spill On Call Abandon feature (AN0349) suspends supervision on the line, delays in order to allow the ANI to be completely outpulsed to the Public Safety Answering Point (PSAP), and then returns line supervision back to normal. To turn on this feature, enter a value greater than zero. The recommended range of this parameter is 5 to 10. To turn off this feature, enter 0 (zero). The absolute range is 0 to 15. The default is 0 seconds (or 5 when patch RDG64 was active on the old load). These defaults are decided during IPL.
	BILLDN	Y or N	*Billing directory number* Enter Y to spill the PRI trunk group'sBILLDN over the ES trunk. Otherwise, enter N.
	SPBDN	Y or N	*Special billing directory number* Enter Y to spill the Calling DN'sSPBDN over the ES trunk. Otherwise, enter N.

Datafill example

The following example shows sample datafill for table TRKGRP type ES.

MAP display example for table TRKGRP type ES

```
GRPKEY   GRPINFO
_____________________________________________________________________
EMGY   ES 0 ELO NCRT OG N NIL MIDL 63 1000 HI 60 DC LO Y Y ANISPILL 5
       Y Y
```

Supplementary information

When a T1 (off of a DCM) is terminated on a two-wire circuit, tones are audible. While outpulsing or during an ANI spill, the DCM is incapable of disabling the return speech path.

TRKGRP type GER2W

Two-way 1TR7 ISUP Trunk Group Type

Trunk group type GER2W is required for the German Intelligent Network field trial in order to handle the requirements of 1TR7 ISDN user part (ISUP) signaling when the direction of the trunk group is two-way.

Table TRKGRP defines the data associated with each trunk group interface. The GER2W refinements of type GRPTYP in table TRKGRP contain service and translation related data for two-way German 1TR7 ISUP trunks.

Datafill sequence and implications

Table PXHEAD must be datafilled before table TRKGRP is datafilled for group type GER2W.

Refer to the overview section of table TRKGRP for additional datafill sequence information.

Datafill

The following table lists the datafill for table TRKGRP type GER2W.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	GRPINFO	see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and refinements PRTNM, PFXDIGS, and SELSEQ.
GRPTYP		GER2W	*Group type* Enter GER2W. This is the trunk group type for two-way 1TR7 trunks.

TRKGRP type GER2W (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	0 to 127	*Traffic separation number* Enter the outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). If the switching unit has software package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without package NTX085AA, enter 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for additional information.
	PADGRP	alphanumeric	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to table PADDATA for additional information.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurement no-circuit class* Enter the operational measurement no-circuit class to indicate which OM register requires incrementing when treatment GNCT occurs. Refer to table TRKGRP and the *Operational Measurements Reference Manual*, for additional information.
	PRTNM	alphanumeric (1 to 8 characters) or NIL	*Standard pretranslator table name* The PX translation system, which consists of tables PXHEAD, PXCODE, and PXRTE, is used for ITR7 trunks. Enter a table name to specify the entry point into this pretranslation system. Enter NIL if the trunk is not usable for call processing.

TRKGRP type GER2W (end)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PFXDIGS	numeric (1 to 4 digits)	*Digits to prefix* Enter any additional digits that are to be prefixed to the received digits.
	SELSEQ	LIDL or MIDL	*Select sequence* This field specifies the sequence in which trunks are selected for call processing. Enter LIDL to specify selection of the least idle trunk. Enter MIDL to specify selection of the most idle trunk. On two-way trunks, use MIDL if the far end has LIDL and use LIDL if the far end has MIDL. Any entry outside the range indicated for this field is invalid.

Datafill example

The following example shows sample datafill for table TRKGRP type GER2W.

MAP display example for table TRKGRP type GER2W

```
GRPKEY                    GRPINFO
_____________________________________________________

GIS2W                   GER2W 0 STDTK NCRT P58 N MIDL
```

Incoming 1TR7 ISUP Trunk Group Type

Trunk group type GERIC is required for the German Intelligent Network field trial in order to handle the requirements of 1TR7 ISDN user part (ISUP) signaling when the direction of the trunk group is incoming.

Table TRKGRP defines the data associated with each trunk group interface. The GERIC refinements of type GRPTYP in table TRKGRP contain service and translation related data for incoming German 1TR7 ISUP trunks.

Datafill sequence and implications

Table PXHEAD must be datafilled before table TRKGRP is datafilled for group type GERIC.

Refer to the overview section of table TRKGRP for additional datafill sequence information.

Datafill

The following table lists the datafill for table TRKGRP type GERIC.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*CLLI* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and refinements PRTNM and PFXDIGS.
	GRPTYP	GERIC	*Group type* Enter GERIC. This is the trunk group type for incoming 1TR7 trunks.

TRKGRP type GERIC (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	0 to 127	*Traffic separation number* Enter the traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). If the switching unit has software package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without package NTX085AA, enter 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for additional information.
	PADGRP	alphanumeric	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to table PADDATA for additional information.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurement no-circuit class* Enter the operational measurement no-circuit class to indicate which OM register requires incrementing when treatment GNCT occurs. Refer to table TRKGRP and the *Operational Measurements Reference Manual*, for additional information.
	PRTNM	alphanumeric (1 to 8 characters) or NIL	*Standard pretranslator table name* The PX translation system, which consists of tables PXHEAD, PXCODE, and PXRTE, is used for ITR7 trunks. Enter a table name to specify the entry point into this pretranslation system. Enter NIL if the trunk is not usable for call processing.
	PFXDIGS	numeric (1 to 4 digits) or N	*Digits to prefix* Enter any additional digits to be prefixed to the received digits.

TRKGRP type GERIC (end)

Datafill example

The following example shows sample datafill for table TRKGRP type GERIC.

MAP display example for table TRKGRP type GERIC

```
GRPKEY          GRPINFO
_____________________________________________________

GISIC           GERIC 0 STDTK NCRT P58 N
```

TRKGRP type GEROG

Outgoing 1TR7 ISUP Trunk Group Type

Trunk group type GEROG is required for the German Intelligent Network field trial in order to handle the requirements of 1TR7 ISDN user part (ISUP) signaling when the direction of the trunk group is outgoing.

Table TRKGRP defines the data associated with each trunk group interface. The GEROG refinements of type GRPTYP in table TRKGRP contain service and translation related data for outgoing German 1TR7 ISUP trunks.

Datafill

The following table lists the datafill for table TRKGRP type GEROG.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*CLLI* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and refinement SELSEQ.
	GRPTYP	GEROG	*Group type* Enter GEROG. This is the trunk group type for outgoing 1TR7 trunks.

TRKGRP type GEROG (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	0 to 127	*Traffic separation number* Enter the outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). If the switching unit has software package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without package NTX085AA, enter 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for additional information.
	PADGRP	alphanumeric	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to table PADDATA for additional information.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurement no-circuit class* Enter the operational measurement no-circuit class to indicate which OM register requires incrementing when treatment GNCT occurs. Refer to table TRKGRP and the *Operational Measurements Reference Manual* for additional information.
	SELSEQ	LIDL or MIDL	*Select sequence* This field specifies the sequence in which trunks are selected for call processing. Enter LIDL to specify selection of the least idle trunk. Enter MIDL to specify selection of the most idle trunk. Any entry outside the range indicated for this field is invalid.

TRKGRP type GEROG (end)

Datafill example

The following example shows sample datafill for table TRKGRP type GEROG.

MAP display example for table TRKGRP type GEROG

```
GRPKEY          GRPINFO
_____________________________________________________________

GISOG           GEROG 0 STDTK NCRT MIDL
```

Gateway Trunk Group Type

This is a description of formats in table TRKGRP for the following gateway trunk groups:

- gateway R1 and R1-no.5 hybrid
- gateway R2 multifrequency compelled (MFC)
- gateway CCITT no.5
- gateway CCITT no.6
- gateway CCITT no.7

The switching unit dependent data required for each of the trunk groups described in this section is listed below:

- the common language location identifier (CLLI) name assigned to the trunk group in table CLLI
- the trunk group type
- the traffic separation number assigned to the trunk group
- the name of the pad group assigned to the trunk group

  Note: Field PADGRP contains the name of the pad group in table PADDATA that lists the value of the pad circuits that can be switched into the network if one of the members of the group is involved in a call. Different values for the pad circuits can be specified if the circuit connects to an agent with a different pad group. Network pad switching is only applicable if the circuit is connected to a new network.

- the no-circuit class assigned to the trunk group

  Note: If the trunk group is the last route in a route list and a line or trunk encounters an all-trunks-busy condition in this list, the no-circuit class NXXX is incremented (OFZ2 NXXX), the originating line or trunk is routed to generalized no-circuit treatment (GNCT) in the appropriate table, and treatment GNCT is incremented. See table TRKGRP for the values of the no-circuit class.

- the trunk group direction (incoming, outgoing, or two-way)
- the true country code of the originating country on an incoming or two-way trunk group
- whether digit manipulation (specified in table GWDIGMAN) must be done before outpulsing

TRKGRP type GW (continued)

- for incoming and two-way trunks, whether service screening by destination is done or not

  Note: This is available on the international integrated services switching unit (ISSU).

- for incoming and two-way trunks, the new value to which the common calling party category (CCPC) must be updated

  Note: The CCPC can be used to determine the routing of the call.

- for incoming and two-way trunks, whether call progress tones are applied to incoming trunks of group type GW on the DMS-300 for Australia

  Note: Incoming calls to the DMS-300 from Australian telephone user part (ATUP) or T3MFC trunks check field PROGTONE to determine whether insertion of the call progress tone is required following call setup and prior to answer. This audible comfort tone provides the subscriber with an indication that the call is proceeding normally prior to receiving audible ringback tone.

- the bearer capability name for trunks that do not carry this bearer capability information in their signaling system
- whether a received ISDN user part (ISUP) preference indicator is to be used
- connected office information
- NETINFO information
- the path of entry symbol name for the trunk group
- whether the trunk group is long haul or not
- the select sequence assigned to the trunk group
- the class of service screening assigned to the trunk group
- whether the discrimination digit is received or not
- the international pretranslators assigned to the trunk group
- the country code translator assigned to the trunk group
- the call detail recorder class assigned to the trunk group
- the connecting office code assigned to the trunk group
- the incoming trunk class assigned to the trunk group

- the traffic class assigned to the trunk group

  Note: The entry in field TRAFCLS determines whether the DMS must request automatic number identification (ANI) information from an incoming CCITT Register Signaling System No.2 (R2) trunk.

- whether the trunk group is intergateway or not

Data modification orders

If office parameter TRK_OOS_CHK_ON in table OFCENG is set to Y, all trunks in the group must be busied prior to changing the value of fields through a data modification order (DMO).

Traffic class

Field TRAFCLS of the trunk group data can take one of the two following values:

CAMA This value indicates that the incoming trunk on the DMS-300 collects ANI information from the previous switching unit.

NONE This value indicates that a trunk has no specific type of traffic flowing over it. Use the value NONE if the traffic class is not known or if the assignment of a traffic class is not applicable.

Gateway R1 and R1-no.5 hybrid trunk groups

The gateway R1 and R1-no.5 hybrid trunk groups are associated with a specific gateway trunk group having R1 or R1-no.5 hybrid signaling capabilities. These trunk groups originate and terminate on the North American national switching network.

An incoming call that does not access a pretranslator (fields KP1PRT and KP2PRT with value NPRT) or for which the received digits are not found in the pretranslator table, routes as follows:

- If field CCTRNSL has a value of NCTR (no country code translator), the call routes to table OVNTRNSL with a country code specified by office parameter NATIONAL_COUNTRY_CODE in table OFCENG.
- If field CCTRNSL has a value that is not equal to NCTR, the call routes to table CCTRNSL.

Gateway R2 multifrequency compelled (MFC) trunk groups

The gateway R2 MFC trunk groups are associated with a specific gateway trunk group having R2 MFC signaling capabilities. These trunk groups generally originate and terminate on the international switching network.

TRKGRP type GW (continued)

An incoming call is routed as follows:

- If the first signal received is I_10, access the pretranslator specified in field KP1PRT. If field KP1PRT has a value of NPRT, or if the received digits are not in the pretranslator table specified, the call is national and routes to table OVNTRNSL with a country code specified by office parameter NATIONAL_COUNTRY_CODE in table OFCENG.
- If the first signal received is I_11, I_12, or I_14, access the pretranslator specified in field KP2PRT. If the field KP2PRT has a value of NPRT, or if the received digits are not in the pretranslator table specified, the call is international and routes to table CCTRNSL.
- If the first signal received is I_13, which indicates a test call, the pretranslator R2TS is accessed to determine the routing of this test call.

Gateway CCITT no.5 trunk groups

The gateway CCITT no.5 trunk groups are associated with a specific gateway trunk group having CCITT No.5 Signaling (N5) capabilities. These trunk groups generally originate and terminate on the international switching network.

An incoming call is routed as follows:

- If the call receives KP1 and the pretranslator table is not accessed (field KP1PRT has a value of NPRT) or if the table is accessed but the received digits are not in the pretranslator table, the call is national and routes to table OVNTRNSL with a country code specified by office parameter NATIONAL_COUNTRY_CODE in table OFCENG.
- If the call receives KP2 and the pretranslator table is not accessed (field KP2PRT has a value of NPRT) or if the table is accessed but the received digits are not in the pretranslator table, the call is international and routes to table CCTRNSL.

Gateway CCITT no.6 trunk groups

The gateway CCITT no.6 trunk groups are associated with a specific gateway trunk group having CCITT No.6 Signaling (N6) capabilities. These trunk groups generally originate and terminate on the international switching network.

An incoming call is routed as follows:

- If the trunk group type is CCITT no.6, datafill field KP1PRT with the name of the international pretranslator to access if the country code is not included in the initial address message (IAM). If the entry in field KP1PRT is NPRT, or if the received digits are not in the pretranslator table specified, the call is national and routes to table OVNTRNSL with a

country code specified by office parameter NATIONAL_COUNTRY_CODE in table OFCENG.

- If the trunk group type is CCITT no.6, datafill field KP2PRT with the name of the international pretranslator to access if the country code is included in the IAM. If the entry in field KP2PRT is NPRT, or if the received digits are not in the pretranslator table specified, the call is international and routes to table CCTRNSL.
- If the trunk group type is CCITT no.6, and a bit in N6 IAM indicates that this is a test call, the pretranslator N6TS is accessed to determine the routing of the test call.

Gateway CCITT no.7 trunk groups

The gateway CCITT no.7 trunk groups are associated with a specific gateway trunk group having CCITT No.7 Signaling (N7) capabilities. These trunk groups generally originate and terminate on the international switching network.

An incoming call is routed as follows:

- If the trunk group type is CCITT no.7, datafill field KP1PRT with the name of the international pretranslator to access if the nature of address indicator, included in the IAM, is other than international. If the entry in field KP1PRT is NPRT, or if the received digits are not in the pretranslator table specified, the call is assumed to be national and routes to table OVNTRNSL with a country code that is specified by office parameter NATIONAL_COUNTRY_CODE in table OFCENG.
- If the trunk group type is CCITT no.7, datafill field KP2PRT with the name of the international pretranslator to access if the nature of address indicator, included in the IAM, is international. If the entry in field KP2PRT is NPRT, or if the received digits are not in the pretranslator table specified, the call is international and routes to table CCTRNSL.
- If the trunk group type is CCITT no.7 and a bit in the N7 IAM indicates that this is a test call, the pretranslator N7TS is accessed to determine the routing of this test call.

TRKGRP type GW (continued)

Datafill

The following table lists the datafill for table TRKGRP type GW.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, GWINFO, LONGHAUL, SELSEQ, SCRNCL, DISDRCVD, KP1PRT, KP2PRT, CCTRNSL, CDRCLASS, COFFCD, INTRKCLS, TRAFCLS, CROUTING, ARN, DCD, FWDXMT, and OPTIONS. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	GW	*Trunk group type* Enter GW for the gateway trunk group type.

TRKGRP type GW (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter a numeric value to specify the incoming or outgoing traffic separation number assigned to the trunk group. If no traffic separation number is required, enter 0 (zero). If the switching unit has software package NTX085AA (Traffic Separation Peg Count), the range of values for the incoming and outgoing traffic separation numbers is dependent upon the value of office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without software package NTX085AA, the range of values for traffic separation numbers is 0 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. See table TFANINT for the assignment of incoming to outgoing traffic separation numbers. With the traffic separation feature, a count of all calls by type of call can be accumulated between an originating source (incoming trunk or an originating line attribute) and a terminating destination (outgoing trunk, terminating line attribute, tone or announcement). Supported call types are direct dial (DD), operator assisted (OA), and no prefix (NP).
	PADGRP	alphanumeric (1 to 5 characters) or NPDGP	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. If a pad group name is not required, enter NPDGP (no pad group). For more information, refer to table PADDATA.

TRKGRP type GW (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* If the trunk direction is outgoing (OG) or two-way (2W), enter the operational measurements (OM) no-circuit class to indicate which OM register, in OM groups OFZ2 and SOTS, requires incrementing when generalized no-circuit treatment (GNCT) occurs. If the trunk direction is incoming (IC), this field is not required. Enter NCRT (no circuit). Refer to table TRKGRP and the *Operational Measurements Reference Manual* for additional information.
	GWINFO	see subfield	*Variable group data* This field consists of subfield DIR and refinements.
	DIR	ICOG or 2W	*Trunk direction* If the direction of traffic flow is incoming, enter IC and datafill refinements ITCC, SERVSCRN, CCPC, PROGTONE, BCNAME, ISUPREF, COFFINFO, NETINFO, and POEC. Then datafill the additional fields that apply for all trunk group directions. If the direction of traffic flow is two-way, enter OG and datafill refinements GWMAN, BCNAME, COFFINFO, and NETINFO. Then datafill the additional fields that apply for all trunk group directions. If the direction of traffic flow is outgoing, enter 2W and datafill refinements ITCC, GWMAN, SERVSCRN, CCPC, PROGTONE, BCNAME, ISUPREF, COFFINFO, NETINFO, and POEC. Then datafill the additional fields that apply for all trunk group directions.

DIR = IC

If the value in field DIR is IC, datafill refinements ITCC, SERVSCRN, CCPC, PROGTONE, BCNAME, ISUPREF, COFFINFO, NETINFO, and POEC as described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	ITCC	vector of up to 3 digits (0 to 9) or N	*True country code of originating country* Enter the true country code of the originating country. Datafill preceding zeros if they are required for outpulsing. The default value is 0 (zero).
	SERVSCRN	Y or N	*Services screening by destination* If call screening by destination is performed, enter Y (yes). Otherwise, enter N (no). See table SERVPROF for additional information on call screening by destination. This service is available on the international integrated services switching unit (ISSU).
	CCPC	numeric (0 to 15) or N	*Common calling party category* If the common calling party category (CCPC) requires changing, enter the required new value for CCPC. If the CCPC value does not require changing, enter N. An entry of N means that field CCPC in table TRKGRP is not used for routing.
	PROGTONE	Y or N	*Call progress tone* If call progress tones are provided to the subscriber, enter Y. Otherwise, enter N. Incoming calls to the DMS-300 from Australian telephone user part (ATUP) or T3MFC trunks check this field to determine whether the call progress tone requires insertion following call setup and prior to answer. The audible comfort tone, which occurs prior to the subscriber receiving audible ringback tone, indicates to the subscriber that the call is proceeding normally.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	BCNAME	SPEECH	*Bearer capability name* Enter SPEECH to specify bearer capability for an incoming trunk that does not carry bearer capability information in its signaling information.
	ISUPREF	Y or N	*ISUP preference* This field specifies whether a received ISDN user part (ISUP) preference indicator is to be taken into account for the routing of incoming ISUP calls on the trunk group. If the ISUP preference indicator is to be taken into account, enter Y. Otherwise, enter N.
	COFFINFO	see subfields	*Connected office information* This field consists of subfield COFFTYP and refinements.
	COFFTYP	INTL NATL or TIEROUTE	*Connected office type* Enter the type of switching office at the connecting end of the trunk. If the connecting end exchange is owned by the same administration as the gateway office and if special accounting procedures are required, enter TIEROUTE and datafill refinement IRI. For an international switching office connection, enter INTL and datafill refinement ARI. For a national switching office connection, enter NATL and datafill refinement ARI. The default value for this selector is INTL.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	IRI	Y or N	*Incoming route index* Datafill this field if the value in field COFFTYP is IRI. Enter Y if a call set up on an incoming trunk is expected to send an incoming route index with the call. Otherwise, enter N. A log is generated if an IRI is not sent if this field is set to Y. The default value is N.
	ARI	numeric (0 to 65535)	*Accounting route index* Datafill this field if the value in field COFFTYP is INTL or NATL. Enter the required accounting route index.
	NETINFO	see subfield	*Network information data area* This field consists of subfield NETINFO and refinements.
	NETINFO	Y or N	*Network information* This field specifies whether network information is present in the IAM. If network information is present, enter Y and datafill refinements CUSTGRP, NCOS, and NETXLA. Otherwise, enter N to specify that the network information is not present. For incoming trunks, this refinement signifies the presence of a NETINFO in the IAM. For outgoing trunks, this refinement specifies that a NETINFO is to be inserted in the outgoing NETINFO.
	CUSTGRP	alphanumeric (1 to 16 characters)	*Customer group name* Datafill this field if the value in field NETINFO is Y. Enter the name assigned to the customer group. This name must exist in table GWCUENG.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	NCOS	numeric (0 to 511)	*Network class of service number* Datafill this field if the value in field NETINFO is Y. Enter the network class of service (NCOS) number associated with trunk group.
	NETXLA	Y or N	*NETINFO translation indicator* Datafill this field if the value in field NETINFO is Y. Enter Y to specify that translations uses the NETINFO parameter to determine entries in tables GWNCOS and GWCUENG. Otherwise, enter N.
	POEC	alphanumeric (up to 16 characters)	*Path of entry characteristic* Enter a symbolic name to specify the path of entry screening and routing characteristic for calls that originate on the trunk group. This name must exist in field SYMBOL of table POECNM.

Dir = OG

If the value in field DIR is OG, datafill refinements GWMAN, BCNAME, COFFINFO, and NETINFO as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	GWMAN	Y or N	*Gateway digit manipulation* If digit manipulation (through table GWDIGMAN) is required, enter Y (yes). Otherwise, enter N (no). All outgoing trunk groups used on international service calls must have this refinement set to Y. Outgoing trunk groups to the DMS-250 that support facility codes on normal calls must have refinement GWMAN set to Y. The default value is N.
	BCNAME	SPEECH	*Bearer capability name* Enter SPEECH to specify bearer capability for an outgoing trunk that does not carry bearer capability information in its signaling information.
	COFFINFO	see subfield	*Connected office information* This field consists of subfield COFFTYP and refinement.
	COFFTYP	INTL NATL or TIEROUTE	*Connected office type* Enter the type of switching office at the connecting end of the trunk. If the connecting end exchange is owned by the same administration as the gateway office and if special accounting procedures are required, enter TIEROUTE and datafill refinement IRI. For an international switching office connection, enter INTL. For a national switching office connection, enter NATL. The default value is INTL.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	IRI	Y or N	*Incoming route index* Datafill this field if the value in field COFFTYP is TIEROUTE. Enter Y if a call set up on an incoming trunk is expected to send an incoming route index with the call. Otherwise, enter N. An IRI is not sent and a log is generated if this refinement is set to Y. The default value is N.
	NETINFO	see subfield	*Network information data area* This field consists of subfield NETINFO and refinements.
	NETINFO	Y or N	*Network information* This field specifies whether network information is to be inserted into the outgoing network information. If network information is to be inserted, enter Y and datafill refinements CUSTGRP and NCOS. Otherwise, enter N. For incoming trunks, this refinement signifies the presence of a NETINFO in the IAM. For outgoing trunks, this refinement specifies that a NETINFO is to be inserted in the outgoing NETINFO.
	CUSTGRP	alphanumeric (1 to 16 characters)	*Customer group name* Datafill this field if the value in field NETINFO is Y. Enter the name assigned to the customer group. This name must exist in table GWCUENG.
	NCOS	numeric (0 to 511)	*Network class of service number* Datafill this field if the value in field NETINFO is Y. Enter the network class of service (NCOS) number associated with trunk group.

DIR = 2W

If the value in field DIR is 2W, datafill refinements ITCC, GWMAN, SERVSCRN, CCPC, PROGTONE, BCNAME, ISUPREF, COFFINFO, NETINFO, and POEC as described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	ITCC	vector of up to 3 digits (0 to 9) or N	*True country code of originating country* Enter the true country code of the originating country. Datafill preceding zeros if they are required for outpulsing. The default value is 0 (zero).
	GWMAN	Y or N	*Gateway digit manipulation* If digit manipulation (through table GWDIGMAN) is required, enter Y (yes). Otherwise, enter N (no). All two-way trunk groups used on international service calls (ISC) must have this refinement set to Y. Two-way trunk groups to the DMS-250 that support facility codes on normal calls must have refinement GWMAN set to Y. The default value is N.
	SERVSCRN	Y or N	*Services screening by destination* If call screening by destination is performed, enter Y. Otherwise, enter N. See table SERVPROF for additional information on call screening by destination. This service is available on the international integrated services switching unit (ISSU).
	CCPC	numeric (0 to 15) or N	*Common calling party category* If the common calling party category (CCPC) requires changing, enter the required new value for CCPC. If the CCPC value does not require changing, enter N. An entry of N means that refinement CCPC in table TRKGRP is not used for routing.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	PROGTONE	Y or N	*Call progress tone* If call progress tones are provided to the subscriber, enter Y. Incoming calls to the DMS-300 from Australian telephone user part (ATUP) or T3MFC trunks check this refinement to determine whether the call progress tone requires insertion following call setup and prior to answer. This audible comfort tone, which occurs prior to the subscriber receiving audible ringback tone, indicates to the subscriber that the call is proceeding normally.
	BCNAME	SPEECH	*Bearer capability name* Enter SPEECH to specify bearer capability for a two-way trunk that does not carry bearer capability information in its signaling information.
	ISUPREF	Y or N	*ISUP preference* This field specifies whether a received ISDN user part (ISUP) preference indicator is to be taken into account for the routing of incoming ISUP calls on the trunk group. If the ISUP preference indicator is to be taken into account, enter Y. Otherwise, enter N.
	COFFINFO	see subfield	*Connected office information* This field consists of subfield COFFTYP and refinements.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	COFFTYP	INTL NATL or TIEROUTE	*Connected office type* Enter the type of switching office at the connecting end of the trunk. If the connecting end exchange is owned by the same administration as the gateway office and if special accounting procedures are required, enter TIEROUTE and datafill refinement IRI. For an international switching office connection, enter INTL and datafill refinement ARI. For a national switching office connection, enter NATL and datafill refinement ARI. The default value for this selector is INTL.
	IRI	Y or N	*Incoming route index* Datafill this field if the value in field COFFTYP is IRI. Enter Y if a call set up on an incoming trunk is expected to send an incoming route index with the call. Otherwise, enter N. A log is generated if an IRI is not sent if this field is set to Y. The default value is N.
	ARI	numeric (0 to 65535)	*Accounting route index* Datafill this field if the value in field COFFTYP is INTL or NATL. Enter the required accounting route index.
	NETINFO	see subfield	*Network information data area* This field consists of subfield NETINFO and refinements.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	NETINFO	Y or N	*Network information* This field specifies whether network information is present in the IAM. If network information is present, enter Y and datafill refinements CUSTGRP, NCOS, and NETXLA. Otherwise, enter N to specify that the network information is not present. For incoming trunks, this field signifies the presence of a NETINFO in the IAM. For outgoing trunks, this field specifies that a NETINFO is to be inserted in the outgoing NETINFO.
	CUSTGRP	alphanumeric (1 to 16 characters)	*Customer group name* Datafill this field if the value in field NETINFO is Y. Enter the name assigned to the customer group. This name must exist in table GWCUENG.
	NCOS	numeric (0 to 511)	*Network class of service number* Datafill this field if the value in field NETINFO is Y. Enter the network class of service (NCOS) number associated with trunk group.
	NETXLA	Y or N	*NETINFO translation indicator* Datafill this field if the value in field NETINFO is Y. Enter Y to specify that translations uses the NETINFO parameter to determine entries in tables GWNCOS and GWCUENG. Otherwise, enter N.
	POEC	alphanumeric (up to 16 characters)	*Path of entry characteristic* Enter a symbolic name to specify the path of entry screening and routing characteristic for calls that originate on the trunk group. This name must exist in field SYMBOL of table POECNM.

All trunk groups

For all gateway trunk groups, datafill the following additional fields as described below.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	LONGHAUL	Y or N	*Long haul* This field identifies whether the trunk group is classified as long haul for echo suppressor switching purposes. A group is usually considered long haul if the distant office is more than 2500 km away. If the trunk group is classified as long haul, enter Y. Otherwise, enter N.

Field descriptions for conditional datafill (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CNTLEVN CNTLODD CWCTH DSEQ LIDL MIDL or blank	*Select sequence* If the trunk group is two-way and the far end is a link list switcher with a most idle select sequence, enter LIDL (least idle). If the far end is a link list switcher with a least idle select sequence, or the far end is not a link list switcher and sequential selection does not apply, enter MIDL (most idle). If the trunk group is two-way, the far end is not a link list switcher and feature package NTX244AB (Sequential Trunk Selection) is present, enter • CWCTH for clockwise or CCWCTH for counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, based on the order of trunk members in table TRKMEM, where the far end switch is CCWCTH or CWCTH respectively • ASEQ or DSEQ for ascending or descending sequential selection, based on the order of trunk members in table TRKMEM, where the far end is DSEQ or ASEQ respectively If sequential selection does not apply, enter MIDL. If the trunk group is incoming, leave this field blank. If trunks with odd-numbered circuit identification codes (CIC) constitute the controlling trunk group in an office, enter CNTLODD (control odd). If trunks with even-numbered CICs constitute the controlling trunk group in an office, enter CNTLEVN (control even).

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			Both CNTLODD and CNTLEVN use MIDL as the selection algorithm for the controlling group of circuits, and LIDL for the non-controlling group of circuits. Refer to table TRKGRP for additional information on field SELSEQ. ***Note:*** A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence may be changed to ASEQ from DSEQ or from DSEQ to ASEQ if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.
	SCRNCL	alphanumeric (1 to 4 characters) or NSCR	*Class of service screening table* If screening by origination is required on incoming or two-way trunk groups, enter the name of the screening class assigned to the trunk group. If screening by origination is not required or the trunk group is outgoing, enter NSCR (no screening). In table DESTCTL, this field is used to route the call.

Field descriptions for conditional datafill (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	DISDRCVD	Y or N	*Discrimination digit received* If the trunk group type is R1, R1-no.5 hybrid, or CCITT no.5, and the discrimination (language) digit is received as a suffix to the country code, enter Y. If the discrimination (language) digit is not received, enter N. If the trunk group type is CCITT no.6, CCITT no.7, or gateway R2 MFC, enter Y to indicate that the calling party category indicator (CPCI) is present in the IAM.
	KP1PRT	alphanumeric (4 characters) or NPRT	*KP1 pretranslator* If the trunk group type is R1, R1-no.5 hybrid, or CCITT no.5, enter the name of the international pretranslator that must be accessed on receipt of a KP1 control signal. If the trunk type is R2 MFC, enter the name of the international pretranslator that must be accessed if the first signal received is I_10, a terminating call. If the trunk group type is CCITT no.6, enter the name of the international pretranslator that must be accessed if the country code is not included in the IAM. If the trunk group type is CCITT no.7, enter the name of the international pretranslator that must be accessed if the nature of address indicator, included in the IAM, is not international. If no pretranslator access is required, enter NPRT (no pretranslator).

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	KP2PRT	alphanumeric (4 characters) or NPRT	*KP2 pretranslator* If the trunk group type is R1, R1-no.5 hybrid, or CCITT no.5, enter the name of the international pretranslator that must be accessed on receipt of a KP2 control signal. If the trunk type is R2 MFC, enter the name of the international pretranslator that must be accessed if the first signal received is I_11, I_12, or I_14, a transit call. If the trunk group type is CCITT no.6, enter the name of the international pretranslator that must be accessed if the country is included in the IAM. If the trunk group type is CCITT no.7, enter the name of the international pretranslator that must be accessed if the nature of address indicator, included in the IAM, is international. If no pretranslator access is required, enter NPRT.
	CCTRNSL	alphanumeric (4 characters) or NCTR	*Country code translator* Enter a name defined by the operating company to represent the country code translator that requires association with the gateway trunk group. If no country code translator is required, enter NCTR.
	CDRCLASS	alphanumeric (4 characters)	*Call data recorder class* Enter a name defined by the operating company to represent a specific call data recorder index. See table CDRCLSNM for additional information.
	COFFCD	numeric (3 digits)	*Connecting office code* Enter the connecting office numbering plan area (NPA) code for overseas domestic trunks or the country code for international outgoing trunks.

Field descriptions for conditional datafill (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	INTRKCLS	numeric (0 to 15)	*Incoming trunk class* Enter one of the values specified in the "Definitions of incoming trunk groups" section. If the trunk group has no class, enter 15. Incoming trunk class is used for digit manipulation. If digit manipulation is specified in the route chosen, the digit manipulation shown in the route takes precedence over the incoming trunk class.
	TRAFCLS	CAMA or NONE	*Traffic class* Enter CAMA if the incoming trunk on the DMS-300 must collect automatic number identification (ANI) information from the previous switching unit. Enter NONE if the trunk has no specific type of traffic flowing over it. Use this traffic class as a default value if the traffic class is not known or if the assignment of a traffic class is not applicable. No ANI information is collected. ***Note:*** Only CCITT Register Signaling System No.2 (R2) trunks currently use this field to determine whether ANI must be collected from the previous switching unit. T3MFC is the R2 variant signaling system used in the Australian national network.
	CROUTING	Y or N	*Intergateway trunk* If the trunk group is intergateway (between gateway switches), enter Y. Otherwise, enter N. The default value is N. The value in this field is used for DMS-300 CCITT No.6 Signaling reroute control.

TRKGRP type GW (continued)

Field descriptions for conditional datafill (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	ARN	numeric (0 to 999)	*Accounting route number* For incoming, outgoing, and two-way gateway trunks, enter the accounting route index for the trunk. The default value is 0 (zero).
	DCD	Y or N	*Dialed category digit* If the incoming digit string contains a dialed category digit, enter Y. The default value is N.
	FWDXMT	STD or ANS	*Forward transmission connection type* This field indicates how the forward speech path is connected for calls on this trunk group. Enter STD if the forward speech path is connected in the standard manner (that is, after the address digits are transmitted). Enter ANS if the forward speech path is suppressed until the answer signal is received.
	OPTIONS	see subfield	*Options* This field consists of subfield OPTSEL and refinement.
	OPTSEL	TRI	*Option selector* For the transit routing information (TRI) option, enter TRI and datafill refinement TRI. If no options apply, leave this field blank.
	TRI	numeric (4 digits)	*Transit routing information* Datafill this field if the value in field OPTSEL is TRI. Enter a numeric value to specify the TRI value.

Datafill example

The following example shows sample datafill for table TRKGRP type GW.

This example consists of datafill for two gateway CCITT R1 trunk groups, two gateway CCITT no.5 trunk groups, and two gateway CCITT no.6 trunk groups.

MAP display example for table TRKGRP type GW

```
   GRPKEY           GRPINFO
_____________________________________________________________________________

   HAM03BER         GW 0 NPDGP NCRT OG N N N N SPEECH N NATL 2222 N
NIL Y MIDL NSCR N NPRT NPRT NCTR CC1D 809 15 NONE N 989 Y STD

   HAM04BER         GW 0 NPGDP NCRT IC 49 N N N N SPEECH N INTL 4444 N
NIL Y MIDL SC1C Y IP24 IP02 CC01 CC1D 809 15 NONE N 555 N STD

   ATH01GRC         GW 0 NPGDP NCRT 2W 30 N N N N SPEECH N INTL 6666 N
NIL Y MIDL SC3B Y IP25 IP08 CC01 ES2N 030 15 NONE N 111 N STD

   ATH03GRC         GW 0 NPGDP NCRT IC 30 N N N SPEECH N INTL 202 N
NIL Y MIDL SC3B Y IP25 IP08 CC01 ES1N 030 15 NONE N 888 Y STD

   SYD10AUS         GW 0 NPGDP NCRT 2W 61 N N N N SPEECH N INTL 044 N
NIL Y MIDL SC6B Y IP24 IP13 CC01 WS2N 061 15 NONE N 669 N STD

   SYD11AUS         GW 0 NPGDP NCRT OG N N N N SPEECH N TIEROUTE Y N
NIL Y MIDL NSCR N NPRT NPRT NCTR WS1N 061 15 NONE N 555 N STD
```

Table history

BCS36

Description of incoming trunk class 1 in “Supplementary information" section was corrected. Entry values CLTLEVEN and CNTLODD in field SELSEQ were documented.

Supplementary information

This section provides information on datafilling table TRKGRP (GW) for specific applications, and product descriptive information related to table TRKGRP (GW).

Definitions of incoming trunk groups

Definitions for incoming trunk group classes are provided below.

TRKGRP type GW (continued)

Incoming trunk class 0
This class is not used by CCITT no.6 or CCITT no.7 trunk groups.

Outgoing or transit calls
For standard and nonstandard routing on a direct route, the following sequence occurs:

1. KP1 is outpulsed.
2. The country code is not outpulsed.
3. Discrimination digit manipulation is performed.
4. There is no operator code conversion.
5. The remaining digits are outpulsed as received.

For standard and nonstandard routing on an alternate route, the following sequence occurs:

1. KP2 is outpulsed.
2. The true country code is outpulsed.
3. Discrimination digit manipulation is performed.
4. There is no operator code conversion.
5. The remaining digits are outpulsed as received.

Note: For nonstandard routing, no prefixing or deletion of digits is done even if specified in the route.

Terminating calls
This trunk class is not used for terminating calls.

Incoming trunk class 1
This class is not used by CCITT no.6 trunk groups. It is used on CCITT no.7 routes to prevent #11 or #12 expansion as defined in table OFCENG.

Incoming trunk class 1 is the same as incoming trunk class 15 except that operator code conversion is performed only if a pseudo country code is received and the call is not a transit call. Operator code conversion converts code 121 or 131 to code 11 and converts code 11 (followed by up to four digits) to code 12 (followed by up to four digits). If code 121 or 131 is followed by any digits or code 11 is followed by more than four digits, operator code conversion is not done.

Incoming trunk classes 2 to 14
These trunk classes default to incoming trunk class 15.

Incoming trunk class 15

Outgoing calls

For standard routing on a direct route, the following occurrences take place:

- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, KP1 is outpulsed.
- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, the country code is not outpulsed.
- For gateway CCITT no.6 trunk groups, “country code not included" is inserted into the IAM.
- For gateway CCITT no.7 trunk groups, the nature of address indicator is inserted into the IAM.
- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, discrimination digit manipulation is performed.
- For gateway CCITT no.6 and CCITT no.7 trunk groups, common calling party category (CCPC) indicator manipulation is performed.
- For all gateway trunk groups, operator code conversion is not done.
- For all gateway trunk groups where replace international code is used, all digits specified in the overseas number table are replaced by the digits specified in field REPLCODE in table MMAX. In this case, operator code conversion must be done using field REPLCODE.
- For all gateway trunk groups, all remaining digits are outpulsed as received.

For standard routing on an alternate route, the following occurrences take place:

- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, KP2 is outpulsed.
- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, the true country code is outpulsed.
- For gateway CCITT no.6 trunk groups, “country code included" and the true country code are inserted into the IAM.
- For gateway CCITT no.7 trunk groups, the nature of address indicator is inserted into the IAM.
- For gateway R1 and R1-no.5 hybrid and gateway CCITT no.5 trunk groups, discrimination digit manipulation is performed.
- For gateway CCITT no.6 and CCITT no.7 trunk groups, CCPC indicator manipulation is performed.

TRKGRP type GW (continued)

- For all gateway trunk groups, operator code conversion is not done.
- For all gateway trunk groups where replace international code is used, all digits specified in table OVNTRNSL are replaced by the digits specified in field REPLCODE in table MMAX. In this case, operator code conversion must be done using field REPLCODE.
- For all gateway trunk groups, all remaining digits are outpulsed as received.

For nonstandard routing, all digits are outpulsed according to the route information.

Transit calls

For gateway R1 and R1-no.5 hybrid trunk groups, transit calls can have an alternate route only. They are treated the same as outgoing calls except that no operator code conversion is done.

For gateway CCITT no.5 trunk groups, KP2 and the country code are received for transit calls. These calls are treated the same as outgoing calls except that no operator code conversion is done.

For gateway CCITT no.6 and CCITT no.7 trunk groups, a country code is received for transit calls. These calls are treated the same as outgoing calls except that no operator code conversion is done.

Terminating calls

For terminating calls with standard routing, the following occurrences take place:

- For gateway R1 and R1-no.5 hybrid trunk groups, KP1 is received.
- For all gateway trunk groups, KP1 is outpulsed.
- For all gateway trunk groups, no country code is received, therefore no country code manipulation is done.
- For gateway R1 and R1-no.5 hybrid trunk groups, a discrimination digit is received but not outpulsed.
- For gateway CCITT no.6 and CCITT no.7 trunk groups, calling party category indicator (CPCI) is received but not sent.
- For all gateway trunk groups, operator code conversion is performed. Operator code conversion converts code 11 to xxx and code 12 to yyy, where the actual values of xxx and yyy are determined by office parameters C11_EXPANSION and C12_EXPANSION in table OFCENG.

- For all gateway trunk groups, replace international code is not used.
- For all gateway trunk groups, all remaining digits are outpulsed as received.

For all gateway trunk groups that terminate calls with nonstandard routing, all digits are outpulsed according to the route information.

TRKGRP type IBNT2

IBN Two-way Trunk Group Type

For related information, refer to table TRKGRP type IBNTI.

Datafill sequence and implications

The following tables must be datafilled before table TRKGRP type IBNT2:

- BCDEF
- TRIGGRP

Field BCGRPNUM (bulk calling line identification group number) must first be defined in table BCLIDGRP before it can be used in table TRKGRP for this group type.

Refer to the "Datafill sequence" section of table TRKGRP (which precedes the group type specific sections) for additional information concerning datafill sequence.

Datafill

The following table lists the datafill for table TRKGRP type IBNT2.

Field descriptions (Sheet 1 of 11)

Field	Subfield	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the code that is assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Group information* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, CUSTNAME, SUBGRPNO, SELSEQ, NCOS, BILLDN, SUPV, DISCTSEL, INTRAGRP, DIGIT0, DIGIT1, DTI, TES, CDR, SMDR, TRC, ALTNCOS, TRKDSR, LSCFN, ALTLSCFN, LSCINCPT, ALSCINCP, IGA, FDN, FDV, FLASH, DPX, PREEMPT, AIODOPT, REORIG, OFFNETOPT, COFFTYP, and OPTIONS.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 2 of 11)

Field	Subfield	Entry	Explanation and action
	GRPTYP	IBNT2	*Trunk group type* Enter IBNT2 to specify the two-way Integrated Business Network (IBN) trunk group type.
	TRAFSNO	numeric (10 to 127 or 0)	*Traffic separation number* Enter the traffic separation number, 10 to 127, assigned to the trunk group in table TFANINT. If not required, enter 0 (zero). It is recommended that incoming and outgoing traffic separation numbers 1 to 9 be reserved for generic traffic separation numbers. Refer to table TFANINT for more information.
	PADGRP	alphabetic (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class to indicate which OM register, in OM groups OFZ2 and SOTS, is to be incremented when treatment GNCT (generalized no-circuit class) occurs. Enter the no-circuit class assigned to the trunk group. Refer to table TRKGRP and the *Operational Measurements Reference Manual* for additional information.
	CUSTNAME	alphanumeric (1 to 16 characters)	*Customer group name* Enter the name assigned to the customer group to which the trunk group belongs.
	SUBGRPNO	numeric (0 to 7)	*Subgroup number* Enter the subgroup number of the attendant consoles to which all attendant calls must be routed.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 3 of 11)

Field	Subfield	Entry	Explanation and action
	SELSEQ	ASEQ, DSEQ, CCWCTH, CWCTH, CNTLEVN, CNTLODD, LIDL, MIDL, or WIDEBAND	*Select sequence* If the far end is not a link list switch and the sequential selection feature is provided, enter ASEQ if sequential selection is in ascending order and DSEQ if it is in descending order of trunk member numbers in table TRKMEM. If the far end is not a link list switch and circular trunk hunting (CTH) applies, enter CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, based on the order of trunk members in table TRKMEM. Enter CNTLODD if the odd-numbered circuit identification codes (CIC) are to be the controlling group. Enter CNTLEVN if the even-numbered CICs are to be the controlling group. CNTLODD and CNTLEVN use MIDL (most idle) for the controlling group of circuits in the trunk group and LIDL (least idle) for the noncontrolling group. Changing the selection algorithm to or from either CNTLODD or CNTLEVN is not allowed. The tuple must be deleted and added again in order to change the selection algorithm. ***Note:*** CNTLODD or CNTLEVN are only used for Japan ISDN user part (ISUP). Enter LIDL (least idle), if the far end is a link list switch with most-idle select sequence. Enter MIDL (most idle), if the far end is a link list switch with least-idle select sequence or far end is not a link list switch and sequential selection does not apply.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 4 of 11)

Field	Subfield	Entry	Explanation and action
			If wideband trunk selection is allowed for primary rate access (PRI) ISUP trunks, enter WIDEBAND and datafill refinements WBSELSEQ, WBGRPING, and WBSEARCH. The WIDEBAND entry value is valid only if feature package NTXX34AA, (IBN DWS ISUP-T1), was purchased. ***Note:*** The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to MIDL or LIDL, define a new trunk group, as follows: create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	WBSELSEQ	ASEQ or DSEQ	*Wideband selection sequence* If the entry in field SELSEQ is WIDEBAND, datafill this field to specify the wideband selection sequence. Enter ASEQ to specify that the wideband trunks are selected in ascending order from the first idle trunk on the search list, or enter DSEQ to specify that they are selected in descending order from the last idle trunk on the search list. The order of trunks in the search list is determined by the order in which the trunk groups are datafilled in table TRKMEM.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 5 of 11)

Field	Subfield	Entry	Explanation and action
	WBGRPING	FIXED or FLOATING	*Wideband boundary preference* If the entry in field SELSEQ is WIDEBAND, datafill this field to specify the wideband boundary sequence. Enter the wideband boundary preference. The value FIXED specifies that only the idle trunks within a specific time period are selected. This value is only valid for local exchange carriers (LEC). The value FLOATING specifies that any number of consecutive idle trunks in a trunk group are selected.
	WBSEARCH	BESTFIT or FIRSTFIT	*Wideband search* If the entry in field SELSEQ is WIDEBAND, datafill this field to specify the wideband search algorithm. The value BESTFIT finds the smallest segment of idle channels (DS-0s) among trunks (DS-1s) within a trunk group to accommodate a wideband call, according to the boundary preference (FIXED or FLOATING) specified. FIRSTFIT finds the first segment of idle DS 0s that can accommodate a wideband call, according to the boundary preference specified.
	NCOS	numeric (0 to 255)	*Network class of service* Enter the network class of service (NCOS) number assigned to the trunk group.

Field descriptions (Sheet 6 of 11)

Field	Subfield	Entry	Explanation and action
	BILLDN	numeric (maximum 11 digits) or N	*Billing directory number* If no incoming digits are to be received (seizure only), enter the directory number, station number, or attendant access code to which translation routes. If the trunk group is arranged to receive incoming digits and a local automatic message accounting (LAMA) recording is required for all calls that tandem through the switch, enter the ten-digit directory number to which calls are billed. If the trunk group is arranged to receive incoming digits and no billing is required, enter N. (For advanced business services (ABSK) only) For analog channel-associated signaling (CAS) trunks, the directory number (DN) datafilled in field BILLDN is used as the originating DN to perform all screening functions provided by table DNSCRN and the FEATINFO VALIDATE selector in universal translations. In addition, the DN datafilled in field BILLDN is used as the originating DN in the calling party number (CPN) that is sent to the terminating office. The outpulsing of this CPN is available on only NCCI#7 V2 and ANSI7+ trunks. Presentation of the DN to the called party is controlled by the Calling Line Identification Presentation (CLIP) option. See “Calling Line Identification Presentation” in this section for more details.
	SUPV	ANSDISC, DISCONLY, FAKEANS, or NODISC	*Supervision* Enter the type of supervision required: ANSDISC (answer disconnect), DISCONLY (disconnect only), FAKEANS (fake answer), or NODISC (no disconnect).
	DISCTSEL	numeric (0 to 3)	*Disconnect timing selector* Enter the disconnect timing for the trunk group: 0 (200 ms), 1 (400 ms), 2 (600 ms), or 3 (800 ms).

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 7 of 11)

Field	Subfield	Entry	Explanation and action
	INTRAGRP	Y or N	*Intragroup* Enter Y (yes) if the call is intragroup; otherwise, enter N (no).
	DIGIT0	0 to 9, B, C, D, E, F, or N	*Digit 0* If one or two digits are to be prefixed to the incoming digits, enter the first (least significant) digit to be prefixed to the incoming digits. If no digits are to be prefixed to the incoming digits, enter N.
	DIGIT1	0 to 9, B, C, D, E, F, or N	*Digit 1* If two digits are to be prefixed to the incoming digits, enter the second (most significant) digit to be prefixed to the incoming digits. If only one or no digits are to be prefixed to the incoming digits, enter N.
	DTI	Y or N	*Dial tone incoming* If a second dial tone is to be sent to the originator of an incoming call, enter Otherwise, enter N. ***Note:*** If field ISTARTSG in table TRKSGRP is set to value IM, the value of field DTI cannot be changed from Y to N.
	TES	Y or N	*Toll essential service* If the trunk group is toll essential, enter Y. Otherwise, enter N.
	CDR	Y or N	*Call detail recording* If all incoming calls are to be recorded using the Call Detail Recording (CDR) format, enter Y. Otherwise, enter N
	SMDR	Y or N	*Station Message Detail Recording* If the SMDR records are to be generated for incoming calls, enter Y. Otherwise, enter N.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 8 of 11)

Field	Subfield	Entry	Explanation and action
	TRC	numeric (0 to 7)	*Terminating restriction code* Enter the terminating restriction code assigned to the incoming side of the trunk group.
	ALTNCOS	numeric (0 to 255)	*Alternate class of service* Enter the alternate NCOS number that is used when the feature BV0490 (Attendant Control of Trunk Group Access) is activated.
	TRKDSR	Y or N	*Trunk distinctive ringing* If the trunk is to provide distinctive ringing, enter Y. Otherwise, enter N.
	LSCFN	numeric (0 to 255)	*Line screening code flag number* Enter the line screening code flag number assigned to the trunk group.
	ALTLSCFN	numeric (0 to 255)	*Alternate line screening code flag number* Enter the alternate line screening code flag number assigned to the trunk group.
	LSCINCPT	numeric (0 to 63)	*Line screening code flexible intercept* Enter the treatment number in table IBNTREAT to which a station is routed when the call is blocked by line screening.
	ALSCINCP	numeric (0 to 63)	*Alternate line screening code flexible intercept* Enter the treatment number in table IBNTREAT to which a station routes, when the feature BV0490 (Attendant Control of Trunk Group Access) is activated and the call is blocked by alternate line screening.
	IGA	Y or N	*Ignore answer* This field is not required for table TRKGRP(IBNT2). Enter N.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 9 of 11)

Field	Subfield	Entry	Explanation and action
	FDN	Y or N	*Automatic flexible routing toll denied* If a toll call is to be routed to toll denied treatment upon receipt of a reversal from the far end, enter Y. Otherwise, enter N.
	FDV	Y or N	*Automatic flexible routing toll diverted* If a toll call is to be routed to the intercept key and lamp on the attendant console upon the receipt of a reversal from the far end, enter Y. Otherwise, enter N.
	FLASH	Y or N	*Flash* Enter Y for the Attendant Recall Flash Trunks feature (non ISUP). On trunk-to-trunk connections, the incoming trunk flash message is treated as a request to be queued for the first available attendant console in the customer group. A Y entry does not allow an outgoing trunk to flash. Otherwise, enter N.
	DPX	Y or N	*Datapath loop extension* If the trunk group is associated with the DPX (datapath loop extension) line, enter Y. Otherwise, enter N.
	PREEMPT	N	*Preempt* Enter N. This field is for Nortel Networks use only.
	AIODOPT	see subfield	*Automatic identification of outward dialing options* This field consists of subfield AIOD and refinement AIODGRP (if applicable).
	AIOD	Y or N	*Automatic identification of outward dialing* If the AIOD service is required, enter Y. If the AIOD service is not required, enter N.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 10 of 11)

Field	Subfield	Entry	Explanation and action
	AIODGRP	alphanumeric (1 to 16 characters)	*Automatic identification of outward dialing CLLI* If field AIOD is equal to Y, enter the common language location identifier (CLLI) of the datalink for the Integrated Business Network (IBN) trunk group as datafilled in table AIODGRP. If field AIOD is equal to N, leave this field blank.
	REORIG	Y or N	*Reorigination* Enter Y if call origination is allowed on calls incoming on this trunk group. Otherwise, enter N.
	OFFNETOPT	see subfield	*Offnet options* This field consists of subfield OFFNET and refinements.
	OFFNET	Y or N	*Offnet* If the trunk is to be used for offnet access, enter Y and datafill refinement OFFNTACC. Otherwise, enter N.

TRKGRP type IBNT2 (continued)

Field descriptions (Sheet 11 of 11)

Field	Subfield	Entry	Explanation and action
	OFFNTACC	FGA, FGB, FGD, IBN, NSSFGD, or VPN	*Offnet access* If the entry in field OFFNET is Y, datafill this field and associated refinements to specify the signaling protocol. For feature group A protocol, enter FGA and datafill refinements DIALPLAN and OFNTOPT as described in this section. For feature group B protocol, enter FGB and datafill refinements ANIDIGS, DIALPLAN, and OFNTOPT as described in this section. For feature group D protocol, enter FGD and datafill refinements ANIDIGS and ANISCREN as described in this section. Meridian SuperNode uses FGD stand-alone software. Fields ANIDIGS and ANISCREN are not prompted if FGD is specified for VPN or ISUP configurations. For Integrated Business Network protocol, enter IBN and datafill refinements DIALPLAN and OFNTOPT as described in this section. An entry of IBN allows non-FGA, and -FGB trunks to have access to Network Services Software (NSS), and the various trunk features specific to NSS. For BCS31, an entry of IBN can be used to associate the trunk with a specific dialing plan. Field DIALPLAN must be datafilled for the entry of IBN to implement this feature. Datafill field DIALPLAN for FGB, FGA, or IBN. For Network Services Software feature group D protocol, enter NSSFGD and datafill refinements ANIDIGS, CASUAL, IDPRTRAN, and OFNTOPT as described in this section. For virtual private network protocol, enter VPN. There are no refinements for this entry value; continue datafill with field COFFTYP.

OFFNTACC = FGA

If the entry in field OFFNTACC is FGA, datafill refinements DIALPLAN and OFNTOPT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV, CONNGNPA, or REGION	*Offnet options* This vector consists of the required OFFNET options and associated refinements. To allow terminating agents to use automatic number identification (ANI) information, enter ANIDELV. The datafill of refinement values for this entry value is not required; continue datafill with field COFFTYP. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION. If additional information for this tuple is contained in the next record, enter + and continue on the next line. Otherwise, enter $ to terminate the vector.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

TRKGRP type IBNT2 (continued)

OFFNTACC = FGB

If the entry in field OFFNTACC is FGB, datafill refinements ANIDIGS, DIALPLAN, and OFNTOPT as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* If an automatic number identification (ANI) is to be received, enter Y. Otherwise, enter N.
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV, CONNGNPA, or REGION	*Offnet options* This vector consists of the required OFFNET options and associated refinements. To allow terminating agents to use ANI information, enter ANIDELV. The datafill of refinement values for this entry value is not required; continue datafill with field COFFTYP. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION. If additional information for this tuple is contained in the next record, enter + and continue on the next line. Otherwise, enter $ to terminate the vector.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

OFFNTACC = FGD

If the entry in field OFFNTACC is FGD, datafill refinements ANIDIGS and ANISCREN as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* If an automatic number identification (ANI) is to be received, enter Y. Otherwise, enter N.
	ANISCREN	Y or N	*Automatic number identification screening* If ANI screening is required for calls placed across IBN PTS FGD trunks, enter Y. Otherwise, enter N.

TRKGRP type IBNT2 (continued)

OFFNTACC = IBN

If the entry in field OFFNTACC is IBN, datafill refinements DIALPLAN and OFNTOPT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV, CONNGNPA, or REGION	*Offnet options* This vector consists of the required OFFNET options and associated refinements. To allow terminating agents to use automatic number identification (ANI) information, enter ANIDELV. The datafill of refinement values for this entry value is not required; continue datafill with field COFFTYP. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION. If additional information for this tuple is contained in the next record, enter + and continue on the next line. Otherwise, enter $ to terminate the vector.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

OFFNTACC = NSSFGD

If the entry in field OFFNTACC is NSSFGD, datafill refinements ANIDIGS, CASUAL, IDPRTRAN, OFNTOPT, and DIALPLAN as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* If an automatic number identification (ANI) is to be received, enter Y. Otherwise, enter N.
	CASUAL	Y or N	*Casual calls* If casual calls are allowed on this trunk, enter Y. Otherwise, enter N.
	IDPRTRAN	alphanumeric (4 characters) or NPRT	*Identification pretranslator* Enter the pretranslator name used in translation of the ANI information digits. Enter NPRT for no pretranslation.
	OFNTOPT	ANIDELV, CONNGNPA, or REGION	*Offnet options* This vector consists of the required OFFNET options and associated refinements. To allow terminating agents to use ANI information, enter ANIDELV. For the connecting numbering plan area option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION. If additional information for this tuple is contained in the next record, enter + and continue on the next line. Otherwise, enter $ to terminate the vector.

TRKGRP type IBNT2 (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.

For all tuples

For all tuples, datafill fields COFFTYP and OPTIONS as described in the following table.

Field descriptions

Field	Subfield	Entry	Explanation and action
	COFFTYP	NATL	*Connected office type* Enter NATL for national trunks.
	OPTIONS	see subfield	*Options* This field consists of subfield OPTION and refinements. Enter the list of options and associated refinements assigned to the trunk group. See the appropriate option and refinement name for its definition. Each option and its refinement must be separated by a blank space. Use as many records as required to complete the list of options and associated refinements. If the option is not provided, no input is required for that option. Enter $ to indicate the end of the vector.

Trunks as SCAI ACD agents

If the trunk group is assigned as a switch computer application interface (SCAI) Automatic Call Distribution (ACD) agent, datafill field OPTION as described in the following table. This option applies only to foreign exchange signaling (FXS) trunks with loop start. If this option is datafilled, field CARDCODE in table TRKSGRP must be datafilled as DS1FXSLS.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	ACD	*Option* Enter ACD to assign the trunk group as SCAI ACD agents.

ANI failure (ANIFAIL)

If the trunk group has the automatic number identification (ANI) failure option, datafill field OPTION and refinements ANIFAIL and TRMT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	ANIFAIL	*Option* Enter ANIFAIL.
	ANIFAIL	CONT or NOCONT	*Automatic number identification failure* If the call is to continue when no ANI digits are received on the trunk, enter CONT. If the call is to discontinue when no ANI digits are received on the trunk, enter NOCONT and datafill refinement TRMT.
	TRMT	alphanumeric (1 to 4 characters)	*Treatment* If the entry in field ANIFAIL is NOCONT, enter the treatment name found in field TREATMT of table TMTCNTL.TREAT.

TRKGRP type IBNT2 (continued)

ANI received (ANIREC)

If the trunk group has option ANIREC, datafill field OPTION and refinement ANIREC as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	ANIREC	*Option* Enter ANIREC.
	ANIREC	ALLOWED, ALWAYS, or NEVER	*ANI received* Enter ALLOWED if the calling number must always be requested on the trunk when required. Enter ALWAYS if the calling number must always be requested on the trunk. Enter NEVER if the calling number must never be requested on the trunk. ***Note:*** The ANIREC option can be datafilled in table TRKGRP for any IBN trunk, but it is valid only for IBN trunks using FST as a signaling data selector in table TRKSGRP.

ANI send (ANISEND)

If the trunk group has option ANISEND, datafill fields OPTION and ANISEND as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	ANISEND	*Option* Enter ANISEND.
	ANISEND	ALLOWED, ALWAYS, or NEVER	*Automatic number identification send* Enter ALLOWED if the calling number must be sent on the trunk when required. Enter ALWAYS if the calling number is must always be sent on the trunk. Enter NEVER if the calling number must never be sent on the trunk. ***Note:*** The ANISEND option can be datafilled in table TRKGRP for any IBN trunk, but it is valid only for IBN trunks using FST as a signaling data selector in table TRKSGRP.

Bulk calling line identification (BCLID)

If the trunk group has option BCLID, datafill field OPTION and refinement BCGRPNUM as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	BCLID	*Option* Enter BCLID.
	BCGRPNUM	numeric (0 to 2047)	*Bulk calling line identification group number* Enter the BCLID group number.

Bearer capability name (BCNAME)

If the trunk group is to be assigned option BCNAME, datafill field OPTION according to the description in the following table. If a bearer capability (BC) is not datafilled for an IBNTI type trunk group, the office default BC defined by parameter DEFAULT_BEARER_CAPABILITY (either SPEECH or 3_1KHZ) applies. Refer to table OFCENG for more information on this

TRKGRP type IBNT2 (continued)

parameter. If the datafilled BC is the actual office default (SPEECH or 3_1KHZ), the BC option does not appear when listing the TRKGRP tuple. An office default BC is not listed by the TRKGRP read procedures.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	BCNAME	*Option* Enter the bearer capability option BCNAME.
	BCNAME	DATAUNIT, SPEECH, VOICE_DATA, 3_1KHZ, 56KDATA, 64KDATA, 64KRES, 64KX25, or 7_KHZ	*Bearer capability name* Enter a bearer capability name previously datafilled in field BCNAME of table BCDEF. The entry can be one of the default entries listed or a user-defined entry.

Broadcast call remote (BCREMOTE)

If the trunk group has option BCREMOTE, datafill field OPTION as described in the following table. This option applies only to ISDN user part (ISUP) trunks.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	BCREMOTE	*Option* Enter BCREMOTE.

Block Serving Carrier ID (BLK_SCI)

If the trunk group requires option BLK_SCI, datafill subfield OPTION as described in the following table. This option prevents the serving carrier optional parameter from being sent over ANSI ISUP trunks.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	BLK_SCI	*Option* Enter the block serving carrier ID option BLK_SCI.

Call characteristic (CALLCHR)

If the trunk group has option CALLCHR, datafill field OPTION and refinement CALLCHR as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	CALLCHR	*Option* Enter the call characteristic option CALLCHR.
	CALLCHR	DIGDATA or SAT	*Call characteristic* Enter the call characteristic. Enter DIGDATA for the digital data call characteristic. Enter SAT for the satellite call characteristic.

Calling line identification (CLID)

IBN trunks provide the CLID option. The CLID option allows the customer premise equipment (CPE) to know the telephone number of the calling party.

TRKGRP type IBNT2 (continued)

When the user enters this option, the system prompts for one of the following control values: CPNONLY, CPNREST, CPNPREF, and CHGONLY.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CLID	*Option* Enter CLID or $.
	CLID	CPNONLY, CPNREST, CPNPREF, CHGONLY	Enter CPNONLY for the calling party to populate the outgoing CLID regardless of the Presentation Indicator (PI). If a calling party number is not available, no CLID digits are outpulsed. Enter CPNREST for the calling party number to populate the outgoing CLID when the PI for the calling party number is set to ALLOWED. If a calling party number is not available, or the PI is set to RESTRICTED or UNAVAILABLE, then no CLID digits are outpulsed. Enter CPNPREF for the calling party number to populate the outgoing CLID regardless of the PI. If a calling party number is not available, the received or derived charge number is used to populate the outgoing CLID digits. If neither a calling party number or a charge number is available, no CLID digits are outpulsed. Enter CHGONLY for the received or derived charge number to populate the outgoing CLID digits. If the charge number is not available, no CLID digits are outpulsed.

Calling Line Identification Presentation (CLIP)

If the trunk group requires option CLIP, datafill field OPTION as described in the following table. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200 switches. It also provides CLIP and CLIR in the European market for the British Telephony User Part (BTUP) protocol on the DMS-100 switch.

At the terminating office, option CLIP enables calls routed over ATUP or BTUP trunks to display the calling party address digits at a terminating station.

If the option CLIP is not datafilled, CLI presentation is disabled by default. The originating office does not support the transmission of CLIP/CLIR signaling over ATUP.

For the Japan market, incoming analog CAS trunks, because they use analog signaling, do not supply an originating DN, but for ABSK the DN entered in subfield BILLDN in this table is used as the originating DN, and is sent over the outgoing ISUP trunk (ANSI7+ and NCCI#7 V2). More specifically, the contents of subfield BILLDN are used to set the Address Information (AI) field of the CPN.

Datafilling the CLIP option sets the Address Presentation Restriction Indicator (APRI) field of the CPN to Presentation Allowed. This allows the terminating office to present the contents of the AI field to the called party as the originating DN. If the CLIP option is not datafilled, then the APRI field of the CPN is set to Presentation Restricted and the terminating office cannot present the contents of the AI field to the called party. If BILLDN is datafilled with N (no DN), no CPN is sent, and the CLIP option has no effect.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	CLIP	*Option* Enter CLIP.

Default directory number (DEFLTDN) or default CLI (DEFLTCLI)

If the trunk group has option DEFLTDN, datafill field OPTION and refinement DEFLTDN as described in the following table. This option is supported on IBNT2 trunks on a DMS-100 or DMS-200 switch for the Australian market. (Option DEFLTDN is visible only when subsystem DEFDNSUB is present in the load.)

Note: This option is also supported in the European market on a DMS-100 switch. In the European market, this option appears as DEFLTCLI for

TRKGRP type IBNT2 (continued)

IBNT2, IBNTI, and IBNTO trunks. (Subsystem UKCLISB must be present in the load.)

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	DEFLTDN	*Option* Enter the default directory number (DN) option DEFLTDN. ***Note:*** In the European market, datafill this option as DEFLTCLI instead of DEFLTDN.
	DEFLTDN	numeric (maximum 10 digits, 0 to 9)	*Default directory number* Enter the default DN.

Blocking Indicator for calling line identification (BI_UNAVAIL)

BI_UNAVAIL indicates whether the caller is able to withhold presentation of their Calling Line Identity (CLI) for incoming Channel Associated Signalling (CAS) and Digital Private Network Signalling System (DPNSS) trunks interworking to BTUP trunks. If BI_UNAVAIL is datafilled for an incoming DPNSS or CAS trunk, CLI is unavailable on the outgoing BTUP trunk provided that the CBI field of table TRKSGRP is set to Y.

The CBI field of table TRKSGRP determines whether the issued CLI will be available or unavailable on the outgoing BTUP trunk. CBI must be set to Y for BI_UNAVAIL to function. If it is set to N, CLI is automatically unavailable regardless of the BI_UNAVAIL setting.

This option is supported on IBNTI and IBNT2 trunks only. If the trunk group requires option BI_UNAVAIL, datafill OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	BI_UNAVAIL	*Option* Enter BI_UNAVAIL.

Dialed number identification service (DNIS)

IBN trunks offer the DNIS option. The DNIS option delivers additional call information to the CPE when a call requires DNIS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DNIS	*Option* Enter DNIS or $.

Facility type (FACTYPE)

If the trunk group has option FACTYPE, datafill field OPTION and refinement FACTYPE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	FACTYPE	*Option* Enter the facility type option FACTYPE.
	FACTYPE	CCSA, ETS, FX, or TDMTT	*Facility type* Datafill this field to specify the facility type. Enter CCSA for the common control switching arrangement facility type. Enter ETS for the electronic tandem switched call facility type. Enter FX for the automatic flexible routing facility type. Enter TDMTT for the tandem tie trunk facility type.

TRKGRP type IBNT2 (continued)

Internet protocol (IP)

Enter this option to allow calls on IBNT2 type trunks to access the IP network. Field GWTYPE must also be datafilled in table IPINV.

Field	Subfield	Entry	Explanation and action
	OPTION	IP	*Internet protocol* Datafill this field to allow calls on IBNT2 type trunks to access the IP network. ***Note:*** The selection sequence must be MIDL when the IP option is added to an IBNT2 trunk.

Logical terminal identifier (LTID)

If the value of field SIGTYPE in table TRKSGRP is equal to LTID, field OPTION and refinements LTGRP and LTNUM are automatically datafilled.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	LTID	*Option* The system enters LTID.
	LTID	see subfields	*Logical terminal ID* Field LTID consists of subfields LTGRP and LTNUM.
	LTGRP	alphanumeric (1 to 8 characters)	*Logical terminal group* Enter the name of a group of logical terminals. This name must be datafilled in field GROUP of table LTGRP. For ISDN terminals, the name of the group is ISDN.
	LTNUM	numeric (1 to 1022)	*Logical terminal number* Enter a number to identify the logical terminal within the group.

Malicious call hold (MCH)

This option is supported on DC5 and TS14 trunks for the Australian market. If MCH is activated on this trunk group, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	MCH	*Option* Enter MCH.

Network information translations (NETXLA)

If the trunk group requires the NETINFO translations option NETXLA, datafill field OPTION as described in the following table. This option is applicable only to ISUP trunks.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	NETXLA	*Option* Enter NETXLA.

No modem pool access (NOACCMP)

If the trunk group is not allowed access to the modem pool, datafill subfield OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	NOACCMP	*No modem pool access* Enter NOACCMP.

Digits to be outpulsed (OUTSCHM)

IBN trunks offer the OUTSCHM option. When the user enters this option, the system prompts for a control value from one to eight. The range contains

TRKGRP type IBNT2 (continued)

formatting to allow table control prompting to provide assistance in selecting the outpulsing scheme value.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	OUTSCHM	*Option* Enter OUTSCHM or $.
	OUTSCHM	1 = *CLID ADDR*, 1 2 = *ADDR*, 2 3 = * II CLID* ADDR, 3 4 = II*CLID*ADDR*, 4 5 = KP II CLID ST KP ADDR ST, 5 6 = KP II CLID ST, 6 7 = KP ADDR ST, 7 8 = KP ADDR ST KP II CLID ST, 8 ***Note:*** 1 to 4 are DTMF (dual tone multi-frequency) and 5 to 8 are MF (multi-frequency).	The user must choose an OUTSCHM control value from one to eight.

Audio tone detector answer propagation (PROPANS)

If the trunk group has option PROPANS, datafill subfield OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	PROPANS	*Option* Enter PROPANS.

Serving Carrier ID (SCI)

If the trunk group requires option SCI, datafill subfield OPTION and refinement SCI as described in the following table. This option applies only to the following signaling systems:

- AISUP
- ANSI
- ATUP

- DC5
- ETSI PRI
- I-ISUP
- TS14 PRI

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	SCI	*Option* Enter SCI.
	SCI	numeric (1000 to 30000)	*Serving carrier ID* Enter the trunk group serving carrier identification code.

Station Message Detail Recording for inbound toll calls (SMDRITC)

If the trunk group requires option SMDRITC, datafill subfield OPTION as described in the following table. If option SMDRITC is datafilled for a trunk group, then for each terminating station involved with the call, a separate station message detail recording (SMDR) extension record is generated detailing the duration of the call or the amount of time the call was present at that station.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	SMDRITC	*Option* Enter SMDRITC.

Trunk line screening code (TRKLSC)

If the trunk group requires option TRKLSC, datafill subfield OPTION as described in the following table. This option allows for the overriding of the line screening codes in order to use the customer group of the originator, instead of the customer group of the terminator.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION	TRKLSC	*Option* Enter TRKLSC.

TRKGRP type IBNT2 (continued)

Datafill example

An example of datafill for a two-way IBN trunk group follows. This example was datafilled in accordance with the following requirements:

- The trunk group is represented by the code NTLAUR in table CLLI.
- The trunk group type is IBNT2.
- The Traffic Separation feature is not provided (TRAFSNO = 0).
- ACO is the name of the pad group assigned to the trunk group in table PADDATA.
- NCBN is the no-circuit class.
- The trunk group is assigned to subgroup 0 of customer group BNRMC.
- The select sequence is most idle (MIDL).
- NCOS number 4 and alternate NCOS number 5 are assigned to the trunk group.
- The billing directory number of the trunk group is 613-226-5400.
- The type of supervision is answer disconnect (ANSDISC).
- The disconnect timing for the outgoing side of the trunk group is 400 ms (entered as 1).
- The call is an intragroup call.
- The digits 78 are prefixed to the incoming digits.
- Second dial tone is sent to the originator on an incoming call.
- The trunk group is not toll essential.
- The entry for field CDR is N and for field SMDR is Y. SMDR records are generated for incoming calls.
- Terminating restriction code 0 is assigned to the incoming side of the trunk group.
- The trunk group provides distinctive ringing.
- The line screening code flag and alternate flag numbers are 5.
- Calls blocked by line screening or alternate line screening are routed to treatment number 4 or 5 in table IBNTREAT.
- Field IGA is datafilled N.
- Toll calls are routed to toll denied treatment upon receipt of a reversal from the far end.
- Flash is not expected.

- The trunk group is not associated with a datapath loop extension (DPX) line.
- Field PREEMPT is datafilled N.
- Field MTR is blank (not datafilled).
- Automatic identification of outward dialing is not required.
- Reorigination is not allowed on calls incoming on this trunk group.
- The trunk is not to be used for offnet access.
- The connected office has national (NATL) trunks.
- The facility type option FACTYPE with facility type common control switching arrangement (CCSA) is assigned.

MAP display example for table TRKGRP type IBNT2

```
GRPKEY
                                        GRPINFO
_____________________________________________________________

NTLAUR
   IBNT2 0 ACO NCBN BNRMC 0 MIDL 4 6132265400
   ANSDISC 1 Y 7 8 Y N N Y 0 5 Y 5 5 4 5 N Y N N
   N N N N N NATL FACTYPE CCSA $
```

Table history

NA014

Added the CLID, DNIS, and OUTSCHM options to the OPTION subfield.

NA012

Added option IP to subfield OPTION.

EUR008

Removed selector PRESEL from subfield OPTION in table TRKGRP type IBNT2, and datafilled in table TRKOPTS.

APC008

Added selector PRESEL to subfield OPTION.

Added options BLK_SCI and SCI to subfield OPTION.

EUR006

Added option BI_UNAVAIL.

TRKGRP type IBNT2 (end)

APC006

Added value MCH to subfield OPTION in accordance with functionality AR1748 (Malicious Call Trace on TS14 and DC5) for the Australian market.

NA004

Removed option AIN; table TRKAIN is used instead.

UK002

Enabled options DEFLTDN (DEFLTCLI) and CLIP in the European market (design activity AE1383, “UK CLI Handling”).

NA002

Added option DEFLTDN and associated refinement DEFLTDN.

Added option CLIP. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200.

BCS36

Added option AIN.

IBN Incoming Trunk Group Type

Overview of Integrated Business Network (IBN) trunk groups

This section describes the general datafill requirements related to Integrated Business Network (IBN) trunk groups. The “Functional description of table TRKGRP (IBNTI)" section, which follows, provides table TRKGRP datafill information for group type IBNTI. Group type IBNTI is used for incoming IBN trunks.

There are three types of IBN trunk group: incoming (IBNTI), outgoing (IBNTO), and two-way (IBNT2). Each trunk group is assigned a code in table CLLI.

If digital trunks are used by digital data, they must have the pad group set to 0 (zero) in both directions.

Each trunk group must be assigned to one of the customer groups.

If calls are routed to the attendant consoles (AC), the subgroup number of the ACs to which attendant calls are routed must be specified.

Refer to the “General field information" section of table TRKGRP for detailed information concerning traffic separation, traffic classes, pad groups, and no-circuit class.

Selection sequence

If the trunk is an outgoing or two-way trunk group, the sequence for selection of trunks must be specified as one of the following:

- least idle (LIDL)
- most idle (MIDL)
- ascending sequence (ASEQ)
- descending sequence (DSEQ)
- clockwise circular trunk hunt (CWCTH)
- counterclockwise circular trunk hunt (CCWCTH)

The MIDL and LIDL processes are based on the length of time a trunk member is idle. One switching unit selects from a trunk group the trunk that has been idle for the longest period of time. The opposite end switching unit selects the trunk that has been idle for the shortest period of time. The selection order of trunks is, therefore, not fixed.

TRKGRP type IBNTI (continued)

In an LIDL switching unit, some types of killer trunk move to the head of the list, where they become the least idle trunks and are repeatedly seized. All calls routed to these killer trunks fail to complete. The MIDL and LIDL selection methods minimize glare by preventing chances for simultaneous seizure until the last idle trunk.

Sequential trunk selection (ASEQ or DSEQ) minimizes the occurrence of glare and reduces reseizure of killer trunks encountered with the MIDL and LIDL trunk selection methods when used for two-way trunks. In sequential trunk selection, the trunk selection order and selection starting point are fixed. The beginning of the list for one switching unit is the end of the list for the opposite end switching unit. This list is searched sequentially by each switching unit, starting from the beginning of the list for the first idle trunk. One switching unit selects the first idle trunk, searching the list in ascending order. The opposite end switching unit selects the first idle trunk, searching the list in descending order.

The position of a killer trunk in the sequential list determines its impact on trunk selection. A killer trunk in the middle of the list has minimal impact, but one near either end has significant impact. This impact is due to all searches starting at one end or the other of the trunk member list. If the traffic is such that an idle trunk is found near the end of the list for most searches, then a killer trunk is seized more often than a killer trunk in the middle of the list. The ASEQ and DSEQ processes minimize glare by preventing the chance for simultaneous seizure until the last idle trunk in the trunk group.

Like ASEQ and DSEQ, the circular trunk hunting (CTH) selection strategy is based on a fixed, ordered list of trunks. The two switching units search the list in opposite directions, similar to the ASEQ and DSEQ methods. However, the trunk selected is the first idle trunk in the trunk group. The CTH selection method substantially reduces the impact of killer trunks.

Repeatedly seized killer trunks are not reseized as often in two-way trunk groups under the CTH selection method as with the MIDL, LIDL, ASEQ, and DSEQ selection methods. In the CTH selection method, the selection starting point changes each time a trunk is released (the most recently released (MRR) trunk). If the MRR trunk is a killer trunk, the next trunk seized is a trunk to either side of the killer trunk. CTH selection has no effect on other types of killer trunk.

Glare occurs when there are one or two idle trunks left in the trunk group. CTH selection does not affect the occurrence of glare. Glare occurrence during CTH selection is the same as glare occurrence during the two existing trunk selection methods.

A trunk group trunk selection method cannot be changed. If a change is required, a new trunk group is created with the required trunk selection method. The individual trunks are deleted from the old trunk group and added to the new trunk group.

For an existing trunk group the selection sequence can be changed to ASEQ from DSEQ or to DSEQ from ASEQ if all the members are installation busy (INB) or unequipped.

The CTH feature requires software package NTX244AB (Enhanced Sequential Trunk Hunting).

Network class of service

Each incoming or incoming side of a two-way trunk group must be assigned a network class of service (NCOS) number in table NCOS.

An NCOS number can be shared by one or more incoming or two-way trunk groups. The code assigned to the customer group and the NCOS number are the indexes into table NCOS.

The NCOS number specifies the NCOS name, line screening code, and NCOS options assigned to the incoming or two-way trunk group.

If the customer group has feature BV0490 or BV0557 (Attendant Control of Trunk Group Access), the trunk group must be assigned an alternate NCOS number. The alternate NCOS number is used when the Attendant Control of Trunk Group Access feature is activated.

Directory number routing and billing

If the trunk group is seizure only and has no incoming digits, the number to which a call is to be routed must be specified. The number can be a seven-digit directory number (DN), a two- to five-digit station number, or the attendant access code.

If incoming digits are received and a local automatic message accounting (LAMA) record is required for all calls that tandem through the switch, the ten-digit DN to which the calls are to be billed must be specified.

Trunk supervision types and disconnect timing

The trunk supervision types (answer disconnect, disconnect only, fake answer, and no disconnect) must be specified.

TRKGRP type IBNTI (continued)

Answer disconnect (ANSDISC) indicates that electrical signals can be received by the trunk from the far end to signify that the call has been answered or disconnected.

Disconnect only (DISCONLY) indicates that an electrical signal can be received from the far end by the trunk to signify that the call has been disconnected. An electrical signal is not received to indicate answer.

No disconnect (NODISC) indicates that a disconnect signal is not received from the far end. An electrical signal is not received to indicate either answer or disconnect.

Fake answer (FAKEANS) supervision is required when the trunk group at the far end has fake answer supervision.

Unless trunks at the far end of the trunk group have fake answer supervision, no-disconnect and disconnect-only supervision must be used for NT5X25 and digital automatic flexible routing (FX) only. For these trunks, true answer is never returned from the far end. Audible tone detection (ATD) can be used for answer detection for these types of trunk.

If the trunk type is other than NT5X25 or digital FX, and the trunks at the far end of the trunk group have other than fake answer supervision, the recommended supervision type is ANSDISC.

If trunks at the distant end of the trunk group have fake answer supervision, the recommended value is FAKEANS.

The Call Transfer feature is not applicable to trunk groups with no-disconnect supervision.

The trunk supervision must be accurate for the desired operation, otherwise trunk hangup can occur. For example, two no-disconnect trunks are nailed together until detected by operating company personnel.

The disconnect timing must be specified.

Customer groups and intragroup calls

For a public customer group or a member of a family of customer groups, it is necessary to specify whether calls are considered as intragroup when the originating and terminating members are assigned as intergroup. Calls are not considered as intragroup if a private customer group or originating and terminating members are not assigned as intragroup.

See tables CUSTENG and CUSTFAM for the assignment of customer groups Family, Private, or Public and for the tables (in addition to this one) that define the calls as intragroup.

Digit-prefix digits, dial tone incoming, and toll essential service

If required, one or two digits (field DIGIT0 or DIGIT1) can be prefixed to the incoming digit stream. If field DIGIT0 or DIGIT1 is datafilled with anything other than N and the field IPULSTYP in table TRKSGRP is set to DT, there can be a delay of 12 to 14 s before call completion.

It must be specified whether the trunk group is incoming or the incoming side of a two-way trunk group, for which a dial tone must be returned upon seizure.

Whether the trunk group has toll essential service must be specified.

Call detail recording, station message recording, and tone detection

Whether the trunk group has the Call Detail Recording (CDR) or Station Message Detail Recording (SMDR) feature must be specified. The SMDR feature can be provided only if the switching unit has the option SMDR_OFFICE set to Y (yes) in table OFCOPT. If SMDR is specified, an SMDR record is generated. If SMDR is not specified, an SMDR record is not generated.

If CDR is specified, a CDR record is generated.

SMDR records are created if the SMDR field in table IBNXLA is set to Y or field SMDR in table TRKGRP is set to Y. Only one of the two SMDR fields needs to be set to Y for output of SMDR records.

Option ANSTIM in table CUSTSMDR is used for SMDR purposes. If the terminator was an IBN trunk with NODISC or DISONLY supervision at disconnect time, the system makes a comparison between the elapsed time of the call and the option ANSTIMAL threshold time. If the elapsed time is greater than the threshold time, the call is considered answered. Otherwise, the call is considered as not answered.

If the tone detector is used to detect answers on all trunks with NODISC or DISONLY supervision, option ANSTIMAL is not required because voice answer is detected by the tone detector.

Terminating restriction codes

The terminating restriction code (TRC) assigned to the incoming trunk group and the incoming side of the two-way trunk groups must be specified.

TRKGRP type IBNTI (continued)

The TRC determines whether the trunk group is allowed to terminate to the number dialed if the station has the denied incoming (DIN) option.

The trunk is allowed to terminate to a station with option DIN if the TRC assigned to the trunk matches one of the TRCs assigned to the station.

Each station that has option DIN has its TRCs assigned in table IBNFEAT.

The assignment of the terminating restriction codes is the responsibility of the operating company.

Distinctive ringing

Selected incoming and two-way trunk groups owned by the customer group can provide distinctive ringing (for example, coded ringing, code 3). This feature can be assigned to incoming or two-way IBN trunk groups only if the customer group has option DRING assigned in table CUSTSTN.

Line screening

If screening by trunk group or origination and termination on the same two-way trunk group is not allowed, a line screening flag number must be assigned to the outgoing trunk group or the outgoing side of a two-way trunk group.

If the customer group has the Attendant Control of Trunk Group Access feature, the trunk group must be assigned an alternate line screening flag number. The alternate line screening flag number is used when Attendant Control of Trunk Group Access feature is activated.

The line screening flag number, which is an index into table LSCFLAGS, specifies whether a line screening code has access to it.

If screening by trunk group or origination and termination on the same two-way trunk group is not allowed, a line screening number must be assigned to the NCOS or alternate NCOS assigned to an incoming trunk group or incoming side of a two-way trunk group.

If line screening is assigned to the trunk groups, the IBN treatment numbers to which calls are routed when they fail line screening or alternate line screening must be specified.

Toll call routing on reversal

Whether a toll call is to be routed to the toll denied treatment, or to the intercept key and lamp on the AC, on receipt of a reversal from the far end, must be specified.

Flash privileges

For an outgoing trunk group or the outgoing side of a two-way trunk group which is intragroup, it is necessary to specify whether the far end of the trunk group has flash privileges.

Meter reception on Spanish SOCOTEL trunks

If the trunk group type is IBNTO, it is necessary to specify whether meter reception is required on outgoing Spanish SOCOTEL trunks.

Call characteristics

For an incoming IBN trunk group or the incoming side of a two-way trunk group, it is necessary to specify whether the call characteristics SAT or DIGDATA are required for the trunk group.

Call characteristics are assigned in table CALLCHR. Call characteristic SAT is required if all incoming calls are by way of satellite link.

If the trunk group has two subgroups and only one of the subgroups is by way of satellite link, do not assign call characteristic SAT. Set field SAT to Y for the appropriate subgroup in table TRKSGRP.

Call characteristic DIGDATA is required only if the incoming trunk group is a tandem type digital trunk connected to an electronic tandem network (ETN) switching unit.

Facility types

Facility types CCSA, TDMTT, FX, or ETS can be assigned to trunk group types IBNTO, IBNTI, and IBNT2 using the facility type (FACTYPE) option. These facility types are mutually exclusive; only one of them can be assigned to a trunk group.

These facility types can be provided only in switching units with enhanced IBN Bellcore automatic message accounting (AMA) software and require the basic IBN and Bellcore AMA software to function properly.

The FACTYPE option provides the operating company with the capability of designating a two-way, incoming, or outgoing trunk group as being a common control signaling arrangement (CCSA) trunk group, a tandem tie trunk (TDMTT) trunk group, an automatic flexible routing (FX) trunk group, or an electronic tandem switched (ETS) trunk group.

If the trunk group is assigned the CCSA facility type, AMA data for calls routed over that facility is recorded with call code 021.

TRKGRP type IBNTI (continued)

If the trunk group is assigned the TDMTT facility type, AMA data for calls routed over that facility is recorded with call code 032. A TDMTT trunk group can support up to 24 dialed digits.

If the trunk group is assigned the FX facility type, AMA data for calls routed over that facility is recorded with call code 011.

If the trunk group is assigned the ETS facility type, AMA data for calls routed over that facility is recorded with call code 085.

CCSA, TDMTT, FX, and ETS are facility type designations that an operating company can associate with new or existing IBN outgoing, incoming, and two-way trunk groups. Functionally, there is no difference between a CCSA, TDMTT, FX, or ETS trunk group and an outgoing, incoming, or two-way trunk group.

Interaction with parameters and other tables

If parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busied before changing the value of fields CUSTNAME, SUBGRPNO, NCOS, SUPV, INTRAGRP, DIGIT0, DIGIT1, DTI, TES, TRC, ALTNCOS, LSCFN, ALTLSCFN, LSCINCPT, and ALSCINCP by data modification order (DMO).

Table IBNFXDS1 is automatically updated when a user creates an IBNTO or IBNT2 trunk group with a card code of DS1FXO in the trunk subgroup table TRKSGRP.

When an IBNTO or IBNT2 trunk group that has a DS1FXO card code in table TRKSGRP is created, examine table IBNFXDS1 to alter the trunk seize sequence.

ISDN user part (ISUP) IBN trunks are datafilled in the same manner as basic IBN trunks.

An ISUP IBN trunk group must have the values for the fields as listed in the following table.

(Sheet 1 of 2)

Field name	Value	Notes
DISCTSEL	0	ISUP trunks currently use 200-ms disconnect filter timing.
DTI	N	Digit collection is not supported.

TRKGRP type IBNTI (continued)

(Sheet 2 of 2)

Field name	Value	Notes
TES	N	Toll essential service is not supported.
FDN	N	FX toll denied service is not supported.
FDV	N	FX toll diverted service is not supported.
FLASH	N	Flash capability is not supported.
DPX	N	Data path loop extension is not supported.
PREEMPT	N	For Northern Telecom use only.
MTR	N	Meter reception is not supported.
AIODOPT	N	Automatic identification of outward dialing (AIOD) is not supported

After table TRKSGRP is datafilled, the Digital Multiplex System (DMS) switch rejects any changes made to the above fields for the corresponding entry in table TRKGRP.

The entry in table TRKSGRP associated with the ISUP IBN trunk group must have field SIGDATA datafilled with a value of ISUP that identifies the trunk group as being an ISUP IBN trunk group.

For a specific trunk group, it is not permitted to have one trunk subgroup datafilled with ISUP signaling and the other datafilled with non-ISUP signaling.

The DMS switch rejects the TRKSGRP tuple for ISUP IBN trunks that do not have appropriate data in table TRKGRP.

The following error message is output to indicate any datafill errors in tables TRKGRP and TRKSGRP:

```
TUPLE IS NOT ACCEPTABLE FOR ISUP SIGNALING
```

After table TRKSGRP is datafilled, table ISUPDEST must be datafilled in order to identify the routeset associated with the ISUP IBN trunk subgroup.

After table ISUPDEST is datafilled, trunks can be added to table TRKMEM in the normal manner.

TRKGRP type IBNTI (continued)

Table C7TRKMEM must be datafilled to associate the ISUP IBN trunks with a circuit identification code.

See table TRKGRP for trunk group types that describe the other formats.

Primary rate access (PRA) ISDN trunks are datafilled in much the same manner as trunk group type IBNT2.

The entry in table TRKSGRP associated with the PRA IBN trunk group must have field SIGDATA datafilled with a value of ISDN that identifies the trunk group as being an ISUP IBN trunk group.

The trunk group entry for a PRA IBN trunk group has the option logical terminal identifier (LTID) datafilled automatically. Option LTID is a read-only field used to display the logical terminal group (LTGRP) and logical terminal number (LTNUM) that have been mapped to this trunk group through table LTMAP.

The following error message appears if an attempt is made to change option LTID:

```
LTID IS READ ONLY AND UPDATED BY LTMAP
```

When deleting a PRA trunk group, the following error message appears if LTID is still mapped to table LTMAP:

```
TUPLE REFERRED TO BY ANOTHER TABLE
```

When changing an IBN PRA tuple, the following error message appears if unsupported fields are changed after ISDN has been set as the signaling type in table TRKSGRP:

```
DATAFILL IN TABLE TRKGRP IS NOT ACCEPTABLE FOR ISDN SIGNALING
```

A PRA IBN trunk group must have the values for the fields as listed in the following table.

PRA IBN trunk group field values (Sheet 1 of 2)

Field name	Value	Notes
SELSEQ	ASEQ or DESQ	ASEQ and DSEQ are the only selection sequences supported.
SUPV	ANSDISC	Only answer disconnect service is supported.

PRA IBN trunk group field values (Sheet 2 of 2)

Field name	Value	Notes
DISCTSEL	0	PRA trunks currently use 20-ms disconnect filter timing.
DIGIT0	N	Regenerated digits are not supported.
DIGIT1	N	Regenerated digits are not supported.
DTI	N	Digit collection is not supported.
TES	N	Toll essential service is not supported.
IGA	N	No longer used.
FDN	N	FX toll denied service is not supported.
FDV	N	FX toll diverted service is not supported.
FLASH	N	Flash capability is not supported.
DPX	N	Data path loop extension is not supported.
PREEMPT	N	For Northern Telecom use only.
AIODOPT	N	AIOD is not supported.

NETINFO translations (NETXLA)

This feature provides enhancements to IBN ISUP signaling between a DMS-250 switch and a Meridian SL-100 switch, and between two Meridian SL-100 switches.

Such enhancements include:

- the mapping of satellite information into and out of the Nature-of-connection indicators parameter of the initial address message (IAM)
- the use of parameter NETINFO of the IAM by translations
- NCOS mapping
- the generation of parameter NETINFO for calls originating over IBN offnet access trunks

TRKGRP type IBNTI (continued)

Functional description

This section provides table TRKGRP datafill information for group type IBNTI. Group type IBNTI is used for incoming Integrated Business Network (IBN) trunks.

Refer to the previous section, “Overview of Integrated Business Network (IBN) trunk groups", for related information.

Datafill sequence and implications

Tables BCDEF and TRIGGRP must be datafilled before table TRKGRP type IBNTI.

Refer to the “Datafill sequence" section of table TRKGRP (prior to the group type specific sections) for additional information concerning datafill sequence.

Datafill

The following table lists datafill for table TRKGRP type IBNTI.

Field descriptions (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the code that is assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Group information* This field consists of the following subfields: GRPTYP, TRAFSNO, PADGRP, NCCLS, CUSTNAME, SUBGRPNO, NCOS, BILLDN, SUPV, DISCTSEL, INTRAGRP, DIGIT0, DIGIT1, DTI, TES, CDR, SMDR, TRC, ALTNCOS, TRKDSR, PREEMPT, AIODOPT, REORIG, OFFNETOPT, CALLCHR, COFFTYP, and OPTIONS.
	GRPTYP	IBNTI	*Trunk group type* Enter IBNTI to specify that the trunk group type is incoming Integrated Business Network (IBN).

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (10 to 12 or 0)	*Traffic separation number* Enter the traffic separation number (10 to 127) assigned to the trunk group in table TFANINT. If not required, enter 0 (zero). Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Entries outside the indicated range are not valid. Refer to table TFANINT for more information.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class to indicate which OM register, in OM groups OFZ2 and SOTS, is to be incremented when treatment GNCT (generalized no-circuit) occurs. Enter NCRT as the no-circuit class. Refer to table TRKGRP and the *Operational Measurements Reference Manual* for additional information.
	CUSTNAME	alphanumeric (1 to 16 characters)	*Customer group name* Enter the name assigned to the customer group to which the trunk group belongs.
	SUBGRPNO	numeric (0 to 7)	*Subgroup number* Enter the subgroup number of the attendant consoles (AC) to which all attendant calls must be routed.
	NCOS	numeric (0 to 255)	*Network class of service* Enter the network class of service (NCOS) number assigned to the trunk group.

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	BILLDN	numeric (maximum 11 digits) or N	*Billing directory number* If no incoming digits are to be received (seizure only), enter the directory number (DN), station number, or attendant access code to which translation is to be routed. If the trunk group is configured to receive incoming digits and a local automatic message accounting (LAMA) recording is required for all calls that tandem through the switch, enter the ten-digit DN to which calls are to be billed. If the trunk group is configured to receive incoming digits and no billing is required, enter N (no). (For advanced business services (ABSK) only) For analog channel-associated signaling (CAS) trunks, the directory number (DN) datafilled in field BILLDN is used as the originating DN to perform all screening functions provided by table DNSCRN and the FEATINFO VALIDATE selector in universal translations. In addition, the DN datafilled in field BILLDN is used as the originating DN in the calling party number (CPN) that is sent to the terminating office. The outpulsing of this CPN is available only on NCCI#7 V2 and ANSI7+ trunks. Presentation of the DN to the called party is controlled by the Calling Line Identification Presentation (CLIP) option. See “Calling Line Identification Presentation" in this section for more details.
	SUPV	ANSDISC DISCONLY FAKEANS or NODISC	*Supervision* Enter the type of supervision required: ANSDISC (answer disconnect), DISCONLY (disconnect only), FAKEANS (fake answer) or NODISC (no disconnect).
	DISCTSEL	numeric (0 to 3)	*Disconnect timing selector* Enter the disconnect timing for the trunk group: 0 (200 ms), 1 (400 ms), 2 (600 ms) or 3 (800 ms).

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	INTRAGRP	Y or N	*Intragroup* Enter Y (yes) if the call is intragroup. Otherwise, enter N (no).
	DIGIT0	alphanumeric (0 to 9, B, C, D, E, F, or N)	*Digit 0* If one or two digits are to be prefixed to the incoming digits, enter the first (least significant) digit to be prefixed. If no digits are to be prefixed to the incoming digits, enter N.
	DIGIT1	alphanumeric (0 to 9, B, C, D, E, F, or N)	*Digit 1* If two digits are to be prefixed to the incoming digits, enter the second (most significant) digit to be prefixed. If only one or no digits are to be prefixed to the incoming digits, enter N.
	DTI	Y or N	*Dial tone incoming* If a second dial tone is to be sent to the originator of an incoming call, enter Y. Otherwise, enter N. ***Note:*** If field ISTARTSG in table TRKSGRP is set to value IM, the value of field DTI cannot be changed from Y to N.
	TES	Y or N	*Toll essential service* If the trunk group is toll essential, enter Y. If the trunk group is not toll essential, enter N.
	CDR	Y or N	*Call detail recording* If all incoming calls are to be recorded using the CDR format, enter Y. If calls are not to be recorded, enter N.
	SMDR	Y or N	*Station message detail recording* If the SMDR records are to be generated for incoming calls, enter Y. If records are not required, enter N.

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	TRC	numeric (0 to 7)	*Terminating restriction code* Enter the terminating restriction code assigned to the incoming side of the trunk group.
	ALTNCOS	numeric (0 to 255)	*Alternate class of service* Enter the alternate network class of service number that is used when feature BV0557 (Attendant Control of Trunk Group Access) is activated.
	TRKDSR	Y or N	*Trunk distinctive ringing* If the trunk is required to provide distinctive ringing, enter Y. If distinctive ringing is not required, enter N.
	PREEMPT	N	Enter N in this field (Northern Telecom use only).
	AIODOPT	see subfield	*Automatic identification of outward dialing options* This field consists of subfield AIOD.
	AIOD	Y or N	*Automatic identification of outward dialing* If the AIOD service is required, enter Y and datafill refinement AIODGRP. Otherwise, enter N.
	AIODGRP	alphanumeric (1 to 16 characters) or blank	*Automatic identification of outward dialing CLLI* If field AIOD contains Y, enter the CLLI of the datalink for the IBN trunk group as datafilled in table AIODGRP. If field AIOD contains N, leave this field blank.
	REORIG	Y or N	*Reorigination* Enter Y if call origination is allowed on incoming calls on this trunk group. Otherwise, enter N.

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	OFFNETOPT	see subfield	*OFFNET options* This field consists of subfield OFFNET.
	OFFNET	Y or N	*OFFNET* If the trunk is used for offnet access, enter Y and datafill refinement OFFNTACC. Otherwise, enter N.
	OFFNTACC	FGA, FGB, FGD, IBN, NSSFGD, or VPN	*OFFNET access* If the entry in field OFFNET is Y, datafill this field and associated refinements to specify the signaling protocol. For feature group A protocol, enter FGA and datafill refinements DIALPLAN and OFNTOPT. For feature group B protocol, enter FGB and datafill refinements ANIDIGS, DIALPLAN, and OFNTOPT. For feature group D (FGD stand-alone software loaded) protocol, enter FGD and datafill refinements ANIDIGS and ANISCREN. Meridian SuperNode uses FGD stand-alone software. Fields ANIDIGS and ANISCREN are not prompted when FGD is specified for VPN or ISDN user part (ISUP) configurations. For Integrated Business Network protocol, enter IBN and datafill refinements DIALPLAN and OFNTOPT. An entry of IBN allows non-FGA, and -FGB trunks to have access to Network Services Software (NSS) and the various trunk features specific to NSS.

TRKGRP type IBNTI (continued)

Field descriptions (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			For BCS31, an entry of IBN can be used to associate the trunk with a specific dialing plan. Field DIALPLAN must be datafilled for the entry of IBN to implement this feature. For Network Services Software feature group D protocol, enter NSSFGD and datafill refinements ANIDIGS, CASUAL, IDPRTRAN, and OFNTOPT. For virtual private network protocol, enter VPN. There are no refinements for this entry value. An entry of VPN is valid for only Australian telephone user part (ATUP) trunks.
	CALLCHR	alphanumeric (1 to 16 characters) or blank	*Call characteristic* For all tuples, enter up to eight characteristic names that are assigned to the trunk group, and end the vector with $. For valid entry values, refer to field CALLCHR in table CALLCHR. If no call characteristics are required, leave this field blank.
	COFFTYP	NATL	*Connected office type* For all tuples, enter NATL for national trunks.
	OPTIONS	ANIFAIL, ANIREC, BCNAME, CLIP, DEFLTCLI, BI_UNAVAIL, FACTYPE, NETXLA, NOACCMP, SMDRITC, TRKLSC, or WIDEBAND	*Options* For all tuples, this field consists of up to 15 multiples of subfield option and refinements. Enter the list of options and associated subfields assigned to the trunk group. See the appropriate option and refinement name in table 10 and subsequent tables for more information for its definition. Each option and its refinement must be separated by a blank space. Use as many records as required to complete the list of options and associated refinements. If the option is not provided, no input is required for that option. Enter a $ (dollar sign) to indicate the end of the tuple.

OFFNTACC = FGA

If the entry in field OFFNTACC is FGA, datafill refinements DIALPLAN and OFNTOPT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV CONNGNPA orREGION	*OFFNET options* Enter the offnet option. To allow terminating agents to use automatic number identification (ANI) information, enter ANIDELV. No additional datafill is required for this option. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

TRKGRP type IBNTI (continued)

OFFNTACC = FGB

If the entry in field OFFNTACC is FGB, datafill refinements ANIDIGS, DIALPLAN, and OFNTOPT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* Enter Y (yes) if an automatic number identification (ANI) is to be received. Otherwise, enter N (no).
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV CONNGNPA orREGION	*OFFNET options* Enter the OFFNET option. To allow terminating agents to use ANI information, enter ANIDELV. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

OFFNTACC = FGD

If the entry in field OFFNTACC is FGD, datafill refinements ANIDIGS and ANISCREN as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* Enter Y (yes) if an automatic number identification (ANI) is to be received. Otherwise, enter N (no).
	ANISCREN	Y or N	*Automatic number identification screening* Enter Y if ANI screening is required for calls placed across IBN PTS FGD trunks. Otherwise, enter N.

OFFNTACC = IBN

If the entry in field OFFNTACC is IBN, datafill refinements DIALPLAN and OFNTOPT as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.
	OFNTOPT	ANIDELV CONNGNPA orREGION	*OFFNET options* Enter the OFFNET option. To allow terminating agents to use automatic number identification (ANI) information, enter ANIDELV. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION.

TRKGRP type IBNTI (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.

OFFNTACC = NSSFGD

If the entry in field OFFNTACC is NSSFGD, datafill refinements ANIDIGS, CASUAL, IDPRTRAN, OFNTOPT, and DIALPLAN as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ANIDIGS	Y or N	*Automatic number identification digits* Enter Y (yes) if an automatic number identification (ANI) is to be received. Otherwise, enter N (no).
	CASUAL	Y or N	*Casual calls* Enter Y if casual calls are allowed on this trunk. Otherwise, enter N.
	IDPRTRAN	alphanumeric (4 characters)	*Identification pretranslator* Enter the pretranslator name used in translation of the ANI information digits.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OFNTOPT	ANIDELV CONNGNPA orREGION	*OFFNET options* Enter the OFFNET option. To allow terminating agents to use ANI information, enter ANIDELV. For the connecting numbering plan area (NPA) option, enter CONNGNPA and datafill refinement CONNGNPA. For the region option, enter REGION and datafill refinement REGION.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* If the value in field OFNTOPT is CONNGNPA, enter the NPA of the connecting switch adjoining the NSS PTS agent. For FGB agents, field CONNGNPA is used to pad the seven-digit ANI received by the FGB protocol with a three-digit NPA, resulting in a complete ten-digit calling party number (ANI).
	REGION	numeric (0 to 2047)	*Region* If the value in field OFNTOPT is REGION, enter the region code of the trunk.
	DIALPLAN	alphanumeric (1 to 16 characters) or DEFAULT	*Dial plan* Enter dial plan names associated with this incoming trunk.

TRKGRP type IBNTI (continued)

For all tuples

For all tuples, datafill fields CALLCHR, COFFTYP, and OPTIONS as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CALLCHR	alphanumeric (1 to 16 characters) or blank	*Call characteristic* Enter up to eight characteristic names that are assigned to the trunk group, and end the vector with $. For valid entry values, refer to field CALLCHR in table CALLCHR. If no call characteristics are required, leave this field blank.
	COFFTYP	NATL	*Connected office type* Enter NATL for national trunks.
	OPTIONS	see subfield	*Options* This field consists of up to 15 multiples of subfield option and refinements. Enter the list of options and associated subfields assigned to the trunk group. See the appropriate option and refinement name for its definition. Each option and its refinement must be separated by a blank space. Use as many records as required to complete the list of options and associated refinements. If the option is not provided, no input is required for that option. Enter a $ (dollar sign) to indicate the end of the tuple.

ANI failure (ANIFAIL)

If the trunk group has the automatic number identification (ANI) failure option, datafill subfield OPTION and refinements ANIFAIL and TRMT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	ANIFAIL	*Option* Enter ANIFAIL.
	ANIFAIL	CONT or NOCONT	*Automatic number identification failure* If the call is to continue when no ANI digits are received on the trunk, enter CONT. If the call is to discontinue when no ANI digits are received on the trunk, enter NOCONT and datafill refinement TRMT.
	TRMT	alphanumeric (1 to 4 characters)	*Treatment* If the entry in field ANIFAIL is NOCONT, enter the treatment name found in field TREATMT of table TMTCNTL.TREAT.

TRKGRP type IBNTI (continued)

ANI received (ANIREC)

If the trunk group requires option ANIREC, datafill subfield OPTION and refinement ANIREC as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	ANIREC	*Option* Enter ANIREC.
	ANIREC	ALLOWED, ALWAYS, or NEVER	*Automatic number identification received* Enter ALLOWED if the calling number must always be requested on the trunk, if required. Enter ALWAYS if the calling number must always be requested on the trunk. Enter NEVER if the calling number must never be requested on the trunk. ***Note:*** The ANIREC option can be datafilled in table TRKGRP for any IBN trunk, but it is valid only for IBN trunks using FST as a signaling data selector in table TRKSGRP.

Bearer capability name (BCNAME)

If the trunk group is to be assigned option BCNAME, datafill subfield OPTION according to the description in the following table. If a bearer capability (BC) is not datafilled for an IBNTI type trunk group, the office default bearer capability defined by parameter DEFAULT_BEARER_CAPABILITY (either SPEECH or 3_1KHZ) applies. Refer to table OFCENG for more information on this parameter. If the datafilled BC is the actual office default (SPEECH or 3_1KHZ) the BC option

does not appear when listing the TRKGRP tuple. An office default BC is not listed by the TRKGRP read procedures.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BCNAME	*Option* Enter the bearer capability option BCNAME.
	BCNAME	DATAUNIT SPEECH VOICE_DAT A3_1KHZ 56KDATA 64KDATA 64KRES 64KX25 or 7_KHZ	*Bearer capability name* Enter a bearer capability name previously datafilled in field BCNAME of table BCDEF. The entry can be one of the default entries listed or a user-defined entry.

Block Serving Carrier ID (BLK_SCI)

If the trunk group requires option BLK_SCI, datafill subfield OPTION as described in the following table. This option prevents the serving carrier optional parameter from being sent over ANSI ISUP trunks.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BLK_SCI	*Option* Enter the block serving carrier ID option BLK_SCI.

Calling Line Identification Presentation (CLIP)

If the trunk group requires option CLIP, datafill field OPTION as described in the following table. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200 switches. It also provides CLIP and CLIR in the European market for the British Telephony User Part (BTUP) protocol on the DMS-100 switch. At the terminating office, option CLIP enables calls routed over ATUP or BTUP trunks to display the calling party address digits at a terminating station. If the option CLIP is not datafilled, CLI presentation is disabled by default.

TRKGRP type IBNTI (continued)

The originating office does not support the transmission of CLIP/CLIR signaling over ATUP.

For the Japan market, incoming analog CAS trunks, because they use analog signaling, do not supply an originating DN, but for ABSK the DN entered in subfield BILLDN in this table is used as the originating DN, and is sent over the outgoing ISUP trunk (ANSI7+ and NCCI#7 V2). More specifically, the contents of subfield BILLDN are used to set the Address Information (AI) field of the CPN.

Datafilling the CLIP option sets the Address Presentation Restriction Indicator (APRI) field of the CPN to Presentation Allowed. This allows the terminating office to present the contents of the AI field to the called party as the originating DN. If the CLIP option is not datafilled, then the APRI field of the CPN is set to Presentation Restricted and the terminating office cannot present the contents of the AI field to the called party. If BILLDN is datafilled with N (no DN), no CPN is sent, and the CLIP option has no effect.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CLIP	*Option* Enter CLIP.

Default calling/called line identification (DEFLTCLI)

If the trunk group has option DEFLTCLI, datafill field OPTION as described in the following table. This option is supported on IBNTI trunks on a DMS-100 or DMS-200 switch for the European market. (Option DEFLTCLI is visible only when subsystem DEFCLISB is present in the load.)

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DEFLTCLI	*Option* Enter the default directory number (DN) option DEFLTCLI.
	DEFLTCLI	numeric (maximum 10 digits, 0 to 9)	*Default calling/called line identification* Enter the default CLI.

Blocking Indicator for calling line identification (BI_UNAVAIL)

BI_UNAVAIL indicates whether the caller is able to withhold presentation of their Calling Line Identity (CLI) for incoming Channel Associated Signalling (CAS) and Digital Private Network Signalling System (DPNSS) trunks interworking to British Telephony User Part (BTUP) trunks. If BI_UNAVAIL is datafilled for an incoming DPNSS or CAS trunk, CLI is unavailable on the outgoing BTUP trunk provided that the CBI field of table TRKSGRP is set to Y.

The CBI field of table TRKSGRP determines whether the issued CLI will be available or unavailable on the outgoing BTUP trunk. CBI must be set to Y for BI_UNAVAIL to function. If it is set to N, CLI is automatically unavailable regardless of the BI_UNAVAIL setting.

This option is supported on IBNTI and IBNT2 trunks only. If the trunk group requires option BI_UNAVAIL, datafill OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BI_UNAVAIL	*Option* Enter BI_UNAVAIL.

TRKGRP type IBNTI (continued)

Facility type (FACTYPE)

If the trunk group requires option FACTYPE, datafill subfield OPTION and refinement FACTYPE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	FACTYPE	*Option* Enter the facility type option FACTYPE.
	FACTYPE	CCSA , ETS, FX, orTDMTT	*Facility type* Enter the facility type. Enter CCSA for the common control switching arrangement facility type. Enter ETS for the electronic tandem switched call facility type. Enter FX for the automatic flexible routing facility type. Enter TDMTT for the tandem tie trunk facility type.

Network information translations (NETXLA)

If the trunk group requires the NETINFO translations option NETXLA, datafill field OPTION as described in the following table. This option is applicable only to ISUP trunks.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	NETXLA	*Option* Enter NETXLA.

No modem pool access (NOACCMP)

If the trunk group is not allowed access to the modem pool, datafill subfield OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	NOACCMP	*No modem pool access* Enter NOACCMP.

Serving Carrier ID (SCI)

If the trunk group requires option SCI, datafill subfield OPTION and refinement SCI as described in the following table. This option applies only to the following signaling systems:

- AISUP
- ANSI
- ATUP
- DC5
- ETSI PRI
- I-ISUP
- TS14 PRI

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	SCI	*Option* Enter SCI.
	SCI	numeric (1000 to 30000)	*Serving carrier ID* Enter the trunk group serving carrier identification code.

Station Message Detail Recording for inbound toll calls (SMDRITC)

If the trunk group requires option SMDRITC, datafill subfield OPTION as described in the following table. If option SMDRITC is datafilled for a trunk group, then for each terminating station involved with the call, a separate station message detail recording (SMDR) extension record is generated

TRKGRP type IBNTI (continued)

detailing the duration of the call or the amount of time the call was present at that station.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	SMDRITC	*Option* Enter SMDRITC.

Trunk line screening code (TRKLSC)

If the trunk group requires option TRKLSC, datafill subfield OPTION as described in the following table. This option allows for the overriding of the line screening codes in order to use the customer group of the originator, instead of the customer group of the terminator.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	TRKLSC	*Option* Enter TRKLSC.

Wideband capability (WIDEBAND)

This option applies only if feature package NTXX34AA (IBN DWS ISUP-T1) is active. If the trunk group requires option WIDEBAND, datafill subfield OPTION and refinement WBGRPING as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	WIDEBAND	*Option* Enter WIDEBAND.
	WBGRPING	FIXED or FLOATING	*Wideband boundary preference* Datafill this field if the entry in field OPTION is WIDEBAND. Enter the wideband boundary preference. The value FIXED specifies that only the idle trunks within a specific time period are selected. This value is only valid for local exchange carriers (LEC). The value FLOATING specifies that any number of consecutive idle trunks in a trunk group are selected.

Datafill example

The following example shows sample datafill for table TRKGRP type IBNTI.

This example was datafilled in accordance with the following requirements:

- The trunk group is represented by the code NTBRAM in table CLLI.
- Traffic separation is not provided (TRAFSNO = 0).
- ACO is the name of the pad group assigned to the trunk group in table PADDATA.
- NCRT is the no-circuit class.
- The trunk group is assigned to subgroup 0 of customer group BNRMC.
- NCOS number 6 and alternate NCOS number 7 are assigned to the trunk group.
- LAMA recordings are not required on tandem calls.
- Answer disconnect supervision is required.
- 400-ms (entered as 1) disconnect timing is required
- The call is not an intragroup call.

TRKGRP type IBNTI (continued)

- The digit 7 is prefixed to the incoming digits.
- Only one or no digits are prefixed to the incoming digits.
- Dial tone is to be sent to the originator.
- Toll essential service is provided.
- A CDR record is required for all calls; field CDR is equal to Y and field SMDR is equal to N.
- Terminating restriction code 1 is assigned to the trunk group.
- The trunk group does not provide distinctive ringing.
- N is entered for field PREEMPT.
- AIOD is not required.
- Call origination is not allowed on calls incoming on this trunk group.
- The trunk is not to be used for offnet access.
- The call characteristic SAT is assigned.
- The connected office type is national (NATL).
- The facility type option FACTYPE with facility type tandem tie trunk (TDMTT) is assigned.

MAP display example for table TRKGRP type IBNTI

```
GRPKEY
            GRPINFO
_____________________________________________________

NTBRAM
            IBNTI 0 ACO NCRT BNRMC 0 6 N ANSDISC 1 N 7 N
             Y Y Y N 1 7 N N N N N SAT $ NATL FACTYPE
             TDMTT $
```

Table history

EUR008

Removed selector PRESEL from subfield OPTION in table TRKGRP type IBNTI, and datafilled in table TRKOPTS.

APC008

Added selector PRESEL to subfield OPTION.

Added options BLK_SCI and SCI to subfield OPTION.

EUR006

Added option BI_UNAVAIL.

NA004

Removed option AIN; table TRKAIN is used instead.

UK002

Added option DEFLTCLI and enabled option CLIP for the European market (design activity AE1383, “UK CLI Handling").

NA002

Added option CLIP. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200 switches.

CSP02

Removed option ISMDI (ISN Simplified Message Desk Interface).

BCS36

Added option AIN.

TRKGRP type IBNTO

IBN Outgoing Trunk Group Type

This section describes the table TRKGRP datafill for group type IBNTO. Group type IBNTO is used for outgoing Integrated Business Network (IBN) trunks.

Datafill sequence and implications

For group type IBNTO, field BCGRPNUM in table BCLIDGRP must be datafilled before table TRKGRP.

Refer to the section “Datafill sequence" in table TRKGRP for additional information concerning datafill sequence.

Datafill

The following table lists the datafill for table TRKGRP type IBNTO.

Field descriptions (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfields	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code that is assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Group information* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, CUSTNAME, SUBGRP, SELSEQ, SUPV, DISCTSEL, INTRAGRP, LSCFN, ALTLSCFN, LSCINCPT, ALSCINCP, IGA, FDN, FDV, FLASH, PREEMPT, MTR, COFFTYP, and OPTIONS. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IBNTO	*Trunk group type* Enter IBNTO to specify that the trunk group type is outgoing Integrated Business Network (IBN).

TRKGRP type IBNTO (continued)

Field descriptions (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (10 to` 127 or 0)	*Traffic separation number* Enter the traffic separation number (10 to 127) assigned to the trunk group in table TFANINT. If a traffic separation number is not required, enter 0 (zero). Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to table TFANINT for more information.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class to indicate which OM register, in OM groups OFZ2 and SOTS, is to be incremented when treatment GNCT (generalized no-circuit) occurs. Enter NCRT as the no-circuit class. Refer to table TRKGRP and the *Operational Measurements Reference Manual*, for additional information.
	CUSTNAME	alphanumeric (1 to 16 characters)	*Customer group name* Enter the name assigned to the customer group to which the trunk group belongs.
	SUBGRP	numeric (0 to 7)	*Subgroup number* Enter the subgroup number of the attendant consoles (AC) to which all attendant calls must be routed.

TRKGRP type IBNTO (continued)

Field descriptions (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ, CCWCTH, CNTLEVN, CNTLODD, CWCTH, DSEQ, LIDL, MIDL, or WIDEBAND	*Select sequence* If the trunk group type is IBNTO and the sequential selection feature is provided, enter ASEQ if sequential selection is in ascending order and DSEQ if it is in descending order of trunk member numbers in table TRKMEM. CCWCTH and CWCTH are not valid entries for trunk group IBNTO. CNTLEVN or CNTLODD are only used for Japan ISDN user part (ISUP). Enter CNTLEVN if the even-numbered circuit identification codes (CIC) are the controlling group. Enter CNTLODD if the odd-numbered CICs are the controlling group. CNTLODD and CNTLEVN use MIDL (most idle) for the controlling group of circuits in the trunk group and LIDL (least idle) for the noncontrolling group. Changing the selection algorithm to or from either CNTLEVN or CNTLODD is not allowed. The tuple, along with corresponding tuples in dependent tables, must be deleted and re-added in order to change the selection algorithm. If wideband trunk selection is allowed for primary rate interface (PRI) ISUP trunks, enter WIDEBAND and datafill refinements WBSELSEQ, WBGRPING, and WBSEARCH. The WIDEBAND entry value is only valid if feature package NTXX34AA (IBN DWS ISUP-T1) was purchased. Enter MIDL if sequential selection does not apply.

Field descriptions (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to MIDL or LIDL, define a new trunk group, as follows: create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	WBSELSEQ	ASEQ or DSEQ	*Wideband selection sequence* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter ASEQ to specify that the wideband trunks are selected in ascending order from the first idle trunk on the search list, or enter DSEQ to specify that they are selected in descending order from the last idle trunk on the search list. The order of trunks in the search list is determined by the order in which the trunk groups are datafilled in table TRKMEM.
	WBGRPING	FIXED or FLOATING	*Wideband boundary preference* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband boundary preference. The value FIXED specifies that only the idle trunks within a specific time slot frame are selected. This value is only valid for local exchange carriers (LEC). The value FLOATING specifies that any number of consecutive idle trunks in a trunk group are selected.

TRKGRP type IBNTO (continued)

Field descriptions (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	WBSEARCH	BESTFIT or FIRSTFIT	*Wideband search* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband search algorithm. The value BESTFIT finds the smallest segment of idle channels (DS-0s) among trunks (DS-1s) within a trunk group to accommodate a wideband call, according to the boundary preference (FIXED or FLOATING) specified. FIRSTFIT finds the first segment of idle DS-0s that can accommodate a wideband call, according to the boundary preference specified.
	SUPV	ANSDISC, DISCONLY, FAKEANS, or NODISC	*Supervision* Enter the type of supervision required: ANSDISC (answer disconnect), DISCONLY (disconnect only), FAKEANS (fake answer), or NODISC (no disconnect).
	DISCTSEL	numeric (0 to 3)	*Disconnect timing selector* Enter the disconnect timing for the trunk group: 0 (200 ms), 1 (400 ms), 2 (600 ms), or 3 (800 ms).
	INTRAGRP	Y or N	*Intragroup* Enter Y (yes) if call is intragroup. Otherwise, enter N (no).
	LSCFN	numeric (0 to 255)	*Line screening code flag number* Enter the line screening code flag number assigned to the trunk group.
	ALTLSCFN	numeric (0 to 255)	*Alternate line screening code flag number* Enter the alternate line screening code flag number assigned to the trunk group.
	LSCINCPT	numeric (0 to 255)	*Line screening code flexible intercept* Enter the treatment number in table IBNTREAT to which a station, incoming trunk, or two-way trunk is routed when the call is blocked by line screening.

TRKGRP type IBNTO (continued)

Field descriptions (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	ALSCINCP	numeric (0 to 63)	*Alternate line screening code flexible intercept* Enter the treatment number in table IBNTREAT to which a station, incoming trunk, or two-way trunk is routed when the feature BV0490 (Attendant Control of Trunk Group Access) is activated and the call is blocked by alternate line screening.
	IGA	Y or N	*Ignore answer* This field is not required for group type IBNT0. Enter N.
	FDN	Y or N	*Feature expansion toll denied* If a toll call is to be routed to toll denied treatment on receipt of a reversal from the far end, enter Y. Otherwise, enter N.
	FDV	Y or N	*Feature expansion toll diverted* If a toll call is to be routed to the intercept key and lamp on the attendant console (AC) on receipt of a reversal from the far end, enter Y. Otherwise, enter N.
	FLASH	Y or N	*Flash* Enter Y for the Attendant Recall Flash Trunks feature (non-ISUP). On trunk-to-trunk connections, the incoming trunk flash message is treated as a request to be queued for the first available attendant console in the customer group. A Y entry does not allow an ougoing trunk to flash. Otherwise, enter N.
	PREEMPT	N	*Preempt* Enter N. This field is for Nortel use only.

TRKGRP type IBNTO (continued)

Field descriptions (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	MTR	Y or N	*Meter reception* If meter reception is required on outgoing trunks that have entry MFESCP in field CARDCODE of table TRKSGRP, enter Y. If meter reception is not required on outgoing trunks that have entry MFESCP in field CARDCODE, or the trunk card code is other than MFESCP in field CARDCODE of table TRKSGRP, enter N.
	COFFTYP	NATL	*Connected office type* Enter NATL for national trunks.
	OPTIONS	see subfield	*Options* This field is a vector that consists of up to eleven multiples of subfield OPTION and refinements. Datafill this vector to specify the list of options and associated refinements that are assigned to the trunk group. See the appropriate option and refinement name (if applicable) for its definition. Each option and associated refinement must be separated by a blank space. Use as many records as required to complete the list of options and associated refinements. If an option is not provided, no input for that option is required. Enter $ to indicate the end of the tuple.

Automatic number identification send (ANISEND)

If the trunk group requires option ANISEND, datafill field OPTION and refinement ANISEND described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	ANISEND	*Option* Enter ANISEND.
	ANISEND	ALLOWED, ALWAYS, or NEVER	*Automatic number identification send* Enter ALLOWED if the calling number is sent when required. Enter ALWAYS if the calling number is always sent on the trunk. Enter NEVER if the calling number is never sent on the trunk. ***Note:*** The ANISEND option can be datafilled in table TRKGRP for any IBN trunk, but it is only valid for IBN trunks using FST as a signaling data selector in table TRKSGRP.

Bulk calling line identification (BCLID)

If the trunk group requires option BCLID, datafill field OPTION and refinement BCGRPNUM as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BCLID	*Option* Enter BCLID.
	BCGRPNUM	numeric (0 to 2047)	*Bulk calling line identification group number* Enter the BCLID group number.

TRKGRP type IBNTO (continued)

Broadcast call remote (BCREMOTE)

If the trunk group requires option BCREMOTE, datafill field OPTION as described in the following table. This option applies only to ISDN user part (ISUP) trunks.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BCREMOTE	*Option* Enter BCREMOTE.

Block Serving Carrier ID (BLK_SCI)

If the trunk group requires option BLK_SCI, datafill subfield OPTION as described in the following table. This option prevents the serving carrier optional parameter from being sent over ANSI ISUP trunks.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BLK_SCI	*Option* Enter the block serving carrier ID option BLK_SCI.

Call characteristic (CALLCHR)

If the trunk group requires option CALLCHR, datafill field OPTION and refinement CALLCHR as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CALLCHR	*Option* Enter CALLCHR.
	CALLCHR	DIGDATA or SAT	*Call characteristic* This field specifies the call characteristic. Enter DIGDATA for the digital data call characteristic. Enter SAT for the satellite call characteristic.

Calling line identification (CLID)

IBN trunks provide the CLID option. The CLID option allows the customer premise equipment (CPE) to know the telephone number of the calling party. When the user enters this option, the system prompts for one of the following control values: CPNONLY, CPNREST, CPNPREF, and CHGONLY.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CLID	*Option* Enter CLID or $.
	CLID	CPNONLY, CPNREST, CPNPREF, CHGONLY	Enter CPNONLY for the calling party to populate the outgoing CLID regardless of the Presentation Indicator (PI). If a calling party number is not available, no CLID digits are outpulsed. Enter CPNREST for the calling party number to populate the outgoing CLID when the PI for the calling party number is set to ALLOWED. If a calling party number is not available, or the PI is set to RESTRICTED or UNAVAILABLE, then no CLID digits are outpulsed. Enter CPNPREF for the calling party number to populate the outgoing CLID regardless of the PI. If a calling party number is not available, the received or derived charge number is used to populate the outgoing CLID digits. If neither a calling party number or a charge number is available, no CLID digits are outpulsed. Enter CHGONLY for the received or derived charge number to populate the outgoing CLID digits. If the charge number is not available, no CLID digits are outpulsed.

Calling line identification presentation (CLIP)

If the trunk group requires option CLIP, datafill field OPTION as described in the following table. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200 switches. It also provides CLIP and CLIR in the European market for BTUP (UK variant of national user part) protocol for on the DMS-100

TRKGRP type IBNTO (continued)

switch. At the terminating office, option CLIP enables calls routed over ATUP or BTUP trunks to display the calling party address digits at a terminating station. If the option CLIP is not datafilled, CLI presentation is disabled by default. The originating office does not support the transmission of CLIP/CLIR signalling over ATUP.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CLIP	*Option* Enter CLIP.

Default directory number (DEFLTDN) or default CLI DEFLTCLI

If the trunk group has option DEFLTDN, datafill field OPTION and refinement DEFLTDN as described in the following table. This option is supported on IBNTO trunks on a DMS-100 or DMS-200 switch for the Australian market. (Option DEFLTDN is visible only when subsystem DEFDNSUB is present in the load.)

Note: In the European market, datafill this option as DEFLTCLI for IBNTO, IBNT2, and IBNTI trunks. (Subsystem UKCLISB must be present in the load.)

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DEFLTDN	*Option* Enter the default directory number (DN) option DEFLTDN. ***Note:*** In the European market, datafill DEFLTCLI instead of DEFLTDN.
	DEFLTDN	numeric (up to 10 digits, 0 to 9)	*Default directory number* Enter the default DN.

Dialed number identification service (DNIS)

IBN trunks offer the DNIS option. The DNIS option delivers additional call information to the CPE when a call requires DNIS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	DNIS	*Option* Enter DNIS or $.

Facility type (FACTYPE)

If the trunk group requires option FACTYPE, datafill field OPTION and refinement FACTYPE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	FACTYPE	*Option* Enter the facility type option FACTYPE.
	FACTYPE	CCSA , ETS, FX, or TDMTT	*Facility type* This field specifies the facility type. Enter CCSA for the common-control-switching-arrangement facility type. Enter ETS for the electronic-tandem-switched-call facility type. Enter FX for the automatic-flexible-routing facility type. Enter TDMTT for the tandem-tie-trunk facility type.

TRKGRP type IBNTO (continued)

Malicious call hold (MCH)

This option is supported on DC5 and TS14 trunks for the Australian market. If MCH is activated on this trunk group, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	MCH	*Option* Enter MCH.

Network information translation (NETXLA)

This option is only applicable to United Kingdom (UK) variants of national user part (BTUP) trunks and is market specific. Addition of this option to non-BTUP trunks has no effect on calls made over those trunks. If the trunk group requires option NETXLA, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	NETXLA	*Option* Enter NETXLA.

Digits to be outpulsed (OUTSCHM)

IBN trunks offer the OUTSCHM option. When the user enters this option, the system prompts for a control value from one to eight. The range contains

formatting to allow table control prompting to provide assistance in selecting the outpulsing scheme value.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	OUTSCHM	*Option* Enter OUTSCHM or $.
	OUTSCHM	1 = *CLID ADDR*, 1 2 = *ADDR*, 2 3 = * II CLID* ADDR, 3 4 = II*CLID*ADDR*, 4 5 = KP II CLID ST KP ADDR ST, 5 6 = KP II CLID ST, 6 7 = KP ADDR ST, 7 8 = KP ADDR ST KP II CLID ST, 8 Note: 1–4 are DTMF (dual tone multi-frequency) and 5–8 are MF (multi-frequency).	The user must choose an OUTSCHM control value from one to eight.

Preselection (PRESEL)

If the trunk group requires option PRESEL, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	PRESEL	*Option* Enter PRESEL.
	PRESEL	see subfields	*Preselection* Field PRESEL consists of subfields CARRID and OVERRIDE.

TRKGRP type IBNTO (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CARRID	numeric (4 digits, 1000 to 9999)	*Carrier identification* Enter the four-digit carrier identification code.
	OVERRIDE	Y or N	*Override* Enter Y to enable the use of override numbers, or enter N to disable the use of override numbers.

Audio tone detector answer propagation (PROPANS)

If the trunk group requires option PROPANS, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	PROPANS	*Option* Enter PROPANS.

Serving Carrier ID (SCI)

If the trunk group requires option SCI, datafill subfield OPTION and refinement SCI as described in the following table. This option applies only to the following signaling systems:

- AISUP
- ANSI
- ATUP
- DC5
- ETSI PRI
- I-ISUP
- TS14 PRI

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	SCI	*Option* Enter SCI.
	SCI	numeric (1000 to 30000)	*Serving carrier ID* Enter the trunk group serving carrier identification code.

Trunk line screening code (TRKLSC)

This option allows for the overriding of the line screening codes in order to use the customer group of the originator instead of the customer group of the terminator. If the trunk group requires option TRKLSC, datafill field OPTION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	TRKLSC	*Option* Enter TRKLSC.

Datafill example

An example of datafill for table TRKGRP (IBNTO) follows. This example was datafilled in accordance with the following requirements:

- The trunk group is represented by the code NTBELL in table CLLI.
- The trunk group type is IBNTO.
- Traffic separation is not required (TRAFSNO = 0).
- ACO is the pad group assigned to the trunk group in table PADDATA.
- NCBN is the no-circuit class.
- The trunk group is assigned to subgroup 0 of customer group BNRMC.
- The select sequence is in ascending order (ASEQ).
- Supervision is answer disconnect (ANSDISC).
- The disconnect timing is 600 ms (2).
- The call is intragroup.

TRKGRP type IBNTO (continued)

- The line screening and alternate line screening flag number is 5.
- Calls blocked by line screening or alternate line screening are routed to treatment numbers 4 and 5 in table IBNTREAT.
- Field IGA is datafilled N.
- For a toll call, the call is routed to the intercept key and lamp on the attendant console on receipt of a reversal from the far end.
- Flash is not expected.

MAP display example for table TRKGRP type IBNTO

```
GRPKEY
                                                    GRPINFO
_____________________________________________________________________
NTBELL
    IBNTO 0 ACO NCBN BNRMC 0 ASEQ ANSDISC 2 Y 5 5 4 5 N N
Y N N N          NATL FACTYPE TDMTT $
```

Table history

NA014

Added the CLID, DNIS, and OUTSCHM options to the OPTION subfield.

APC008

Added selector PRESEL to subfield OPTION.

Added options BLK_SCI and SCI to subfield OPTION.

APC006

Added value MCH to subfield OPTION in accordance with functionality AR1748 (Malicious Call Trace on TS14 and DC5).

UK002

Enabled options DEFLTDN (DEFLTCLI) and CLIP in the European market (design activity AE1383, “UK CLI Handling").

NA002

Option DEFLTDN and associated refinement DEFLTDN were added to field OPTIONS in accordance with functionality AR0931.

Added option CLIP. This option provides Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR) in the Australian Telephone User Part (ATUP) protocol on the DMS-100 and DMS-200.

BCS36

Added datafill information for field COFFTYP. Added field SELSEQ entry value WIDEBAND and associated refinement subfields WBSELSEQ, WBGRPING, and WBSEARCH. Removed description for OPTION WB, which only applies to incoming IBN trunk groups.

TRKGRP type IET

Inter-Exchange Trunk Group Type

General purpose tandem trunk group type IET is used for trunks that operate with send and receive multi-frequency (SRMF) signaling.

Inter-exchange trunk (IET) digit collection is supported for universal tone receiver (UTR) only. Multi-frequency (MF) receiver digit collection is not supported for IET trunks.

IET digit collection supports the collection of up to 13 address digits (for a total of 15 with KP and ST).

Datafill

The following table lists the datafill for table TRKGRP type IET.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and DIRDATA. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IET	*Group type* Enter IET to specify the inter-exchange trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter 0 (no separation) for the incoming or outgoing traffic separation number assigned to the trunk group. For more information, refer to table TFANINT.

TRKGRP type IET (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	DIRDATA	see subfields	*Direction and direction specific data* This field consists of subfield DIR and refinements.
	DIR	IC or OG	*Direction* If the direction of traffic flow is incoming, enter IC and datafill refinement XLAD. If the direction of traffic flow is outgoing, enter OG and datafill refinement SELSEQ.

TRKGRP type IET (continued)

DIR = IC

If the value in field DIR is IC, datafill refinement XLAD as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLAD	see subfield	*Translation data* This field consists of subfield XLADSEL and refinements.
	XLADSEL	UNIV	*Translation selector* Enter UNIV to specify that the universal translation system is used, and datafill refinements XLASYS and XLANAME.
	XLASYS	AC AM CT FA FT NIL NSC OFC o r PX	*Translation system* Enter the universal translator system to be used for translation of the call.
	XLANAME	alphanumeric (1 to 8 characters) or NIL	*Translation name* Enter a name from the code table that belongs to the head table referenced by field XLASYS.

DIR = OG

If the value in field DIR is OG, datafill field SELSEQ as described below

TRKGRP type IET (continued)

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CWCTH DSEQ LIDL or MIDL	*Select sequence* If the trunk group direction is outgoing (OG) or two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if the far end is MIDL or LIDL respectively. If the trunk group direction is outgoing or two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL. If the trunk group is outgoing or two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
			MIDL is the recommended value for IET trunks. Entries outside this range are not valid. For more information, refer to the general information section of table TRKGRP. ***Note:*** A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence can be changed to the opposite select sequence type (for example, ASEQ to DSEQ, LIDL to MIDL, or CCWCTH to CWCTH) if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.

Datafill example

The following example shows sample datafill for table TRKGRP type IET.

- The code in table CLLI for the trunk group is NTTGRPIC.
- The trunk group type is IET.
- The traffic separation number is 0 (zero).
- TLD is the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The direction is incoming (IC).
- Select sequence is not required and is set to MIDL to satisfy table editor.
- The translation type is universal.
- PX is the universal translator system used for translation of the call.
- MYPXXLA is the translator name.

TRKGRP type IET (end)

MAP display example for table TRKGRP type IET

```
GRPKEY      GRPINFO
_____________________________________________________________

NTTGRPIC    IET 0 TLD NCRT IC MIDL UNIV PX MYPXXLA
```

An example of datafill for an outgoing trunk group of type IET in table TRKGRP is shown below. This example has been datafilled as follows:

- The code in table CLLI for the trunk group is NTTGRPIC.
- The trunk group type is IET.
- The traffic separation number is 0 (zero).
- TLD is the pad group assigned to the trunk group.
- NCRT is the no circuit class.
- The direction is outgoing (OG).
- The select sequence is not required. Set to MIDL to satisfy table editor.

MAP display example for table TRKGRP type IET

```
GRPKEY      GRPINFO
_____________________________________________________________

NTTGRPIC    IET 0 TLD NCRT OG MIDL
```

Table history

BCS34

Group type IET was introduced for table TRKGRP.

International 101 Test Trunk Group Type

The switching unit dependent data required for each Gateway 101 test trunk group is listed below:

- the common language location identifier (CLLI) code assigned in table CLLI
- the trunk group type (INT101)
- the traffic separation number
- the name of the pad group
- the no-circuit class
- the country code translator name
- the class of service screening
- the international pretranslator
- the call detail recorder class
- the select sequence
- the trunk group direction (incoming or outgoing)
- the common calling party category (must be specified when the trunk group direction is incoming)

Requirement to busy trunks

If parameter TRK_OOS_CHK_ON in table OFCENG is set to Y, all trunks in the group must be busied prior to changing the value of fields by data modification order (DMO).

Dialing types allowed

Dial pulse (DP), DIGITONE (DT) and multifrequency (MF) dialing are allowed on incoming Gateway 101 test trunk groups and Private Line trunk groups.

A switching unit must be equipped with DT or MF Receivers for DT or MF reception respectively.

Related tables

For description of other formats in the Trunk Group table, see the general information section of table TRKGRP.

For trunk subgroup data for Gateway 101 test trunk groups and Private Line trunk groups, see table TRKSGRP.

TRKGRP type INT101 (continued)

For trunk member data for Gateway 101 test trunk groups and Private Line trunk groups, see table TRKMEM.

Datafill

The following table lists the datafill for table TRKGRP type INT101.

Field descriptions (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code that represents the Gateway 101 test trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, CCTRNSL, SCRNCL, PRTNUM, CDRCLASS, SELSEQ, and DIR_DEP. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	INT101	*Trunk group type* Enter INT101 for the Gateway 101 test trunk group type.

TRKGRP type INT101 (continued)

Field descriptions (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. If the switching unit has software package NTX085AA, the range of values for the incoming and outgoing traffic separation numbers is dependent upon the value of office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without software package NTX085AA, the range of values for the traffic separation numbers is 0 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. With the traffic separation feature, a count of all calls by type of call (direct dial [DD], operator assisted [OA] or no prefix [NP]) can be accumulated between an originating source (incoming trunk or an originating line attribute) and a terminating destination (outgoing trunk, terminating line attribute, tone, or announcement. See table TFANINT for the assignment of incoming to outgoing traffic separation numbers.

TRKGRP type INT101 (continued)

Field descriptions (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters) or NPDGP	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. If a pad group name is not required, enter NPDGP (no pad group). Field PADGRP contains the name of the pad group in table PADDATA that lists the value of the pad circuits that can be switched into the network when one of the members of the group is involved in a call. Different values for the pad circuits can be specified when the circuit connects to an agent with a different pad group. Network pad switching is only applicable when the circuit is connected to a new network. For more information, refer to table PADDATA.

TRKGRP type INT101 (continued)

Field descriptions (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register, in OM groups OFZ2 and SOTS, is incremented if treatment GNCT (generalized no circuit) occurs. The no-circuit class NCRT count is incremented (OFZ2 NCRT) when the trunk group is the last route in a route list and a line or trunk encounters an all trunks busy condition on this list. If the trunk group is the last route in a route list and an all trunks busy condition is encountered on the list, the originating line or trunk is routed to the Generalized No Circuit treatment (GNCT) in the appropriate treatment table. In addition, the treatment GNCT count is incremented. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). The initial value for this trunk group type is NCRT. For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	CCTRNSL	alphanumeric (1 to 4 characters)	*Country code translator name* If trunk direction is incoming and country code translation is required, enter the country code translator name assigned to the International 101 test trunk group by the operating company. Otherwise enter NCTR for no country code translation.

TRKGRP type INT101 (continued)

Field descriptions (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	SCRNCL	alphanumeric (1 to 4 characters)or NSCR	*Class-of-service screening table name* If the trunk group direction is incoming and class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).
	PRTNUM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If the trunk group is incoming and standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation).
	CDRCLASS	alphanumeric (1 to 4 characters)	*Call detail recorder class* Enter the call detail recorder class of the Gateway 101 test trunk group, as defined by the operating company. Up to 31 different classes can be assigned. Each class is represented by a name. If no call detail recorder class is required, enter NCDR (no call detail recording).
	SELSEQ	MIDL	*Select sequence* This field not required for this trunk group. Enter MIDL.
	DIR_DEP	see subfield	*Direction dependent refinements* This field consists of subfield DIR and (for incoming trunk groups) refinement CCPC.

Field descriptions (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	IC or OG	*Direction* This field specifies the trunk group direction. For incoming traffic, enter IC and datafill refinement CCPC. For outgoing traffic, enter OG (no refinements apply).
	CCPC	alphanumeric (0 to 15 or N)	*Common calling party category* Datafill this field if the value in field DIR is IC. Enter the common calling party category for the T101 test line or enter N (no) if no common calling party category is applicable.

Datafill example

An example of datafill for table TRKGRP and group type INT101 is shown below.

- An incoming Gateway 101 test trunk has a CLLI of IC101.
- The trunk group has no traffic separation and no pad group.
- The country code translator name is CC02.
- The class of service screening name is SCOM.
- The pretranslator name is IP22.
- The call detail recorder name is ZX1Z.
- The common calling party category is not required.

MAP display example for table TRKGRP type INT101

```
GRPKEY GRPINFO
_____________________________________________________

IC101  INT101 0 NPDGP NCRT CC02 SCOM IP22 ZX1Z MIDL IC N
```

TRKGRP type IR

Outgoing No Outpulsing Trunk Group Type

In a DMS end office, outgoing trunk group type IR connects with an intercept, information, or repair desk.

No digits are outpulsed on an IR trunk.

Datafill

The following table lists the datafill for table TRKGRP type IR.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS and AUDRING. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IR	*Group type* Enter IR to specify the trunk group type for an outgoing trunk group with no outpulsing.

TRKGRP type IR (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC orNOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCOT (no circuit other trunk). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual.*

TRKGRP type IR (end)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.
	AUDRING	Y or N	*Audible ring* Enter Y (yes) if the the switch is to return audible ringing to the originator. Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table TRKGRP type IR.

MAP display example for table TRKGRP type IR

```
GRPKEY                              GRPINFO
-------------------------------------------------------

OTWAON23T05O              IR 15 ELO NCOT RS Y
```

Tandem Switching No Digits Incoming Trunk Group Type

In a DMS toll or end office, incoming trunk group type IS is used to route calls, upon seizure, to an outgoing trunk group.

Calls are routed through table OFRT at the route index specified for the trunk group. Table OFRT permits digit prefixing where appropriate.

Calls from a number of incoming trunk groups of type IS can be datafilled to go out on one common trunk group.

Datafill

The following table lists the datafill for table TRKGRP type IS.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, SELSEQ, DIR, SNPA, TUPID, and J. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IS	*Group type* Enter IS to specify the tandem switching no digits incoming trunk group type.

TRKGRP type IS (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.

TRKGRP type IS (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDL, LIDL, CWCTH, CCWCTH, ASEQ, or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL. If the trunk group is two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively.

TRKGRP type IS (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			Entries outside this range are invalid. For more information, refer to table TRKGRP. ***Note:*** The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	DIR	IC or 2W	*Trunk direction* Datafill this field to specify the trunk group direction. If the trunk direction is incoming, enter IC. If the trunk direction is two-way, enter 2W. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), busy all trunks in the group before changing the value of this field by data modification order (DMO).
	SNPA	numeric(3 digits)	*Serving numbering plan area* Enter the serving numbering plan area (NPA) code to which the trunk group belongs.
	TUPID	see subfields	*Tuple identification* This field consists of subfields TABID and KEY.

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2, OFR3, OFR4, IBNRTE, IBNRT2, IBNRT3, IBNRT4, AOSS, AOSSAMA, TOPSAMA, RRTE, TOPS, or TTL4	*Table name* Enter the name of the table to which translation is to route.
	KEY	0 to 1023or0 to 7	*Key* Enter the route reference index within the table to which translation is to route. For all tables except TTL4, enter a value from 0 to 1023. For table TTL4, the valid entry range is 0 to 7. Entries outside this range are not valid for TTL4.
	J	Y or N	*Joint control* Enter Y (yes) if joint party control is required (that is, if both parties must disconnect to disconnect the call). Otherwise, enter N (no), to specify calling party control.

Datafill example

The following example shows sample datafill for table TRKGRP type IS.

This example is datafilled as follows:

- The code in table CLLI for the trunk group is OTWAON23SG11.
- The trunk group type is IS.
- The incoming traffic separation number is 21.
- ELO is the name of the pad group assigned in table PADDATA.
- NCRT is the no-circuit class.
- The traffic class is originating tandem (TO).
- The select sequence field is set to MIDL.
- The direction is incoming (IC).

TRKGRP type IS (end)

- The serving NPA is 613.
- All incoming calls are routed to route reference index number 10 in table OFRT.
- For disconnect, the calling party controls the calls.

MAP display example for table TRKGRP type IS

```
GRPKEY          GRPINFO
_____________________________________________________________

OTWAON23SG11    IS 21 ELO NCRT TO MIDL IC 613 OFRT 10 N $
```

Intertoll Trunk Group Type

In a DMS toll or end office, two-way, incoming, or outgoing trunk group type intertoll (IT) interfaces with another toll or end office to carry toll connecting traffic including toll access, toll completing, and toll tandem.

In offices without software package NTX052AB (Remote Office Test Line [ROTL]) that do not have trunk group type T105, the 105 test line can be datafilled as an IT trunk group type.

If overlap outpulsing is required on incoming or two-way dial pulse (DP) trunk groups, field OVLP in table TRKSGRP must be set to Y (yes).

Overlap outpulsing can only apply between incoming and two-way intertoll trunk groups and outgoing and two-way intertoll, local, and Integrated Business Network (IBN) trunk groups.

The standard digit manipulation defined for selector S in the route reference subtables is applicable to outgoing and two-way intertoll trunk groups, except when a call is routed from table STDPRTCT.

If no outpulsing is required, fields OPULSTYP and OSTARTSG in table TRKSGRP have the values of DP (dial pulse) and IM (immediate dial) respectively. The route reference index for this trunk group is required to use the nonstandard format (N) and delete all digits.

If the trunk group has Common Channel Interoffice Signaling (CCIS) supplementary information for the trunk, members are assigned in table C6TRKMEM.

Option BCNAME is only valid for incoming and two-way trunk group types.

Option CELL is not compatible with option E911.

Equal Access for DMS-100 Wireless

When datafilling equal access (EA) on the DMS-100 Wireless switch, the wireless portion of an ISUP integrated service link (ISL) trunk must be datafilled as a DID trunk group type with refinement RTEVIAAT set to Y.

The wireline portion of the ISUP ISL trunk must be datafilled as an IT trunk type. Option CELL must be set to 2A to support North American EA ISL terminations. A distinct billable number must be designated for option BILLNO for the downstream processor to distinguish the AMA records generated by the wireless DID ISL and non-ISL trunks.

TRKGRP type IT (continued)

E911 ISUP trunking

Option E911 provides the ability to route Enhanced 911 Emergency Service (E911) calls directly over Integrated Services Digital Network User Part (ISUP) trunks. Incoming trunks with this option can process E911 calls by selecting the appropriate route to the public safety answering point (PSAP) using the normal E911 selective routing database (SRDB) or an Off-Board Selective Routing database (OFBSR).

End office and outgoing trunk datafill of E911 option

Offices that are not E911 tandems should not datafill option E911 on any IT trunks. All incoming calls on an IT trunk with option E911 perform an SRDB lookup to determine the caller's ESN. Since there are no valid ESNs in an office that is not an E911 tandem, these calls are routed to treatment. If a `dummy' PSAP and ESN is datafilled, this allows the calls to complete, but does add an unnecessary step to all incoming calls (the SRDB lookup).

Datafilling option E911 has no effect on outgoing calls.

Datafill of E911 option on non-dedicated trunks

The following should be considered when data is entered for the E911 option on non-dedicated trunks.

- Datafilling option E911 on IT trunks in an E911 tandem office is not recommended if the trunk is not dedicated to E911 traffic for the following reasons:
  - — All incoming calls on this trunk perform an SRDB lookup to determine the caller's ESN. This step is not necessary on non-E911 calls and increases the time it takes to process these calls.
  - — Additional logs are generated, such as E911201 (Abnormal Called Digits) and E911203 (Calling Party Has No ESN) reports for all calls that do not have an entry for the calling DN in table E911SRDB, or when the called digits are not 911, 11, or 1.
  - — If no valid ESN is found for the calling DN, calls that normally would complete are routed to treatment.
- In NA015, the Off-Board Selective Routing Database (OFBSR) suboption and the Tandem Prefix Value (TDMPRFX) suboption were added to the E911 option for IT TRKGRP types.
- In NA013 this feature supports interactions with all other E911 features. Before NA013 E911 calls through ISUP IT trunks did not support originator hold (ORIGHOLD), enhanced party hold (ECPH), and RINGBACK.

- The E911 option is allowed only when the SGRPVAR field in table TRKSGRP for the trunk is C7UP.
- Option CELL is not compatible with option E911.
- E911 ISUP Trunking is also under SOC control.

Datafill sequence and implications

Table TRIGGRP must be datafilled before table TRKGRP type IT.

Calls using the default emergency service number (ESN) do not complete if the ESN is not datafilled in table E911ESN.

Standard table control error messages are produced as well as the following warning messages:

DANGER

The following warning message is generated if an ESN is datafilled for an E911 trunk group and is not datafilled in table E911ESN, and if office parameter E911_CHECK_DEFAULT_ESN is set to N:

ESN NOT PRESENT IN TABLE E911ESN. THIS ESN MUST BE DATAFILLED IN TABLE E911ESN FOR 911 CALLS TO COMPLETE.

With the following message, no tuple is added to table TRKGRP.

DANGER

The following error message is generated if an attempt is made to datafill an ESN for an E911 trunk group and it is not datafilled in table E911ESN, and if office parameter E911_CHECK_DEFAULT_ESN is set to Y:

ESN MUST BE IN TABLE E911ESN.

For additional datafill dependencies, refer to section “Datafill sequence” in the general section of table TRKGRP.

TRKGRP type IT (continued)

Datafill (Incoming intertoll)

The following table lists datafill for table TRKGRP type IT.

Field descriptions (Sheet 1 of 8)

Field	Subfield	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) name assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group information* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIRDATA, TRAFCLS, SELSEQ, CONNGNPA, PRTNM, SCRNCL, SNPA, TERMTC, TOLLCOMP, CCWKVLD, and OPTIONS. Refer to section "General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IT	*Group type* Enter IT for the intertoll trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming traffic separation number assigned to the trunk group. If it is not required, enter 0 (zero). If switching unit has feature package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of office parameter TFAN_IN_MAX_NUMBER in table OFCENG. For switching units without feature package NTX085AA, enter 0 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to the description of table TFANINT for additional information.

TRKGRP type IT (continued)

Field descriptions (Sheet 2 of 8)

Field	Subfield	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to the description of table PADDATA for additional information.
	NCCLS	NCRT	*Operational measurements no-circuit class* This field is not required for incoming trunk groups; enter NCRT (no circuit).
	DIRDATA	see subfield	*Direction data* This field consists of subfield DIR.
	DIR	IC	*Direction* Enter IC to specify that the direction of traffic flow is incoming. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before changing the value of this field by data modification order (DMO).
	TRAFCLS	alphabetic	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. Refer to the description of table TRKGRP for information.
	SELSEQ	MIDL	*Select sequence* Enter MIDL to specify the most idle trunk group selection method. Entries other than MIDL are not valid (sequential selection does not apply to incoming trunk groups).
	CONNGNPA	000	*Connecting numbering plan area* This field is not required for incoming trunk groups. Enter 000.

TRKGRP type IT (continued)

Field descriptions (Sheet 3 of 8)

Field	Subfield	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator to which digit translation routes after the receipt of one digit. If pretranslation is not required, enter NPRT. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening name* If screening by class-of-service is required, enter the name of the class-of-service screening to which digit translation routes. If class-of-service screening is not required, enter NSCR.
	SNPA	numeric(3 digits)	*Serving numbering plan area* Enter the serving numbering plan area (NPA) code to which the trunk group belongs. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	TERMTC	000	*Terminating toll center* Terminating toll center is not applicable to incoming trunk groups. Enter 000.
	TOLLCOMP	Y or N	*Toll completing* If toll completing is required, enter Y (yes); otherwise, enter N (no).

TRKGRP type IT (continued)

Field descriptions (Sheet 4 of 8)

Field	Subfield	Entry	Explanation and action
	CCWKVLD	Y or N	*Carrier connect wink valid* Enter Y if carrier connect winks in equal access international calls are regenerated. Otherwise, enter N. Since most non-DMS equal access end offices (EAEO) and access tandems (AT) cannot handle this wink, the value N should be datafilled in these cases.
	OPTIONS	see subfield	*Options* Datafill up to three multiples of subfield OPTION and the corresponding refinements for the desired trunk option. Enter $ (dollar sign) to indicate the end of the options vector.

TRKGRP type IT (continued)

Field descriptions (Sheet 5 of 8)

Field	Subfield	Entry	Explanation and action
	OPTION	AIN, BCNAME, BILLNO, BLOCKNB, CELL, E911, CHGNUM, LNP	*Option* The following options can be datafilled: • AIN - Advanced intelligent network. This option allows specifying an AIN group identification. Datafill refinement AINGRP. • BCNAME - Bearer-capability-name. Datafill refinement BCNAME. • BILLNO - This option allows specifying the billing number. Datafill refinement BILLNO. • BLOCKNB • CELL - This option allows specifying the configuration of the intertoll trunk type. Datafill refinement CELL_SS7_TYPE. This option is valid only for North America. ***Note:*** Option CELL is not compatible with option E911. • E911 - This option consists of refinements ESCO, ESN, E911SIG, OFBSR, and TDMPRFX. To specify the default ESCO for this trunk, type ESCO. To enter the default ESN for this trunk, type ESN. To enter the type of signalling to be used by this trunk, type E911SIG. This option is valid only for North America. To indicate that OFBSR is used, type Y. To enter the default TDMPRFX, type 0. • CHGNUM - Charge-number-delivery. This option, sends a charge number and originating line information (OLI) parameter with the initial address message (IAM). No refinements are required. LNP - Local number portability. This option allows datafilling a default location routing number (LRN) against the trunk group. Datafill refinement LRN. ***Note:*** If no options apply, leave this field blank.

TRKGRP type IT (continued)

Field descriptions (Sheet 6 of 8)

Field	Subfield	Entry	Explanation and action
	AINGRP		*Advanced intelligent network identifier* If field OPTION = AIN, datafill an AIN group identifier.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If field OPTION = BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.
	BILLNO	up to an 11-digit billing number	*Billing number* If field OPTION = BILLNO, enter the billing number that is used to populate the originating number field in the cellular mobile carrier (CMC) AMA record and the associated equal access AMA record. This option is valid only for North America.
	CELL_SS7_ TYPE	2A, 2B, or NILCELL	*Cell* If field OPTION = CELL, enter the configuration of the intertoll trunk type. Datafilling this option as 2A indicates that the intertoll trunk is configured as a CELL Type 2A SS7 trunk. Datafilling this option as 2B indicates that the intertoll trunk is configured as a CELL Type 2B SS7 trunk. This option is valid only for North America.
	ESCO	000 to 999	*Emergency service central office* If the entry in subfield OPTION is E911, enter the default ESCO number representing the end office at which the E911 trunk originated. This option is valid only for North America.
	ESN	0 to 15999	*Emergency service number* If the entry in subfield OPTION is E911, enter the default ESN associated with the emergency service zone that is used to obtain the DN of the primary PSAP to which this call is to be default routed. This option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 7 of 8)

Field	Subfield	Entry	Explanation and action
	E911SIG	E911_STD, E911_CHG, WRLS_STD, WRLS_CLD	*Enhanced 911 signaling.* This entry determines whether the DMS switch uses the calling party number or the charge number to obtain the callback or routing number or both. The first attempt to enter E911_STD uses the calling party number. The second attempt uses the charge number. The first attempt to enter E911_CHG uses the charge number. The second attempt uses the calling party number. The first attempt to enter WRLS_STD uses the calling party number. There is no second attempt. ***Note:*** The WRLS_STD entry applies to incoming trunks that handle only wireless emergency calls. The first attempt to enter WRLS_CLD uses the calling party number. There is no second attempt. ***Note 1:*** The WRLS_CLD entry applies to incoming trunks that handle only wireless emergency calls directly from a mobile switching center. The mobile switching center sends the pseudo automatic number identifier (pANI) and callback number in a non-standard format. ***Note 2:*** The E911SIG option is valid only for North America.
	OFBSR	N or Y	*Off-Board Selective Routing database.* This subfield indicates that the facility uses the OFBSR or dual OFBSR for selective routing. The default is N.

TRKGRP type IT (continued)

Field descriptions (Sheet 8 of 8)

Field	Subfield	Entry	Explanation and action
	TDMPRFX	0 to 15	*Tandem Prefix Value.* If datafilled with a non-zero value, this suboption indicates the originating E911 tandem in a dual super tandem-tandem network. A new Generic Digits Parameter (GDP) is built in the IAM to transport the TDMPRFX to table E911TDRT. The delivery of the TDMPRFX value in the new GDP behaves as follows: • If a non-zero TDMPRFX is datafilled against an ISUP IT trunk with the E911 option, then a GDP is built containing the TDMPRFX and sent on outgoing 911 calls. • If the TDMPRFX datafill against an ISUP IT trunk has the default value of '0', and if no TDMPRFX is received via a GDP, then outgoing 911 calls do not build the GDP containing the TDMPRFX. • If a GDP containing the TDMPRFX is received at an E911 tandem, the value is stored. It takes precedence over any datafilled TDMPRFX values if the TDMPRFX datafilled in Table TRKGRP is non-zero. If datafilled value is '0', the TDMPRFX from GDP is dropped and not used for further processing. • If the TDMPRFX datafill against an ISUP IT trunk has a default value of '0' and no GDP is received, the TDMPRFX is ignored. • On an ONP, if a non-zero TDMPRFX is not datafilled, a default value of '0' is transferred. The TDMPRFX field should be datafilled in the Super E911 tandems for incoming ISUP IT trunks with the E911 option. The TDMPRFX field in other E911 tandems should not be datafilled, rather the value should be left at the default of zero.
	LRN	10-digit directory number	*Location routing number* If field OPTION = LNP, datafill the default 10-digit LRN. This field indicates the originating service provider, used for billing purposes, if one is not signalled on the incoming trunk.

TRKGRP type IT (continued)

Datafill example

An example of datafill for table TRKGRP and incoming trunk group type IT is shown below. This example was datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is OTWAON0202T0. The trunk group type is IT.
- The incoming traffic separation number 20 is assigned to the trunk group. TLD is the pad group assigned to the trunk group.
- The no-circuit class is NCRT.
- The direction is incoming (IC).
- The traffic class is intertoll (IT).
- The select sequence is not required; set to MIDL.
- The connecting NPA is not required; set to 000.
- No pretranslation (NPRT) or class-of-service screening (NSCR) is required. The trunk group is assigned to serving NPA 613.
- The terminating toll center code is not required, set to 000.
- Toll completing is not required.
- Option BCNAME with 56KDATA and option CHGNUM are assigned.
- The carrier connect wink in equal access international calls is not regenerated.

MAP display example for table TRKGRP type IT

```
GRPKEY
                                          GRPINFO
_____________________________________________________________

OTWAO11MG00
    IT 20 TLD NCRT IC IT MIDL 000 NPRT NSCR 613 613
    000 N N BCNAME 56KDATA CHGNUM $
```

Datafill example

An example of datafill for table TRKGRP with an incoming trunk group type of IT is shown below. This example is valid only for North America, and is datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is SUP2WITEA. The trunk group type is IT.
- The incoming traffic separation number 0 is assigned to the trunk group. ELO is the pad group assigned to the trunk group.
- The no-circuit class is NCRT.
- The traffic flow is incoming (IC).
- The traffic class is intertoll (IT).
- The select sequence is not required; set to MIDL.
- The connecting NPA is 519.
- The pretranslator name is PEA. No class-of-service screening (NSCR) is required. The trunk group is assigned to serving NPA 919.
- The terminating toll center code is not required, set to 000.
- Toll completing is not required.
- The carrier connect wink in equal access international calls is not regenerated.
- The billing number is (919) 848-0833.
- The Intertoll trunk is configured as a CELL Type TWO_A SS7 trunk.

MAP display example for table TRKGRP type IT

```
GRPKEY
                                        GRPINFO
_____________________________________________________________

SUP2WITEA
    IT 0 ELO NCRT IC NIL MIDL 519 PEA NSCR 919
    000 N N (BILLNO 9198480833) (CELL TWO_A)$
```

Datafill example

An example of datafill for table TRKGRP with an incoming trunk group type of IT is shown in the following figure. This example is valid only for North

TRKGRP type IT (continued)

America, and is datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is E911ICS7. The trunk group type is IT.
- The incoming traffic separation number 0 is assigned to the trunk group. ELO is the pad group assigned to the trunk group.
- The no-circuit class is NCRT.
- The traffic flow is incoming (IC).
- The traffic class is NIL.
- The select sequence is not required; set to MIDL.
- The connecting NPA is 613.
- The pretranslator name is AT1. No class-of-service screening (NSCR) is required. The trunk group is assigned to serving NPA 613.
- The terminating toll center code is not required; set to 000.
- Toll completing is not required.
- The carrier connect wink in equal access international calls is not regenerated.
- The IT trunk option is E911.
- The default ESCO number for this trunk is 747.
- The default ESN for this trunk is 113.
- The type of signalling to be used by this trunk is E911_STD.
- The OFBSR is used.
- The TDMPRFX is 0.

MAP display example for table TRKGRP type IT

```
TABLE: TRKGRP
>pos e911ics7
     E911ICS7
    IT 0 ELO NCRT IC NIL MIDL 613 613 AT1 NSCR 613 000 N N
    (E911 747 113 E911_STD Y N 0 0) $
```

Datafill example

An example of datafill for table TRKGRP and incoming trunk group type IT is shown in the following figure. This example is valid only for North America, and is datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is E911ICS7. The trunk group type is IT.
- The incoming traffic separation number 0 is assigned to the trunk group. ELO is the pad group assigned to the trunk group.
- The no-circuit class is NCRT.
- The traffic flow is incoming (IC).
- The traffic class is NIL.
- The select sequence is not required; set to MIDL.
- The connecting NPA is 613.
- The pretranslator name is AT1. No class-of-service screening (NSCR) is required. The trunk group is assigned to serving NPA 613.
- The terminating toll center code is not required; set to 000.
- Toll completing is not required.
- The carrier connect wink in equal access international calls is not regenerated.
- The IT trunk option is E911.
- The default ESCO number for this trunk is 747.
- The default ESN for this trunk is 113.
- The type of signalling to be used by this trunk is E911_STD.
- The OFBSR is used.
- The TDMPRFX is 15.

TRKGRP type IT (continued)

MAP display example for table TRKGRP type IT

```
> Table TRKGRP
> POS E911ICS7
> ADD
GRPTYP: IT
>
TRAFSNO: 0
.......................
.......................
OPTION: E911
>
ESCO: 747
>
ESN: 113
>
E911SIG: E911_STD
>
ORIGHOLD: N
>
ECPHTIME: 0
>
 OFBSR
 > Y
TDMPRFX:
>15
OPTION:
>$
WARNING: THE E911 OPTION SHOULD BE ASSIGNED ONLY TO TRUNKS
         WHICH ARE DEDICATED TO EMERGENCY TRAFFIC.
TUPLE TO BE CHANGED:
   E911ICS7 IT 0 ELO NCRT IC NIL MIDL 613 613 AT1 NSCR 613 000 N N
            (E911 747 113 E911_STD N N 0 15) $
     ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

Datafill (Outgoing intertoll)

The following table lists datafill for table TRKGRP type IT.

Field descriptions (Sheet 1 of 12)

Field	Subfield	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the code assigned to trunk group in table CLLI.

TRKGRP type IT (continued)

Field descriptions (Sheet 2 of 12)

Field	Subfield	Entry	Explanation and action
GRPINFO		see subfields	*Variable group information* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIRDATA, TRAFCLS, SELSEQ, CONNGNPA, PRTNM, SCRNCL, SNPA, TERMTC, TOLLCOMP, CCWKVLD, and OPTIONS. Refer to section "General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IT	*Group type* Enter IT for trunk group type intertoll.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the outgoing traffic separation number assigned to the trunk group. If it is not required, enter 0 (zero). If the switching unit has feature package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without feature package NTX085AA, enter 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to the description of table TFANINT for additional information.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to the description of table PADDATA for additional information.

TRKGRP type IT (continued)

Field descriptions (Sheet 3 of 12)

Field	Subfield	Entry	Explanation and action
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class to indicate which OM register is incremented if treatment GNCT (generalized no-circuit) occurs. Refer to the description of table TRKGRP and the *Operational Measurement Reference Manual*, for additional information.
	DIRDATA	see subfield	*Direction data* This field consists of subfield DIR.
	DIR	OG	*Direction* Enter OG to specify that the direction of traffic flow is outgoing. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before changing the value of this field by data modification order (DMO).
	TRAFCLS	alphabetic	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. Refer to the description of table TRKGRP for information.

Field descriptions (Sheet 4 of 12)

Field	Subfield	Entry	Explanation and action
	SELSEQ	ASEQ, CWCTH, CCWCTH, DSEQ, LIDL, MIDL, or WIDEBAND	*Select sequence* If the trunk group is outgoing (field DIR has value OG) and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, then sequential selection applies; enter • CWCTH for clockwise or CCWCTH for counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, based on the order of trunk members in table TRKMEM • ASEQ for ascending or DSEQ descending sequential selection, based on the order of trunk members in table TRKMEM • WIDEBAND and datafill refinements WBSELSEQ, WBGRPING, and WBSEARCH to specify DS-0s selection sequence, timelist arrangement types, and time slot search method. If the trunk group is outgoing and sequential selection does not apply, enter MIDL for most idle trunk group selection. ***Note:*** Refer to the description of table TRKGRP for information on field SELSEQ. ***Note:*** The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.

TRKGRP type IT (continued)

Field descriptions (Sheet 5 of 12)

Field	Subfield	Entry	Explanation and action
	WBSELSEQ	ASEQ or DSEQ	*Wideband selection sequence* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter ASEQ to specify that the wideband trunks are selected in ascending order from the first idle trunk on the search list, or enter DSEQ to specify that they are selected in descending order from the last idle trunk on the search list. The order of trunks in the search list is determined by the order in which the trunk groups are datafilled in table TRKMEM.
	WBGRPING	FIXED or FLOATING	*Wideband boundary preference* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband boundary preference. The value FIXED specifies that only the idle trunks within a specific time slot frame are selected. This value is only valid for local exchange carriers (LEC). The value FLOATING specifies that any number of consecutive idle trunks in a trunk group are selected.
	WBSEARCH	BESTFIT or FIRSTFIT	*Wideband search* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband search algorithm. The value BESTFIT finds the smallest segment of idle channels (DS-0s) among trunks (DS-1s) within a trunk group to accommodate a wideband call, according to the boundary preference (FIXED or FLOATING) specified. FIRSTFIT finds the first segment of idle DS-0s that can accommodate a wideband call, according to the boundary preference specified.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* Enter the numbering plan area (NPA) code of the switching unit where the outpulsed digits are translated.

TRKGRP type IT (continued)

Field descriptions (Sheet 6 of 12)

Field	Subfield	Entry	Explanation and action
	PRTNM	NPRT	*Standard pretranslator name* If standard pretranslation is not required on outgoing trunk groups, enter NPRT. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	SCRNCL	NSCR	*Class-of-service screening table name* If class-of-service screening is not required on outgoing trunk groups, enter NSCR.
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving NPA code to which the trunk group belongs. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	TERMTC	numeric (3 digits)	*Terminating toll center* If the switching unit where the outpulsed digits are translated is assigned a terminating toll center code, enter the terminating toll center code. If there is no terminating toll center code, enter 000.
	TOLLCOMP	Y or N	*Toll completing* Enter Y if the trunk group is toll completing; otherwise, enter N.
	CCWKVLD	Y or N	*Carrier connect wink valid* Enter Y if carrier connect winks in equal access international calls are regenerated. Otherwise, enter N. Since most non-DMS equal access end offices (EAEO) and access tandems (AT) cannot handle this wink, the value N should be datafilled in these cases.

TRKGRP type IT (continued)

Field descriptions (Sheet 7 of 12)

Field	Subfield	Entry	Explanation and action
	OPTIONS	see subfield	*Options* Datafill up to three multiples of subfield OPTION and the corresponding refinements for the desired trunk option. Enter a $ (dollar sign) to indicate the end of the options vector.
	OPTION	BCNAME or CHGNUM	*Option* To specify the bearer-capability-name option, enter BCNAME and datafill refinement BCNAME. To specify the charge number delivery option, which sends a charge number (CN) and originating line information (OLI) parameter with the initial address message (IAM), enter option CHGNUM. Subfield CHGNO_TRAFTYPE has the values PBX or ALL. The default is PBX. If no options apply, leave this field blank. ***Note:*** The operator services signaling 7 (OSS7) option operator services network capability (OSNC) assigned through table TRKOPTS requires the CHGNUM ALL option.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.

Field descriptions (Sheet 8 of 12)

Field	Subfield	Entry	Explanation and action
	CHGNO_TRAFTYPE	PBX or ALL	*Charge number traffic type* If the entry in field OPTION is CHGNUM, select refinement PBX to provide the CN and OLI parameters for calls originating on private branch exchange (PBX) trunks. Select ALL to provide the CN and OLI parameters for outgoing calls on the following originating agents: POTS, RES, IBN, or basic rate interface (BRI) lines; primary rate interface (PRI) and ISUP trunks; IBNT2, IBNTI, and PBX trunks; attendant consoles, or a supported agent routed through a virtual facility group (VFG). Select ALL to provide OSS7 option OSNC assigned through table TRKOPTS.
	OPTION	BILLNO or CELL	*Options* This subfield consists of refinements BILLNO and CELL. To specify the billing number, enter BILLNO. To enter the configuration of the intertoll trunk type, enter CELL. This option is valid only for North America.
	BILLNO	up to an 11-digit billing number	*Billing number* If the entry in subfield OPTION is BILLNO, enter the billing number that is used to populate the originating number field in the cellular mobile carrier (CMC) AMA record and the associated equal access AMA record. This option is valid only for North America.
	CELL	2A, 2B, or NILCELL	*Cell* If the entry in subfield OPTION is CELL, enter the configuration of the intertoll trunk type. Datafilling this option as 2A indicates that the intertoll trunk is configured as a CELL Type 2A SS7 trunk. Datafilling this option as 2B indicates that the intertoll trunk is configured as a CELL Type 2B SS7 trunk. This option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 9 of 12)

Field	Subfield	Entry	Explanation and action
	OPTION	E911	*Option* This subfield consists of refinements ESCO, ESN, E911SIG, ORIGHOLD, and ECPHTIME. To specify the default ESCO for this trunk, enter ESCO. To enter the default ESN for this trunk, enter ESN. To enter the type of signalling to be used by this trunk, enter E911SIG. This option is valid only for North America.
	ESCO	000 to 999	*Emergency Service Central Office* If the entry in subfield OPTION is E911, enter the default ESCO number representing the end office at which the E911 trunk originated. This option is valid only for North America.
	ESN	0 to 15999	*Emergency service number* If the entry in subfield OPTION is E911, enter the default ESN associated with the emergency service zone that is used to obtain the DN of the primary PSAP to which this call is to be default routed. This option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 10 of 12)

Field	Subfield	Entry	Explanation and action
	E911SIG	E911_STD, E911_CHG, WRLS_STD, WRLS_CLD	*Enhanced 911 signaling.* This entry determines whether the DMS switch uses the calling party number or the charge number to obtain the callback or routing number or both. If you enter E911_STD, the first attempt uses the calling party number. The second attempt uses the charge number. If you enter E911_CHG, the first attempt uses the charge number. The second attempt uses the calling party number. If you enter WRLS_STD, the first attempt uses the calling party number. There is no second attempt. ***Note:*** The WRLS_STD entry applies only to incoming trunks that handle only wireless emergency calls. If you enter WRLS_CLD, the first attempt uses the calling party number. There is no second attempt. ***Note 1:*** The WRLS_CLD entry applies only to incoming trunks that handle only wireless emergency calls directly from a mobile switching center. The mobile switching center sends the pANI and callback number in a non-standard format. ***Note 2:*** The E911SIG option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 11 of 12)

Field	Subfield	Entry	Explanation and action
	TDMPRFX	0 to 15	*Tandem Prefix Value.* If datafilled with a non-zero value, this suboption indicates the originating E911 tandem in a dual super tandem-tandem network. A new Generic Digits Parameter (GDP) is built in the IAM to transport the TDMPRFX to table E911TDRT. The delivery of the TDMPRFX value in the new GDP behaves as follows: • If a non-zero TDMPRFX is datafilled against an ISUP IT trunk with the E911 option, then a GDP is built containing the TDMPRFX and sent on outgoing 911 calls. • If the TDMPRFX datafill against an ISUP IT trunk has the default value of '0', and if no TDMPRFX is received via a GDP, then outgoing 911 calls do not build the GDP containing the TDMPRFX. • If a GDP containing the TDMPRFX is received at an E911 tandem, the value is stored. It takes precedence over any datafilled TDMPRFX values if the TDMPRFX datafilled in Table TRKGRP is non-zero. If datafilled value is '0', the TDMPRFX from GDP is dropped and not used for further processing. • If the TDMPRFX datafill against an ISUP IT trunk has a default value of '0' and no GDP is received, the TDMPRFX is ignored. • On an ONP, if a non-zero TDMPRFX is not datafilled, a default value of '0' is transferred. The TDMPRFX field be datafilled in the Super E911 tandems for incoming ISUP IT trunks with the E911 option. The TDMPRFX field in other E911 tandems should not be datafilled, rather the value should be left at the default of zero.

Field descriptions (Sheet 12 of 12)

Field	Subfield	Entry	Explanation and action
	ORIGHOLD	Y or N	Originator hold. Enter Y (yes) if the end office at which this trunk originated supports the operator hold function. When ORIGHOLD is active, the originator of an E911 call cannot disconnect the call. Enter N to make ORIGHOLD inactive.
	ECPHTIME	0 to 255	Enhanced call party hold. This subfield indicates the number of seconds that ECPH remains active. ECPHTIME prevents a caller from disconnecting a call before the call is answered and before the timer expires. Zero (0) deactivates ECPH.

Datafill example

An example of datafill for table TRKGRP and outgoing trunk group type IT is shown below. This example was datafilled in accordance with the following datafill requirements:

- The code in the CLLI table for the trunk group is OTWAON11MG00.
- The trunk group type is IT.
- The outgoing traffic separation number 21 is assigned to the trunk group.
- TLD is the pad group assigned to the trunk group.
- The no-circuit class is NCTC.
- The direction is outgoing (OG).
- The traffic class is toll completing (TC).
- The select sequence is set to MIDL.
- The connecting NPA is 613.
- Pretranslation and class-of-service screening are not required for outgoing trunk groups; set to NPRT and NSCR respectively.
- The trunk group is assigned to serving NPA 613.
- The terminating toll center code is 000.
- Trunk group is toll completing.
- The charge number delivery option (CHGNUM) is ALL.
- The carrier connect wink in equal access international calls is not regenerated.

TRKGRP type IT (continued)

MAP display example for table TRKGRP type IT

```
GRPKEY
                                          GRPINFO
_____________________________________________________

OTWAO11MG00
   IT 21 TLD NCTC OG TC MIDL 613 NPRT NSCR 613
   000 Y N CHGNUM ALL $
```

Datafill (Two-way intertoll)

The following table lists datafill for table TRKGRP type IT.

Field descriptions (Sheet 1 of 14)

Field	Subfield	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group information* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIRDATA, TRAFCLS, SELSEQ, CONNGNPA, PRTNM, SCRNCL, SNPA, TERMTC, TOLLCOMP, CCWKVLD, and OPTIONS. Refer to section “General field information” in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	IT	*Group type* Enter IT for the intertoll trunk group type.

TRKGRP type IT (continued)

Field descriptions (Sheet 2 of 14)

Field	Subfield	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If it is not required, enter 0 (zero). If the switching unit has feature package NTX085AA (Traffic Separation Peg Count), enter a number between 1 and the lower value of office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without feature package NTX085AA, enter 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. Refer to the description of table TFANINT for information.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. Refer to the description of table PADDATA for information.
	NCCLS	NCBN, NCID, NCIM, NCIT, NCLT, NCOF, NCON, NCOT, NCRT, NCTC, or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class to indicate which OM register is to be incremented when treatment GNCT (generalized no-circuit) occurs. Refer to table TRKGRP and the *Operational Measurements Reference Manual,* for information.
	DIRDATA	see subfield	*Direction data* This field consists of subfield DIR.

TRKGRP type IT (continued)

Field descriptions (Sheet 3 of 14)

Field	Subfield	Entry	Explanation and action
	DIR	2W	*Direction* Enter 2W to specify that the direction of traffic flow is two-way. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before changing the value of this field by data modification order (DMO).
	TRAFCLS	alphabetic	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. Refer to the general section of table TRKGRP for additional information.

TRKGRP type IT (continued)

Field descriptions (Sheet 4 of 14)

Field	Subfield	Entry	Explanation and action
	SELSEQ	ASEQ, CCWCTH, CWCTH, DSEQ, LIDL, MIDL, or WIDEBAND	*Select sequence* If the far end is a link list switcher with MIDL (most idle) or LIDL (least idle) trunk selection, enter LIDL or MIDL respectively. If the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the far end is not a link list switcher and sequential selection applies (feature package NTX244AB [Enhanced Sequential Trunk Hunting] must be present), enter • CWCTH for clockwise or CCWCTH for counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, based on the order of trunk members in table TRKMEM, when the far end is CCWCTH or CWCTH respectively • ASEQ for ascending or DSEQ for descending sequential selection, based on the order of trunk members in table TRKMEM, when far end is DSEQ or ASEQ respectively • WIDEBAND and datafill refinements WBSELSEQ, WBGRPING, and WBSEARCH to specify DS-0's selection sequence, time slot arrangement types, and time slot search method. ***Note:*** Refer to the description of table TRKGRP for information on field SELSEQ.

TRKGRP type IT (continued)

Field descriptions (Sheet 5 of 14)

Field	Subfield	Entry	Explanation and action
			Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	WBSELSEQ	ASEQ or DSEQ	*Wideband selection sequence* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter ASEQ to specify that the wideband trunks are selected in ascending order from the first idle trunk on the search list, or enter DSEQ to specify that they are selected in descending order from the last idle trunk on the search list. The order of trunks in the search list is determined by the order in which the trunk groups are datafilled in table TRKMEM.
	WBGRPING	FIXED or FLOATING	*Wideband boundary preference* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband boundary preference. The value FIXED specifies that only the idle trunks within a specific time slot frame are selected. This value is only valid for local exchange carriers (LEC). The value FLOATING specifies that any number of consecutive idle trunks in a trunk group are selected.

TRKGRP type IT (continued)

Field descriptions (Sheet 6 of 14)

Field	Subfield	Entry	Explanation and action
	WBSEARCH	BESTFIT or FIRSTFIT	*Wideband search* Datafill this field if the entry in field SELSEQ is WIDEBAND. Enter the wideband search algorithm. The value BESTFIT finds the smallest segment of idle channels (DS-0s) among trunks (DS-1s) within a trunk group to accommodate a wideband call, according to the boundary preference (FIXED or FLOATING) specified. FIRSTFIT finds the first segment of idle DS-0s that can accommodate a wideband call, according to the boundary preference specified.
	CONNGNPA	numeric (3 digits)	*Connecting numbering plan area* Enter the numbering plan area code of the switching unit at which the outpulsed digits are translated.
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required on the incoming side of the trunk group, enter the name of the standard pretranslator to which digit translation routes after the receipt of one digit. If standard pretranslation is not required, enter NPRT. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening name* If class-of-service screening is required on the incoming side of the trunk group, enter the name of the class-of-service screening to which digit translation is routed. If class-of-service screening is not required, enter NSCR.

TRKGRP type IT (continued)

Field descriptions (Sheet 7 of 14)

Field	Subfield	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving NPA code to which the trunk group belongs. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before changing the value of this field by DMO.
	TERMTC	numeric (3 digits)	*Terminating toll center* If the switching unit where the outpulsed digits are translated is assigned a terminating toll center code, enter the terminating toll center code. If there is no terminating toll center code, enter 000.
	TOLLCOMP	Y or N	*Toll completing* Enter Y if the trunk group is toll completing; otherwise, enter N.
	CCWKVLD	Y or N	*Carrier connect wink valid* Enter Y if carrier connect winks in equal access international calls are regenerated. Otherwise, enter N. Since most non-DMS equal access end offices (EAEO) and access tandems (AT) cannot handle this wink, the value N should be datafilled in these cases.
	OPTIONS	see subfield	*Options* Datafill subfield OPTION and the corresponding refinements for the desired trunk option. Enter a $ (dollar sign) to indicate the end of the options vector.

Field descriptions (Sheet 8 of 14)

Field	Subfield	Entry	Explanation and action
	OPTION	AIN, BCNAME, BILLNO, BLOCKNB, CELL, E911, CHGNUM, LNP	*Option* The following options can be datafilled: • AIN - Advanced intelligent network. This option appears on the MAP display but is not supported. This functionality is moved to table TRKAIN. • BCNAME - Bearer capability name. Datafill refinement BCNAME. • BILLNO - Billing number. This option allows datafilling a billing number for the trunk group. Datafill refinement BILLNO • BLOCKNB - This option specifies whether narrow band calls are blocked on the trunk group. This option can only be set when field SELSEQ = WIDEBAND. No refinements require datafill. • CELL - This option allows specifying the configuration of the intertoll trunk type. Datafill refinement CELL_SS7_TYPE. This option is valid only for North America. ***Note:*** Option CELL is not compatible with option E911. • E911 - This subfield consists of refinements ESCO, ESN, E911SIG, ORIGHOLD, ECPHTIME, OFBSR, and TDMPRFX. To specify the default ESCO for this trunk, enter ESCO. To enter the default ESN for this trunk, enter ESN. To enter the type of signalling to be used by this trunk, enter E911SIG. This option is valid only for North America. To indicate that the OFBSR is used, type Y. To enter the default TDMPRFX, type 0.

TRKGRP type IT (continued)

Field descriptions (Sheet 9 of 14)

Field	Subfield	Entry	Explanation and action
			Option *(continued)* The following options can be datafilled: • CHGNUM - This option specifies the charge-number-delivery option and contains subfield CHGNO_TRAFTYPE with the values of PBX or ALL. The CHGNUM option sends a charge number and originating line information (OLI) parameter with the initial address message (IAM). Select the refinements PBX or ALL. • LNP - Local number portability. This option allows specifying a default location routing number (LRN) for the trunk group. Datafill refinement LRN. ***Note 1:*** If no options apply, leave this field blank. ***Note 2:*** The OSS7 option OSNC assigned through table TRKOPTS requires the CHGNUM ALL option.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.
	BILLNO	up to an 11-digit billing number	*Billing number* If field OPTION = BILLNO, enter the billing number that is used to populate the originating number field in the cellular mobile carrier (CMC) AMA record and the associated equal access AMA record. This option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 10 of 14)

Field	Subfield	Entry	Explanation and action
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.
	BILLNO	up to an 11-digit billing number	*Billing number* If field OPTION = BILLNO, enter the billing number that is used to populate the originating number field in the cellular mobile carrier (CMC) AMA record and the associated equal access AMA record. This option is valid only for North America.
	CELL_SS7_ TYPE	2A, 2B, or NILCELL	*Cell* If field OPTION = CELL, enter the configuration of the intertoll trunk type. Datafilling this option as 2A indicates that the intertoll trunk is configured as a CELL Type 2A SS7 trunk. Datafilling this option as 2B indicates that the intertoll trunk is configured as a CELL Type 2B SS7 trunk. This option is valid only for North America.
	ESCO	000 to 999	Emergency Service Central Office. If the entry in subfield OPTION is E911, enter the default ESCO number representing the end office at which the E911 trunk originated. This option is valid only for North America.
	ESN	0 to 15999	Emergency Service Number. Subfield OPTION entry E911 requires the default ESN for the emergency service zone of the primary PSAP DN where the call is default routed. This option is valid only for North America.

TRKGRP type IT (continued)

Field descriptions (Sheet 11 of 14)

Field	Subfield	Entry	Explanation and action
	E911SIG	E911_STD, E911_CHG, WRLS_STD, WRLS_CLD	*Enhanced 911 signaling.* This entry determines whether the DMS switch uses the calling party number or the charge number to obtain the callback or routing number or both. If you enter E911_STD, the first attempt uses the calling party number. The second attempt uses the charge number. If you enter E911_CHG, the first attempt uses the charge number. The second attempt uses the calling party number. If you enter WRLS_STD, the first attempt uses the calling party number. There is no second attempt. ***Note:*** The WRLS_STD entry applies only to incoming trunks that handle only wireless emergency calls. If you enter WRLS_CLD, the first attempt uses the calling party number. There is no second attempt. ***Note 1:*** The WRLS_CLD entry applies only to incoming trunks that handle only wireless emergency calls directly from a mobile switching center. The mobile switching center sends the pANI and callback number in a non-standard format. ***Note 2:*** The E911SIG option is valid only for North America.
	ORIGHOLD	Y or N	Originator hold. Enter Y (yes) if the end office at which this trunk originated supports the operator hold function. When ORIGHOLD is active, the originator of an E911 call cannot disconnect the call. Enter N to make ORIGHOLD inactive.

TRKGRP type IT (continued)

Field descriptions (Sheet 12 of 14)

Field	Subfield	Entry	Explanation and action
	ECPHTIME	0 to 255	Enhanced call party hold. This subfield indicates the number of seconds that ECPH remains active. ECPHTIME prevents a caller from disconnecting a call before the call is answered and before the timer expires. Zero (0) inactivates ECPH.
	OFBSR	Y or N	Off-Board Selective Routing database. Enter Y if facility uses the OFBSR for translations and routing of both MF and ISUP E911 trunks.

TRKGRP type IT (continued)

Field descriptions (Sheet 13 of 14)

Field	Subfield	Entry	Explanation and action
	TDMPRFX	0 to 15	*Tandem Prefix Value.* If datafilled with a non-zero value, this suboption indicates the originating E911 tandem in a dual super tandem-tandem network. A new Generic Digits Parameter (GDP) is built in the IAM to transport the TDMPRFX to table E911TDRT. The delivery of the TDMPRFX value in the new GDP behaves as follows: • If a non-zero TDMPRFX is datafilled against an ISUP IT trunk with the E911 option, then a GDP is built containing the TDMPRFX and sent on outgoing 911 calls. • If the TDMPRFX datafill against an ISUP IT trunk has the default value of ‘0’, and if no TDMPRFX is received via a GDP, then outgoing 911 calls do not build the GDP containing the TDMPRFX. • If a GDP containing the TDMPRFX is received at an E911 tandem, the value is stored. It takes precedence over any datafilled TDMPRFX values if the TDMPRFX datafilled in Table TRKGRP is non-zero. If datafilled value is ‘0’, the TDMPRFX from GDP is dropped and not used for further processing. • If the TDMPRFX datafill against an ISUP IT trunk has a default value of ‘0’ and no GDP is received, the TDMPRFX is ignored. • On an ONP, if a non-zero TDMPRFX is not datafilled, a default value of ‘0’ is transferred. The TDMPRFX field be datafilled in the Super E911 tandems for incoming ISUP IT trunks with the E911 option. The TDMPRFX field in other E911 tandems should be left at the default of zero.

Field descriptions (Sheet 14 of 14)

Field	Subfield	Entry	Explanation and action
	CHGNO_TRAF TYPE	PBX or ALL	*Charge number traffic type* If the entry in field OPTION is CHGNUM, select refinement PBX to provide the CN and OLI parameters for calls originating on PBX trunks. Select ALL to provide the CN and OLI parameters for outgoing calls on the following originating agents: POTS, RES, IBN, or BRI lines; PRI and ISUP trunks; IBNT2, IBNTI, or PBX trunks; attendant consoles, or a supported agent routed through a virtual facility group (VFG). Select ALL to provide OSS7 option OSNC assigned through table TRKOPTS.
	LRN	10-digit directory number	*Location routing number.* If field OPTION = LNP, datafill a 10-digit directory number that identifies the adjacent incoming office and is used in recording AMA module 720 of the calling number. This option is used if the LRN is not signalled. Exactly 10 digits must be datafilled.

Datafill example

An example of datafill for table TRKGRP and two-way trunk group type IT is shown below. This example was datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is OTWAON2301T0.
- The trunk group type is IT.
- The incoming and outgoing traffic separation number is 23.
- TLD is the pad group assigned to the trunk group.
- The no-circuit class is NCIT.
- The direction is two-way (2W).
- The traffic class is intertoll (IT).
- The select sequence is WIDEBAND.
- The DS-0s are chosen in ascending order (ASEQ).
- The search method used to find a group of time slots is FIRSTFIT.

TRKGRP type IT (continued)

- The time slot arrangement type chosen is FIXED.
- The connecting NPA is 613.
- No pretranslation (NPRT) or class-of-service screening (NSCR) is required.
- The serving NPA is 613.
- The terminating toll center code is 025.
- Trunk group is not toll completing.
- The carrier connect wink in equal access international calls is not regenerated.
- Option BCNAME with 56KDATA is assigned.
- Option CHGNUM is assigned with ALL selected.

MAP display example for table TRKGRP type IT

```
GRPKEY
                                        GRPINFO
_____________________________________________________________

OTWAON2301T0
   IT 23 TLD NCIT 2W IT WIDEBAND ASEQ FIRSTFIT
   613 NPRT NSCR 613 025 N N BCNAME 56KDATA
   CHGNUM ALL $
```

Datafill example

An example of datafill for table TRKGRP and incoming trunk group type IT is shown in the following figure. This example is valid only for North America, and is datafilled in accordance with the following datafill requirements:

- The code in table CLLI for the trunk group is E911ICS7. The trunk group type is IT.
- The incoming traffic separation number 0 is assigned to the trunk group. ELO is the pad group assigned to the trunk group.
- The no-circuit class is NCRT.
- The traffic flow is two way (2W).
- The traffic class is NIL.
- The select sequence is not required; set to MIDL.
- The connecting NPA is 613.

TRKGRP type IT (continued)

- The pretranslator name is AT1. No class-of-service screening (NSCR) is required. The trunk group is assigned to serving NPA 613.
- The terminating toll center code is not required; set to 000.
- Toll completing is not required.
- The carrier connect wink in equal access international calls is not regenerated.
- The IT trunk option is E911.
- The default ESCO number for this trunk is 747.
- The default ESN for this trunk is 113.
- The type of signalling to be used by this trunk is E911_STD.
- The OFBSR is off.
- The TDMPRFX is 15.

TRKGRP type IT (continued)

MAP display example for table TRKGRP type IT

```
> Table TRKGRP
> POS E911ICS7
> ADD
GRPTYP: 2W
>
TRAFSNO: 0
.......................
.......................
OPTION: E911
>
ESCO: 747
>
ESN: 113
>
E911SIG: E911_STD
>
ORIGHOLD: N
>
ECPHTIME: 0
>
OFBSR: N
>
TDMPRFX:
>15
OPTION:
>$
WARNING: THE E911 OPTION SHOULD BE ASSIGNED ONLY TO TRUNKS
         WHICH ARE DEDICATED TO EMERGENCY TRAFFIC.
TUPLE TO BE CHANGED:
    E911ICS7 IT 0 ELO NCRT IC NIL MIDL 613 613 AT1 NSCR 613 613 000
              N N (E911 747 113 E911_STD N N 0 15) $
      ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

Table history

NA015

Added subfield OFBSR to IT ISUP trunk functionality for feature A59021993.

Added subfield TDMPRFX to IT ISUP trunk functionality for feature A59022437.

NA013

Added subfields ECPHTIME and ORIGHOLD to IT ISUP trunk functionality.

Added error messages for dynamic trunks for feature A59007550.

TRKGRP type IT (continued)

NA011

Added subfield CHGNO_TRAFTYPE to option CHGNUM for feature AF7479.

NA010

Added E911SIG options WRLS_STD and WRLS_CLD.

NA009

Added E911SIG option E911_CHG.

NA008

The following changes were made:

- Added feature-specific datafill information about datafilling Equal Access for DMS-100 Wireless (switch).
- Added option E911 and subfields ESCO, ESN, and E911SIG to provide the ability to route Enhanced 911 (E911) calls directly over Integrated Services Digital Network User Part (ISUP) trunks.

NA007

Value LNP added to field OPTION by feature AN1954.

NA004

The following changes were made:

- Added the refinement fields for BILLNO and CELL in subfield OPTION, and added datafill examples with the BILLNO and CELL examples. These changes are valid only for North America.
- Removed option AIN; table TRKAIN is used instead. Refer to feature AR1276.

TRKGRP type IT (end)

Supplementary information

The table that follows explains the error messages that can occur if you enter data incorrectly in table TRKGRP.

Error message table

Error message	Explanation and action
Table TRKOPTS DYNAMIC OC option is assigned. The trunk group direction must be OG or 2W.	The table TRKOPTS option DYNAMIC OC can only be assigned to trunk groups that have a DIRDATA of IC or OG. Select another trunk group with a DIRDATA of IC or OG.
Table TRKOPTS DYNAMIC OC option is assigned. No options are allowed in Table TRKGRP.	For the OC-IP application, TRKGRP options are incompatible with the TRKOPTS DYNAMIC option and must not be added. Do not add options to a trunk with the table TRKOPTS option DYNAMIC.

International 102 Test Trunk Group Type

International 102 test trunks (ITL2) are used for test calls in switches configured for ITL2 groups with a milliwatt supply of 1020 Hz and balance termination test.

Each ITL2 consists of a trunk circuit with PEC NT1X00AF, and is represented in table CLLI by pseudo-CLLI INTL102T.

The trunk group members assigned to this trunk group are listed in table TRKMEM with CLLI INTL102T.

Note: If using PMTYPE DTM in table TRKMEM, the NT1X80 (enhanced digital recorded announcement machine) card provides the milliwatt tone according to the datafill in field MWDBLEVEL. For example, if MWDBLEVEL is datafilled as 1X00AF, the milliwatt source of 1020 Hz comes from the NT1X80 card. Similarly, if this field is datafilled as 1X00AH, then the NT1X80 provides the -15 dB tone.

For related information, refer to TRKGRP type MAINT.

Datafill

The following table lists the datafill for table TRKGRP type ITL2.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	INTL102T	*Common language location identifier* Enter INTL102T to specify the common language location identifier (CLLI) code for international 102 test trunks.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, MWSPRVSN and MWDBLEVL. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.

TRKGRP type ITL2 (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	GRPTYP	ITL2	Enter ITL2 to specify the group type for international 102 test trunks.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	MWSPRVSN	BMW LMW SMW or TMW	*Milliwatt supervision* Datafill this field to specify the required milliwatt supervision type as outlined below: • Enter BMW for 100 balance supervision. • Enter LMW for 102 local supervision. • Enter SMW for 102 steady supervision. • Enter TMW for 102 toll supervision.
	MWDBLEVL	1X00AF or 1X00AH	*Milliwatt dB level* Enter 1X00AF or 1X00AH. Entries other than this value are not valid.

Datafill example

The following example shows sample datafill for table TRKGRP type ITL2.

MAP display example for table TRKGRP type ITL2

```
GRPKEY      GRPINFO
_____________________________________________________

TERM102T    ITL2 0 TLD NCOT TMW 1X00AF
TERM102L    ITL2 0 TLD NCOT LMW 1X00AF
TERM100Q    ITL2 0 TLD NCOT BMW 1X00AF
```

TRKGRP type LOOPA

Line Loop Test Unit Trunk Group Type

Trunk group type LOOPA is used in switches that are configured for loop-around testing.

Each loop-around test unit consists of a trunk card with product engineering code (PEC) NT2X75AA (loop around test line).

Each A-law loop-around test line consists of a trunk card with PEC NT2X75BA.

The trunk card consists of two circuits. The even-numbered circuit is assigned to the loop port 1 trunk group and is represented in table CLLI by the pseudo-common language location identifier (pseudo-CLLI) LOOPA1. The odd-numbered circuit is assigned to the loop-around port 2 trunk group and is represented in table CLLI by the pseudo-CLLI LOOPA2.

Provision only one of these circuits in a switch.

Datafill

The following table lists the datafill for table TRKGRP type LOOPA.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	LOOPA1 or LOOPA2	*Common language location identifier* Enter the pseudo-common language location identifier (pseudo-CLLI) code for the line loop test unit trunk group.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and CARDCODE. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.

TRKGRP type LOOPA (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	GRPTYP	LOOPA	*Group type* Enter LOOPA to specify the line loop test unit trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.

TRKGRP type LOOPA (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual.*
	CARDCODE	2X75AA or 2X75BA	*Card code* Enter the PEC for the LOOPA trunk group as outlined below. • Enter 2X75AA for the line loop test unit. • Enter 2X75BA for the A-law loop-around test line. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, busy all trunks in the group before changing the value of this field by data modification order (DMO).

Datafill example

The following example shows sample datafill for table TRKGRP type LOOPA.

MAP display example for table TRKGRP type LOOPA

```
GRPKEY     GRPINFO
_____________________________________________________

LOOPA1     LOOPA 0 TLD NCRT 2X75AA
LOOPA2     LOOPA 0 TLD NCRT 2X75AA
```

Supplementary information

This section provides additional information concerning table TRKGRP and group type LOOPA.

Diagnostic test

A diagnostic test on an A-law looparound test line is run to verify that the card is in an operational condition. This test performs the following functions:

- The software pad is stepped from 0 dB to 7 dB in steps of 1 dB.
- The transmission characteristics of the card are tested to verify that they are within acceptance tolerance levels, as outlined in the following table..

Diagnostic test parameters

Tone frequency (Hz)	Tone level (dBm)	Tone tolerance (dB)
1004	0	-3
910	0	less than -4
985	0	greater than -4
1020	0	less than -4
1200	0	greater than -4

TRKGRP type LP4W

Four-wire Digital Loop Test Line Trunk Group Type

The four-wire digital loop test line (LP4W) trunk group is used for performing terminating and originating loop-around tests on CCITT No.7 ISDN user part (ISUP) trunks in a DMS-300 switch.

The figure "Terminating digital loop-around test line test protocol" illustrates the terminating digital loop-around test line test protocol. It illustrates the CCITT No.7 ISUP messages involved in the setting up and clearing down of the test call.

The CCITT No.7 ISUP trunk at the terminating DMS-300 gateway switching unit can be either an incoming or two-way trunk. Test access is permitted if the trunk is in either one of the following trunk states: IDL (idle), MB (manual busy), RMB (remote manual busy), or SB (system busy).

The NT1X00 test trunk located in a maintenance trunk module (MTM) is used as the test equipment for generating the milliwatt tone, and for providing the 60 Ω balanced termination. The NT1X00 test trunk satisfies the CCITT Red Book Volume IV section 3.0 specifications for tone source characteristics and impedance.

Terminating test line test protocol

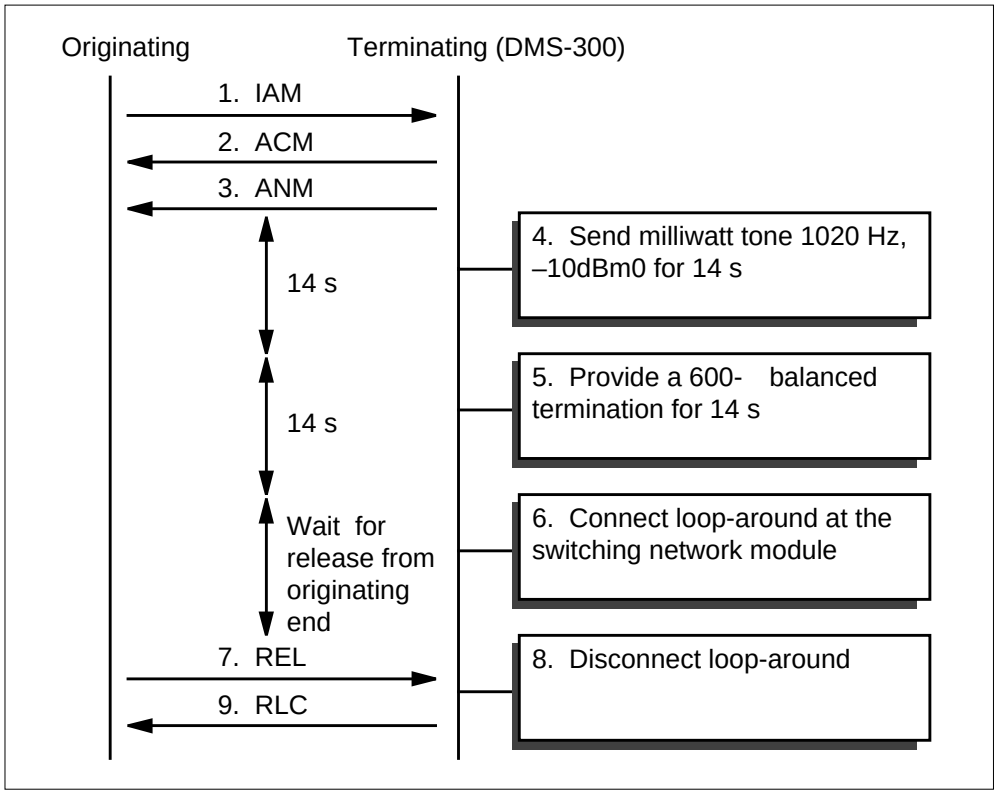
The figure "Terminating digital loop-around test line test protocol" illustrates the following terminating test line test protocol:

1. When the ISUP trunk under test (TUT) receives an initial address message (IAM), it acknowledges it with an address complete message (ACM) followed by an answer message (ANM).
2. The ISUP TUT is then connected through the DMS switch network to a free NT1X00 test trunk. The NT1X00 test trunk provides a 60 Ω balanced termination to the receive (RX) direction of the four-wire digital trunk and transmits a milliwatt tone of 1020 Hz at -10dBm0 (decibels at the zero transmission level point) out on the transmit (TX) direction. The milliwatt tone lasts for 14 s.
3. The milliwatt tone is terminated at the end of the 14-s interval, and the NT1X00 test trunk presents a 600 Ω balanced termination to the TX direction for the next 14 s.
4. At the end of the second interval, the 600 Ω terminations at both the TX and RX direction of the ISUP trunk is disconnected. Finally, the TX and the RX directions is connected (looped around) with the switching

network digital pad set to 0dBr (relative decibel) level. The loopback point is at the DMS-300 network module (NM).

5. The looped around condition is maintained until the ISUP TUT receives a release message (REL) from the originating switch. When this message is received, the looped around is released and the ISUP TUT is idled. A release complete message (RLC) is also returned to the originating switching unit.

Terminating digital loop-around test line test protocol



Error handling - terminating test line occupied

When access is gained to the terminating digital loop-around test line, an ANM message is returned to the originating switch as illustrated in figure 1. If the terminating test line is occupied, a busy indication is returned to the originating end. For the ISUP TUT here, based on datafillable options in a DMS-300 switching unit, either a REL message, with cause indicator being equal to USER BUSY `00010001', or a tone or an announcement is returned to the far-end switching unit.

TRKGRP type LP4W (continued)

Error handling - terminating test line unequipped

When a digital loop-around test line access code is received at a DMS-300 terminating switching unit, it is expected to be routed to a terminating digital loop-around test line. However, if the translation datafill for the test line is either missing or incomplete, an unallocated number signal is returned to the far-end switching unit. As for the ISUP TUT considered here, based on user datafillable options in a DMS-300 switch, a REL message, with cause indicator being equal to UNALLOCATED (UNASSIGNED) NUMBER `00000001', or a tone or an announcement is returned to the far-end switch.

Force releasing the terminating digital loop-around test line

While the terminating digital loop-around test line is carrying out its test protocol, and in call processing busy (CPB) state, the test line can be forced release from the TTP (trunk test position) level of the MAP (maintenance and administration position) using the TTP command FRLS (force release).

Automatic loop-around timeout

In the ISUP TUT loop-around mode, the call can be taken down by the terminating switch when the time-out expires.

The timeout is datafilled as a switching unit parameter LOOP_AROUND_TIMEOUT_IN_MIN in table OFCVAR.

Calling party's category

The calling party's category parameter field of the incoming IAM message is expected to be set to 00001101 (ISUP CALLING PARTY'S CATEGORY TEST CALL).

Trunk group type for the terminating digital loop-around test line

A trunk group type, LP4W, is introduced for the terminating digital loop-around test line to a DMS-300 gateway switch.

Field GRPINFO for the LP4W trunk group type consists of two fields that enable maintenance personnel to specify the tone cadence and tone characteristics (that is, both frequency and level) of the milliwatt tone. Field field MWSPRVSN enables maintenance personnel to specify the type of supervision to be used for the milliwatt tone. This translates itself directly to the tone cadence.

The following is a list of the possible supervision types that can be selected:-

- BMW
- TMW
- LMW

- IMW
- NMW

The supervision type IMW satisfies the CCITT Red Book specification of milliwatt tone.

The supervision type NMW allows for applications at the originating switch that do not require milliwatt tone or quiet termination before going into loop-around mode.

If one of the supervision types BMW, TMW, or LMW is chosen, loop-around of the ISUP TUT is not carried out. Loop-around of the ISUP TUT is only carried out if IMW or NMW supervision type is chosen.

If the terminating digital loop-around test line is used in combination with the originating digital loop-around test line, the IMW supervision type is used. However, for other applications at the originating switch, maintenance personnel have the freedom to use other supervision types.

The other field is the MWTTCLLI that contains one of the fixed CLLI pseudo codes of the NT1X00 test trunks. This enables the incoming test call to be routed to the correct test equipment (that is, a NT1X00 circuit). For the example illustrated, the pseudo CLLI code MWTTAE is used because it that satisfies the CCITT Red Book specifications.

There is no need to enter the DLPATL CLLI into the TRKSGRP and TRKMEM tables. However, the same CLLI name must be used in the translation if the incoming test call is to be routed to the terminating digital loop-around test line.

It is recommended to choose value 0 (zero) for field TRKGRSIZ in table CLLI for the terminating digital loop-around test line because there are no trunk members associated with the test line, and system memory need not be allocated for the individual trunk member. This helps to conserve system memory.

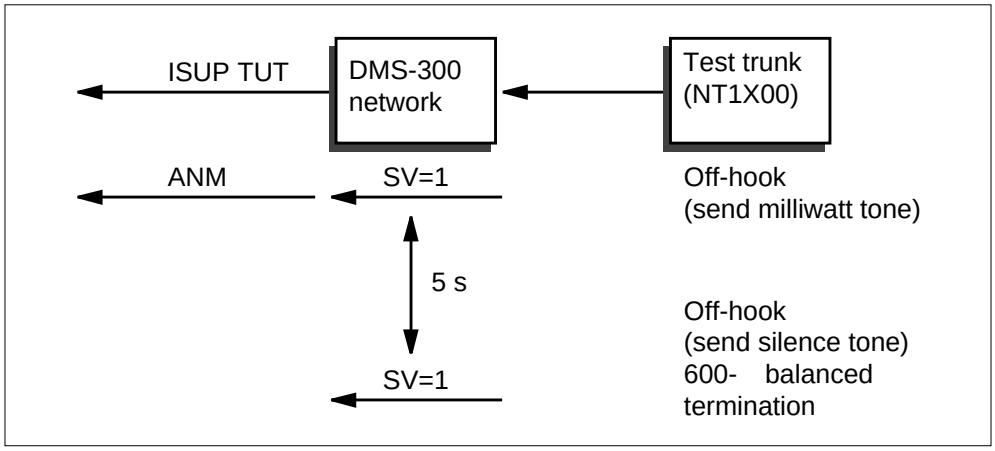
The following figures illustrate the tone cadence of each of the supervision types, and also the relation between the test line responder terminal state and the CCITT No.7 ISUP messages.

Note: For LMW supervision, the pattern is repeated indefinitely. As shown in the figures, on-hook and off-hook represent the terminal state of the terminating test line as seen by the peripheral module (PM). This does not cause the originator and terminator to become idle. Actual on-hook or

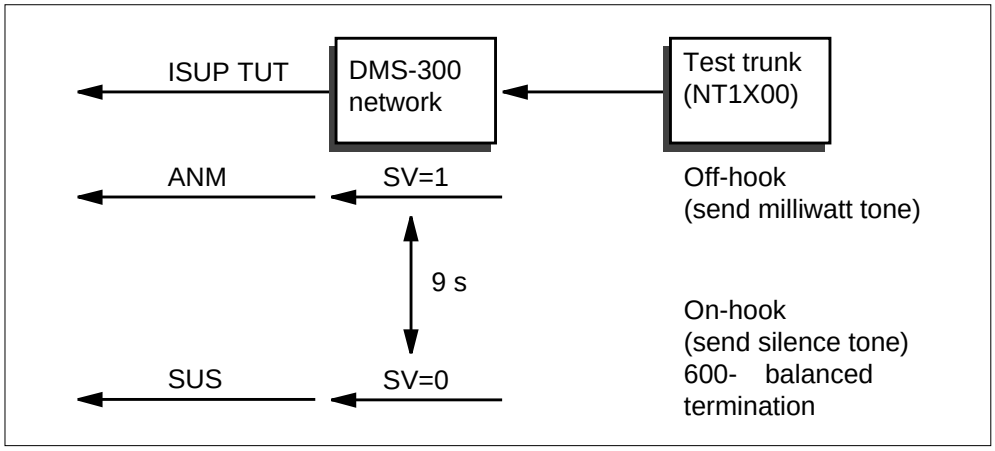
TRKGRP type LP4W (continued)

disconnect that can cause both originator and terminator to become idle, can be brought about by the originating trunk going on-hook.

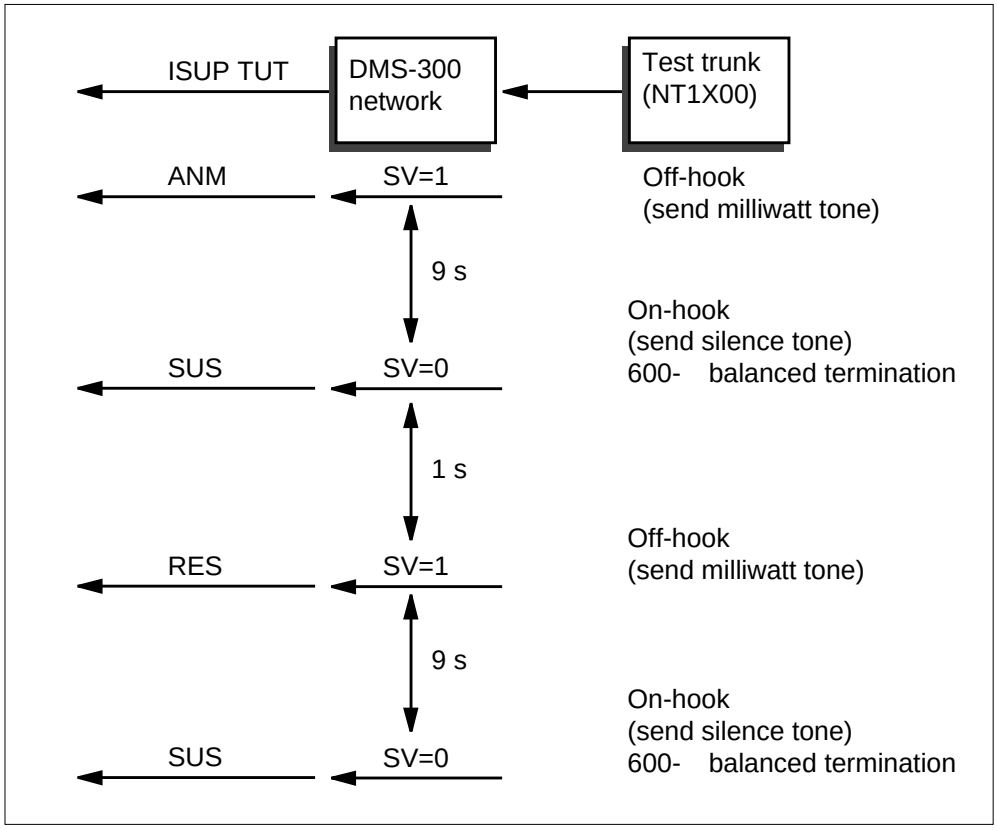
Tone cadence for BMW supervision type



Tone cadence for TMW supervision type

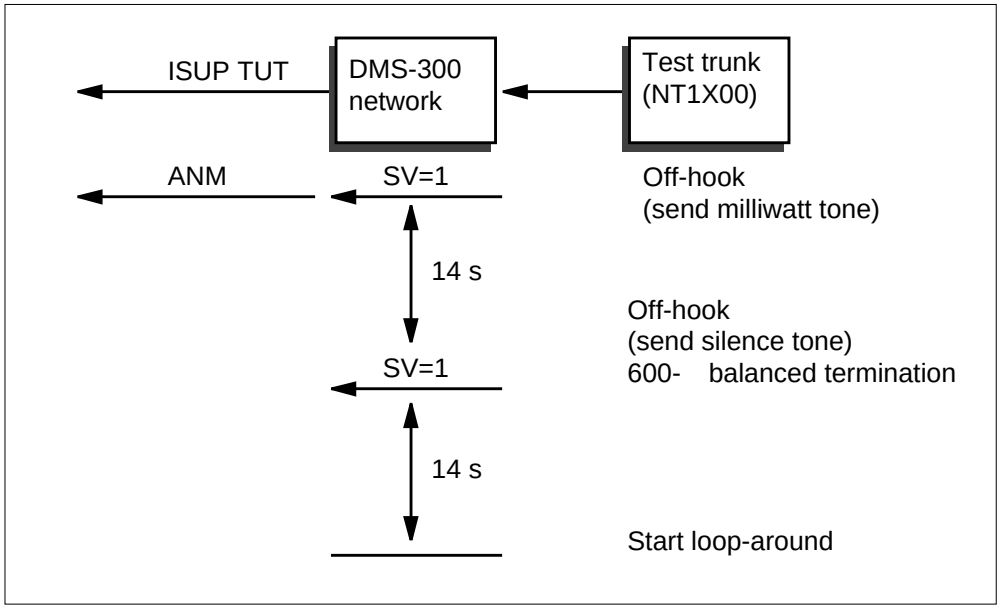


Tone cadence for LMW supervision type



TRKGRP type LP4W (continued)

Tone cadence for IMW supervision type



Address information

According to the CCITT Red Book Volume IV Fascicle IV.4 Rec.O.11 section 2.4.2, the test line access code for the digital loop-around test line is 66. The two-digit test line access code is expected to be found in the address parameter field of the received IAM message.

Translation datafill

For incoming CCITT #7 ISUP test call, the N7TS international pretranslator is used for routing calls to the terminating test line.

An example of the datafill required for translation is shown below.

MAP display example for table INATLPRT

```
VALUE                                SYMBOL
-------------------------------------------------------------
   1                                 N7TS
```

MAP display example for table INPRTRNS

```
                INPRTICD     POS
TMTCCNRR
TRANSYS NOPREDIG NOCCDIGS MINDIGSR MAXDIGSR LONGHAUL OPTIONS
_____________________________________________________________________
IP00               999   NONE                T     OVR7   2 N  N N  NIL
     NO         0         0         2        15         N        $
```

MAP display example for table OVR0

```
 RTE                                                        RTELIST
_____________________________________________________________________
   2 (S D TERM102T $) $
```

Terminating digital loop-around test line responder

The NT1X00 test trunk (digital loop-around test line responder) located in a maintenance trunk module (MTM) is used for providing the milliwatt tone and the 600 Ω balance impedance. There are several versions of this test trunk. Each version of this test trunk corresponds to a specific milliwatt tone characteristic. This is listed in the following table.

Versions of the NT1X00 test trunk card

Version	Frequency	Level
NT1X00AA and AB	1004 Hz ±0.02 Hz	0 dBm ± 0.01 dB
NT1X00AE	1020 Hz ± 0.02 Hz	-10 dBm ± 0.01 dB
NT1X00AF	1004 Hz ± 0.02 Hz	-10 dBm ± 0.01 dB
NT1X00AG	1004 Hz ± 0.02 Hz	-20 dBm ± 0.01 dB
NT1X00AH	1004 Hz ± 0.02 Hz	-15 dBm ± 0.01 dB

TRKGRP type LP4W (continued)

In order to satisfy the CCITT Red Book recommendation, card NT1X00AE is used. However, this feature provides the flexibility by allowing other NT1X00 card versions to be used. This is achieved by proper datafilling of the switch to be described in the following sections.

For a given version of the NT1X00 test trunk, an equipment pool is set up by datafilling the trunk circuit in tables CLLI, CLLIMTCE, TRKGRP, TRKSGRP, and TRKMEM.

This feature specifies fixed pseudo CLLI codes for each version of the NT1X00 test trunk. The same pseudo code must be used in each of the tables as listed in the previous paragraph if the equipment pool is to be set up.

The following table lists the fixed CLLI pseudo codes and their card versions.

Fixed CLLI pseudo cards and NT1X00 card versionse

Fixed pseudo CLLI code	NT1X00 card version
MWTTAA	NT1X00AA
MWTTAB	NT1X00AB
MWTTAE	NT1X00AE
MWTTAF	NT1X00AF
MWTTAG	NT1X00AG
MWTTAH	NT1X00AH

An example of the datafill requirement for setting up NT1X00 equipment pool in a DMS-300 gateway switch is shown below.

MAP display example for table CLLI

```
          CLLI ADNUM TRKGRSIZ                          ADMININF
-------------------------------------------------------------------
        MWTTAA   160        10       NT1X00AA_TEST_TRUNK_GROUP
        MWTTAA   161        10       NT1X00AB_TEST_TRUNK_GROUP
        MWTTAA   162        10       NT1X00AE_TEST_TRUNK_GROUP
        MWTTAA   163        10       NT1X00AF_TEST_TRUNK_GROUP
        MWTTAA   164        10       NT1X00AG_TEST_TRUNK_GROUP
        MWTTAA   165        10       NT1X00AH_TEST_TRUNK_GROUP
```

TRKGRP type LP4W (continued)

MAP display example for table CLLIMTCE

```
     CLLI  SCLLI MINALM MAJALM CRITALM SYNCTYPE TSTNOIND MWIDX SIGTST
          PRFXDIGS DIAGDATA
_____________________________________________________________________
   MWTTAA   MWAA      5      10       15       NSS         0      0       N
               N  (    0)
   MWTTAB   MWAB      5      10       15       NSS         0      0       N
               N  (    0)
   MWTTAE   MWAE      5      10       15       NSS         0      0       N
               N  (    0)
   MWTTAF   MWAF      5      10       15       NSS         0      0       N
               N  (    0)
   MWTTAG   MWAG      5      10       15       NSS         0      0       N
               N  (    0)
   MWTTAH   MWAH      5      10       15       NSS         0      0       N
               N  (    0)
```

MAP display example for table TRKGRP

```
          GRPKEY
                                                        GRPINFO
_____________________________________________________________________
          MWTTAA
                                      MAINT 0 NPDGP NCRT 1X00AA
          MWTTAB
                                      MAINT 0 NPDGP NCRT 1X00AB
          MWTTAE
                                      MAINT 0 NPDGP NCRT 1X00AE
          MWTTAF
                                      MAINT 0 NPDGP NCRT 1X00AF
          MWTTAG
                                      MAINT 0 NPDGP NCRT 1X00AG
          MWTTAH
                                      MAINT 0 NPDGP NCRT 1X00AH
```

TRKGRP type LP4W (continued)

MAP display example for table TRKSGRP

```
            SGRPKEY   CARDCODE
SGRPVAR
                                                                  SGRPVAR
_____________________________________________________________________

          MWTTAA 0    1X00AA
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
          MWTTAB 0    1X00AB
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
          MWTTAE 0    1X00AE
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
          MWTTAF 0    1X00AF
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
          MWTTAG 0    1X00AG
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
          MWTTAH 0    1X00AH
    STD
                      OG    NP     WK    0  0 NO     NO N N N  17
```

MAP display example for table TRKMEM

```
            CLLI       EXTRKNM SGRP              MEMVAR
_____________________________________________________________

          MWTTAA             0    0          MTM    6  2
          MWTTAA             1    0          MTM    6  3
          MWTTAB             0    0          MTM    6  4
          MWTTAB             1    0          MTM    6  5
          MWTTAE             0    0          MTM    6  6
          MWTTAE             1    0          MTM    6  7
          MWTTAF             0    0          MTM    6  8
          MWTTAF             1    0          MTM    6  9
          MWTTAG             0    0          MTM    6 10
          MWTTAG             1    0          MTM    6 11
          MWTTAH             0    0          MTM    6 12
          MWTTAH             1    0          MTM    6 13
```

The above example illustrates an equipment pool is set up for each version of the NT1X00 test trunk group. The fixed pseudo CLLI for each version of the test trunk group must first be datafilled in table CLLI. Since the trunk group

size is datafilled as 10 in the example above, it is possible to have a maximum of 10 test trunk circuits for a given version of the NT1X00 test trunk group.

In table TRKGRP, the trunk group type for the NT1X00 test trunk is MAINT. This is consistent with other test equipment in the switches such as transmission test trunk (TTT), and transmission test unit (TTU). The card code entered in table TRKGRP is checked against the fixed pseudo CLLI code. If the card code is not a valid one for the given fixed pseudo CLLI, the table control rejects the data tuple entry request.

The data in table TRKSGRP is automatically datafilled by the system table control once the CLLI is entered in table TRKGRP.

In the example above, there are two NT1X00 test trunk circuits for each NT1X00 test trunk group.

Originating digital loop-around test line

The CCITT Red Book does not specify precisely what facilities must be provided at the calling end of a digital loop-around test line test. However, this feature provides the facilities at the originating switch to perform automatic measurements of far-to-near loss and noise, as well as near-to-far loss and noise of a CCITT No.7 ISUP TUT.

Digital loop-around test line code

A new test line code is introduced by this feature for accessing the digital loop-around test line at the far end switching unit. The new test line code is: TL01.

Test line access methods

1. *Manual access from the TTP level of the MAP* The access procedure is as follows:
2. Go to the TTP level of the MAP.
3. Post the CCITT #7 ISUP TUT at the control position of the MAP. The ISUP trunk can be either a two-way or an outgoing trunk.
4. Enter TST command followed by the digital loop-around test line code TL01. The test results are displayed at the MAP.

Scheduled test from the ATT level of the MAP Digital loop-around test line test can be requested manually from the ATT (automatic trunk test) level of the MAP by using the TESTREQ (test request) command for a gateway CCITT No.7 ISUP trunk group, or it can be scheduled to run automatically in table ATTSCHED using table control. Refer to *Automatic Trunk Testing*

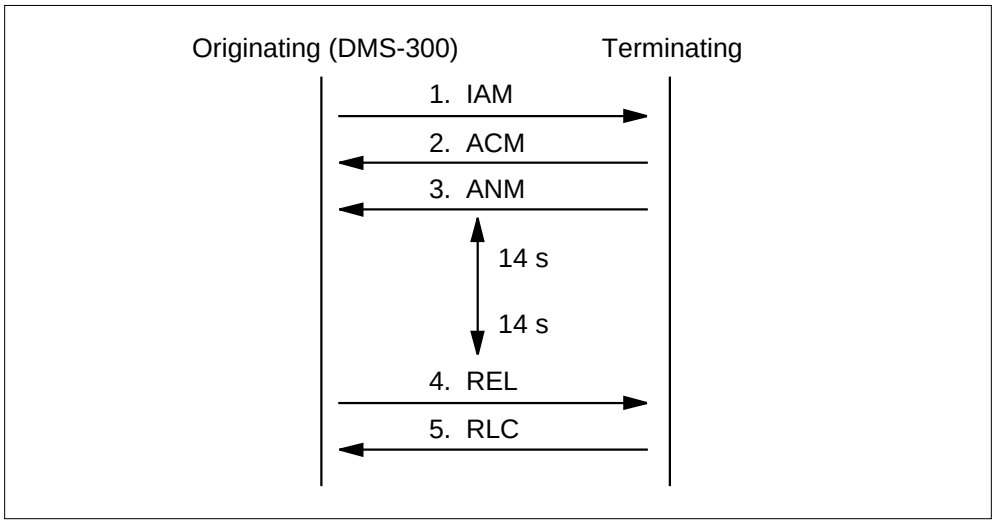
TRKGRP type LP4W (continued)

Description, 297-1001-121, *Trunks Maintenance Guide*, 297-1001-595, *Commands Reference Manual*, 297-1001-822, and *Log Report Reference Manual* for more details on the scheduling of test line tests.

Originating digital loop-around test line test protocol

The figure called "Common procedures of an IUSP test call" illustrates the CCITT No.7 ISUP messages involved in the setting up and clearing down of the test call.

Common procedures of an ISUP test call

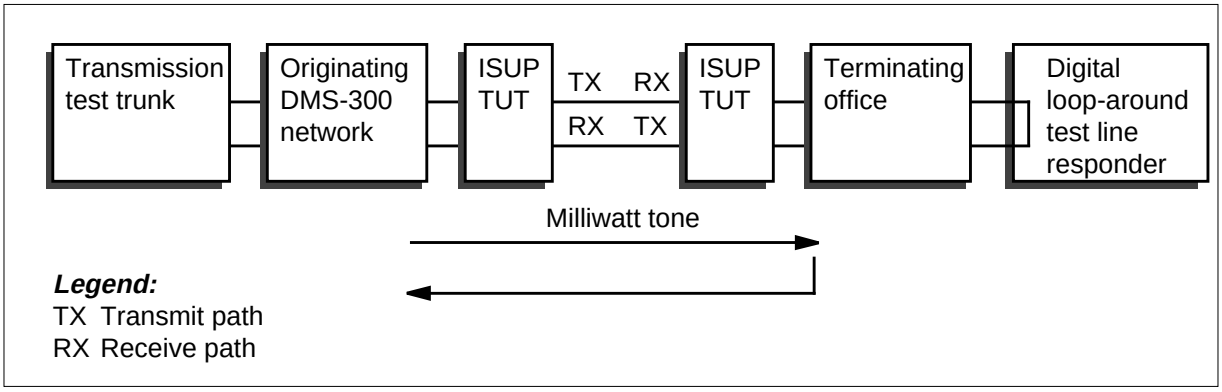


After the ANM is received from the far-end switch, the terminating digital loop-around test line then sends a milliwatt tone for 14 s followed by 14 s of quiet termination. The originating switch uses TTTS for far-to-near transmission loss measurements during the first 14-s interval, and carries out far-to-near noise measurements during the second 14-s interval. The DMS-300 originating switch makes reference to table MWDATA for the expected milliwatt tone frequency and level to be transmitted from the terminating switch. The far-to-near transmission loss measurements is illustrated in the figure "Far-to-near transmission loss measurement"..

After 14 s of sending out milliwatt tone and then another 14 s of quiet termination provided by the terminating digital loop-around test line, the test line responder connects its receive path to the transmit path (loop-around). During this interval, the originating switch uses a TTT to send out a milliwatt tone for 5 s on its transmit path and measures the milliwatt tone on its receive path. The originating DMS-300 switching unit makes reference to table MWDATA for the frequency and level of the milliwatt tone to be transmitted. The same milliwatt tone as that from the terminating switch is used. Please refer to section 2.2.7.2 for the use of table MWDATA at the originating switch.

After 5 s of milliwatt tone, the TTT provides 5 s of quiet termination at its transmit path, and measures the noise level at its receive path. The fiigure "Transmission loss measurement over the loop-ed back trunk" illustrates the transmission loss measurements during this period. The transmission loss measurements over the looped-back ISUP TUT enables the near-to-far loss and noise to be calculated.

Transmission loss measurement over the loop-ed back trunk



The TTT is used for transmission loss and noise measurement as shown in the figure "Far-to-near transmission loss measurement". The measured far-to-near loss is compared against the expected measured loss (EML) value of the ISUP TUT. The EML value is stored in subtable CLLIMTCE.DIAGDATA against the ISUP TUT. The deviation of the far-to-near loss from the EML value is compared against fixed Q1 and Q2 thresholds. If the deviation exceeds either one of the thresholds, the transmission loss test is considered as failure. The

TRKGRP type LP4W (continued)

originating digital loop-around test line stops and provides a log report of the measured results at the TTP level of the MAP.

- Referring to the figures “Far-to-near transmission loss measurement” and “Far-to-near transmission loss calculation”, the far-to-near transmission loss value is calculated with the following equation:
- L = S - R - P
- D = L - EML

  where

  R
  is the measured milliwatt power level in dBm

  S
  is transmitted milliwatt power level in dBm

  L
  is far-to-near loss in dBr

  D
  is deviation of the far-to-near loss from EML

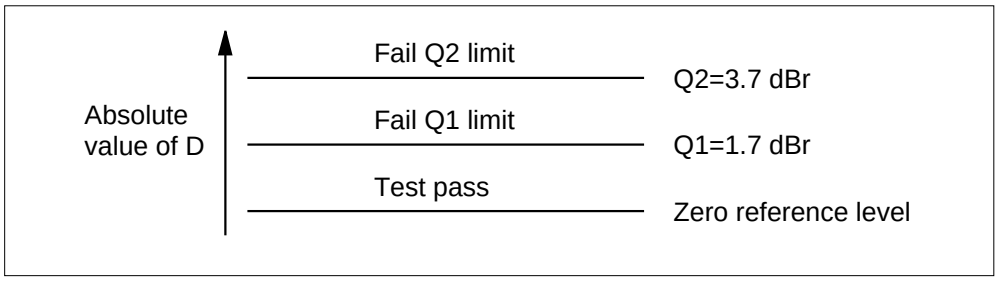
  EML
  is expected measured loss

  Q1
  is 1.7 dBr

  Q2
  is 3.7 dBr

  P
  switching network pad loss in the receive direction (that is, from the originating ISUP TUT to the TTT)

Far-to-near transmission loss calculation



The nominal value of the transmitted milliwatt signal power level is obtained from table MWDATA at the originating switch.

TRKGRP type LP4W (continued)

The TTT is used for far-to-near noise power measurement. The measured noise power level is compared against the thresholds found in subtable CLLIMTCE.DIAGDATA. (These values are the noise level maintenance limit (NML) and the noise immediate action limit (NIAL); both limits are stored against the ISUP TUT.) If the measured noise power levels exceeded either one of the two thresholds, the test stops, and a log is reported at the TTP MAP level.

In the figure “Far-to-near transmisssion loss measurement”, the TTT is used for transmitting the milliwatt tone in its transmit path, and for measuring the transmitted milliwatt tone at its receive path. This is during the interval when the ISUP TUT is looped-around at the far-end switch. The measured transmitted milliwatt power level is the sum of near-to-far loss and far-to-near

TRKGRP type LP4W (continued)

loss. Since the far-to-near loss was already obtained from the previous interval, the near-to-far loss can be calculated with the following equation:

- LT = S - R - P12 - P21

  but

- LT = {LNF + LFN}

  therefore

- LNF = {LT - LFN}
- D = {LNF - EML}

  where:

  D
  is deviation from the EML

  EML
  is expected measured loss

  LFN
  is far-to-near loss

  LNF
  is near-to-far loss

  LT
  is total looped around circuit loss

  P12
  is switching network loss in the transmit direction

  P21
  is switching network loss in the receive direction

  Q1
  is 1.7 dBr

  Q2
  is 3.7 dBr

  R
  is measured transmitted milliwatt signal power

  S
  is transmitted milliwatt signal power

The absolute value of deviation D is again compared with the Q1 and Q2 thresholds to determine the pass or failure of the looped-around transmission test.

TRKGRP type LP4W (end)

In the figure “Noise measurement over looped-back trunk”, the TTT is used for providing 600 Ω balanced termination as well as for measuring the noise power in the looped-back circuit. The near-to-far noise power is compared against the NML and NIAL limits to determine the success or failure of the looped-around noise test.

TRKGRP type LPBK

Loopback Trunk Group Type

In a DMS ISDN office, incoming and outgoing trunk group type LPBK provides a means of connecting two agents in the same office in situations where a call between the two agents is not possible using other loopback facilities. The call between the two agents is split into two legs, as outlined below.

- The first leg of the call selects an outgoing LPBK trunk to terminate the original call. The outgoing trunk loops back to the same office to come in as an incoming trunk of trunk group type LPBK.
- The second leg of the call connects the incoming LPBK trunk to the terminating agent.

Certain restrictions are imposed on the data that can be specified in table TRKSGRP for subgroups associated with loopback (LPBK) trunk groups. These restrictions are outlined below.

1. Field SIGDATA (signaling data) must be set to STD to indicate that standard signaling is used. Any other type of signaling specified in this field causes the tuple to be rejected and an error message to be output.
2. Field DIR (trunk direction) must be set to correspond with the direction (either OG or IC) specified for the loopback trunk group in table TRKGRP. Entries other than DIR = OG or DIR = IC are not valid. If a different direction is specified, the tuple is rejected and an error message is output.
3. All other fields, with the exception of TRKGDTIM (trunk guard time), default to appropriate values. If values other than those expected are specified in any of these fields, the tuple is still accepted, but the entries are changed to their default values and a warning message is output. For outgoing trunk subgroups, the value of field TRKGDTIM is left for the customer to specify.

The following tables provide a description of the default datafill for LPBK trunks in table TRKSGRP.

Defaults for incoming (IC) LPBK trunk subgroups (Sheet 1 of 2)

Field name	Description	Entry	Meaning
IPULSETYP	incoming type of pulsing	DP	dial pulse
ISTARTSG	incoming start dial tone	IM	immediate dial
OVLP	overlap outpulsing	N	no overlap outpulsing

Defaults for incoming (IC) LPBK trunk subgroups (Sheet 2 of 2)

Field name	Description	Entry	Meaning
PSPDSEIZ	PSPD on seizure timing	2	2 seconds
PARTDIAL	partial dial timing	2	2 seconds
CCONT	coin control	NO	no coin control
RNGBCK	ringback	NO	no ringback
ESUPR	echo suppressor	N	no echo suppression
SAT	satellite	N	no satellite switching
REMBSY	remote make busy	Y	remote make busy assigned
DIALMODE	dial mode	C	customer dialed

Defaults for outgoing (OG) LPBK trunk subgroups

Field name	Description	Entry	Meaning
OPULSETYP	outgoing type of pulsing	DP	dial pulse
OSTARTSG	outgoing start dial signal	IM	immediate dial
IDIGTIME	inter-digital timing	0	set to 0 (zero)
NUMSTOPS	number of stops/goes	0	set to 0 (zero)
CCONT	coin control	NO	no coin control
RNGBCK	ringback	NO	no ringback
ESUPR	echo suppressor	N	no echo suppression
SAT	satellite	N	no satellite
REMBSY	remote make busy	Y	remote make busy assigned

TRKGRP type LPBK (continued)

Datafill

The following table lists the datafill for table TRKGRP type LPBK.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common Language Location Identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and LPBKINFO. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	LPBK	*Group type* Enter LPBK to specify the loopback trunk group.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.

TRKGRP type LPBK (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual*.
	LPBKINFO	see subfields	*Loopback group data* This field consists of selector DIR and refinements.
	DIR	IC or OG	*Trunk group direction* This field specifies the direction of the loopback trunks in this trunk group. If the group consists of the incoming ends of loopback trunk, enter IC and datafill refinements PRTNM and SNPA. If the group consists of the outgoing ends of loopback trunks, enter OC (no refinements are applicable). Any entry value other than IC or OG is not valid.

TRKGRP type LPBK (end)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SNPA	numeric (3 digits)	*Serving NPA* Enter the serving NPA code for the trunk group. This code, which is specified in table HNPACODE, specifies routing for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

Datafill example

The following example shows sample datafill for table TRKGRP type LPBK.

MAP display example for table TRKGRP type LPBK

```
GRPKEY              GRPINFO
_____________________________________________________

OTWAONLPOG01        LPBK 14 ELO NCRT OG
OTWAONLPIC02        LPBK 15 ELO NCRT IC INC2 613
```

Maintenance Trunk Group Type

The trunk group types that are used for maintenance and test purposes are listed in the table ” Maintenance and test trunk group types”. The maintenance (MAINT) trunk group types are described in this section. Trunk group types ITL2, LOOPA, SOCKT and TTL2 are described under their own separate headings in this document.

An Enhanced Digital Test Unit (EDTU) NT4X45AA, when installed, will emulate the TTT, TTU and DTU trunk groups according to the test to be performed and the datafill. Each EDTU virtual channel will be equivalent to a TTT or a TTU or a virtual DTU channel. When datafilling the trunk tables, each EDTU channel will be designated as one TTT, TTU and DTU and the EDTU will act correspondingly.

Maintenance and test trunk group types (Sheet 1 of 2)

Trunk group type	Pseudo CLLI	Title
ITL2	INTL192T	International 102 test trunk
LOOPA	LOOPA1LOOPA2	Line loop test unit and A-law loop-around test line
MAINT	DCLTONE	Dialable cable-locator tone
MAINT	DTU	Digital test unit
MAINT	ESADGTR	Emergency stand-alone Digitone receivers
MAINT	HSET	Position headset
MAINT	JACK	Position jack
MAINT	LTU	Line test unit
MAINT	MONTALK	Monitor-and-talk
MAINT	MTU	Metallic (or multiline) test unit
MAINT	TERM108	108 test line
MAINT	TTT	Trunk test transmission
MAINT	TTU	Terminating transmission test unit
MAINT	SPARExxxxxx	Spare trunk groups
SOCKT	OCKT	Transmission terminating trunk group

TRKGRP type MAINT (continued)

Maintenance and test trunk group types (Sheet 2 of 2)

Trunk group type	Pseudo CLLI	Title
SOCKT	SCKT	Transmission terminating trunk group
TTL2	—	Terminating 102 test line

The trunk subgroup data for the trunk groups, excluding subgroup 1 of the trunk group with pseudo-common language location identifier (CLLI) TTU, is produced automatically by the trunk group datafill. This data is shown in table "Automatically produced trunk subgroup data".

Automatically produced trunk subgroup data (Sheet 1 of 2)

Field	Value
CLLI	(see note)
SGRP	0
CARD CODE	(see note)
SIGDATA	(see note)
DIR	OG
OPULSTYP	NP
OSTARTSG	WK
IDGTIME	2
NUMSTOPS	0
CCONT	MW
RNGBCK	IB
ESUPR	N
SAT	N
REMBSY	N
Note: The values for these fields are defined in the description of field names for table TRKSGRP. If the value in field CLLI is SOCKT, field OSTARTSG in table TRKSGRP has value IM. If the value in field CLLI is TERM102T, fields OPULSETYP and OSTARTSG in table TRKSGRP have values MF and WK respectively.	

Automatically produced trunk subgroup data (Sheet 2 of 2)

Field	Value
DIALMODE	blank
TRKGDTIM	16
Note: The values for these fields are defined in the description of field names for table TRKSGRP. If the value in field CLLI is SOCKT, field OSTARTSG in table TRKSGRP has value IM. If the value in field CLLI is TERM102T, fields OPULSETYP and OSTARTSG in table TRKSGRP have values MF and WK respectively.	

Pseudo-CLLI DCLTONE (dialable cable-locator tone)

A dialable cable-locator tone trunk (pseudo-CLLI DCLTONE) is physically connected to a tone generator and is used to locate a specific tip-and-ring cable pair among the bunch of cables in a pedestal.

DTU (digital test unit trunk group)

The digital test unit (DTU) is used for Bit Error rate Tests (BERT) and Offhook Balnet Tests (OHBT). The DTU is located on a NT4X23AA or NT4X45AA card.

ESADGTR (emergency stand-alone Digitone receivers)

An emergency stand-alone Digitone receiver is used in a switch with remote operation and the Emergency Stand-alone (ESA) feature.

Each emergency stand-alone Digitone receiver consists of a trunk circuit with PEC NT2X48AB (digital four-channel receiver).

A maximum of four circuits can be assigned on each remote service module (RSM), and they must be assigned to circuits 2, 3, 4, and 5.

The trunk group is represented in table CLLI by pseudo-CLLI ESADGTR and in table TRKGRP with the trunk group type MAINT.

Use card code ESADGT for this trunk group.

Note: Digitone receivers in the RSM must always be in the installation busy (INB) state. This is necessary for the ESA option.

TRKGRP type MAINT (continued)

HSET (position headset trunk group)

The position headset trunk group is required in switches with test or maintenance positions, and is represented in table CLLI by pseudo-CLLI HSET, and in table TRKGRP with trunk group type MAINT.

Each member of the trunk group consists of a trunk circuit with PEC NT2X72AA (four-wire E&M type 1 interface, 600-Ω trunk circuit), NT2X88AA (four-wire E&M interface, 600-Ω trunk circuit) or NT5X30AA (101 communication test line circuit).

Trunk circuit NT2X72AA or NT2X88AA must be used if this trunk group is used for service analysis or if the trunk circuit connects directly to the network.

If service analysis is not provided or the trunk circuit is connected to a 1A2 key set, a trunk circuit with PEC NT5X30AA (101 communication test line circuit) can be used.

One circuit is required for each MAP (maintenance and administration position) or terminal test position (TTP). External trunk number 0 is automatically assigned to the first entry in table TERMDEV (MAP), trunk number 1 is automatically assigned to the second entry in table TERMDEV (TTP01), and so on.

Refer to table SAUSERS for information relating to the assignment of headset circuits to the Service Analysis feature, NTX065.

JACK (position jack trunk group)

The position jack trunk group is required in switches with test or maintenance positions, and is represented in table CLLI by pseudo-CLLI JACK and in table TRKGRP by trunk group type MAINT.

For a local or combined local and toll switches, each member of the trunk group consists of a trunk circuit with PEC NT1X54AA (jack ended trunk circuit pack).

For a toll switch, each member of the trunk group consists of a trunk circuit with PEC NT2X72AA (four-wire E&M type 1 interface, 600-ohm trunk circuit), which is preferred, or PEC NT2X88AA (four-wire E&M interface, 600-Ω trunk circuit).

Three circuits are required for each TTP or MAP. External trunk members 0 to 2 are automatically assigned to the first entry in table TERMDEV (MAP), trunk numbers 3 to 5 are automatically assigned to the second entry in table TERMDEV (TTP01), and so on.

Three circuits are required for each TTP or MAP, external trunk numbers 0 to 2 for position 0, 3 to 5 for position 1, and so on.

Trunk group type MAINT and PEC NT2X72AA (four-wire E&M type 1 interface, 600-Ω trunk circuit) is required as input for this trunk group.

No subgroup data is required from the operating company; the trunk subgroup data is automatically produced with default values.

If a digital trunk group is datafilled in table TRKGRP, the default value JACK 1 is automatically datafilled in table TRKSGRP, field SGRPKEY.

LTU (line test unit trunk group)

The line test unit (LTU) trunk group is used in for switches with LTU trunk groups, and is represented in table CLLI by the pseudo-CLLI LTU and in table TRKGRP with the trunk group type MAINT.

Each member of the trunk group consists of an odd-numbered line loop test unit (LTU) with PEC NT2X10AA (line test unit analog) and its associated even-numbered line loop test unit with PEC NT2X11AA (line test unit digital).

Since these two cards always reside in adjacent slots in the remote service or maintenance trunk module and function as one unit, specify only PEC 2X11AA in table TRKGRP.

In a stand-alone switch or host, provision one circuit for each 6400 lines or fraction thereof, plus one. For example, in a switch with 9600 lines, provision 3 circuits.

At each remote site, provision a minimum of one circuit for each 6400 lines.

The LTUs are assigned to horizontals of the metallic test access minibar switch in table MTAHORIZ.

For the NT2X90AB trunk circuit associated with the line test unit, refer to the monitor-and-talk (MONTALK) trunk group.

MONTALK (monitor-and-talk trunk group)

The monitor-and-talk trunk group is required in switches equipped with line test units (LTUs). Refer to TRKGRP(MAINT) pseudo-CLLI LTU. One monitor-and-talk trunk circuit with PEC NT2X90AB (incoming and outgoing test trunk) is used for each line test unit at the stand-alone switch or remote site.

TRKGRP type MAINT (continued)

The monitor-and-talk trunk group has a pseudo-CLLI of MONTALK.

Make the trunk circuit number in table TRKMEM the same as its associated LTU number.

MTU (metallic [or multiline] test unit trunk group)

The metallic or multi-line test unit (MTU) is similar to the line test unit (LTU).

If used in a North America switch, the name of the MTU is multi-line test unit and the PEC is NT2X11BA. If used in a non-North American switch, the name of the MTU is metallic test unit controller and the PEC is NT4X97AA.

TERM108 (108 test line trunk group)

The 108 test line is used in switches that are configured for testing echo suppressors.

Each 108 test line circuit consists of two trunk circuits with PEC NT2X88AA (four-wire E&M interface, 600-Ω trunk circuit), and is represented in table CLLI by pseudo-CLLI TERM108.

TTT (trunk test transmission trunk group)

The trunk test transmission (TTT) trunk group is used in switching units with trunk test transmission trunk groups, and is represented in table CLLI by the pseudo-CLLI TTT and in table TRKGRP by trunk group type MAINT.

Each member of the trunk group consists of a test signal generator with PEC NT1X90AA (test signal generator) and its associated PCM-level meter with PEC NT2X96AA (PCM level meter).

Since these two cards always reside in adjacent slots in the maintenance trunk module and function as a single unit, only PEC 2X96AA is specified in table TRKGRP.

No trunk subgroup data is required from the operating company. The trunk subgroup data is automatically produced with default values.

TTU (terminating transmission test unit trunk group)

The terminating transmission test unit (TTU) trunk group is used in switches with terminating transmission test unit trunk groups, and is represented in table CLLI by pseudo-CLLI TTU and in table TRKGRP by trunk group type MAINT.

Each member of the trunk group consists of a control and signal generator, with a PEC of NT2X47AA (transmission test module control signal generator)

or NT2X47AC (transmission test unit controller), and the associated digital filter with PEC NT2X56AA/AB (transmission test module digital filter).

Since these two cards always reside in adjacent slots in the maintenance trunk module and function as a single unit, only PEC 2X47AA/AC is specified in table TRKGRP.

The NT2X47AC and NT2X56AB cards developed for the Automatic Transmission Measurement System (ATMS) can functionally replace the existing NT2X47AA and NT2X56AA cards. Both pairs of cards can exist in the same switch, however NT2X47AA must be paired with NT2X56AA and NT2X47AC must be paired with NT2X56AB.

Optional feature NTX136AA (Automatic Transmission Measurement System [ATMS]) can be provided in existing switches by adding sufficient cards (NT2X47AC and NT2X56AB) for the ATMS feature.

Existing cards (NT2X47AA and NT2X56AA) do not need to be retrofitted in order to provide the ATMS feature.

Although the ATMS cards can be selected for regular TTU functions, this should be done only if non-ATMS TTU cards are not available.

The ATMS feature can only be provided in switches with feature Automatic Trunk Test.

If the switch has a mixture of NT2X47AA and AC, specify card code NT2X47AA in table TRKGRP.

The trunk subgroup data for subgroup 0 in table TRKSGRP is automatically produced for card NT2X47AA by table control.

All members with card code NT2X47AA are assigned to subgroup 0 (zero) in table TRKMEM.

The CLLI TTU, trunk group type MAINT, and PEC NT2X47AA are required as input for this trunk group.

No subgroup data is required from the operating company. The trunk subgroup data is automatically produced with default values.

TRKGRP type MAINT (continued)

Datafill trunks with card code NT2X47AC as follows:

- Assign card NT2X47AC to subgroup 1 and provide the data for table TRKSGRP.
- Assign all members with card code NT2X47AC to subgroup 1 in table TRKMEM.
- Specify the odd-numbered circuit for the trunk card with PEC NT2X47AA or NT2X47AC in table TRKMEM (Although this type of trunk card has only one circuit, with an even circuit number, software requires the odd-numbered circuit [even circuit number + 1] to be specified).

EDTU (enhanced digital test unit)

The enhanced digital test unit (EDTU) NT4X45AA provides a four-channel digital test facility statically allocated to the DTU, TTU and TTU application groups, with no restrictions to any possible combination of these groups.

The EDTU will emulate the DTU, TTU, and TTU groups according to the test that has to be performed and to the datafill. Each EDTU virtual channel will be equivalent to a TTT or a TTU or a virtual DTU channel.

SPARE (spare trunk groups)

All spare trunks in the switch must be listed against a pseudo-CLLI of SPAREXXXXXX, where XXXXXX is the card code of the spare trunk group. For example, if there are spare trunks with a card code of 2X83AA, the CLLI for these spare trunks is SPARE2X83AA in table CLLI.

To change a trunk member from a working group to a spare group, or from a spare group to a working group, see table TRKMEM.

Datafill

The following table lists the datafill for table TRKGRP type MAINT.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	DCLTONE DTU ESADGTR HSET JACK LTU MONTALK MTU TERM108 TTT TTU or alphanumeric (1 to 16 characters)	*Common language location identifier* Enter one of the following pseudo-CLLIs to specify the maintenance trunk group type required. DCLTONE - dialable cable-locator tone DTU - digital test unit ESADGTR - emergency stand-alone Digitone receiver HSET - position headset JACK - position jack LTU - line test unit MONTALK - monitor-and-talk circuit MTU - multiline test unit (for North American switches) or metallic test unit (for non-North American switches) TERM108 - 108 test line TTT - trunk test transmission TTU - terminating transmission test unit For spare trunk groups, enter the CLLI of the trunk group.
GRPINFO		see subfields	This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, and CARD. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.

TRKGRP type MAINT (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	GRPTYP	MAINT	*Group type* Enter MAINT to specify the maintenance group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. The initial value for this trunk group type is NCRT (no circuit). For pseudo-CLLIs DTU, HSET, JACK, LTU, MTU, TTT, and TTU, there is no generalized no-circuit (GNCT) treatment. Enter NCRT. For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual*.

TRKGRP type MAINT (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	1X54AA 2X11AA 2X11BA 2X47AA 2X47AC 2X72AA 2X88AA 2X90AB 2X96AA 4X23AA 4X45AA 4X97AA 5X30AA ESADGT or alphanumeric (1 to 6 characters)	*Card code* This field contains the product engineering code (PEC) of the card required for the specified maintenance trunk group type. Datafill this field as described below: For dialable cable-locator tone, enter 2X90AB (or equivalent). For digital test unit trunk group members, enter 4X23AA.For enhanced digital test unit group members, enter 4X45AA. For emergency stand-alone Digitone receivers, enter ESADGT. For position headset trunk group members, enter 2X72AA, 2X88AA, or 5X30AA. For position jack trunk group members, enter 2X72AA, 1X54AA, or 2X88AA. For line test unit trunk group members, enter 2X11AA. For members of the monitor-and-talk trunk group, enter 2X90AB. For members of the metallic (or multi-line) test unit trunk group, enter 2X11BA if the switch is North American, or 4X97AA if the switch is not North American. For members of the 108 test line trunk group, enter 2X88AA.

TRKGRP type MAINT (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			For members of the trunk test transmission trunk group, enter 2X96AA. Each member of the trunk group consists of a test signal generator with PEC NT1X90AA and its associated PCM-level meter with PEC NT2X96AA. As these two cards always reside in adjacent slots in the maintenance trunk module, and function as one unit, only PEC 2X96AA is specified in table TRKGRP. For members of trunk subgroup 0 of the terminating transmission test unit trunk group, enter 2X47AA or 2X47AC. Each member of the trunk group consists of a control and signal generator with PEC NT2X47AA and its associated digital filter with PEC NT2X56AA. As these two cards always reside in adjacent slots in the maintenance trunk module, and function as one unit, only PEC 2X47AA is specified in table TRKGRP

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			For members of the trunk test transmission trunk group, enter 4X45AA. Each EDTU virtual channel will be equivalent to a TTT, TTU and or a virtual DTU channel. An EDTU may be installed in any slot number on a MTM shelf. The slot to the immediate RIGHT of the EDTU on the MTM shelf must either be left vacant or be equipped with a circuit pack that seizes no trunk enables, such as an EDRAM (NT1X80AA or NT1X80BA) or CTM (NT1X81AA or NT1X81BA). An EDTU may be installed in any slot number higher than 6 on an ISM shelf. The slot to the immediate LEFT of the EDTU on ISM shelf must either be left vacant or be equipped with a circuit pack that seizes no trunk enables, such as an EDRAM (NT1X80AA or NT1X80BA) or CTM (NT1X81AA or NT1X81BA). For members of a spare trunk group, enter the PEC that applies to the trunk group. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

Datafill example

The following example shows sample datafill for table TRKGRP type MAINT.

TRKGRP type MAINT (continued)

MAP display example for table TRKGRP type MAINT

```
GRPKEY                              GRPINFO
_____________________________________________

TTT              MAINT 0 IAO    NCRT 2X96AA
JACK             MAINT 0 IAO    NCRT 1X54AA
HSET             MAINT 0 IAO    NCRT 2X72AA
DTU              MAINT 0 IAO    NCRT 4X23AA
TTU              MAINT 0 IAO    NCRT 2X47AA
LTU              MAINT 0 IAO    NCRT 2X11AA
MONTALK          MAINT 0 IAO    NCRT 2X90AB
TERM108          MAINT 0 TLD    NCRT 2X88AA
DCLTONE          MAINT 0 NPDGP  NCRT 2X90AB
ESADGTR          MAINT 0 TLD    NCRT ESADGT
SPARE2X83AA      MAINT 0 TLD    NCRT 2X83AA
DTU              MAINT 0 IAO    NCRT 4X45AA
TTU              MAINT 0 IAO    NCRT 4X45AA
LTU              MAINT 0 IAO    NCRT 4X45AA
```

Supplementary information

A dialable cable-locator tone trunk (pseudo-CLLI DCLTONE) is physically connected to a tone generator and uses the following procedure to locate a specific tip-and-ring cable pair:

1. Connect a telephone to any tip-and-ring cable pair.
2. Dial an access code plus the seven-digit directory number (DN) of the line if tone is to be applied.
3. Wait for a busy or confirmation tone.
4. If there is confirmation tone, look for the cable-locator tone on various wire pairs.

The translations to achieve the above result are as follows:

1. Enter the selected access code that applies to the originating line in subtable STDPRTCT.STDPRT.
2. Set field NOPREDIG equal to the number of digits in the access code.

3. Set translation to proceed either directly to CLLI DCLTONE, using PRERTSEL = S, or using table OFRT selector PRTESEL = S and PRERTSEL = T.
4. The switch then uses the seven digits dialed following the access code and if dialed DN is idle, the switch
   a. returns confirmation tone
   b. applies the cable-locator tone for the time specified by office parameter CABLE_LOCATE_TIMEOUT in table OFCENG
   c. sends the call to the appropriate subtable TMTCNTL.TREAT at treatment busy if the dialed DN is busy.

TRKGRP type MTR

International Trunk Group Type

One of the trunk group types used by international extended multiprocessor system (XMS)-based (XPM) peripheral module (IXPM) trunks is metering trunk (MTR). The direction of this trunk group is incoming, outgoing, or two-way. Metering is supported as an option. This trunk group is intended for local or national network traffic.

Translation types

MTR trunk groups have a provision that selects the translation type (for example, North American or universal translations) from the trunk group data.

One of the translation data selectors is an index into table NETATTR. When this selector is used, translation data is datafilled in table NETATTR instead of table TRKGRP.

End-to-end connections

Under certain conditions, an office only needs to collect enough digits to route a call. Once the call has been routed, the outgoing trunk to the next office is seized. A speech path between the incoming and outgoing trunk is connected and a signal is sent back to the previous office, instructing it to resend the digits. The outgoing register of the previous office can then signal to the incoming register of the next office. This situation is shown in the figure “End to end connections”..

If an end-to-end connection cannot be established through an office, the incoming trunk must collect all signals from the previous office and then send the signals out after the connection has been routed to the next office. This mode of operation is referred to as link-by-link or transfer. End-to-end connections set up toll calls faster than link-by-link connections. Whenever possible, the DMS-100I attempts to establish end-to-end connections.

The following list describes when end-to-end connections cannot be established for switching units in China.

- In the automatic toll network, inter-register signals cannot be sent to transit toll exchanges or terminating toll exchanges directly from an originating local exchange. They must be sent from the originating toll exchange.
- In general, inter-register signals cannot be sent to the local terminating exchange by transit toll or originating toll exchanges. They must be sent from the terminating toll exchange.

- In the local network, there are situations when tandem exchanges use transfer mode for transmission quality reasons.
- In the automatic toll network, there are situations when incoming registers of a transit toll exchange must transfer all inter-register signals for transmission quality reasons.

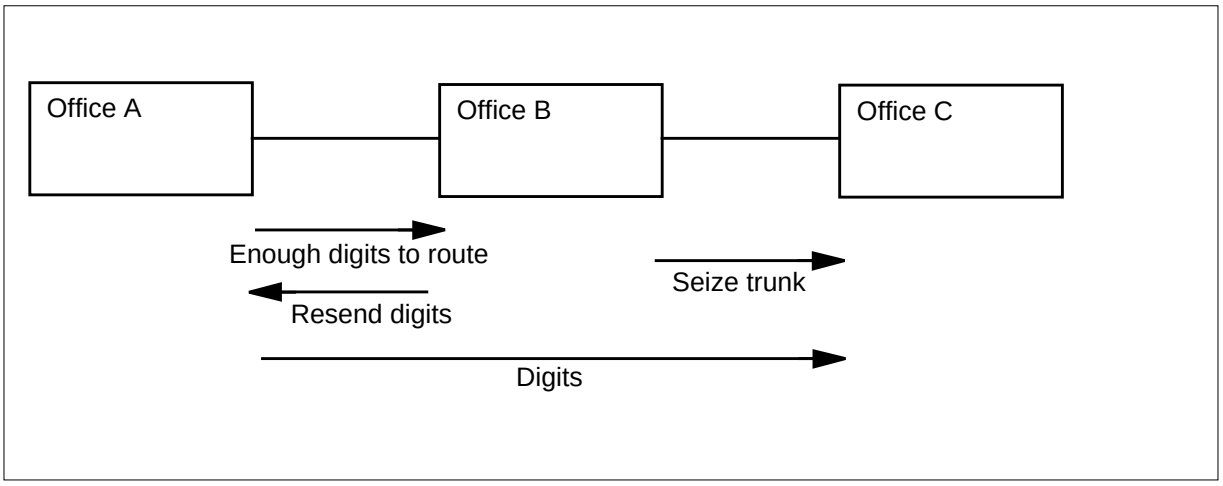
These restrictions mean that end-to-end connections cannot be established at originating toll or terminating toll offices. If an incoming trunk group on a DMS-100I is datafilled with a traffic class of either CAMA (originating toll) or TLLC (terminating toll), then no attempt to establish an end-to-end connection is made.

For other incoming trunks that must not establish end-to-end connections, field TANDEM in table TRKGRP must be set to LNK. With this field value, all incoming trunk circuits belonging to the trunk group (regardless of their traffic class) do not establish end-to-end connections.

End-to-end connections can only be established on incoming trunks with field TRFC in table TRKGRP set to either ITLL, EASV, or NONE, and with field TANDEM set to EEND.

The figure “End to end connections” shows an example of how an end-to-end connection is established. Once office B collects enough digits to route the call, the outgoing trunk from office B to office C is seized. Office B then connects a speech path and tells office A to resend the digits. At this point, the outgoing register at office A is signaling to the incoming register at office C.

End-to-end connections



TRKGRP type MTR (continued)

Traffic class

On a DMS100I, field TRFC of the trunk group data can take one of the traffic class values outlined below.

CAMA

Centralized automatic message accounting (CAMA) is used for trunk groups between offices in which the calling subscriber number and KA information can be signaled.

Trunk groups must be datafilled with a traffic class of CAMA whenever the calling subscriber information can be sent or received over a trunk group. In China, it can be used for trunk groups between:

- an originating local office and an originating toll office
- an originating local office and a local/toll office

An outgoing trunk group only sends the calling subscriber information forward in response to an A6 backwards signal if that outgoing trunk group is datafilled with a traffic class of CAMA. If an outgoing trunk group that is datafilled with a traffic class of CAMA receives an A6 backwards signal, it sends forward the following information:

- KA signal (contains calling subscriber category)
- calling subscriber number (office code + station number)
- end-of-digits (I15) signal

Note: In the C1 MFC signaling system, an A6 backwards signal indicates that the outgoing register must send forward a KA signal and the calling subscriber number.

If an outgoing trunk group with a traffic class not datafilled as CAMA receives an A6 backwards signal, then the outgoing trunk group is not able to send the KA signal and calling subscriber number forward. In this situation, only the end-of-digits (I15) signal is sent forward.

If an incoming trunk group is datafilled with a traffic class of CAMA, it does not necessarily send back an A6 signal. It is possible (from a stored program control [SPC] office, for example) to handle local calls over a trunk group datafilled as CAMA.

If an incoming trunk group with a traffic class of CAMA is handling a toll call, then once digit analysis indicates that enough digits have been collected (and translations has enough digits to determine an outgoing route), an A6 signal is sent backwards to the previous office. After the incoming trunk sends the A6

signal, it collects the KA information and the calling subscriber number. Once that information has been collected, the remaining called subscriber number is collected.

Note: If translations is not able to determine a route after the first few digits have been reported, more digits are collected until a route can be determined. It is important to datafill the digit analysis and digit translation systems together. If the first few digits that are reported by digit analysis cannot be translated into an outgoing route, the call capacity is affected due to the additional time required to collect enough digits to route the call.

Outgoing trunk groups with a traffic class of CAMA are required to provide extra information to the outgoing register for sending to the next office. Calls made over these trunk groups are slower than calls made over trunk groups with a traffic class other than CAMA.

EASV

Extended area service (EASV) is used for trunk groups that handle local (non-toll) traffic only. Local traffic is traffic that does not go through the toll network.

ITLL

Intertoll (ITLL) is used for trunk groups that carry toll traffic between toll offices. In the C1 MFC signaling system, a KC signal (indicating the priority of the calling subscriber) is sent between offices in the toll network. Some offices use this information for special routing. A traffic class of ITLL on an incoming trunk group indicates to the DMS-100I that a KC signal can be expected in the flow of inter-register signals from the previous office.

If an outgoing trunk group is datafilled with a traffic class of ITLL, it sends the KC information along with the outpulsed digits to the next office (if this office has not established an end-to-end connection). If an incoming trunk group is datafilled with a traffic class of ITLL, then the DMS-100I attempts to establish an end-to-end connection through the office. Both end-to-end and link-by-link connections are described later in this document.

Note: This feature does not provide the ability to perform priority routing at a toll office based upon the KC information.

Incoming trunk groups with this traffic class do not attempt to establish end-to-end connections.

TLLC

Toll completion (TLLC) is used for trunk groups that carry traffic from a toll office to a terminating toll office.

TRKGRP type MTR (continued)

TNCA

The tandem CAMA (TNCA) traffic class enables a call to collect the calling party information. It does not enable the call to perform toll billing. A tandem office between a local and a toll office can pass the calling party information without billing occurring at the tandem office. This feature is used in China for malicious call identification.

NONE

Trunk groups must be datafilled with a traffic class of NONE if none of the other traffic classes are applicable. For example, for trunk groups that carry traffic between local offices, use a traffic class of NONE. Similarly, for trunk groups that carry traffic from a terminating toll office to a terminating local office, use a traffic class of NONE.

Digit analysis

On a DMS-100I, digit analysis can be performed on both a trunk group and a line attribute basis.

There are two main tables used for specifying digit analysis: DGHEAD and DGCODE. Each tuple in table DGCODE specifies the type of analysis that is carried out for the digit range given in the key to that tuple. The key for each tuple consists of an instance name and a digit range. The digit range is composed of “from" digits and “to" digits. These digits can be either one or two digits in length. Flexibility is achieved by allowing several separate instances. The names of all instances must be in table DGHEAD. Table DGHEAD is used to associate default values with each instance. The values in DGHEAD are only used if the instance does not appear in table DGCODE.

To associate an incoming trunk with a particular type of analysis, the name of the required instance in table DGHEAD is entered in field DGNAME of table TRKGRP.

By providing digit analysis on a trunk group basis, the DMS-100I is flexible enough to enable trunks coming from one office to use different digit analysis than trunks coming from another office. This system also enables trunks carrying different classes of traffic to use different digit analysis schemes.

Digit regeneration

Field DIGREGEN is used by the incoming and two-way international trunk group MTR to enable the prefixing of incoming digits with up to four numbers. This field contains the digits (maximum four) that require regeneration so that the number dialed in the distant office can be regenerated. If no digits require regeneration, the entry is N (no).

Office parameters

If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busied prior to changing the value of this field through a data modification order (DMO).

Restarts

The software meters used for trunk metering can survive WARM and COLD restarts. On a RELOAD from image, potential mismatches can occur if the software meter assignment on the image tape differs from that of the switch before the RELOAD occurred. If there is no difference, the software meters survive the RELOAD. If there is a difference, the meter audit logs all meters that do not match the datafill.

Calls do not survive COLD and RELOAD restarts, and are automatically taken down. The software meters are not updated for these calls.

Calls survive WARM restarts. Those calls that terminate after the restart have their software meters updated properly. Those calls that terminate during the restart have their meters updated upon the next usage of the trunk. Since the exact disconnect time is not known, the restart time is used as the disconnect time.

Datafill

The following table lists the datafill for table TRKGRP type MTR.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.

TRKGRP type MTR (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, IAA, TANDEM, TRFC, DIR, and refinements of field DIR. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	MTR	*Group type* Enter MTR to specify the international trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.

TRKGRP type MTR (continued)

Field descriptions (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If trunk direction is incoming (IC), this field is not required. Enter NCRT. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual* .
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk group is set up to switch through satellite. Otherwise, enter N (no).
	ESUPR	Y or N	*Echo suppressor* If the trunk sub-group has echo suppressors, enter Y. Otherwise, enter N.
	IAA	Y or N	*Inter-administration accounting* Inter-administration accounting (IAA) provides the operating company with the call details to facilitate revenue accounting back to the originating administration. Enter Y if IAA recording is required for this trunk group. Otherwise, enter N to indicate that no IAA recording is required. If the office parameter IAA_REQUESTED in table OFCVAR is set to Y, only calls over trunks with IAA equal to Y are recorded. If the parameter is set to N, no IAA records are generated.

TRKGRP type MTR (continued)

Field descriptions (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TANDEM	EEND or LNK	*Tandem mode* Enter EEND (end-to-end operation), if end-to-end connections are enabled over the trunk group. Enter LNK (link-by-link operation), if end-to-end connections are not enabled over the trunk group. End-to-end connections are only applicable to R2 MFC signaling trunk groups. For non-R2 MFC signaling trunk groups, this field is not used by the system.
	TRFC	CAMA, EASV, ITLL, TLLC, TNCA, or NONE	*International traffic class* Enter the type of traffic that is expected to flow through this trunk group. The types of traffic classes are: CAMA - Centralized automatic message accounting is the traffic class for trunk groups if the calling subscriber digits are signaled between switching units. EASV - Extended area service is the traffic class for trunk groups that handle local (non-toll) traffic only. ITLL - Intertoll is the traffic class for trunk groups that carry traffic in the toll network. TLLC - Toll-completion is the traffic class for trunk groups that carry traffic between a toll switching unit and a terminating toll switching unit. TNCA - Tandem CAMA is the traffic class used to collect the calling party information, but not to perform toll billing. It is used in China for malicious call identification. NONE - is the traffic class used for trunk groups that do not belong to one of the other traffic classes, or for a trunk group to which traffic class is not applicable.

Incoming international trunk groups

For incoming international trunk groups, datafill field DIR and refinements as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DIR	IC	*Direction* Enter IC to specify the trunk group direction as incoming.
	MCTANI	Y or N	*Forward ANI enable* Enter Y to indicate that on malicious call trace (MCT) calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is required. Enter N to indicate that on MCT calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is not required. This option is applicable for R2 calls only.
	XLAD	see subfield	*Variable translation data* This field consists of subfield XLADSEL and (dependent on the entry in XLADSEL) appropriate translation data as described below.
	XLADSEL	UNIV NETATTR or NALT	*Translation selector* If the universal translation system is used, enter UNIV and datafill subfields XLASYS and XLANAME. If this table indexes into table NETATTR, enter NETATTR and datafill subfield NETINDX. If the North American translation system is used, enter NALT and datafill subfields PRTNM, SCRNCL, SNPA, and ORIGSRC.

DIR = IC and XLADSEL = UNIV

For incoming trunk groups with a value of UNIV in field XLADSEL, datafill subfields XLASYS and XLANAME as described below, then datafill fields

TRKGRP type MTR (continued)

MTRIC, DIGREGEN, and DGNAME as described in "DIR = IC and XLADSEL = UNIV, NETATTR, or NALT" on page -708.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, CT, CTY, DN, FA, FT, NSC, OFC, PX, or NIL	*Translation system* Enter the head table name from which translations begin. Entry values other than those listed are not valid.
	XLANAME	alphanumeric (1 to 8 characters) or NIL	*Translation name* Enter a name from the code table that belongs to the head table referenced by field XLASYS.

DIR = IC and XLADSEL = NETATTR

For incoming trunk groups with a value of NETATTR in field XLADSEL, datafill subfield NETINDX as described below, then datafill fields MTRIC, DIGREGEN, and DGNAME as described in "DIR = IC and XLADSEL = UNIV, NETATTR, or NALT" on page -708..

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required, since it is available in table NETATTR.

DIR = IC and XLADSEL = NALT

For incoming trunk groups with a value of NALT in field XLADSEL, datafill subfields PRTNM, SCRNCL, SNPA, and ORIGSRC as described below, then

datafill fields MTRIC, DIGREGEN, and DGNAME as described in "DIR = IC and XLADSEL = UNIV, NETATTR, or NALT" on page -708..

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

TRKGRP type MTR (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in the HNPACODE subtable. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.

DIR = IC and XLADSEL = UNIV, NETATTR, or NALT

For all incoming trunk groups, datafill subfields MTRIC, DIGREGEN, and DGNAME as described below, then datafill fields PROTIDX and TRTMTIDX as described in "Incoming, outgoing, and two-way trunks" on page -718.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	MTMTRIC	see subfields	*Meter incoming information* This field consists of subfields METERIC and MDI.
	METERIC	Y or N	*Meter option* If metering is desired, enter Y (yes) and datafill subfield MDI. If metering is not required, enter N (no). The value in field METERIC cannot be changed to N once it has the value Y.

TRKGRP type MTR (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	MDI	numeric (0 to 1023)	*Metering data index* If the entry in field METERIC is Y, enter an appropriate metering data index from table MSRCDATA. If the entry in field METERIC is N, leave field MDI blank.
	DIGREGEN	0 to 9 (up to 4 digits) or N	*Digit regeneration* Enter the digits (maximum four) to prefix to the incoming digits so that the number in the distant office can be regenerated. If no prefix digits are required, enter N (none).
	DGNAME	alphanumeric (1 to 8 characters) or NIL	*Digit collection name* Enter the digit analysis instance required for an incoming trunk group. The digit analysis instance must have been previously defined in table DGHEAD. Enter NIL if no digit analysis is required.

TRKGRP type MTR (continued)

Two-way international trunk groups

For two-way international trunk groups, datafill field DIR and refinements as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DIR	2W	*Direction* Enter 2W to specify the trunk group direction as two-way.
	MCTANI	Y or N	*Forward ANI enable* Enter Y to indicate that on malicious call trace (MCT) calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is required. Enter N to indicate that on MCT calls connected to trunks that do not already send DN and CATEGORY, a backwards request for DN or CATEGORY is not required. This option is applicable for R2 calls only.
	XLAD	see subfield	*Variable translation data* This field consists of subfield XLADSEL and (dependent on the entry in XLADSEL) appropriate translation data as described below.
	XLADSEL	UNIV NETATTR or NALT	*Translation selector* If the universal translation system is used, enter UNIV and datafill subfields XLASYS and XLANAME. If this table indexes into table NETATTR, enter NETATTR and datafill subfield NETINDX. If the North American translation system is used, enter NALT and datafill subfields PRTNM, SCRNCL, SNPA, and ORIGSRC.

DIR = 2W and XLADSEL = UNIV

For two-way trunk groups with a value of UNIV in field XLADSEL, datafill subfields XLASYS and XLANAME as described below, then datafill fields MTRIC, SELSEQ, MTROG, DIGREGEN, ANIIDX, and DGNAME as

described in "DIR = IC and XLADSEL = UNIV, NETATTR, or NALT" on page -708.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, CC, CT, CTY, DN, FA, FT, NSC, OFC, PX, or NIL	*Translation system* Enter the head table name from which translations begin. Entry values other than those listed are not valid.
	XLANAME	alphanumeric (1 to 8 characters) or NIL	*Translation name* Enter a name from the code table that belongs to the head table referenced by field XLASYS.

DIR = 2W and XLADSEL = NETATTR

For two-way trunk groups with a value of NETATTR in field XLADSEL, datafill subfield NETINDX as described below, then datafill fields MTRIC, SELSEQ, MTROG, DIGREGEN, ANIIDX, and DGNAME as described in "DIR = 2W and XLADSEL = UNIV, NETATTR, or NALT" on page -713.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required, since it is available in table NETATTR.

DIR = 2W and XLADSEL = NALT

For two-way trunk groups with a value of NALT in field XLADSEL, datafill subfields PRTNM, SCRNCL, SNPA, and ORIGSRC as described below, then datafill fields MTRIC, SELSEQ, MTROG, DIGREGEN, ANIIDX, and

TRKGRP type MTR (continued)

DGNAME as described in "DIR = 2W and XLADSEL = UNIV, NETATTR, or NALT" on page -713.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes.
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (nonlocal). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in the HNPACODE subtable. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.

DIR = 2W and XLADSEL = UNIV, NETATTR, or NALT

For all two-way trunk groups, datafill subfields MTRIC, SELSEQ, MTROG, DIGREGEN, ANIIDX, and DGNAME as described below, then datafill fields PROTIDX and TRTMTIDX as described in "Incoming, outgoing, and two-way trunks" on page -718..

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	MTMTRIC	see subfields	*Meter incoming information* This field consists of subfields METERIC and MDI.
	METERIC	Y or N	*Meter option* If metering is desired, enter Y (yes) and datafill subfield MDI. If metering is not required, enter N (no). The value in field METERIC cannot be changed to N once it has the value Y.
	MDI	numeric (0 to 1023)	*Metering data index* If the entry in field METERIC is Y, enter an appropriate metering data index from table MSRCDATA. If the entry in field METERIC is N, leave field MDI blank.

TRKGRP type MTR (continued)

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CWCTH DSEQLIDL or MIDL	*Select sequence*If the trunk is two-way and the far end is a link list switcher, enter LIDL (least idle) or MIDL (most idle) if the far end is MIDL or LIDL respectively. If the trunk is two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL to satisfy the table editor. If the trunk group is two-way, the far end is not a link list switcher, and sequential selection applies (feature package NTX244AB (Enhanced Sequential Trunk Hunting) must be present), enter • CWCTH for clockwise or CCWCTH for counter clockwise circular trunk hunting (starting from the most recently released trunk in the trunk group and based on the order of trunk members in table TRKMEM) for a far end of CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection (based on the order of trunk members in table TRKMEM) for a far end of DSEQ or ASEQ respectively. ***Note:*** Refer to the general section of table TRKGRP for additional information on field SELSEQ and for information on changing a trunk group selection method and sequence.
Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.			
	MTROG	see subfields	*Mete r outgoing information* This field consists of subfields METEROG and MDI.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	METEROG	N	*Meter option* Enter N. Metering is not allowed on two-way MTR trunks.
	MDI	leave blank	*Metering data index* This field is left blank. Datafill for subfield MDI is only required if the entry in METEROG is Y.
	DIGREGEN	0 to 9 (up to 4 digits) or N	*Digit regeneration* Enter the digits to prefix to the incoming digits so that the number in the distant office can be regenerated. If no digits are to be prefixed, enter N (none).
	ANIIDX	alphanumeric (1 to 8 characters)or NIL	*Fixed automatic number identification index* Enter the index into table FIXEDANI for this trunk group. If datafilled, automatic number identification (ANI) is taken from table FIXEDANI rather than the calling party. For trunks with a traffic class other than CAMA or TNCA, enter the value NIL.
	DGNAME	alphanumeric (1 to 8 characters) or NIL	*Digit collection name* Enter the digit analysis instance required for an incoming trunk group. The digit analysis instance must have been previously defined in table DGHEAD. Enter NIL if no digit analysis is required.

TRKGRP type MTR (continued)

Outgoing international trunk groups

For outgoing international trunk groups, datafill field DIR and refinements as described below, and then datafill fields PROTIDX and TRTMTIDX as described in "Incoming, outgoing, and two-way trunks" on page -718.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	OG	*Direction* Enter OG to specify the trunk group direction as outgoing.
	SELSEQ	ASEQ CCWCTH CWCTH DSEQLIDL or MIDL	*Select sequence* If the trunk is two-way and the far end is a link list switcher, enter LIDL (least idle) or MIDL (most idle) if the far end is MIDL or LIDL respectively. If the trunk is two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL to satisfy the table editor. If the trunk group is two-way, the far end is not a link list switcher, and sequential selection applies (feature package NTX244AB (Enhanced Sequential Trunk Hunting) must be present), enter • CWCTH for clockwise or CCWCTH for counter clockwise circular trunk hunting (starting from the most recently released trunk in the trunk group and based on the order of trunk members in table TRKMEM) for a far end of CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection (based on the order of trunk members in table TRKMEM) for a far end of DSEQ or ASEQ respectively. ***Note:*** Refer to the general section of table TRKGRP for additional information on field SELSEQ and for information on changing a trunk group selection method and sequence.

TRKGRP type MTR (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.			
	MTROG	see subfields	*Meter outgoing information* This field consists of subfields METEROG and MDI.
	METEROG	N	*Meter option* Enter N. Metering is not allowed on outgoing MTR trunks.
	MDI	leave blank	*Metering data index* This field is left blank. Datafill for subfield MDI is only required if the entry in METEROG is Y.
	ANIIDX	alphanumeric (1 to 8 characters) or NIL	*Fixed automatic number identification index* Enter the index into table FIXEDANI for this trunk group. If datafilled, automatic number identification (ANI) is taken from table FIXEDANI rather than the calling party. For trunks with a traffic class other than CAMA or TNCA, enter the value NIL.

TRKGRP type MTR (continued)

Incoming, outgoing, and two-way trunks

For all incoming, outgoing, or two-way trunks, datafill fields PROTIDX and TRTMTIDX as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	PRPROTIDX	BELR2 BRAR2 CHILER2 CHIR2 GUYR2 HAITIR2 IRER2L IRER2T MEXR2 MEXR2B MORR2L MORR2T PERU1R2 SOCR24 SOCR26 SOCR26A SOCR27 or NIL	*R2 protocol index* This field references table indices in table R2PROT that are required by this trunk group for R2 signal/activity mappings and control. All valid entries are five to eight alphanumeric characters in length, with the characters prior to R2 corresponding to the target area. T or L after the characters R2 indicates that the protocol is for toll or local calls respectively. Enter the required R2 protocol for the trunk, or enter NIL if the trunk group does not use R2 signaling. Entry values other than those listed are not valid.
	TRTMTIDX	BELTRT BRATRT CHILETRT CHITRT GUYTRT HAITITRT MEXTRT MORTRTL MORTRTT PERUTRT SOCTRTL SOCTRTT or NIL	*R2 treatment index* This field references table indices in tables TRTMTACT (treatment to activity) and TRTTRTMT (activity to treatment) required by this trunk group. All valid entries are six to eight alphanumeric characters in length, with the characters prior to TRT corresponding to the target area. T or L after the characters TRT indicates that the treatment is for toll or local calls respectively. Enter the required R2 treatment for the trunk, or enter NIL if the trunk group does not use R2 signaling. Entry values other than those listed are not valid.

Datafill example

An example of datafill for table TRKGRP and trunk group type MTR is shown below. This example consists of datafill for one incoming trunk group and one outgoing trunk group with the following characteristics:

- The code in table CLLI for the outgoing trunk group is OGTOBKA and the code for the incoming trunk group is ICFRBKA.
- The traffic separation number for the outgoing trunk group is 10 and for the incoming trunk group is 0.
- ELOA is the pad group assigned to both trunk groups.
- NCRT is the no circuit class for both trunk groups.
- Neither trunk group is set up to switch through satellite.
- Neither trunk group has echo suppressors.
- Both trunks require inter-administration accounting.
- End-to-end connections are enabled.
- International traffic class is not used (NONE is entered).
- The direction for the outgoing trunk group is OG and for the incoming trunk group is IC.
- Backward requests for DN and CATEGORY are not made on the incoming trunk group.
- Both trunk groups use the universal translator.
- The translation for the incoming trunk group starts in the prefix translation table.
- The translation name for the incoming trunk group is ICTOLLCN.
- Neither trunk group uses metering.
- No digit prefixing is done for the incoming trunk group.
- The outgoing trunk group selection sequence is most idle.
- The fixed ANI index option is not used for the outgoing trunk group.
- Digit collection name is not required.
- For both trunk groups, the protocol index is MEXR2 and the treatment index is MEXTRT.

TRKGRP type MTR (end)

MAP display example for table TRKGRP type MTR

```
GRPKEY            GRPINFO
_____________________________________________________________________________
OGTOBKA           MTR 10 ELOA NCRT N N Y EEND NONE OG UNIV
 N MIDL N NIL NIL MEXR2 MEXTRT $
ICFRBKA           MTR 0 ELOA NCRT N N Y EEND NONE IC N UNIV
 PX ICTOLLCN N N NIL MEXR2 MEXTRT $
```

TRKGRP type NFA

Network Facility Access Trunk Group Type

Trunk group type NFA is used to assign network facility access (NFA) trunks that connect a subscriber line to an intelligent peripheral (IP) processor. This provides a subscriber with access to services provided directly by the IP.

Datafill

The following table lists the datafill for table TRKGRP type NFA.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, SELSEQ, and ANSTOUT. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	NFA	*Group type* Enter NFA to specify the group type for network facility access trunks.

TRKGRP type NFA (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to the general section of table TRKGRP.

TRKGRP type NFA (continued)

Field descriptions (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CWCTH DSEQ LIDL or MIDL	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if the far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL. If the trunk group is outgoing or two-way, the far end is not a link list switcher (requirement for two-way trunks only), and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are not valid. For more information, refer to the general section of table TRKGRP.

TRKGRP type NFA (end)

Field descriptions (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
Note: A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence may be changed to ASEQ from DSEQ or from DSEQ to ASEQ if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.			
	ANSTOUT	numeric (5 to 15)	*Answer timeout* Enter the time, in seconds, within which the trunk much respond with answer supervision after seizure.

Datafill example

The following example shows sample datafill for table TRKGRP type NFA.

MAP display example for table TRKGRP type NFA

```
GRPKEY          GRPINFO
_____________________________________________________________

NFATKG1         NFA 0 ELO NCRT NIL MIDL 12
```

Table history

BCS34

Trunk group type NFA was introduced.

Nailed-up Connection Trunk Group Type

In a toll or end office, an incoming trunk of group type NU can be permanently connected (nailed-up) to an outgoing trunk of group type NU.

Table NLUPCLLI lists trunk connections that have been nailed-up. Each nailed-up connection consists of one incoming and one outgoing trunk of group type NU.

Pulsing over the trunk group is not allowed if the trunk is digital and pulsing format is dial pulse.

Table TRKSGRP lists the code, card code subgroup, and trunk direction for each of the trunk groups. All other fields must be set to the default values listed in table “Default key settings”. .

Default key settings

Incoming Field	Entry	Outgoing Field	Entry
IPULSETYP	NP	OPULSTYP	NP
ISTARTSG	IM	OSTARTSG	IM
OVLP	N	IDIGTIME	7
PSPDSEIZ	2	NUMSTOPS	0
PARTDIAL	2		
CCONT	NO	CCONT	NO
RNGBCK	NO	RNGBCK	NO
ESUPR	N	ESUPR	N
SAT	N	SAT	N
REMBSY	N	REMBSY	N
DIALMODE	C	TRKGDTIM	70

TRKGRP type NU (continued)

Datafill

The following table lists the datafill for table TRKGRP type NU.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, DIR, and BCNAME. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	NU	*Group type* Enter NU to specify the group type for nailed-up connections.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.

TRKGRP type NU (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). The initial value for this trunk group type is NCRT. For more information, refer the general information section of to table TRKGRP and the *Operational Measurements Reference Manual* .
	DIR	IC or OG	*Trunk group direction* Datafill this field to specify the trunk group direction. For incoming trunks, enter IC. For outgoing trunks, enter OG. Entries other than IC or OG are not valid.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* Enter the bearer capability to be used by nailed-up trunks in this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. All values defined in table BCDEF are valid except those that require a transfer capability of AU_7KHZ. The default value is 64KDATA.

TRKGRP type NU (end)

Datafill example

The following example shows sample datafill for table TRKGRP type NU.

MAP display example for table TRKGRP type NU

```
GRPKEY            GRPINFO
_____________________________________________________

OTWAON52CG02      NU 15 ELO NCRT IC 64KDATA
HULLPQ1077X0      NU 16 ELO NCRT OG 56KDATA
```

OG/2W from Local to CAMA Trunk Group Type

Trunk group type OC is used in one of the following configurations:

- In a DMS end office, outgoing trunk group type OC interfaces with a toll office to carry noncoin subscriber-dialed chargeable calls (TOPS operator assistance not required) recorded by centralized automatic message accounting (CAMA) in the toll office.

  Signaling formats include the CAMA automatic number identification (ANI) pulsing format (non-TSPS CAMA office).

  If the toll office is a DMS switch, the far end of trunk group type OC enters the DMS toll office as trunk group type SC.

- In a DMS end office, two-way trunk group type OC interfaces with a toll office to carry outgoing trunk traffic and the following incoming trunk traffic:

  — dedicated to toll-completing

  — dedicated to verification

  — combined toll-completing and verification

For more information on verification calls, refer to table TRKGRP(VR).

- In a DMS equal-access end office (EAEO) or an access tandem office with the feature group B (FGB) equal access carriers, two-way trunk group type OC interfaces with the Feature Group B (FGB) Equal Access Carriers feature package.

- In a DMS toll or TOPS office, outgoing trunk group type OC tandems a call to another toll office as a CAMA call, and outpulses ANI if required.

  The hold type for this trunk group type is no hold, which means that the call is taken down if either the originator or the terminator goes on-hook.

TRKGRP type OC (continued)

Datafill

The following table lists the datafill for table TRKGRP type OC.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, SELSEQ, ANITYPE, BILLSPILL, EA, and V2DATA. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OC	*Group type* Enter OC to specify the outgoing or two-way local to CAMA trunk group type.
	TRAFSNO	numeric (0 to 127)	*Traffic separation numbe* *r*Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.

TRKGRP type OC (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If trunk direction is incoming (IC), this field is not required. Enter NCRT. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table the general section of TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to the general section of table TRKGRP.

TRKGRP type OC (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDL LIDL CWCTH CCWCT HASEQ or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL. If the trunk group is two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are invalid. For more information, refer to the general section of table TRKGRP.
Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.			

TRKGRP type OC (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	ANITYPE	WK REV NO or REVUK	*ANI request type* For special requirements (RCF/TCF), enter WK (wink). This is the correct automatic number identification (ANI) fail-and-answer supervision on the second leg of a remote call-forwarding call. For normal Bell standard offices, enter REV (reversal or answer). This is the default datafill value. If ANI is not performed, enter NO. If interworking with DMS-250 TOPS trunks is required, enter REVUK. REVUK uses the UK250 ANI protocol format. ***Note:*** If optional feature package NTXE34AA (4X Operation - AMR5 Format ANI) is present, enter REV for this field value. Feature package NTXE34AA allows ANI to be forwarded if Feature Group C (FGC) signaling is used. If this package is present, other values for ANITYPE are not valid.
	BILLSPILL	Y or N	*Spill billing* In offices with feature package NTX159AA (AT&T LAMA Format) and feature package NTX986AA (ANI with AMA), enter Y (yes) if direct-dialed calls terminating to the trunk group are to be recorded in a Bellcore AMA-format billing record. Otherwise, enter N (no).

TRKGRP type OC (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	EA (see Note 1)	Y or N	*Equal access* Enter Y if double ANI digits are to be sent out. Otherwise, enter N. ***Note 1:*** Canada only ***Note 2:*** If optional feature NTXE34AA (which allows ANI to be forwarded if Feature Group C [FGC] signaling is used) is present, enter N for this field. If NTXE34AA is present, Y is not a valid entry value.
	V2DATA	see subfields	*Trunk group data* This field consists of subfield DIR and refinements.

Outgoing local to CAMA trunk groups

For outgoing local to CAMA trunks, datafill subfield DIR and refinements as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	OG	*Trunk direction* Enter OG to specify that the trunk group direction is outgoing. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	OPTIONS	see subfield	*Options* This field consists of subfield OPTION and refinement.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BCNAME	*Option* To specify the bearer-capability-name option, enter BCNAME and datafill refinement BCNAME. If no options apply, leave this field blank.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.

TRKGRP type OC (continued)

Two-way local to CAMA trunk groups

For two-way local to CAMA trunks, datafill subfield DIR and refinements as described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	2W	*Trunk direction* Enter 2W to specify that the trunk group direction is two-way. Office parameter TWO_WAY_FOR_OC in table OFCOPT must be set to Y for two-way trunk groups. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters) or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). This field is used in subtable HNPACONT.HNPACODE to prevent a non-authorized originator from access to certain operators, and to verify that the number of digits received is correct. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.
	MODE	ARCRCV or VF	*Mode of operation* Enter one of the following modes of operation: • AR for toll-completing with automatic ringing • CR for toll-completing with control ringing • CV for combined toll-completing and verification • VF for dedicated verification If the number to which a verification call is to terminate is busy, the call is completed using the operator verification trunk group (trunk group type VR) and table MTATRK.
	VDEVAR	see subfields	*Variable digit data* This field consists of subfield VDESEL and refinements.

TRKGRP type OC (continued)

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	VDESEL	Y or N	*Variable digit selector* If the number of incoming digits is fixed, enter N and datafill refinement DIGREGEN. If the number of incoming digits is variable, enter Y and datafill refinements DIGSIN1 and DIGSIN2.
	DIGREGEN	numeric (1 to 4 digits) or N	*Digits to be regenerated* Datafill this field if the value in field VDESEL is N. Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits.
	DIGSIN1	numeric (1 to 18)	*Minimum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the minimum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIGSIN2	numeric (1 to 18)	*Maximum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the maximum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	FGB_AREA	see subfield	*Feature group B information* This field consists of subfield FGBTRAFC and refinements.
	FGBTRAFC	Y or N	*Feature group B traffic* To indicate that a trunk group connects to an OCC switch and carries Feature Group B (FGB) calls, enter Y and datafill fields FGBANI and CARRNM. Otherwise, enter N.
	FGBANI	Y or N	*Feature group B ANI* Datafill this field if the value in field FGBTRAFC is Y. If normal ANI is provided, enter Y. If KP + ST is required, enter N.
	CARRNM	alphanumeric (1 to 16 characters) or NILC	*Carrier name* Datafill this field if the value in field FGBTRAFC is Y. Enter the name of the carrier, using an OC trunk group previously datafilled in table OCCINFO. NILC is the default entry.

Datafill example

An example of datafill for table TRKGRP and outgoing group type OC is shown below.

- The code of the trunk group is OTWAON2303TO.
- The trunk group type is OC.

TRKGRP type OC (continued)

- The outgoing traffic separation number is 11.
- TLD is the name of the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The traffic class is CAMA.
- The select sequence is MIDL.
- The ANI request type is wink (WK).
- Billing is not required for direct-dialed calls terminating to this trunk group. Double ANI is not sent.
- The direction is outgoing (OG).
- The option is BCNAME, and the bearer capability is 56kdata.

MAP display example for table TRKGRP type OC

```
GRPKEY            GRPINFO
_____________________________________________________________________
OTWAON2303TO      OC 11 TLD NCRT CAMA MIDL WK N N OG BCNAME 56KDATA $
```

An example of datafill for table TRKGRP and two-way group type OC is shown below.

- The code of the trunk group is OTWAON2303TO.
- The outgoing traffic separation number is 11.
- TLD is the name of the pad group assigned to the trunk group. NCRT is the no-circuit class.
- The traffic class is CAMA.
- The select sequence is MIDL.
- The ANI request type is a reversal (REV).
- Billing is not required for direct-dialed calls terminating to this trunk group. Double ANI is not sent out (EA N).
- The direction is two-way.
- The standard pretranslator name is VRCT.
- No class of service screening is required.
- The serving NPA is 613.
- The originating source is local (LCL).

TRKGRP type OC (end)

- The mode is combined toll-completing and verification (CV).
- The number of incoming digits is variable, minimum 7, maximum 9. The trunk group connects to an OCC switch.
- Normal ANI is to be provided.
- The carrier name is CARR1.

MAP display example for table TRKGRP type OC

```
GRPKEY          GRPINFO
_____________________________________________________________________________
OTWAON2303TO    OC 11 TLD NCRT CAMA MIDL REV N N 2W VRCT 613 LCL CV
 Y 7 9 Y Y CARR1
```

TRKGRP type OI

Incoming Operator Trunk Group Type

In a DMS end office, incoming trunk group type OI connects to an operator board or a Traffic Operator Position System (TOPS) office to carry simple call-processing traffic. An OI type trunk cannot handle feature-related call processing. An OI trunk type cannot terminate to an IBNTO trunk type.

Verification calls can originate on trunk group type OI under certain conditions. Refer to table TRKGRP type VR for more information.

There is no ring time out on a call placed with an OI trunk type.

The hold type for this trunk group type is terminating hold, which means that the call is taken down if the terminator goes on hook.

Datafill

The following table lists the datafill for table TRKGRP type OI.

Field descriptions (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, PRTNM, SCRNCL, SNPA, ORIGSRCE, MODE, VDEVAR, and COLOCATED. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OI	*Group type* Enter OI to specify the incoming operator trunk group type.

TRKGRP type OI (continued)

Field descriptions (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCRT	*Operational measurements no-circuit class* For incoming trunk groups, this field is not required. Enter NCRT (no circuit). For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to the general section of table TRKGRP.

TRKGRP type OI (continued)

Field descriptions (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). This field is used to screen calls in subtable HNPACONT.HNPACODE. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.

TRKGRP type OI (continued)

Field descriptions (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	MODE	AR CR CV or VF	*Mode of operation* Enter one of the following modes of operation: • AR for toll-completing with automatic ringing • CR for toll-completing with control ringing • CV for combined toll-completing and verification • VF for dedicated verification If the number to which a verification call is to terminate is busy, the call is completed using the operator verification trunk group (trunk group type VR) and table MTATRK.
	VDEVAR	see subfields	*Variable digit data*This field consists of subfield VDESEL and refinements.
	VDESEL	Y or N	*Variable digit selecto* If the number of incoming digits is fixed, enter N and datafill refinement DIGREGEN. If the number of incoming digits is variable, enter Y and datafill refinements DIGSIN1 and DIGSIN2. ***Note:*** If the number of incoming digits is variable, a corresponding variable-digit-format entry is required in the table STDPRTCT.STDPRT.

TRKGRP type OI (continued)

Field descriptions (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	DIGREGEN	numeric (1 to 4 digits) or N	*Digits to be regenerated* Datafill this field if the value in field VDESEL is N. Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits.
	DIGSIN1	numeric (1 to 18)	*Minimum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the minimum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

Field descriptions (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	DIGSIN2	numeric (1 to 18)	*Maximum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the maximum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	COLOCATED	Y or N	*Collocated switchboard* Enter Y if operator switchboards NE 3, 3C, 3CL, or AE no. 30 or 31 are located in the same building as the switch. Otherwise, enter N. If switchboards are collocated, use trunk circuits with PEC NT3X07AA (incoming trunk to 3C, 3CL, or AE31 switchboard, sleeve lead circuit card).

Datafill example

An example of datafill for table TRKGRP and group type OI is shown below.

- The CLLI of the incoming operator trunk group is OTWAON231BB1.
- The trunk group type is incoming operator (OI).
- The incoming traffic separation number is 12.
- TLA is the pad group assigned to the trunk group.
- NCRT is the no-circuit class.
- The traffic class and mode of operation is verification, VR and VF respectively.
- Routing is done using the standard pretranslator INCO.
- No class-of-service screening is provided.
- The operator trunk group is in serving NPA 613.
- The trunk group has an originating source of non-local (toll).

TRKGRP type OI (end)

- The number of incoming digits is fixed at 5 and the digits to be regenerated are 72.
- The operator switchboards are not co-located in the same building as the switch.

MAP display example for table TRKGRP type OI

```
GRPKEY           GRPINFO
_____________________________________________________________________________
OTWAON231BB1     OI 12 TLA NCRT VR INCO NSCR 613 NLCL VF N 72 N $
```

OG/2W from Local or Toll to TOPS or TSPS Trunk Group Type

Trunk group type OP is used in one of the following two configurations:

- In a DMS end office, outgoing trunk group type OP connects with a Traffic Operator Position System (TOPS) or Traffic Service Position System (TSPS) office and can be set up to carry any or all of the following types of traffic:
  - — noncoin subscriber-dialed chargeable calls recorded by centralized automatic message accounting (CAMA) in the TOPS office using automatic number identification (ANI) or operator number identification (ONI), provided they are not recorded by local automatic message accounting (LAMA) in the end office

    This function is similar to the function of trunk group type OC.
  - — coin and noncoin TOPS operator-assisted calls that can be recorded by CAMA in the TOPS office using ANI or ONI

    Signaling formats include dial pulse for TSPS from the local office.

    If the far-end switch is a DMS TOPS office, the far end of trunk group type OP enters the office as trunk group type TOPS.
- In a DMS end office, two-way trunk group type OP (in addition to the outgoing trunk functions) can be set up for the following incoming trunk functions:
  - — dedicated to toll completing
  - — dedicated to verification
  - — combined toll completing and verification

Refer to TRKGRP type VR for additional information on verification calls.

Office parameters for alarm sending of ANI

If alarm sending of ANI information digit 8 over a TSPS or TOPS trunk is required, refer to the following variable office parameters in table OFCVAR:

- ASCS_MONITOR_DELAY
- ASCS_NOALARM_THRESHOLD
- ASCS_NOSEND_THRESHOLD
- ASCS_ROUTE_INDEX
- ASCS_TRUNK_TIMEOUT

TRKGRP type OP (continued)

If alarm sending of ANI information digit 8 over a TSPS or TOPS trunk is required, datafill the trunk using the pseudo common language location identifier (CLLI) ASCS in table CLLI.

If identification digit 9 is to be outpulsed on intercept calls, set the parameter SPILL_ANI_9 in table OFCENG to Y.

Datafill

The following table lists the datafill for table TRKGRP type OP.

Field descriptions (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, SELSEQ, STNCLS, TRAFTYPE, ANITYPE, (CONTMARK on form only), HOLDTYPE, BILLSPILL, V2DATA, EADATA, and OPTIONS. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OP	*Group type* Enter OP to specify the outgoing or two-way local/toll to TOPS/TSTS trunk group type.

TRKGRP type OP (continued)

Field descriptions (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If trunk direction is incoming (IC), this field is not required. Enter NCRT. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to the general section of table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to the general section of table TRKGRP.

TRKGRP type OP (continued)

Field descriptions (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDL LIDL CWCTH CCWCTH ASEQ or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL. If the trunk group is two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are invalid. For more information, refer to the general section of table TRKGRP.
Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.			

Field descriptions (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	STNCLS	HOT NCN COIN or COMB	*Station class* This field contains the station class assigned to the trunk group. Enter one of the following values: • HOT for hotel • NCN for noncoin • COIN for coin • COMB for combined
	TRAFTYPE	OPL ZPL ZMN ZPM or MIX	*Traffic type* This field contains the type of traffic on the trunk group. Enter one of the following values: • OPL for one plus • ZPL for zero plus • ZMN for zero minus • ZPM for zero plus and minus • MIX for mixed A trunk group that uses dial pulse requires a combined station class and a mixed traffic type, and uses the full range of ST signals at the end of the called-digit stream (or ANI spill): • ST for coin direct dialed • STP for coin operator assisted • ST2P for noncoin direct dialed • ST3P for noncoin operator assisted A trunk group that specifies a mixed traffic type and a station class that is not combined uses only the following ST signals: • ST for coin direct dialed • STP for operator assisted A trunk group that specifies a traffic type other than mixed uses ST (coin direct dialed) only.

TRKGRP type OP (continued)

Field descriptions (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	ANITYPE	WK REV NO or REVUK	*ANI request type* For special requirements (RCF/TCF), enter WK (wink). This is the correct automatic number identification (ANI) fail-and-answer supervision on the second leg of a remote call-forwarding call. For normal Bell standard offices, enter REV (reversal or answer). This is the default datafill value. If ANI is not performed, enter NO. If interworking with DMS-250 TOPS trunks is required, enter REVUK. REVUK uses the UK250 ANI protocol format. ***Note:*** If optional feature package NTXE34AA (4X Operation - AMR5 Format ANI) is present, enter REV for this field value. Feature package NTXE34AA allows ANI to be forwarded if Feature Group C (FGC) signaling is used. If this package is present, other values for ANITYPE are not valid.
	HOLDTYPE	NOHOLD or TERMHOLD	*Hold type* Enter NOHOLD if the call is to come down if either the originator or terminator goes on-hook. Use NOHOLD in no-operator configurations when trunk group type OP is used for ANI. Enter TERMHOLD (terminating operator hold) if the call is to come down only if the terminator goes on-hook. Entries outside this range are not valid.

Field descriptions (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	BILLSPILL	Y or N	*Spi ll billing* In offices with feature package NTX159AA (Bellcore LAMA Format) and feature package NTX986AA (ANI with AMA), enter Y (yes) if direct-dialed calls terminating to the trunk group are to be recorded in a Bellcore AMA format billing record. Otherwise, enter N (no).
	V2DATA	see subfields	*Data for two way trunk grou* This field consists of subfield DIR and refinements.

Outgoing trunks

For outgoing trunks, datafill field DIR as described below and then datafill fields EADATA and OPTIONS as described in "Outgoing and two-way trunks" on page -760.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DIR	OG	*Direction* Enter OG to specify that the trunk group direction is outgoing. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO). If the trunk group is two-way, set option TWO_WAY_FOR_OP in table OFCOPT to Y.

Two-way trunks

For two-way trunks, datafill field DIR and refinements PRTNM, SCRNCL, SNPA, ORIGSRC, MODE, and VDEVAR as described below, and then

TRKGRP type OP (continued)

datafill fields EADATA and OPTIONS as described in "Outgoing and two-way trunks" on page -760.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	2W	*Direction* Enter 2W to specify that the trunk group direction is two-way. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO). For two-way trunk groups, option TWO_WAY_FOR_OP in table OFCOPT must be set to Y.
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator nam* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 32 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

TRKGRP type OP (continued)

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the code in table HNPACODE to which translation routes for digit translation. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). This field is used to screen calls in subtable HNPACONT.HNPACODE. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.
	MODE	AR CR CV or VF	*Mode of operation* Enter one of the following modes of operation: • AR for toll-completing with automatic ringing • CR for toll-completing with control ringing • CV for combined toll-completing and verification • VF for dedicated verification If the number to which a verification call is to terminate is busy, the call is completed using the operator verification trunk group (trunk group type VR) and table MTATRK.
	VDEVAR	see subfields	*Variable digit data* This field consists of subfield VDESEL and refinements.

TRKGRP type OP (continued)

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	VDESEL	Y or N	*Variable digit selector* If the number of incoming digits is fixed, enter N and datafill refinement DIGREGEN. If the number of incoming digits is variable, enter Y and datafill refinements DIGSIN1 and DIGSIN2. ***Note:*** If the number of incoming digits is variable, a corresponding variable-digit-format entry is required in the table STDPRTCT.STDPRT.
	DIGREGEN	numeric (1 to 4 digits) or N	*Digits to be regenerated* Datafill this field if the value in field VDESEL is N. Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits.

TRKGRP type OP (continued)

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIGSIN1	numeric (0 to 18)	*Minimum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the minimum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	DIGSIN2	numeric (0 to 18)	*Maximum number of incoming digits* Datafill this field if the value in field VDESEL is Y. Enter the maximum number of incoming digits received on the trunk group. Entries outside the indicated range are not valid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

TRKGRP type OP (continued)

Outgoing and two-way trunks

For all outgoing and two-way trunks, datafill fields EADATA and OPTIONS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	EAEADATA	see subfield	*Equal access data* This field consists of subfield EA and refinements.
	EA	Y or N	*Equal access selector* If equal-access signaling (double ANI digits) is required, enter Y and datafill refinements EAOSS and RTEVIAAT. Otherwise, enter N (no). ***Note:*** If optional feature NTXE34AA (which allows ANI to be forwarded if Feature Group C [FGC] signaling is used) is present, enter N for this field. If NTXE34AA is present, Y is not a valid entry value.
	EAOSS	Y or N	*Exchange access operator services signaling* Datafill this field if the value in field EA is Y. Enter Y if EAOSS signaling is to be used on the trunk. Enter N if EAOSS signaling is not used. Enter N if the trunk is datafilled in table KP2TRUNK.
	RTEVIAAT	Y or N	*Route via access tandem* Datafill this field if the value in field EA is Y. Enter Y if the trunk is between an equal access end office and a TOPS access tandem switch. Otherwise, enter N.
	OPTIONS	see subfield	*Options* This field consists of subfield OPTION and refinements.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	BCNAME or NRMLTRAF	*Option* To specify the bearer-capability-name option, enter BCNAME and datafill refinement BCNAME. Use NRMLTRAF to indicate that the OP trunk carries normal traffic. When the NRMLTRAF option is not datafilled, the OP trunk defaults to carrying essential services. ***Note:*** Only OP trunks that carry normal traffic should encounter AIN 0.1 triggers. If no options apply, leave this field blank.
	BCNAME	alphanumeric (1 to 16 characters)	*Bearer capability name* If the entry in field OPTION is BCNAME, enter the bearer capability to be used by this trunk group. Refer to table BCDEF for the current list of available bearer capabilities. If field OPTION and refinement BCNAME are left blank, the default bearer capability of the central office is used.

Datafill example

The following example for table TRKGRP type OP shows datafill for an outgoing and a two-way trunk from a local or toll office to a TOPS or TSPS office.

MAP display example for table TRKGRP type OP

```
GRPKEY              GRPINFO
_____________________________________________________________________
OTWAON2303TO        OP 11 TLD NCRT SP MIDL NCN MIX REV TERMHOLD N
 OG Y Y Y $
OTWAON2303T2        OP 11 TLD NCRT SP MIDL NCN MIX REV TERMHOLD N
 2W VCRT NSCR 613 LCL CV Y 7 9 N BCNAME 56KDATA $
```

TRKGRP type OP (end)

Supplementary information

When a T1 (off a DCM) is terminated on a two wire circuit, tones are audible. While outpulsing or during an ANI spill, the DCM is incapable of disabling the return speech path.

International Operator (No Metering) Trunk Group Type

Trunk group type OPR is used by international extended multiprocessor system (XMS)-based peripheral module (IXPM) trunks. The direction of this trunk group is incoming, outgoing or two-way, and metering is not allowed. Ring forward is available through the line signaling system (see table LNSIGSYS for more information). This trunk group is intended for any trunk carrying operator-involved calls, and supports BA-1 operator capability through the selection of appropriate line and register signaling systems, as specified in table TRKSGRP.

Translation types

Both trunk groups allow selectable translator type (for example, North American or universal translations) from the trunk group data.

One of the translation data selectors is an index into table NETATTR. If this selector is used, translation data is datafilled in table NETATTR instead of table TRKGRP.

End-to-end connections

Under certain conditions, an office only needs to collect enough digits to route a call. Once the call has been routed, the outgoing trunk to the next office is seized. A speech path between the incoming and outgoing trunk is then connected, and a signal is sent back to the previous office instructing it to resend the digits. The outgoing register of the previous office can then signal to the incoming register of the next office. This situation is shown inthe figure “End to end connection”.

If an end-to-end connection cannot be established through an office, the incoming trunk must collect all signals from the previous office, and then once routed to the next office, send the signals out. This mode of operation is referred to as link-by-link, or transfer. End-to-end connections set up toll calls faster than link-by-link connections. When possible, the international DMS-100 (DMS-100i) switch attempts to establish end-to-end connections.

The following describes cases in which end-to-end connections cannot be established (for switches in China):

- In the automatic toll network, inter-register signals cannot be sent to transit toll exchanges or terminating toll exchanges directly from an originating local exchange. They must be sent from the originating toll exchange.
- In general, inter-register signals cannot be sent to the local terminating exchange by transit toll or originating toll exchanges. They must be sent from the terminating toll exchange.

TRKGRP type OPR (continued)

- In the local network, there are situations in which tandem exchanges use transfer mode for transmission quality reasons.
- In the automatic toll network, there are situations in which incoming registers of a transit toll exchange must transfer all inter-register signals for transmission quality reasons.

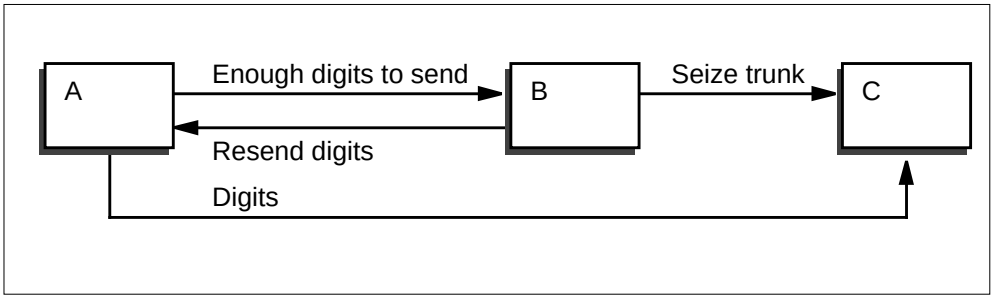
End-to-end connections cannot be established at originating toll or terminating toll offices. If an incoming trunk group is datafilled with a traffic class of either centralized automatic message accounting (CAMA) (originating toll) or TLLC (toll completion) (terminating toll), no attempt is made to establish an end-to-end connection.

For other incoming trunks that must not establish end-to-end connections, field TANDEM in table TRKGRP must be set to LNK. With this field set to LNK, all incoming trunk circuits belonging to the trunk group (regardless of their traffic class) cannot establish end-to-end connections.

End-to-end connections can only be established on incoming trunks with field TRFC in table TRKGRP set to either ITLL, EASV, or NONE, and with field TANDEM set to EEND.

The figure "End to end connection" shows an example of how an end-to-end connection is established. Once office B collects enough digits to route the call, the outgoing trunk from office B to office C is seized. Office B then connects a speech path and then requests office A to resend the digits. At this point, the outgoing register at office A is signaling to the incoming register to office C.

End-to-end connection



Traffic class

CAMA Centralized automatic message accounting is used for trunk groups between offices in which the calling subscriber number and KA information can be signaled.

Note: KA is the billing party category signal used in Chinese No.1 trunk signaling for national calls.

EASV Extended area service is used for trunk groups that handle local (non-toll) traffic only.

ITLL Inter-toll is used for trunk groups between toll offices.

TLLC Toll completion is used for trunk groups between a toll office and a terminating toll office.

TNCA Tandem CAMA is used to collect the calling party information, but not to do toll billing. It is used on trunk group type MTR in China for malicious call identification.

NONE The traffic class of NONE is used for trunk groups that do not fit one of the other traffic classes.

CAMA traffic class

Trunk groups must be datafilled with a traffic class of CAMA whenever the calling subscriber information can be sent or received over a trunk group. In China, it can be used for trunk groups between:

- an originating local and an originating toll
- an originating local office and a local/toll office

An outgoing trunk group only sends the calling subscriber information forward in response to an A6 backwards signal if that outgoing trunk group is datafilled with a traffic class of CAMA.

Note: In the MFC signaling system, an A6 backwards signal indicates that the outgoing register must send forward a KA signal and the calling subscriber number.

TRKGRP type OPR (continued)

If an outgoing trunk group that is datafilled with a traffic class of CAMA receives an A6 backwards signal, it sends forward the following information:

- KA signal (contains calling subscriber category)
- calling subscriber number (office code + station number)
- end-of-digits (I15) signal

If an outgoing trunk group with a traffic class not datafilled as CAMA receives an A6 backwards signal, it is not able to send the KA signal and calling subscriber number forward. In this situation, only the end-of-digits (I15) signal is sent forward.

If an incoming trunk group is datafilled with a traffic class of CAMA, it does not necessarily send back an A6 signal. It is possible (from a stored program control (SPC) office, for example) to handle local calls over a trunk group datafilled as CAMA.

If an incoming trunk group with a traffic class of CAMA is handling a toll call, once digit analysis indicates that enough digits have been collected (and translations has enough digits to determine an outgoing route), an A6 signal is sent backward to the previous office. After the incoming trunk sends the A6 signal, it collects the KA information and the calling subscriber number. Once that information has been collected, the remaining called subscriber number is collected.

> ***Note:*** If translations are not able to determine a route after the first few digits have been reported, more digits are collected until a route can be determined. It is important to datafill the digit analysis and digit translation systems together. If the first few digits that are reported by digit analysis cannot be translated into an outgoing route, the call capacity is affected due to the additional time required to collect enough digits to route the call.

Outgoing trunk groups with a traffic class of CAMA are required to provide extra information to the outgoing register. This extra information is sent to the next office. Because of the additional information, calls made over these trunk groups are slower than calls made over trunk groups with a traffic class other than CAMA.

EASV traffic class

Trunk groups must be datafilled with a traffic class of EASV if they carry local traffic only.

ITLL traffic class

Trunk groups must be datafilled with a traffic class of ITLL if they carry toll traffic between toll offices. In the C1 MFC signaling system, a KC signal (indicating the priority of the calling subscriber) is sent between offices in the toll network. Some offices use this information for special routing. A traffic class of ITLL on an incoming trunk group indicates to the DMS-100i switching unit that a KC signal can be expected in the flow of inter-register signals from the previous office.

Note: KC is the connection control signal used in Chinese No. 1 trunk signaling for national calls.

If an outgoing trunk group is datafilled with a traffic class of ITLL, it sends the KC information along with the outpulsed digits to the next office (if this office has not established an end-to-end connection). If an incoming trunk group is datafilled with a traffic class of ITLL, the DMS-100i attempts to establish an end-to-end connection through the office.

Note: The above does not provide the ability to perform priority routing at a toll office based on the KC information.

Incoming trunk groups with this traffic class do not attempt to establish enlightened connections.

TLLC traffic class

Trunk groups must be datafilled with a traffic class of TLLC if they carry traffic from a toll office to a terminating toll office.

TNCA traffic class

The tandem CAMA traffic class enables a call to collect calling party information. It does not enable the call to do toll billing. A tandem office between a local and a toll office can pass calling party information without the occurrence of billing at the tandem office.

NONE traffic class

Datafill trunk groups with a traffic class of NONE if none of the other traffic classes apply. For example, for trunk groups that carry traffic between local offices, use a traffic class of NONE. Similarly, for trunk groups that carry traffic from a terminating toll office to a terminating local office, use a traffic class of NONE.

Digit analysis

For a DMS-100i switching unit, digit analysis can be performed for both trunk groups and line attributes.

TRKGRP type OPR (continued)

Two main tables are used for specifying digit analysis: DGHEAD and DGCODE. Each tuple in table DGCODE specifies the type of analysis that is carried out for the digit range given in the key to that tuple. The key for each tuple consists of an instance name and a digit range. The digit range is composed of “from" digits and “to" digits. The “from" and “to" digits can be either one or two digits in length. The names of all instances must be in table DGHEAD. Table DGHEAD is used to associate default values with each instance. The values in table DGHEAD are only used if the instance does not appear in table DGCODE.

To associate an incoming trunk with a particular type of analysis, the name of the required instance in table DGHEAD is entered in field DGNAME of table TRKGRP type OPR.

By providing digit analysis for trunk groups, the DMS-100i switching unit is able to use different digit analyses for incoming trunks from different offices. This system also enables trunks carrying different classes of traffic to use different digit analysis schemes.

Digit regeneration

Field DIGREGEN is used by the incoming and two-way international trunk group OPR to prefix incoming digits with up to four additional digits. This field contains the digits that require regeneration so that the number dialed in the remote office can be regenerated. If no digits require regeneration, the entry is N (no).

Office parameters

If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be manually busied before changing the value of this field through a data modification order (DMO).

Restarts

The software meters used for trunk metering can survive warm and cold restarts. On a reload from image, mismatches can occur if the software meter assignment on the image tape differs from that of the switch before the reload occurred. If there is no difference, the software meters survive the reload. If there is a difference, the meter audit logs all meters that do not match the datafill.

Calls do not survive cold or reload restarts, and are automatically taken down. The software meters are not updated for these calls.

Calls survive warm restarts. Those calls that terminate after the restart have their software meters updated properly. Those calls that terminate during the

restart have their meters updated upon the next usage of the trunk. The restart time is used as the disconnect time, since the exact disconnect time is not known.

Incoming international trunk group field descriptions

The following table lists the datafill for incoming international trunk groups (type OPR) in table TRKGRP.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, IAA, TANDEM, TRFC, DIR, MCTANI, XLAD, MTRIC, DIGREGEN, DGNAME, PROTIDX, and TRTMTIDX. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OPR	*Group type* Enter OPR for the international trunk group.

TRKGRP type OPR (continued)

Field descriptions (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCRT	*Operational measurements no-circuit class* This field is not required. Enter the operational measurements (OM) no circuit (NCRT). For more information, refer to section “General field information" in table TRKGRP and the *Operational Measurements Reference Manual*.
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk is configured to switch through a satellite connection. Otherwise, enter N (no).
	ESUPR	Y or N	*Echo suppressor* If the trunk subgroup has echo suppressors, enter Y. Otherwise, enter N.

TRKGRP type OPR (continued)

Field descriptions (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	IAA	N	*Interadministration accounting* Enter N. Interadministration accounting (IAA) is not applicable to OPR trunk groups.
	TANDEM	EEND or LNK	*Tandem mode* Enter EEND (end-to-end operation) if end-to-end connections are enabled over the trunk group. Enter LNK (link-by-link) if end-to-end connections are not enabled over the trunk group. End-to-end connections are only applicable to MFC R2 signaling trunk groups. For non-R2 MFC signaling trunk groups, this field is ignored.
	TRFC	CAMA EASV ITLL TLLC TNCA or NONE	• *International traffic class*Enter the type of traffic that is expected to flow through this trunk group. The types of traffic classes are: • CAMA - Centralized automatic message accounting is the traffic class for trunk groups if the calling subscriber digits are signaled between switching units. • EASV - Extended area service is the traffic class for trunk groups that handle local (non-toll) traffic only. • ITLL - Intertoll is the traffic class for trunk groups that carry traffic in the toll network. • TLLC - Toll-completion is the traffic class for trunk groups that carry traffic between a toll switching unit and a terminating toll switching unit. • TNCA - Tandem CAMA is the traffic class used to collect the calling party information, but not to perform toll billing. It is used in China for malicious call identification. • NONE - NONE is the traffic class used for trunk groups that do not belong to one of the other traffic classes, or for a trunk group to which traffic class is not applicable.

TRKGRP type OPR (continued)

Field descriptions (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	DIR	IC	*Direction* This field specifies the trunk group direction. Enter IC for incoming. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	MCTANI	Y or N	*Forward automatic number identification enable* Enter Y to indicate that for MCT calls connected to trunks that do not already send DN and category, a backwards request for DN or CATEGORY is required. Enter N to indicate that for MCT calls connected to trunks that do not already send DN and category, a backwards request for DN or CATEGORY is not required. This option is applicable for R2 calls only.
	XLAD	see subfield	*Translation fields* This field consists of subfield XLADSEL and refinements.
	XLADSEL	NALT NETATTR or UNIV	*Translation selector* If the North American translation system is used, enter NALT and datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC. If this table indexes into table NETATTR, enter NETATTR and datafill refinement NETINDX. If the universal translation system is used, enter UNIV and datafill refinement XLAAREA.

XLADSEL = NALT

If the entry in subfield XLADSEL is NALT, datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 4 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving numbering plan area (NPA) for the trunk group. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in the HNPACODE subtable. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.

XLADSEL = NETATTR

If the entry in subfield XLADSEL is NETATTR, datafill refinement NETINDX as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required, since it is available in table NETATTR.

XLADSEL = UNIV

If the entry in subfield XLADSEL is UNIV, datafill refinement XLAAREA as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLAAREA	see subfield	*Universal translation fields* This field consists of subfield XLASYS and refinement XLANAME.
	XLASYS	AC AM CT CTY DN FA FT NSC OFC PX or NIL	*Translation system* Enter the name of the head table from which translation begins. Entry values other than those listed are not valid.
	XLANAME	alphanumeric (1 to 8 characters) or NIL	*Translation name* Enter a name from the code table that belongs to the head table referenced by field XLASYS.

Metering and other data for all incoming trunks

For the metering and other data for all incoming trunks, datafill additional refinements as described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	MTRIC	see subfields	*Meter incoming information* This field consists of subfields METERIC and MDI.
	METERIC	N	*Meter option* Enter N. Menter N. Metering is not supported for OPR trunk groups.
	MDI	leave blank	*Metering data index* This field is left blank for OPR trunks.

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	DIGREGEN	numeric (1 to 4 digits)or N	*Digits to be regenerated* Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	DGNAME	alphanumeric (1 to 8 characters) or NIL	*Digit collection name* Enter the digit analysis instance required for an incoming trunk group. The digit analysis instance must have been previously defined in table DGHEAD. Enter NIL if no digit analysis is required.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PROTIDX	BELR2 BRAR2 CHILER2 CHIR2 GUYR2 HAITIR2 IRER2L IRER2T MEXR2 MORR2L MORR2T PERU1R2 SOCR24 SOCR26 SOCR26A SOCR27 orNIL	*R2 protocol* This field references table indexes in table R2PROT that are required by this trunk group for R2 signal/activity mappings and control. All valid entries are five to eight alphanumeric characters in length, with the characters before R2 corresponding to the target area. T or L after the characters R2 indicates that the protocol is for toll or local calls, respectively. Enter the required R2 protocol for the trunk, or enter NIL if trunk group does not use R2 signaling. Entry values other than those listed are not valid.
	TRTMTIDX	BELTRT BRATRT CHILETRT CHITRT GUYTRT HAITITRT MEXTRT MORTRTL MORTRTT PERUTRT SOCTRTL SOCTRTT or NIL	*R2 treatment* This field references table indexes in tables TRTMTACT and TRTTRTMT required by this trunk group. All valid entries are six to eight alphanumeric characters in length, with the characters before TRT corresponding to the target area. T or L after the characters TRT indicates that the treatment is for toll or local calls, respectively. Enter the required R2 treatment for the trunk, or enter NIL if the trunk group does not use R2 signaling. Entry values other than those listed are invalid.

TRKGRP type OPR (continued)

Two-way international trunk group field descriptions

The following table lists the datafill for two-way international trunk goups (type OPR) in table TRKGRP.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, IAA, TANDEM, TRFC, DIR, MCTANI, XLAD, MTRIC, SELSEQ, MTROG, DIGREGEN, ANIIDX, DGNAME, PROTIDX, and TRTMTIDX. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OPR	*Group type* Enter OPR for the international trunk group.

TRKGRP type OPR (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register (in OM groups OFZ2 and SOTS) is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For more information, refer to section “General field information" in table TRKGRP and the *Operational Measurements Reference Manual*.
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk is configured to switch through a satellite connection. Otherwise, enter N (no).

TRKGRP type OPR (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	ESUPR	Y or N	*Echo suppressor* If the trunk subgroup has echo suppressors, enter Y. Otherwise, enter N.
	IAA	N	*Interadministration accounting*Enter N. Interadministration accounting (IAA) is not applicable to OPR trunk groups.
	TANDEM	EEND or LNK	*Tandem mode* Enter EEND (end-to-end operation) if end-to-end connections are enabled over the trunk group. Enter LNK (link-by-link) if end-to-end connections are not enabled over the trunk group. End-to-end connections are only applicable to MFC R2 signaling trunk groups. For non-R2 MFC signaling trunk groups, this field is ignored.

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRFC	CAMA EASV ITLL TLLC TNCA or NONE	• *International traffic class*Enter the type of traffic that is expected to flow through this trunk group. The types of traffic classes are: • CAMA - Centralized automatic message accounting is the traffic class for trunk groups if the calling subscriber digits are signaled between switching units. • EASV - Extended area service is the traffic class for trunk groups that handle local (non-toll) traffic only. • ITLL - Intertoll is the traffic class for trunk groups that carry traffic in the toll network. • TLLC - Toll-completion is the traffic class for trunk groups that carry traffic between a toll switching unit and a terminating toll switching unit. • TNCA - Tandem CAMA is the traffic class used to collect the calling party information, but not to perform toll billing. It is used in China for malicious call identification. • NONE - NONE is the traffic class used for trunk groups that do not belong to one of the other traffic classes, or for a trunk group to which traffic class is not applicable.
	DIR	2W	*Direction* This field specifies the trunk group direction. Enter 2W for two-way. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

TRKGRP type OPR (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	MCTANI	Y or N	*Forward automatic number identification enable* Enter Y to indicate that for MCT calls connected to trunks that do not already send DN and category, a backwards request for DN or CATEGORY is required. Enter N to indicate that for MCT calls connected to trunks that do not already send DN and category, a backwards request for DN or CATEGORY is not required. This option is applicable for R2 calls only.
	XLAD	see subfield	*Translation fields* This field consists of subfield XLADSEL and refinements.
	XLADSEL	NALT NETATT or UNIV	*Translation selector* If the North American translation system is used, enter NALT and datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC. If this table indexes into table NETATTR, enter NETATTR and datafill refinement NETINDX. If the universal translation system is used, enter UNIV and datafill refinement XLAAREA.

XLADSEL = NALT

If the entry in subfield XLADSEL is NALT, datafill refinements PRTNM, SCRNCL, SNPA, and ORIGSRC as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PRTNM	alphanumeric (1 to 4 characters) or NPRT	*Standard pretranslator name* If standard pretranslation is required, enter the name of the standard pretranslator defined in table STDPRTCT to which digit translation is to route after the receipt of the first digit. If pretranslation is not required, enter NPRT (no pretranslation). If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	SCRNCL	alphanumeric (1 to 4 characters)or NSCR	*Class-of-service screening table name* If class-of-service screening is required, enter the name of the class-of-service screening table (datafilled in table SCRNCLAS) to which digit translation routes. If class-of-service screening is not required, enter NSCR (no screening).

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric (3 digits)	*Serving numbering plan area* Enter the serving numbering plan area (NPA) for the trunk group. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ORIGSRCE	LCL or NLCL	*Originating source* Enter the originating source of the call, LCL (local) or NLCL (non-local). The originating source determines, for the code dialed, whether the call is routed or blocked by the code type in the HNPACODE subtable. For more information, refer to the “Notes on originating source" section in table HNPACONT.HNPACODE.

XLADSEL = NETATTR

If the entry in subfield XLADSEL is NETATTR, datafill refinement NETINDX as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NETINDX	numeric (0 to 1023)	*Network attribute index* Enter a valid network attribute index from table NETATTR. No other translation data is required, since it is available in table NETATTR.

XLADSEL = UNIV

If the entry in subfield XLADSEL is UNIV, datafill refinement XLAAREA as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLAAREA	see subfield	*Universal translation fields* This field consists of subfield XLASYS and refinement XLANAME.
	XLASYS	AC AM CT CTY DN FA FT NSC OFC PX or NIL	*Translation system* Enter the name of the head table from which translation begins. Entry values other than those listed are not valid.
	XLANAME	alphanumeric (1 to 8 characters) or NIL	*Translation name* Enter a name from the code table that belongs to the head table referenced by field XLASYS.

Metering and other data for all two-way trunks

For the metering and other data for all two-way trunks, datafill additional refinements as described below.

Field descriptions for conditional datafill (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	MTRIC	see subfields	*Meter incoming information* This field consists of subfields METERIC and MDI.
	METERIC	N	*Meter option* Enter N. Metering is not supported for OPR trunk groups.

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	MDI	leave blank	*Metering data index* This field is left blank for OPR trunks.
	SELSEQ	ASEQ CCWCTH CWCTH DSEQ LIDL or MIDL	*Select sequence* If the trunk group direction is outgoing (OG) or two-way (2W) and the far end is a link list switcher, enter LIDL or MIDL (least or most idle) if the far end is MIDL or LIDL respectively. If the trunk group direction is outgoing or two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL. If the trunk group is outgoing or two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. If the trunk group direction is incoming, sequential selection does not apply. Enter MIDL. Entries outside this range are not valid. For more information, refer to section “General field information" in table TRKGRP.

Field descriptions for conditional datafill (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			Note: A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence can be changed to the opposite select sequence type (for example, ASEQ to DSEQ, LIDL to MIDL, or CCWCTH to CWCTH) if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.
	MTROG	see subfields	*Meter outgoing information* This field consists of subfields METEROG and MDI.
	METEROG	N	*Meter option* Enter N. Metering is not allowed on OPR trunks.
	MDI	leave blank	*Metering data index* This field is left blank for OPR trunks.

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DIGREGEN	numeric (1 to 4 digits) or N	*Digits to be regenerated* Enter the digit string to be prefixed to the incoming digits to regenerate a seven-digit number. The switch subtracts the length of the digit string from seven to determine the number of incoming digits to expect. The regenerated number is then translated in one or both of tables STDPRTCT.STDPRT and HNPACONT.HNPACODE. For example, if the entry is 73, the switch expects five incoming digits XXXXX and regenerates the number 73XXXXX. If no digits are to be prefixed, enter N. The switch then expects seven incoming digits. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	ANIIDX	alphanumeric (1 to 8 characters)or NIL	*Fixed automatic number identification index* Enter the index into table FIXEDANI for this trunk group. If this field is datafilled, automatic number identification (ANI) is taken from table FIXEDANI rather than the calling party. For trunks with a traffic class other than CAMA or TNCA, enter the value NIL.
	DGNAME	alphanumeric (1 to 8 characters)or NIL	*Digit collection name* Enter the digit analysis instance required for an incoming trunk group. The digit analysis instance must have been previously defined in table DGHEAD. Enter NIL if no digit analysis is required.

Field descriptions for conditional datafill (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	PROTIDX	BELR2 BRAR2 CHILER2 CHIR2 GUYR2 HAITIR2 IRER2L IRER2T MEXR2 MORR2L MORR2T PERU1R2 SOCR24 SOCR26 SOCR26A SOCR27 or NIL	*R2 protocol* This field references table indexes in table R2PROT that are required by this trunk group for R2 signal/activity mappings and control. All valid entries are five to eight alphanumeric characters in length, with the characters before R2 corresponding to the target area. T or L after the characters R2 indicates that the protocol is for toll or local calls, respectively. Enter the required R2 protocol for the trunk, or enter NIL if trunk group does not use R2 signaling. Entry values other than those listed are not valid.
	TRTMTIDX	BELTRT BRATRT CHILETRT CHITRT GUYTRT HAITITRT MEXTRT MORTRTL MORTRTT PERUTRT SOCTRTL SOCTRTT or NIL	*R2 treatment* This field references table indexes in tables TRTMTACT and TRTTRTMT required by this trunk group. All valid entries are six to eight alphanumeric characters in length, with the characters before TRT corresponding to the target area. T or L after the characters TRT indicates that the treatment is for toll or local calls, respectively. Enter the required R2 treatment for the trunk, or enter NIL if the trunk group does not use R2 signaling. Entry values other than those listed are invalid.

TRKGRP type OPR (continued)

Outgoing international trunk group field descriptions

The following table lists the datafill for outgoing international trunk groups (type OPR) in table GRKGRP.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, SAT, ESUPR, IAA, TANDEM, TRFC, DIR, SELSEQ, MTROG, ANIIDX, PROTIDX, and TRTMTIDX. Refer to section “General field information" in table TRKGRP for information concerning an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OPR	*Group type* Enter OPR for the international trunk group.
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.

TRKGRP type OPR (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register (in OM groups OFZ2 and SOTS) is incremented if treatment GNCT (generalized no circuit) occurs. If the trunk group direction is incoming, this field is not required. Enter NCRT (no circuit). For more information, refer to section “General field information" in table TRKGRP and the *Operational Measurements Reference Manual*.
	SAT	Y or N	*Satellite* Enter Y (yes) if the trunk is configured to switch through a satellite connection. Otherwise, enter N (no).
	ESUPR	Y or N	*Echo suppressor* If the trunk subgroup has echo suppressors, enter Y. Otherwise, enter N.
	IAA	N	*Interadministration accounting* Enter N. Interadministration accounting (IAA) is not applicable to OPR trunk groups.
	TANDEM	EEND or LNK	*Tandem mode* Enter EEND (end-to-end operation) if end-to-end connections are enabled over the trunk group. Enter LNK (link-by-link) if end-to-end connections are not enabled over the trunk group. End-to-end connections are only applicable to MFC R2 signaling trunk groups. For non-R2 MFC signaling trunk groups, this field is ignored.

TRKGRP type OPR (continued)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TRFC	CAMA EASV ITLL TLLC TNCA or NONE	*International traffic class* Enter the type of traffic that is expected to flow through this trunk group. The types of traffic classes are: • CAMA - Centralized automatic message accounting is the traffic class for trunk groups if the calling subscriber digits are signaled between switching units. • EASV - Extended area service is the traffic class for trunk groups that handle local (non-toll) traffic only. • ITLL - Intertoll is the traffic class for trunk groups that carry traffic in the toll network. • TLLC - Toll-completion is the traffic class for trunk groups that carry traffic between a toll switching unit and a terminating toll switching unit. • TNCA - Tandem CAMA is the traffic class used to collect the calling party information, but not to perform toll billing. It is used in China for malicious call identification. • NONE - NONE is the traffic class used for trunk groups that do not belong to one of the other traffic classes, or for a trunk group to which traffic class is not applicable.
	DIR	OG	*Direction* This field specifies the trunk group direction. Enter OG for outgoing. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y (yes), all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).

Metering and other data for all outgoing trunks

For the metering and other data for all outgoing trunks, datafill additional refinements as described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	ASEQ CCWCTH CWCTH DSEQ LIDL or MIDL	*Select sequence* If the trunk group direction is outgoing (OG) or two-way (2W) and the far end is a link list switcher, enter LIDL or MIDL (least or most idle) if the far end is MIDL or LIDL respectively. If the trunk group direction is outgoing or two-way, the far end is not a link list switcher, and sequential selection does not apply, enter MIDL. If the trunk group is outgoing or two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. If the trunk group direction is incoming, sequential selection does not apply. Enter MIDL. Entries outside this range are not valid. For more information, refer to section “General field information" in table TRKGRP.

TRKGRP type OPR (continued)

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
			Note: A trunk group trunk selection method cannot be changed. If a change in the selection method is required, a new trunk group must be created with the required trunk selection method. The individual trunks with the old selection sequence must be deleted from the old trunk group and then added to the new trunk group. For an existing trunk group, the selection sequence can be changed to the opposite select sequence type (for example, ASEQ to DSEQ, LIDL to MIDL, or CCWCTH to CWCTH) if all the trunk members are installation busy (INB) or unequipped (UNEQ). Refer to table TRKGRP for additional information concerning field SELSEQ.
	MTROG	see subfields	*Meter outgoing informatio* This field consists of subfields METEROG and MDI.
	METEROG	N	*Meter option* Enter N. Metering is not allowed on OPR trunks.
	MDI	leave blank	*Metering data index* This field is left blank for OPR trunks.
	ANIIDX	alphanumeric (1 to 8 characters)or NIL	*Fixed automatic number identification index* Enter the index into table FIXEDANI for this trunk group. If this field is datafilled, automatic number identification (ANI) is taken from table FIXEDANI rather than the calling party. For trunks with a traffic class other than CAMA or TNCA, enter the value NIL.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	PROTIDX	BELR2 BRAR2 CHILER2 CHIR2 GUYR2 HAITIR2 IRER2L IRER2T MEXR2 MORR2L MORR2T PERU1R2 SOCR24 SOCR26 SOCR26A SOCR27 o rNIL	*R2 protocol* This field references table indexes in table R2PROT that are required by this trunk group for R2 signal/activity mappings and control. All valid entries are five to eight alphanumeric characters in length, with the characters before R2 corresponding to the target area. T or L after the characters R2 indicates that the protocol is for toll or local calls, respectively. Enter the required R2 protocol for the trunk, or enter NIL if trunk group does not use R2 signaling. Entry values other than those listed are not valid.
	TRTMTIDX	BELTRT BRATRT CHILETRT CHITRT GUYTRT HAITITRT MEXTRT MORTRTL MORTRTT PERUTRT SOCTRTL SOCTRTT orNIL	*R2 treatment* This field references table indexes in tables TRTMTACT and TRTTRTMT required by this trunk group. All valid entries are six to eight alphanumeric characters in length, with the characters before TRT corresponding to the target area. T or L after the characters TRT indicates that the treatment is for toll or local calls, respectively. Enter the required R2 treatment for the trunk, or enter NIL if the trunk group does not use R2 signaling. Entry values other than those listed are invalid.

Datafill example

The following example shows sample datafill for table TRKGRP type OPR.

TRKGRP type OPR (continued)

The example consists of datafill for one incoming trunk group and one outgoing trunk group with the following characteristics:

- The code in table CLLI for the outgoing trunk group is OGTOBKA and the code for the incoming trunk group is ICFRBKA.
- The traffic separation number for the outgoing trunk group is 10 and for the incoming trunk group is 0.
- ELOA is the pad group assigned to both trunk groups.
- NCRT is the no circuit class for both trunk groups.
- Neither trunk group is set up to switch through satellite.
- Neither trunk group has echo suppressors.
- IAA is not applicable for OPR trunks.
- End-to-end connections are enabled.
- International traffic class is not used.
- The direction for the outgoing trunk group is OG and for the incoming trunk group is IC.
- Backward requests for DN and CATEGORY are not made on the incoming trunk group.
- Both trunk groups use the universal translator.
- The translation for the incoming trunk group starts in the prefix translation table.
- The translation name for the incoming trunk group is ICTOLLCN.
- Neither trunk group uses metering.
- No digit prefixing is done for the incoming trunk group.
- The outgoing trunk group selection sequence is most idle (MIDL)
- The fixed ANI index entry is not used for the outgoing trunk group.
- The digit collection name is not required.
- For both trunk groups, the protocol index is BELR2 and the treatment index is SOCTRTL.

TRKGRP type OPR (end)

MAP display example for table TRKGRP type OPRx

```
 GRPKEY
                                                              GRPINFO
_____________________________________________________________________________
 OGTOBKA
OPR 10 ELOA NCRT N N N EEND NONE OG UNIV N MIDL N NIL BELR2 SOCTRTL
 ICFRBKA
OPR 0 ELOA NCRT N N N EEND NONE IC N UNIV PX ICTOLLCN N MIDL N N NIL
BELR2 SOCTRTL
```

TRKGRP type OS

Outgoing from Toll Trunk Group type

In a DMS toll office equipped with feature package NTXE34AA (4X Operation - AMR5 Format ANI), outgoing trunk group type OS is used for toll-completing and toll-tandem calls requiring joint hold on timeout. Feature package NTXE34AA allows ANI to be forwarded if feature group C (FGC) signaling is used.

Datafill

The following table lists the datafill for table TRKGRP type OS.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	*Group key* This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	*Common language location identifier* Enter the common language location identifier (CLLI) code assigned to the trunk group in table CLLI.
GRPINFO		see subfields	*Variable group data* This field consists of subfields GRPTYP, TRAFSNO, PADGRP, NCCLS, TRAFCLS, SELSEQ, ANIREQ, OUTPANI, CHARGE, and JNTHOLD. Refer to section “General field information" in table TRKGRP for information on an alternate structure for this field that results from the datafill of table CUSTFLDS.
	GRPTYP	OS	*Group type* Enter OS to specify the outgoing from toll trunk group type.

TRKGRP type OS (continued)

Field descriptions (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	TRAFSNO	numeric (0 to 127)	*Traffic separation number* Enter the incoming and outgoing traffic separation number assigned to the trunk group. If a traffic separation number is not required, enter 0 (zero). For switches with software package NTX085AA (Traffic Separation Peg Count), enter a value from 1 to the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switches without software package NTX085AA, enter a value from 1 to 15. Incoming and outgoing traffic separation numbers 1 to 9 should be reserved for generic traffic separation numbers. For more information, refer to table TFANINT.
	PADGRP	alphanumeric (1 to 5 characters)	*Pad group* Enter the name of the pad group assigned to the trunk group in table PADDATA. For more information, refer to table PADDATA.
	NCCLS	NCBN NCID NCIM NCIT NCLT NCOF NCON NCOT NCRT NCTC or NOSC	*Operational measurements no-circuit class* Enter the operational measurements (OM) no-circuit class (NCCLS) to indicate which OM register is incremented if treatment GNCT (generalized no circuit) occurs. If trunk direction is incoming (IC), this field is not required. Enter NCRT. The initial value for this trunk group type is NCRT (no circuit). For more information, refer to table TRKGRP and the *Operational Measurements Reference Manual*.
	TRAFCLS	alphabetic (2 characters)	*Traffic usage class* Enter the traffic usage class assigned to the trunk group. For more information, refer to table TRKGRP.

TRKGRP type OS (continued)

Field descriptions (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	SELSEQ	MIDL LIDL CWCTH, CCWCTH ASEQ or DSEQ	*Select sequence* If the trunk group direction is two-way (2W) and far end is a link list switcher, enter LIDL or MIDL (least or most idle) if far end is MIDL or LIDL respectively. If the trunk group direction is two-way, the far end is not a link list switcher and sequential selection does not apply, enter MIDL. If the trunk group direction is incoming (IC), sequential selection does not apply. Enter MIDL. If the trunk group is two-way, the far end is not a link list switcher, and feature package NTX244AB (Enhanced Sequential Trunk Hunting) is present, base the selection order on the order of the trunks in table TRKMEM, and enter • CWCTH or CCWCTH for clockwise or counterclockwise circular trunk hunting from the most recently released trunk in the trunk group, if the far end is CCWCTH or CWCTH respectively, or • ASEQ or DSEQ for ascending or descending sequential selection, if far end is DSEQ or ASEQ respectively. Entries outside this range are invalid. For more information, refer to table TRKGRP.

TRKGRP type OS (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			Note: The selection sequence for an existing trunk group can be changed from ASEQ to DSEQ, or from DSEQ to ASEQ, if all the members are made installation busy (INB) or unequipped (UNEQ). The selection method for an existing trunk group cannot be changed. To change the selection method for an existing trunk group from ASEQ or DSEQ to CWCTH or CCWCTH, or to MIDL or LIDL, define a new trunk group, as follows: Create a new trunk group with the required trunk selection method, delete the individual trunks from the old trunk group, and add the trunks to the new trunk group.
	ANIREQ	REV	*Automatic number identification request* If feature package NTXE34AA (4X Operation - AMR5 Format ANI) is present, enter REV (reversal or answer). Entries outside this range are invalid. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by data modification order (DMO).
	OUTPANI	Y or N	*Outpulse ANI* Enter Y (yes) if ANI is to be outpulsed. Otherwise, enter N (no). If ANI is not outpulsed, the trunk does not wait for an ANI request signal, wink, or reversal. If ANI is outpulsed and no calling or called digits are present, only KP + ST (an ANIFAIL message) is sent. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.

TRKGRP type OS (end)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CHARGE	Y or N	*Charge* Enter Y if automatic message accounting (AMA) recording is required. Otherwise, enter N (no). If AMA recording is required and there are no calling or called digits, a special charge class (SPCL) is used in table TOLLENTC. If office parameter TRK_OOS_CHK_ON in table OFCVAR is set to Y, all trunks in the group must be busy before the value of this field can be changed by DMO.
	JNTHOLD	Y or N	*Joint hold* Enter Y if joint hold is required. Otherwise, enter N.

Datafill example

The following example shows sample datafill for table TRKGRP type OS.

MAP display example for table TRKGRP type OS

```
GRPKEY          GRPINFO
_____________________________________________________________

OSCAMA          OS 0 ELO NCRT NIL MIDL WK Y N Y
```

DMS-100 Family

North American DMS-100

Customer Data Schema Reference Manual

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Data Schema TABLES-TRKGRP type OS

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