

Critical Release Notice

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The content of this customer NTP supports the
SN07 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the UCS15 baseline and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the UCS15 baseline remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to new or modified content for UCS15 that is valid through the current release.

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Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Purple: Applies to new or modified content for SN07 (DMS) that is valid through the current release.

Attention!

Adobe Acrobat Reader 5.0 or higher is required to view bookmarks in color.

Publication History

Note: Refer to the UCS15 baseline document for Publication History prior to the UCS17 software release.

December 2004

Standard release 13.01. This release is current for the SN07 (DMS) software release, although no changes have been made for SN07 (DMS) features. The following CR was added:

Volume 1

CAINPARM - Added parameter STANDARD_ANISCREEN_RULES per CR Q00909834-01

CAINRESP - Added parameter AMABUSCUSTID per feature A00005363

CAINREXT - Added context identifier 300 to field AMA_DIGS_TYPE as per A00005363

Volume 2

CDRTMPLT - Added additional parameters to FIELD per feature A00005363

September 2004

Standard release 12.04. This release is current for the SN07 (DMS) software release, although no changes have been made for SN07 (DMS) features.

Volume 1

CAINPARM - Added parameter TRTMTCD_COMPCODE_ZAPPED_ZERO per CRQ00816405

Volume 5

TMTMAP (amended for CR Q00760514-10)

March 2004

Standard release 12.03 for software release SN06 (DMS)

Volume 3

LTDATA

Volume 4

SUSHELF

September 2003

Standard release 12.02 for software release SN06 (DMS). Updates made for this release are shown below.

Volume 1

CAINPARM

Volume 2

DRMUSERS – this table is obsolete. The description has been removed.

DSLIMIT

IBNRTE selector CND

Volume 3

OFRT selector CND

Volume 4

STDPRCT.STDPRT

Volume 5

TONES

June 2003

Preliminary release 12.01 for software release SN06 (DMS). Updates made for this release are shown below.

Volume 1

ACRTE

Volume 2

DNRTE

IBNRTE selector CND

Volume 3

OFRT selector CND

Volume 4

No changes

Volume 5

TRKOPTS

TRKSGRP

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Digital Switching Systems

UCS DMS-250

Data Schema Reference Manual Volume 2 of 5

UCS15 Standard 09.02 June 2001

Digital Switching Systems

UCS DMS-250

Data Schema Reference Manual Volume 2 of 5

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1 UCS data schema

This document describes the data tables for a particular software load on the UCS DMS-250 switch.

This document assists the customer in preparing office-dependent data for the switch. The office-dependent data is stored in data store tables that are used in conjunction with software programs and systems circuits to advance a call through the stages of call processing.

This document consists of three volumes, and each volume is arranged alphabetically by table name.

CARRMTC

Table name

Carrier Maintenance

Functional description

Table carrier maintenance (CARRMTC) allows the DMS switch administration to datafill maintenance control information in peripheral modules (PM), out-of-service limits for alarms, and system return-to-service occurrences.

Carrier by definition maintains communication on links connecting DMS PMs to channel banks, DMS PMs to remote DMS PMs, remote-to-remote DMS PMs, or DMS PMs to generic access nodes (AN).

Three carrier standards are served by the DMS family of switches; the 24-channel (DS-1) carriers are used for North American switches and the 30-channel (PCM30) carriers are used for international switches.

A third type of carrier, DS-0, (digital signal level 0) card type NT6X55AB (DS-0 interface card) is used in North America with digital trunk controllers (DTC). The DS-0 carrier provides a service switching point (SSP) office with the capability of CCS7 link access to a signaling transfer point (STP) node. The DS-0 interface can also respond to network-initiated maintenance actions, such as loopbacks.

For maintenance purposes, a DS-0 link acts as a DS-1 trunk except that it:

- only contains a single trunk
- supports 64- and 56-kbit/s data rates
- responds to remote loopback requests from the network
- does not transmit or detect remote carrier group alarm (RCGA) and alarm indication signal (AIS)

Table CARRMTC contains PM maintenance data, out-of-service limits for alarms and system return-to-service information. Up to 16 entries are present for each type of PM that is capable of providing carrier links in the switch (one entry for each PM type is allotted as a default entry).

Table datafill element descriptions

The following section contains general descriptions of alarms, alarm states, signals, and other elements essential to the understanding the datafill descriptions in table CARRMTC.

CARRMTC (continued)

Alarm descriptions: 24-channel DS-1

Carrier alarms are characterized by steady-state and hit-state properties:

- An alarm reaches its steady state if the switch records a continuous occurrence of signals that do not meet the appropriate specification (for example, local carrier group alarm (LCGA) or remote carrier group alarm [RCGA]).
- An alarm reaches its hit state if the switch records isolated or intermittent occurrence of signals that do not meet the appropriate specification (for example, frame loss and slip alarms).

When frame loss reaches its steady-state, it becomes a local carrier group alarm (LCGA). The maintenance and out-of-service limits for frame loss and slip are datafilled in table OFCENG and table CARRMTC fields FRAMEML, FRAMEOL, SLIPML, and SLIPOL.

Note: Table OFCENG records these limits as well.

A carrier link can be put out of service by the system when an alarm is raised, and returned to service when the alarm is dropped. If the alarms occur frequently, the carrier state can bounce between system busy and in service.

In a return to service (RTS) system, a counter controls the number of system returns. The counter keeps track of the number of times the carrier is returned to service within the audit interval. The counter increments when the carrier is returned to service by the system and is reset in the next audit.

If the counter value exceeds the maintenance limit (field RTSML) in table CARRMTC, a warning appears on the MAP terminal. If the counter value exceeds the out-of-service limit (field RTSOL), a criterion for putting the carrier permanently out of service is reached. Once a carrier is permanently out of service, it remains in this state until it is manually returned to service.

For more information on alarm descriptions for DS-1 trunks, refer to the *Trunks Maintenance Guide*, 297-1001-595.

Alarm descriptions: 30-channel PCM30**Steady-state alarm**

This is an error detected and timed in the PM that persists for a duration equal to the out-of-service time limit (field OST) datafilled in table CARRMTC. A PM report is sent to central control. The report states that a steady-state (SS) alarm is raised.

CARRMTC (continued)

Hit-state warning — maintenance limit

This warning is defined as a detected error that does not persist for a duration of OST. That is, the error is interrupted by correct signals during the out-of-service time. Under these circumstances, one or more hits are encountered. If the number of hits, accumulated over a 1-min interval, exceeds the maintenance limit (ML) datafilled in table CARRMTC, a peripheral module report is sent to central control. The report states that a hit state warning is raised.

Hit-state alarm — out-of-service

This alarm is similar to hit state warning ML except that the number of hits is accumulated over a 5-min interval. If the accumulated number of hits exceeds the out-of-service limit (OL) datafilled in table CARRMTC, a hit-state alarm is raised.

The hit alarm is also subject to the SETACTION boolean field in table LTCPSINV. If SETACTION is false, the carrier state is not changed to system-busy even if the out-of-service limit is exceeded.

Criteria for dropping alarms

Steady-state alarm

A peripheral module serving 30-channel carriers detects when a carrier with steady-state alarm reverts to its correct signal sequence. The duration of this correct signal reaches the return-to-service time (RST) datafilled in table CARRMTC. Under these circumstances, a peripheral module report is sent to central control. The report states that the steady-state alarm is dropped.

Hit-state warning — maintenance limit

Having detected a hit-state warning, the PM resets the appropriate hit counter. If the number of hits, accumulated over the next 1-min interval, is less than the maintenance limit in table CARRMTC, a PM report is sent to central control. The report states that the hit state warning is dropped.

Hit state alarm — out-of-service

Having detected a hit state alarm, the PM resets the appropriate hit counter. If the number of hits, accumulated over the next 5-min interval, is less than the out-of-service limit in table CARRMTC, a PM report is sent to central control. The report states that the hit-state alarm is dropped.

Definition of errors

For information on the definition of errors, refer to the *Trunks Maintenance Guide*, 297-1001-595.

CARRMTC (continued)

M20 alarm types

M20 is a Japanese frame structure used to package digital voice and data in a format suitable for telecommunication. The framing is similar to CCITT PCM30 frame structure.

The frame structure of the 2048 kbit/s uses modified dipulse (MD) code. This is a coded mark inversion (CMI) with a code violation to mark the beginning of each frame. There are 8 bits per time slot (bits 1 to 8), 32 time slots per frame (slots 0 to 31) and 256 bits per frame. A multiframe consists of eight consecutive frames (frames 1 to 8). Multiframe length is 1 ms.

A handling group (HG) is composed of 6 of the 30 voice or data channels on a given digital carrier. Each carrier consists of the five handling groups. Signaling for each handling group is contained in time slot 0, bits 4 to 8. Multiframe alignment is independent for each handling group and is defined by an F-bit that alternates once every eight frames. For each HG, a multiframe consists of an F-bit, six sequential signaling bits, and an alarm bit (SP indicating TNR2 alarm).

Frame alignment

This alarm is caused by a loss of the incoming 2048-kbit/s signal or loss of incoming frame alignment. The alarm is detected by the M20 interface if it finds a missing code violation bit or two code violation bits, or two code violation bits that are not separated by 125 μ s. This alarm operates on the whole frame and is the equivalent of local loss of frame alignment (LLFA) for PCM30 links.

Alarm

This alarm is received by the M20 interface and indicates that the equipment generating the alarm cannot receive the incoming 2048-kbit/s signal. The alarm is detected when a binary 1 is detected in bit 2 of time slot 0. This alarm operates on the whole frame and is the equivalent of remote frame alarm indication (RFAI) in PCM30 links.

TNR1

This alarm is caused by a loss of proper sequence of framing bits in a handling group, or all bits in a handling group set to 1 (if not equivalent to local loss of multiframe alignment (LLMA) in PCM30 links).

TNR2

This alarm is detected using the SP alarm bits on the handling group bit streams. It means that the distant M20 multiplexer cannot receive signaling information on the handling group from the local M20 multiplexor. TNR2 is the handling group equivalent of remote multiframe alarm indication (RMAI) for PCM30 links.

CARRMTC (continued)

Alarm indication signal (AIS)

This alarm occurs when a stream of all ones (1) is detected on the incoming signaling link. It is the same as AIS for PCM30 links and is generated by the M20 interface when a link is manually busied.

Slip

This error occurs when a frame of data is repeated or slipped over. It is the same as slip in PCM30 links.

TTC alarm types

The TTC interface standard is a Japanese frame structure used to package digital voice and data in a format suitable for telecommunication. The TTC standard is similar to CCITT PCM30 and Japanese M20 standards. The main differences lie in the signaling bits.

A frame in TTC is thirty-two 8-bit time slots, the control and signaling information is in time slot 0, time slot 16 is not used, and code mark inversion marks the beginning of frames. Unlike M20 frames, the signaling for the voice and data channels is not split up into handling groups, and multiframing is instead provided over all of the signaling bits. A frame is 125 μ s in duration, and a multiframe is 8 frames.

Frame alignment (FA)

This alarm is caused by a loss of the incoming 2048-kbit/s signal or loss of incoming frame alignment. It is detected by the TTC interface if it finds two consecutive missing code violation bits, or two code violation bits that are not separated by 125 μ s. This alarm operates on the whole frame and is the equivalent of local loss of frame alignment (LLFA) for PCM30 links, and FA for M20 links.

S-bit alarm indication

This alarm is received by the TTC interface and indicates that the equipment generating the alarm cannot receive the incoming 2048-kbit/s signal. The alarm occurs when a binary 1 is detected in bit 2 of time slot 0. It operates on the whole frame and is the equivalent of remote frame alarm indication (RFAI) in PCM30 links and AL in M20 links.

Multiframe alignment (MA)

This alarm indicates a local loss of multiframe alignment. It is raised when the correct multiframe pattern in bit 1 of time slot 0 is broken. This alarm is similar to local loss of multiframe alignment (LLMA) in PCM30 links.

This alarm occurs when a stream of all ones (1) is detected on the incoming signaling link. It is the same as AIS for PCM30 and M20 links and is generated by the TTC interface when a link is manually busied.

CARRMTC (continued)

Slip

This error occurs when a frame of data is repeated or slipped over. It is the same as slip in PCM30 and M20 links. No steady-state alarm is applicable for slip.

Alarm attributes

The alarm attributes for ISDN digital trunk controllers (DTCI) and PCM30 digital trunk controllers (PDTC) consists of OST, RST, ML, and OL as described below.

OST is the out-of-service time in units of 0.1 s. This is the time for which an erroneous carrier signal must persist before the carrier is put out of service. OST is downloaded into the PM and the timing is made by the PM.

RST is the return-to-service time in units of 0.1 s. This is the time for which a correct carrier signal must persist before the carrier is put back to service. RST is downloaded into the PM and the timing is made by the PM.

ML is the maintenance limit. It is the number of nonpersistent errors that can be accumulated by the PM within a 1-min interval (except slip) before a hit-state warning is raised.

OL is the out-of-service limit. It is the number of nonpersistent errors that can be accumulated by the PM within a 5-min interval (except slip) before a hit-state warning is raised.

Datafill sequence and implications

The following tables must be datafilled after table CARRMTC:

- RCCPSINV
- appropriate C-side inventory table

The choice of entries for each carrier is datafilled in the inventory table of the C-side PM (for example, tables DCMINV and LTCINV) and the following verifications are made between table CARRMTC and the inventory tables:

- If a carrier index (CARRIDX) is datafilled in an inventory table (for example, table DCMINV), an entry of that PM type (for example, table

CARRMTC (continued)

DCM) must already exist in table CARRMTC. If not, the index is rejected by the data dictionary.

- If an entry is deleted from table CARRMTC, that entry must not be referenced by any carriers in the inventory tables. If any such reference exist, the deletion command is rejected.
- If an existing entry in table CARRMTC is changed, the associated PM inventory table is checked. If the entry is referenced by in-service carriers, the change command is rejected and the in-service carriers are listed.

A tuple in table CARRMTC must be datafilled before the extended multiprocessor system (XMS)-based peripheral modules (XPM) P-side inventory table RCCPSINV tuple is changed. Before a tuple in table CARRMTC is deleted or changed, no links in the XPMs P-side inventory table can be referenced in field TMPLTNM.

Before changing RCO2 P-side link data in table RCCPSINV from NILTYPE to D30, table CARRMTC must be datafilled.

A tuple in table CARRMTC must be datafilled before the XPMs P-side inventory table (LTCPSINV) tuple is changed.

The table CARRMTC default tuples are added by the system and they cannot be deleted. Only some of the data fields can be changed in the default tuples.

Table size

1 to 16 tuples (number of XPMs in field CSPMTYPE)

The table sizing mechanism is unchanged. Data store for maximum tuples is allocated at compile time. On initial program load (IPL), one default tuple is datafilled in table CARRMTC for each PM type that exists in the office and in field CSPMTYPE. Other tuples are added manually for different maintenance thresholds.

If any other field is changed, a new tuple must be added to table CARRMTC. This new tuple is then used with the appropriate carriers.

CARRMTC (continued)

Datafill

The following table lists datafill for table CARRMTC.

CARRMTC (continued)**Field descriptions (Sheet 1 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
CSPMTYPE		ARCC, DCM, DFI, DTC, DTCI, FRIU, GPP, HLIU, HSI2, IAC, IDTC, ILGC, ILTC, LGC, LGCI, LTC, LTCI, PDTC, PLGC, PRCC, RCC, RCC2, RCO2, SMA, SMR, SMS, SMSR, SMU, SRCC, TMS, or NIL	<i>C-side node peripheral module type</i> Enter the PM type of the node on the C-side of the carrier link. • ARCC is for Austrian remote cluster controllers. • DCM is for digital carrier modules. • DFI is for direct fiber interface. • DTC is for digital trunk controllers. • DTCI is for ISDN DTCs. • FRIU is for frame relay interface units. • GPP is for Global Peripheral Platform, which is a common peripheral module (CPM)-based host peripheral for generic access nodes (AN). • HLIU is for high-speed link interface unit, which provides CCS7 signaling terminations for a DS-1 CCS7 link, and processes the asynchronous transfer mode (ATM) signaling ATM adaptation layer (SAAL) and the CCS7 protocol stack up to CCS Layer 3 (and parts of signaling connection control part [SCCP]).

CARRMTC (continued)**Field descriptions (Sheet 2 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
CSPMTYPE (continued)			<i>C-side node peripheral module type</i> (continued). • LGC is for line group controllers. • LGCI is for ISDN LGCs. • LTC is for line trunk controllers. • LTC+ is for line trunk controllers with peripheral life upgrade strategy (PLUS), an LTC equipped with an NTMX77 [unified processor] card, datafilled as LTC. • LTCI is for ISDN LTCs. • PDTC is for 30-channel pulse code modulation (PCM30) DTCs. • PLGC is for PCM30 LGCs. • PRCC is for PCM30 remote cluster controllers (RCC). • RCC is for RCCs. • RCC2 (remote cluster controller #2) sets carrier maintenance limits and alarms for carriers having an RCC2 XPM on their C-side. • RCO2 (remote switching center offshore #2) sets carrier maintenance limits and alarms for carriers having an RCO2 XPM on their C-side. • SMA (subscriber carrier module-100 access) is the LTC-based DMS PM that provides cell site controller (CSC) and embedded operations channel (EOC) link management, DS-1 facility management, and the interface to the DMS-core.

CARRMTC (continued)**Field descriptions (Sheet 3 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
CSPMTYPE (continued)			<i>C-side node peripheral module type</i> (continued). • SMR (subscriber carrier module-100 rural) provides an interface between the remote concentrator terminal of a DMS-1 switch and the central office of a DMS-100 Family switch. • SMS (subscriber carrier module-100S) provides an interface between the remote concentrator SLC-96 (RCS) of an SLC-96 system and the central office of a DMS-100 Family switch. • SMSR (SMS remote) provides an interface between the RCS and a remote switching center (RSC). • SRCC (Synchronous Optical Network [SONET] remote cluster controller) is an remote cluster RCC hosted by the direct fiber interface with a SONET interface on its C-side. This RCC sets carrier maintenance limits and alarms for carriers having an SRCC XPM on their C-side. For SRCCs, one tuple is added to provide maintenance thresholds for SRCC carriers (as with RCC2 carriers). SRCC carrier tuples contain various carrier maintenance limits and information for DS-1 carriers that are remote or are trunks. Before changing SRCC P-side link data in table RCCPSINV from NILTYPE to DS1 <string name> or DS1 DEFAULT, table CARRMTC must be datafilled.

CARRMTC (continued)**Field descriptions (Sheet 4 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
CSPMTYPE (continued)			<i>C-side node peripheral module type</i> (continued). - SMU (subscriber carrier module-100 urban) provides an interface between the remote carrier urban (RCU) of a DMS-1 switch and the central office of a DMS-100 Family switch. - TMS (Traffic Operator Position System [TOPS] message switch) is based on the ISDN line trunk controller (LTCI). TMS eliminates the need for direct data links between TOPS position controllers (TPC) and database systems as well as providing a high speed link for CC_TPC communication. TMS acts as a host to the TPC and provides switched access to external databases such as directory assistance (DA) and operator reference database (ORDB). Service nodes that can subtend the TMS are DA and ORDB. TMS interfaces to DA and ORDB through DS-1 links. TMS interfaces to the TPC through DS-1 links and channel banks. Each DS-1 link can support up to four TPCs. There are 24 channels for each DS-1 link. Each TPC utilizes four voice channels and up to two data channels. Each DS-1 link can accommodate up to four TPCs. - Enter NIL if there is no signaling type.
TMPLTNM		alphanumeric (1 to 16 characters)	<i>Template name</i> Enter the template name for the PM. This entry also appears in the inventory tables, field CARRIDX. The default value is DEFAULT. Note: For Gateways, the value is GWIP.

CARRMTC (continued)**Field descriptions (Sheet 5 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
RTSML		numeric (0 to 255)	<i>Return-to-service maintenance limit</i> Enter the number of times within the audit interval that a carrier can be returned to service (RTS) by the system before a warning is issued. An entry of 255 disables this feature. Note: Gateways use the value 255.
RTSOL		numeric (0 to 255)	<i>Return-to-service out-of-service limit</i> Enter the number of times within the audit interval that a carrier can be returned to service by the system before it is put permanently out of service. An entry of 255 disables this feature. Note: Gateways use the value 255.
ATTR		see subfield	<i>Attribute</i> This field consists of subfield SELECTOR and refinements.

CARRMTC (continued)**Field descriptions (Sheet 6 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
	SELECTOR	DS1 D30 FRT1 M20 NDS0 SONET TTC or NIL	<i>Selector</i> Enter DS1 if the entry for field CSPMTYPE is DCM, DTC, HLIU, IAC, LTC, RCC, RCC2, SMR, SMS, SMSR, SMU, LGCI, LTCI, DTCL, TTC, LTC, LGC, or TMS. For selector value DS-1 refinement datafill information, refer to section “SELECTOR = DS1”. Enter D30 if the entry for field CSPMTYPE is GPP, IDTC, ILGC, ILTC, PDTC, PLGC, RCO2, or TMS. For selector value D30 refinement datafill information, refer to sectionn “ SELECTOR = D30”. Enter FRT1 for frame relay T1 usage. For selector value FRT1 refinement datafill information, refer to section “SELECTOR = FRT1”. Enter M20 for the Japanese market if the entry for field CSPMTYPE is PDTC only. For selector value M20 refinement datafill information, refer to section “SELECTOR = M20”.

CARRMTC (continued)**Field descriptions (Sheet 7 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
	SELECTOR (continued)		Enter NDS0 as the selector for PCM30 digital trunk controller (PDTC) only. For selector value NDS0 refinement datafill information, refer to section "SELECTOR = NDS0". Enter SONET for the Synchronous Optical Network. For selector value SONET refinement datafill information, refer to section "SELECTOR = SONET". Enter TTC for the Japanese market if the entry for field CSPMTYPE is PDTC only. For selector value TTC refinement datafill information, refer to section "SELECTOR = TTC". Enter NIL if no selector is required. The NT6X27JB card (TTC interface) provides the interface between the PDTC and external telecommunication technical committee (TTC) interface standard pulse code modulation (PCM) equipment. Each interface card contains two TTC ports. Each PDTC can have up to 8 interface cards, making a total of 16 P-side ports. This total is composed of either eight TTC cards or any combination of PCM30, M20, and TTC interface cards. Correct operation of all diagnostics concerned with the TTC card requires the presence of the following cards: • NT6X44EA (universal time switch card) • NT6X28AA/AB (signaling interface card) • NT6X69LA (message protocol and downloadable tones) • NT6X27JB (TTC interface card)

CARRMTC (continued)

SELECTOR = DS1

If the entry in field SELECTOR is DS1, datafill refinement CARD as described below.

CARRMTC (continued)**Field descriptions (Sheet 1 of 2)**

Field	Subfield for refinement	Entry	Explanation and action
	CARD	NT2X35AB NT6X50AA NT6X50AB NT6X55AB NT6X55BA NT6X55JA NT6X85AA NT6X85AB NTEX78AA or NTMX81AA	<i>Product engineering code of card</i> Enter the product engineering code (PEC) of the card used. The NT2X35AB card (DCM interface) is used in digital carrier modules (DCM). If this value is entered, refinements FRAMEML, FRAMEOL, SLIPML, and SLIPOL must be datafilled as described in section "CARD = NT2X35AB". The NT6X50AA card (DS-1 interface) is used in DS-1 service with A/B signaling. The NT6X50AB card (DS-1 EFF) is used in DS1 service with EFF and A/B/C/D bit signaling. If either of these values is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X50AA, NT6X50AB, NT6X85AA, NT6X85AB, or NTMX81AA". The NT6X55AB card (DS-0 interface) is a DS-0A carrier used in DS-0 link types for digital trunk controllers (DTC), and is applicable for BCS33 and subsequent loads. If this value is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X55AB, NT6X55BA, or NT6X55JA".

CARRMTC (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield for refinement	Entry	Explanation and action
	CARD (continued)		The refinements for NT6X55BA card (64-bit access) are identical to the existing NT6X55AB card except that the only allowed data rate is 64 kbit/s. The NT6X55BA card allows the PCM type DS-1 datafill on PDTC peripheral modules. This card also allows a DS-0 card on PDTC peripheral modules. If this value is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X55AB, or NT6X55JA". The NT6X55JA card (digital trunk controller CII/CMI [Japan]) is for carrier DS-0 and has limited fields. If this value is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X55AB, NT6X55BA, or NT6X55JA". The NT6X85AA card is the DS-1 interface for the SLC-96 card. The NT6X85AB card provides similar functionality to the NT6X85AA, but supports special features and two DS-1 circuits. If either of these values is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X50AA, NT6X50AB, NT6X85AA, NT6X85AB, or NTMX81AA". The NTEX78AA card is a DS-1 paddle board, which supports the HLIU. If this value is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NTEX78AA". The NTMX81AA card (dual DS-1 interface) is a refinement added in BCS33 for dual DS-1 packets for common PM (CPM) carrier tuples. If this value is entered, additional refinements must be datafilled in accordance with the description in section "CARD = NT6X50AA, NT6X85AA, NT6X85AB, or NTMX81AA".

CARRMTC (continued)

CARD = NT2X35AB

If the entry in field CARD is NT2X35AB, datafill refinements FRAMEML, FRAMEOL, SLIPML, and SLIPOL as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	FRAMEML	numeric (0 to 9999)	<i>Frame maintenance limit</i> Enter the maintenance limit for frame loss. The default value is 17.
	FRAMEOL	numeric (0 to 9999)	<i>Frame loss limit</i> Enter the out-of-service limit for frame loss. The default value is 511. Note: The value of field FRAMEOL must be greater than the value of field FRAMEML. Otherwise, only field FRAMEOL is used.
	SLIPML	numeric (0 to 9999)	<i>Slip maintenance limit</i> Enter the maintenance limit for slip. The default value is 4.
	SLIPOL	numeric (0 to 9999)	<i>Slip out-of-service limit</i> Enter the out-of-service limit for slip. The default value is 255. Note: The value of field SLIPOL must be greater than the value of field SLIPML. Otherwise, only field SLIPOL is used.

CARRMTC (continued)

CARD = NT6X50AA, NT6X50AB, NT6X85AA, NT6X85AB, or NTMX81AA

If the entry in field CARD is NT6X50AA, NT6X50AB, NT6X85AA, NT6X85AB, or NTMX81AA, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	VOICELAW	MU_LAW or A_LAW	<i>Voice law</i> Enter the voice law used in the carrier. A_LAW is mainly used in international switches and MU_LAW is mainly used in North American switches.
	FF	SF or ESF	<i>Frame format</i> Enter SF for standard format. Enter ESF for extended superframe format. Note: Only the NT6X50AA/AB card supports extended superframe format (ESF).
	ZLG	ZCS or B8ZS	<i>Zero logic</i> Enter ZCS for zero code suppression. Enter B8ZS for bipolar 8-bit zero substitution. Note 1: Enter B8ZS when the high data link controller (HDLC) messaging protocol supported is link access protocol on the D-channel (LAPD). Note 2: Only the NT6X50AA/AB card supports bipolar 8-bit zero substitution (B8ZS).
	BERB	BPV or CRC	<i>Bit error rate base</i> Enter BPV for bipolar violation. Enter CRC for cyclic redundancy check.
	DLK	NILDL, FDL1, or FDL2	<i>Data link</i> Enter NILDL for nil data link. Enter FDL1 for facility data line input from time slot 2. Enter FDL2 for facility data link input from external interrupt. Note: Currently, only NILDL is supported.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	IAT	Y or N	<i>Inhibit alarm transmit</i> Enter Y (yes) if alarm transmit is inhibited; otherwise, enter N (no). For all links on RCS modules, including protection links, enter Y, since yellow alarms are unsupported. Datafill links in an SMU-RCU subsystem as Y, since the RCU cannot recognize a yellow alarm.
	LCGAST	numeric (1 to 9999)	<i>Local carrier group alarm set threshold</i> Enter a value for the threshold in units of 10 ms. Primary links on an SMS have a range of 40 to 250 ms. It is recommended that 80 be datafilled if protection links are present and 250 be datafilled if they are absent. The range for protection links is 100 to 250 ms. It is recommended that 250 be datafilled. The recommended datafill for primary links off an SMU is 2500.
	LCGACL	numeric (1 to 9999)	<i>Local carrier group alarm clear threshold</i> Enter a value for the threshold in units of 10 ms. Primary links on an SMS have a range of 100 to 1000 ms. It is recommended that 200 be datafilled if protection links are present and 1000 be datafilled if they are absent. The range for protection links is 200 to 400 ms. It is recommended that 300 be datafilled. The recommended datafill for links off an SMU is 9999.
	RCGAST	numeric (1 to 9999)	<i>Remote carrier group alarm set threshold</i> Enter a value for the threshold in units of 10 ms. RCU modules use a time of 220 ms that overrides any value datafilled.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	RCGACL	numeric (1 to 9999)	<i>Remote carrier group alarm clear threshold</i> Enter a value for the threshold in units of 10 ms. RCU modules use a time of 5 s that overrides any value datafilled.
	AISST	numeric (1 to 9999)	<i>Alarm indication signal set threshold</i> Enter a value for the threshold in units of 10 ms.
	AISCL	numeric (1 to 9999)	<i>Alarm indication signal clear threshold</i> Enter a value for the threshold in 10 ms.
	BEROL	numeric (3 to 6)	<i>Bit error rate out-of-service limit</i> Enter the bit error rate out-of-service limit expressed as the negative of the exponent of 10, for example an entry of 4 corresponds to a bit error rate of 10 ⁻⁴ .
	BERML	numeric (4 to 7)	<i>Bit error rate maintenance limit</i> Enter the bit error rate maintenance limit expressed as the negative of the exponent of 10 (10 ⁻ⁿ).
	ES	numeric (0 to 9999)	<i>Error second threshold</i> Enter a value for the threshold in units of 10 ms.
	SES	numeric (0 to 9999)	<i>Severe error second threshold</i> Enter a value for the threshold in units of 10 ms.
	FRAMEML	numeric (0 to 9999)	<i>Frame maintenance limit</i> Enter the maintenance limit for frame loss.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	FRAMEOL	numeric (0 to 9999)	<i>Frame loss limit</i> Enter the out-of-service limit for frame loss. Note: The value of field FRAMEOL must be greater than the value of field FRAMEML. Otherwise, only field FRAMEOL is used.
	SLIPML	numeric (0 to 9999)	<i>Slip maintenance limit</i> Enter the maintenance limit for slip.
	SLIPOL	numeric (0 to 9999)	<i>Slip out-of-service limit</i> Enter the out-of-service limit for slip. Note: The value of field SLIPOL must be greater than the value of field SLIPML. Otherwise, only field SLIPOL is used.

CARD = NT6X55AB, NT6X55BA, or NT6X55JA

If the entry in field CARD is NT6X55AB, NT6X55BA, or NT6X55JA, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	RATE	48K, 56K, or 64K	<i>Data rate</i> Enter the data rate used: 48 kbit/s, 56 kbit/s, or 64 kbit/s. Note: Use 56K or 64K with card NT6X55AB. Use 64K only with card NT6X55BA. Use 48K or 64K with card NT6X55JA.
	CLOCK	EXTRNL or INTRNL	<i>Clock</i> Enter the source of the clock: INTRNL for internal, EXTRNL for external.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	LSC	NEI or LINE	<i>Loopback select code</i> Enter LINE for the loopback select code used if the loopback is applied at the line side. Enter NEI if loopback is applied at the network element interface. Note: Field LSC is not used with card NT6X55JA.
	IAT	Y or N	<i>Inhibit alarm transmit</i> Enter Y (yes) if the alarm transmit is inhibited; otherwise, enter N (no).
	LCGAST	numeric (1 to 9999)	<i>Local carrier group alarm set threshold</i> Enter a value for the threshold in units of 10 ms.
	LCGACL	numeric (1 to 9999)	<i>Local carrier group alarm clear threshold</i> Enter a value for the threshold in units of 10 ms.
	BEROL	numeric (3 to 6)	<i>Bit error rate out-of-service limit</i> Enter the bit error rate out-of-service limit expressed as the negative exponent of 10, for example an entry of 3 corresponds to a bit error rate of 10^{-3}.
	BERML	numeric (4 to 7)	<i>Bit error rate maintenance limit</i> Enter the bit error rate maintenance limit expressed as the negative exponent of 10 (10^{-n}).
	ES	numeric (0 to 9999)	<i>Error second threshold</i> Enter a value for the threshold in units of 10 ms.
	SES	numeric (0 to 9999)	<i>Severe error second threshold</i> Enter a value for the threshold in units of 10 ms.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	SLIPML	numeric (0 to 9999)	<i>Slip maintenance limit</i> Enter the maintenance limit for slip. This value is expressed in terms of the number of slips that are accumulated by the PM within a 24-h or 1-min interval before a hit-state alarm for slip is raised.
	SLIPOL	numeric (0 to 9999)	<i>Slip out-of-service limit</i> Enter the out-of-service limit for slip. This value is expressed in terms of the number of slips that are accumulated by the PM within a 24-h or 1-min interval before a hit-state alarm for slip is raised. Note: The value of field SLIPOL must be greater than the value of field SLIPML. Otherwise, only field SLIPOL is used.
	CIICMI	CII or CMI	<i>CII and CMI selector</i> If the entry in field CARD is NT6X55JA, datafill this refinement. Enter either CII or CMI.

CARD = NTEX78AA

If the entry in field CARD is NTEX78AA, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	FF	ESF	<i>Frame format</i> Enter ESF for extended superframe format.
	LCGAST	numeric (1 to 9999)	<i>Local carrier group alarm set threshold</i> Enter a value for the threshold in units of 10 ms. The default value is 250 (2.5 s).

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	LCGACL	numeric (1 to 9999)	<i>Local carrier group alarm clear threshold</i> Enter a value for the threshold in units of 10 ms. The default value is 2000 (20 s).
	RCGAST	numeric (0 to 9999)	<i>Remote carrier group alarm set threshold</i> Enter a value for the threshold in units of 10 ms. The default value is 0 (0 s).
	RCGACL	numeric (0 to 9999)	<i>Remote carrier group alarm clear threshold</i> Enter a value for the threshold in units of 10 ms. The default value is 0 (0 s).
	AISST	numeric (1 to 9999)	<i>Alarm indication signal set threshold</i> Enter a value for the threshold in units of 10 ms. The default value is 250 (2.5 s).
	AISCL	numeric (1 to 9999)	<i>Alarm indication signal clear threshold</i> Enter a value for the threshold in 10 ms. The default value is 2000 (20 s).
	LCDST	numeric (1 to 9999)	<i>Loss of cell delineation alarm set threshold</i> Enter the limit in units of 10 ms. The default value is 250 (2.5 s).
	LCDCL	numeric (1 to 9999)	<i>Loss of cell delineation alarm clear threshold</i> Enter the limit in units of 10 ms. The default value is 1 000 (10 s).
	ESPDML	numeric (0 to 9999)	<i>Errored seconds-path daily report threshold</i> Enter the limit. The default value is 648.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	ESPQML	numeric (0 to 9999)	<i>Errored seconds-path quarter-hour report threshold</i> Enter the limit. The default value is 65.
	SESPDML	numeric (0 to 9999)	<i>Severely errored seconds-path daily report threshold</i> Enter the limit. The default value is 100.
	SESPQML	numeric (0 to 9999)	<i>Severely errored seconds-path quarter-hour report threshold</i> Enter the limit. The default value is 10.
	UASPDML	numeric (0 to 9999)	<i>Unavailable seconds-path daily report threshold</i> Enter the limit. The default value is 10.
	UASPQML	numeric (0 to 9999)	<i>Unavailable seconds-path quarter-hour report threshold</i> Enter the limit. The default value is 10.
	SLIPDML	numeric (0 to 9999)	<i>Slips-path daily report threshold</i> Enter the maintenance limit for slip. The default value is 4.
	SLIPQML	numeric (0 to 9999)	<i>Slips-path quarter-hour report threshold</i> Enter the maintenance limit for slip. The default value is 1.

CARRMTC (continued)**SELECTOR = D30**

If the entry in field SELECTOR is D30, datafill refinements described below.

Note: The following datafill descriptions include default values. These default values do not apply for all peripheral module types and switch variations.

Field descriptions for conditional datafill (Sheet 1 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	NT6X27AA NT6X27AB NT6X27AC NT6127SA NT6X27BA NT6X27BBN T6X27BD or NTMX82AA	<i>Product engineering code of card</i> Enter the product engineering code (PEC) of the card used in the XPM PCM30 carrier for the even bit inversion. The NT6X27AA, NT6X27AB, and NT6X27AC are PCM30 interface cards. The NT6X27BA and NT6X27BB are enhanced PCM30 interface cards. Note: The NT6X27BD is for use in a Digital Trunk Controller Offshore with ISDN (DTCOI) only. The NTMX82AA is a dual PCM30 packet card. The NT6127SA is for Austrian licensee use only. The default value for this field is NT6X27AA.
	VOICELAW	MU_LAW or A_LAW	<i>Voice law</i> Enter the voice law used in the carrier. The default value for this field is A_LAW.
	NATLBIT	NATL or INTERNATL	<i>National bit</i> Enter NATL if the national bit used is national. Enter INTERNATL if the national bit is international. The default value for this field is NATL.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	LLFAOST	numeric (0 to 255)	<i>Local loss of frame alignment out-of-service time</i> Enter the local loss of frame alignment out-of-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.
	LLFARST	numeric (0 to 255)	<i>Local loss of frame alignment return-to-service</i> Enter the local loss of frame alignment return-to-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.
	LLFAML	numeric (0 to 255)	<i>Local loss of frame alignment maintenance limit</i> Enter the local loss of frame alignment maintenance limit. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 4.
	LLFAOL	numeric (0 to 255)	<i>Local loss of frame alignment out-of-service limit</i> Enter the local loss of frame alignment out-of-service limit. This value is expressed in units of number of hits within a 5-min period. The default value for this field is 20.
	LLMAOST	numeric (0 to 255)	<i>Local loss of multiframe alignments out-of-service time</i> Enter the local loss of multiframe alignments out-of-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	LLMARST	numeric (0 to 255)	<i>Local loss of multiframe alignment return-to-service time</i> Enter local loss of multiframe alignment return-to-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.
	LLMAML	numeric (0 to 255)	<i>Local loss of multiframe alignment maintenance limit</i> Enter the local loss of multiframe alignment maintenance limit. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 4.
	LLMAOL	numeric (0 to 255)	<i>Local loss of multiframe alignment out-of-service limit</i> Enter the local loss of multiframe alignment out-of-service limit. This value is expressed in units of number of hits within a 5-min period. The default value for this field is 20.
	RFAIOST	numeric (0 to 255)	<i>Remote frame alignment indication out-of-service time</i> Enter the remote frame alignment indication out-of-service time. This value is expressed in units of 100 ms. The default value for this field is 30.
	RFAIRST	numeric (0 to 255)	<i>Remote frame alignment indication return-to-service time</i> Enter the remote frame alignment indication return-to-service time. This value is expressed in units of 100 ms. The default value for this field is 30.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	RFAIML	numeric (0 to 255)	<i>Remote frame alignment indication maintenance limit</i> Enter the remote frame alignment indication maintenance limit. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 4.
	RFAIOL	numeric (0 to 255)	<i>Remote frame alignment indication out-of-service limit</i> Enter the remote frame alignment indication out-of-service limit. This value is expressed in units of number of hits within a 5-min period. The default value for this field is 20.
	RMAIOST	numeric (0 to 255)	<i>Remote multiframe alignment indication out-of-service time</i> Enter the remote multiframe alignment indication out-of-service time. This value is expressed in units of 100 ms. The default value for this field is 30.
	RMAIRST	numeric (0 to 255)	<i>Remote multiframe alignment indication return-to-service time</i> Enter the remote multiframe alignment indication return-to-service time. This value is expressed in units of 100 ms. The default value for this field is 30.
	RMAIML	numeric (0 to 255)	<i>Remote multiframe alignment indication maintenance limit</i> Enter the remote multiframe alignment indication maintenance limit. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 4.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 5 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	RMAIOL	numeric (0 to 255)	<i>Remote multiframe alignment indication out-of-service limit</i> Enter the remote multiframe alignment indication out-of-service limit. This value is expressed in units of number of hits within a 5-min period. The default value for this field is 20.
	AISOST	numeric (0 to 255)	<i>Alarm indication signal out-of-service time</i> Enter the alarm indication signal out-of-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.
	AISRST	numeric (0 to 255)	<i>Alarm indication signal return-to-service time</i> Enter the alarm indication signal return-to-service time limit. This value is expressed in units of 100 ms. The default value for this field is 30.
	AISML	numeric (0 to 255)	<i>Alarm indication signal maintenance limit</i> Enter the alarm indication signal maintenance limit. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 4.
	AISOL	numeric (0 to 255)	<i>Alarm indication signal out-of-service limit</i> Enter the alarm indication signal out-of-service limit. This value is expressed in units of number of hits within a 5-min period. The default value for this field is 20.
	BERML	numeric (0 to 255)	<i>Bit error rate maintenance limit</i> Enter the bit error rate maintenance limit. This value is expressed in units of number of hits within a 5-s period. The default value for this field is 130.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 6 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	BEROL	numeric (0 to 255)	<i>Bit error rate out-of-service limit</i> Enter the bit error rate out-of-service limit. This value is expressed in units of number of hits within a 5-s period. The default value for this field is 16.
	SLIPML	numeric (0 to 255)	<i>Slip maintenance limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 1-min interval, before a hit-state warning for slips is raised. The default value for this field is 4.
	SLIPOL	numeric (0 to 255)	<i>Slip out-of-service limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 5-min interval, before a hit-state alarm for slips is raised. The default value for this field is 20.
	SLIPSYNC	Y or N	<i>Slip synchronization</i> Enter Y (yes) to indicate that the switch operates in a synchronized region and slips are accumulated over 24-h intervals. Enter N (no) to indicate that the switch does not operate in a synchronized region and slips are accumulated over 1-min and 5-min intervals. The default value for this field is N.
	AIS16OST	numeric (0 to 255)	<i>Out-of-service time for AIS16 alarm</i> Enter the out-of-service time for the AIS16 alarm. This value is expressed in units of 100 ms. The default value for this field is 4.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 7 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	AIS16RST	numeric (0 to 255)	<i>Return-to-service time for AIS16 alarm</i> Enter the return-to-service time for the AIS16 alarm. This value is expressed in units of 100 ms. The default value is for this field is 4.
	AIS16ML	numeric (0 to 255)	<i>Maintenance limit for AIS16 alarm</i> Enter the maintenance limit for the AIS16 alarm. This value is expressed in units of the number of hits within a 5-min period. The default value for this field is 17.
	AIS16OL	numeric (0 to 255)	<i>Out-of-service limit for AIS16 alarm</i> Enter the out-of-service limit for the AIS16 alarm. This value is expressed in units of number of hits within a 1-min period. The default value for this field is 255.
	CRC4	Y or N	<i>Cyclic redundancy check 4</i> Datafill this field to specify whether the cyclic redundancy check 4 (CRC4) must be initiated. Enter Y to initiate the CRC4. Enter N if the CRC4 must not be initiated. The default value for this field is N.
	CRE	Y or N	<i>CRC4 remote error reporting</i> Datafill this field to specify whether CRC4 remote error (CRE) reporting must be initiated. Enter Y to initiate CRE reporting. Enter N if CRE reporting must not be initiated. The default value for this field is N.
	CRCOST	numeric (0 to 255)	<i>Out-of-service time for CRC4 alarm</i> Enter the out-of-service time for the CRC4 alarm. This value is expressed in units of 100 ms. The default value for this field is 5.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 8 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	CRCRST	numeric (0 to 255)	<i>Return-to-service time for CRC4 alarm</i> Enter the return-to-service time for the CRC4 alarm. This value is expressed in units of 100 ms. The default value for this field is 5.
	CRCML	numeric (0 to 1023)	<i>Maintenance limit for CRC4 alarm</i> Enter the maintenance limit for the CRC4 alarm. This value is expressed in units of the number of frames within 1000 frames. The default value for this field is 205.
	CRCOL	numeric (0 to 1023)	<i>Out-of-service limit for CRC4 alarm</i> Enter the out-of-service limit for the CRC4 alarm. This value is expressed in units the number of frames within 1000 frames. The default value for this field is 914.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 9 of 9)**

Field	Subfield or refinement	Entry	Explanation and action
	IDLECODE	G714 or Q503	<i>Idle channel bit pattern</i> Enter the CCITT recommended idle-channel bit pattern. The default value for this field is G714.
	SIGNTYPE	CAS CCS CASX CCSIPML or D30RCC	<i>Signaling type</i> This field specifies the signaling type. Enter CAS for channel-associated signaling. Enter CASX for channel-associated signaling used on links from an international line group controller (ILGC) to a remote international line concentrating module (ILCM) or from a PCM30 remote cluster controller (PRCC) to a PCM30 line group controller (PLGC). Enter CCS for common channel signaling. Enter D30RCC if signaling type D30 is being used on the PRCC or if a GPP interface type of V5_2 is datafilled in subfield SELECTOR in table GPPTRNSL. Enter CCSIPML if common channel signaling is used for interperipheral message links.

CARRMTC (continued)**SELECTOR = M20**

If the entry in field SELECTOR is M20, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	NT6X27JA	<i>Product engineering code of card</i> Enter NT6X27JA (M20 interface card) to specify the product engineering code (PEC) of the card used by the M20 carrier for the Japanese market.
	VOICELAW	MU_LAW or A_LAW	<i>Voice law</i> Enter the voice law used in the carrier.
	FAOST	numeric (0 to 255)	<i>Frame alignment out-of-service time</i> Enter the frame alignment out-of-service time limit. This value is expressed in units of 100 ms.
	FARST	numeric (0 to 255)	<i>Frame alignment return-to-service time</i> Enter the frame alignment return-to-service time limit. This value is expressed in units of 100 ms.
	FAML	numeric (0 to 255)	<i>Frame alignment maintenance limit</i> Enter the frame alignment maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	FAOL	numeric (0 to 255)	<i>Frame alignment out-of-service limit</i> Enter the frame alignment out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	ALOST	numeric (0 to 255)	<i>Alarm out-of-service time</i> Enter the alarm out-of-service time limit. This value is expressed in units of 100 ms.
	ALRST	numeric (0 to 255)	<i>Alarm return-to-service time</i> Enter the alarm return-to-service time limit. This value is expressed in units of 100 ms.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	ALML	numeric (0 to 255)	<i>Alarm maintenance limit</i> Enter the alarm maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	ALOL	numeric (0 to 255)	<i>Alarm out-of-service limit</i> Enter the alarm out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	AISOST	numeric (0 to 255)	<i>Alarm indication signal out-of-service time</i> Enter the alarm indication signal out-of-service time limit. This value is expressed in units of 100 ms.
	AIRST	numeric (0 to 255)	<i>Alarm indication signal return-to-service time</i> Enter the alarm indication signal return-to-service time limit. This value is expressed in units of 100 ms.
	AISML	numeric (0 to 255)	<i>Alarm indication signal maintenance limit</i> Enter the alarm indication signal maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	AISOL	numeric (0 to 255)	<i>Alarm indication signal out-of-service limit</i> Enter the alarm indication signal out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	TNR1OST	numeric (0 to 255)	<i>TNR1 out-of-service time</i> Enter the TNR1 out-of-service time limit. This value is expressed in units of 100 ms.
	TNR1RST	numeric (0 to 255)	<i>TNR1 return-to-service time</i> Enter the TRN1 return-to-service time limit. This value is expressed in units of 100 ms.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	TNR1ML	numeric (0 to 255)	<i>TNR1 maintenance limit</i> Enter the TNR1 maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	TNR1OL	numeric (0 to 255)	<i>TNR1 out-of-service limit</i> Enter the TNR1 out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	TNR2OST	numeric (0 to 255)	<i>TNR2 out-of-service time</i> Enter the TNR2 out-of-service time limit. This value is expressed in units of 100 ms.
	TNR2RST	numeric (0 to 255)	<i>TNR2 return-to-service time</i> Enter the TNR2 return-to-service time limit. This value is expressed in units of 100 ms.
	TNR2ML	numeric (0 to 255)	<i>TNR2 maintenance limit</i> Enter the TNR2 maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	TNR2OL	numeric (0 to 255)	<i>TNR2 out-of-service limit</i> Enter the TNR2 out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	SLIPML	numeric (0 to 255)	<i>Slip maintenance limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 1-min interval, before a hit-state warning for slip is raised.
	SLIPOL	numeric (0 to 255)	<i>Slip out-of-service limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 5-min interval, before a hit-state alarm for slip is raised.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	IDLECODE	G714M or Q503M	<i>Idle channel bit pattern</i> Enter the CCITT recommended idle channel bit pattern.
	SIGNTYPE	CAS CASX CCS CCSIPML or D30RCC	<i>Signaling type</i> This field specifies the signaling type. Enter CAS for channel-associated signaling. Enter CASX for channel-associated signaling used on links from an international line group controller (ILGC) to a remote international line concentrating module (ILCM). Enter CCS for common channel signaling. Enter D30RCC if signaling type D30 is being used on the PCM30 remote cluster controller. Enter CCSIPML if common channel signaling is used for interperipheral message links.

SELECTOR = TTC

If the entry in field SELECTOR is TTC, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	NT6X27JB	<i>Product engineering code of card</i> Enter NT6X27JB (TTC interface card) to specify the product engineering code (PEC) of the card used by the telecommunication technical committee (TTC) carrier for the Japanese market.
	VOICELAW	MU_LAW or A_LAW	<i>Voice law</i> Enter the voice law used in the carrier.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	FAOST	numeric (0 to 255)	<i>Frame alignment out-of-service time</i> Enter the frame alignment out-of-service time limit. This value is expressed in units of 100 ms.
	FARST	numeric (0 to 255)	<i>Frame alignment return-to-service time</i> Enter the frame alignment return-to-service time limit. This value is expressed in units of 100 ms.
	FAML	numeric (0 to 255)	<i>Frame alignment maintenance limit</i> Enter the frame alignment maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	FAOL	numeric (0 to 255)	<i>Frame alignment out-of-service limit</i> Enter the frame alignment out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	MAOST	numeric (0 to 255)	<i>Multiframe alignment out-of-service time</i> Enter the multiframe alignment out-of-service time limit. This value is expressed in units of 100 ms.
	MARST	numeric (0 to 255)	<i>Multiframe alignment return-to-service time</i> Enter the multiframe alignment return-to-service time limit. This value is expressed in units of 100 ms.
	MAML	numeric (0 to 255)	<i>Multiframe alignment maintenance limit</i> Enter the multiframe alignment maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	MAOL	numeric (0 to 255)	<i>Multiframe alignment out-of-service limit</i> Enter the multiframe alignment out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	SBOST	numeric (0 to 255)	<i>S-bit out-of-service time</i> Enter the S-bit out-of-service time limit. This value is expressed in units of 100 ms.
	SBRST	numeric (0 to 255)	<i>S-bit return-to-service time</i> Enter the S-bit return-to-service time limit. This value is expressed in units of 100 ms.
	SBML	numeric (0 to 255)	<i>S-bit maintenance limit</i> Enter the S-bit maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	SBOL	numeric (0 to 255)	<i>S-bit out-of-service limit</i> Enter the S-bit out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.
	AISOST	numeric (0 to 255)	<i>Alarm indication signal out-of-service time</i> Enter the alarm indication signal out-of-service time limit. This value is expressed in units of 100 ms.
	AISRST	numeric (0 to 255)	<i>Alarm indication signal return-to-service time</i> Enter alarm indication signal return-to-service time limit. This value is expressed in units of 100 ms.
	AISML	numeric (0 to 255)	<i>Alarm indication signal maintenance limit</i> Enter the alarm indication signal maintenance limit. This corresponds to the number of hits accumulated over a 1-min period.
	AISOL	numeric (0 to 255)	<i>Alarm indication signal out-of-service limit</i> Enter the alarm indication signal out-of-service limit. This corresponds to the number of hits accumulated over a 5-min period.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	SLIPML	numeric (0 to 255)	<i>Slip maintenance limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 1-min interval, before a hit-state alarm for slip is raised.
	SLIPOL	numeric (0 to 255)	<i>Slip out-of-service limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 24-h or 5-min interval, before a hit-state alarm for slip is raised.
	IDLECODE	G714M or Q503M	<i>Idle channel bit pattern</i> Enter the CCITT recommended idle-channel bit pattern. An entry outside of this range is invalid.
	SIGNTYPE	CAS, CASX, CCS, CCSIPML, or D30RCC	<i>Signaling type</i> This field specifies the signaling type. Enter CAS for channel-associated signaling. Enter CASX for channel-associated signaling used on links from an international line group controller (ILGC) to a remote international line concentrating module (ILCM). Enter CCS for common channel signaling. Enter D30RCC if signaling type D30 is being used on the PCM30 remote cluster controller. Enter CCSIPML if common channel signaling is used for interperipheral message links.

CARRMTC (continued)**SELECTOR = FRT1**

If the entry in field SELECTOR is FRT1, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	NTEX30AA	<i>Product engineering code of card</i> Enter NTEX30AA to specify the product engineering code (PEC) of the T1 analog paddle board used in the FRT-1 carrier.
	FF	SF or ESF	<i>Frame format</i> Enter the value SF for standard format or ESF for extended superframe format.
	BERB	BPV or CRC6	<i>Bit error rate base</i> Enter BPV for bipolar violation. Enter CRC6 for cyclic redundancy check #6. CRC6 enables an extended superframe relay (ESF) carrier to be used by a frame relay interface unit (FRIU).
	IAT	Y or N	<i>Inhibit alarm transmit</i> Enter Y (yes) to inhibit alarm transmissions. Enter N (no) to specify that the alarm transmissions are not to be inhibited. The default value is N.
	LCGAST	numeric (1 to 9 999)	<i>Local carrier group alarm set threshold</i> Enter a number from 1 to 9 999. The default value is 250, where 100 is equivalent to 1 s.
	LCGACL	numeric (1 to 9 999)	<i>Local carrier group alarm clear threshold</i> Enter a number from 1 to 9 999. The default value is 1500, where 100 is equivalent to 1 s.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	RCGAST	numeric (1 to 9 999)	<i>Remote carrier group alarm set threshold</i> Enter a number from 1 to 9 999. The default value is 50, where 100 is equivalent to 1 s.
	RCGACL	numeric (1 to 9 999)	<i>Remote carrier group alarm clear threshold</i> Enter a number from 1 to 9 999. The default value is 50, where 100 is equivalent to 1 s.
	AISST	numeric (1 to 9 999)	<i>Alarm indication signal set threshold</i> Enter a number from 1 to 9 999. The default value is 50, where 100 is equivalent to 1 s.
	AISCL	numeric (1 to 9 999)	<i>Alarm indication signal clear threshold</i> Enter a number from 1 to 9 999. The default value is 1500, where 100 is equivalent to 1 s.
	BEROS	numeric (0 to 15)	<i>Bit error rate out-of-service limit</i> Enter a number from 3 to 9. Entries outside this range are not valid. The BEROS value cannot be greater than the value submitted for BERML (Any other values are rejected by the table control system). The default value is 6, where $BER = 10^{-6}$ represents 1 error in 1 s.
	BERML	numeric (0 to 15)	<i>Bit error rate maintenance limit</i> Enter a number from 3 to 9. Entries outside this range are not valid and are rejected by the table control system. The default value is 8.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	ES	numeric (0 to 9 999)	<i>Errored seconds threshold</i> Enter a number from 0 to 9 999. The default value is 864.
	SES	numeric (0 to 9 999)	<i>Severe errored seconds</i> Enter a number from 0 to 9 999. The default value is 100.
	SESCALC	BEROS CRC6 or STD	<i>Severe errored seconds threshold</i> Datafill this field to specify the severe errored seconds (SES) threshold. Enter BEROS (bit error rate out-of-service limit) to specify that the SES calculation is to be based on the current BEROS limit. Enter CRC6 (cyclic redundancy check #6) to define an extended superframe relay (ESF) carrier for the frame relay interface unit (FRIU). Enter STD (standard) to specify that the SES calculation is to be based on a BER value of 10 ⁻³ . The default value for this field is BEROS.
	FRAMEML	numeric (0 to 9 999)	<i>Frame bit error maintenance limit</i> Enter a number from 0 to 9 999. The default value is 17.
	FRAMEOS	numeric (0 to 9 999)	<i>Frame bit error out-of-service limit</i> Enter a number from 0 to 9 999. The default value is 511.

CARRMTC (continued)**SELECTOR = NDS0**

If the entry in field SELECTOR is NDS0, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CARD	NT6X55CA	<i>Product engineering code of card</i> Enter NT6X55CA to specify the product engineering code (PEC) for the 8-port 64-kbit interface card that is used as the NDS0 carrier interface card.
	DATARATE	64K	<i>Data rate</i> Enter the bit rate at which the carrier operates.
	CLOCKOPT	BELLDS0 BELLTST CCITTCEN CCITTCMD CCITTCTL or CCITTSUB	<i>Clock options</i> Enter one of the six options used to select the type of clocking used for this carrier. These six options include • BELLDS0Bellcore DS-0 64K • BELLTSTBellcore testing • CCITTCENCCITT centralized • CCITTCMDCCITT centralized (modified) • CCITTCTLCCITT contradirectional controlling • CCITTSUBCCITT contradirectional subordinate If the card option is NT6X55BA (64-kbit access card) or NT6X55AB (DS-0 interface card), a warning is produced that the operating company personnel have no permission to datafill the other clock options.
	LOSOST	numeric (0 to 255)	<i>Out-of-service time for LOS</i> Enter a number between 0 and 255 to represent the out-of-service time for loss of signal (LOS). This value is expressed in units of 100 ms.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	LOSRST	numeric (0 to 255)	<i>Return-to-service time for LOS</i> Enter a number between 0 and 255 to represent the return-to-service time for LOS. This value is expressed in units of 100 ms.
	LOSML	numeric (0 to 255)	<i>Maintenance time for LOS</i> Enter a number between 0 and 255 to represent the maintenance time for LOS. This corresponds to the number of hits accumulated over a 1-min period.
	LOSOL	numeric (0 to 255)	<i>Out-of-service limit for LOS</i> Enter a number between 0 and 255 to represent the out-of-service limit for LOS. This corresponds to the number of hits accumulated over a 5-min period.
	AISOST	numeric (0 to 255)	<i>Out-of-service time for AIS</i> Enter a number between 0 and 255 to represent the out-of-service time for alarm indication signal (AIS). This value is expressed in units of 100 ms.
	AISRST	numeri (0 to 255)	<i>Return-to-service for AIS</i> Enter a number between 0 and 255 to represent the return-to-service time for AIS. This value is expressed in units of 100 ms.
	AISML	numeric (0 to 255)	<i>Maintenance time for AIS</i> Enter a number between 0 and 255 to represent the maintenance time for AIS. This corresponds to the number of hits accumulated over a 1-min period.
	AISOL	numeric (0 to 255)	<i>Out-of-service limit for AIS</i> Enter a number between 0 and 255 to represent the out-of-service limit for AIS. This corresponds to the number of hits accumulated over a 5-min period.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	CLKLOST	numeric (0 to 255)	<i>Out-of-service for CLKL</i> Enter a number between 0 and 255 to represent out-of-service time for transmit or receive clock loss (CLKL). This value is expressed in units of 100 ms.
	CLKLRST	numeric (0 to 255)	<i>Return-to-service for CLKL</i> Enter a number between 0 and 255 to represent return-to-service for CLKL. This value is expressed in units of 100 ms.
	CLKLML	numeric (0 to 255)	<i>Maintenance time for CLKL</i> Enter a number between 0 and 255 to represent the maintenance time for CLKL. This corresponds to the number of hits accumulated over a 1-min period.
	CLKLOL	numeric (0 to 255)	<i>Out-of-service for CLKL</i> Enter a number between 0 and 255 to represent the out-of-service limit for CLKL. This corresponds to the number of hits accumulated over a 5-min period.
	BPVLOST	numeric (0 to 255)	<i>Out-of-service for BPVL</i> Enter a number between 0 and 255 to represent the out-of-service time for bipolar violation loss (BPVL) on transmit or receive. This value is expressed in units of 100 ms.
	BPVLRST	numeric (0 to 255)	<i>Return-to-service for BPVL</i> Enter a number between 0 and 255 to represent the return-to-service for BPVL. This value is expressed in units of 100 ms.
	BPVLML	numeric (0 to 255)	<i>Maintenance for BPVL</i> Enter a number between 0 and 255 to represent the maintenance time for BPVL. This corresponds to the number of hits accumulated over a 1-min period.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	BPVLOL	numeric (0 to 255)	<i>Out-of-service for BPVL</i> Enter a number between 0 and 255 to represent out-of-service limit for BPVL. This corresponds to the number of hits accumulated over a 5-min period.
	SLIPOST	numeric (0 to 255)	<i>Out-of-service for slip</i> Enter a number between 0 and 255 to represent out-of-service time for slip. This value is expressed in units of 100 ms.
	SLIPRST	numeric (0 to 255)	<i>Return-to-service for slip</i> Enter a number between 0 and 255 to represent return-to-service time for slip. This value is expressed in units of 100 ms.
	SLIPML	numeric (0 to 255)	<i>Maintenance for slip</i> Enter a number between 0 and 255 to represent the maintenance time for slip. This corresponds to the number of hits accumulated over a 1-min period.
	SLIPOL	numeric (0 to 255)	<i>Out-of-service for slip</i> Enter a number between 0 and 255 to represent the out-of-service limit for slip. This corresponds to the number of hits accumulated over a 5-min period.

CARRMTC (continued)**SELECTOR = SONET**

If the entry in field SELECTOR is SONET, datafill the refinements described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CARD (BCS36-)	NTMX68AA	<i>Product engineering code of card</i> Enter NTMX68AA to specify the product engineering code (PEC) of the Synchronous Optical Network (SONET) direct fiber interface (DFI) card. The default value is NTMX68AA.
	VOICELAW (BCS36-)	MU_LAW or A_LAW	<i>Voice law</i> Enter the voice law used in the carrier. The default value is MU_LAW.
	SLIPML (BCS36-)	numeric (0 to 9 999)	<i>Slip maintenance limit</i> Enter the number of slips that are accumulated within a 1-min interval, before a hit-state alarm for slip is raised. The default value is 4.
	SLIPOL (BCS36-)	numeric (0 to 9 999)	<i>Slip out-of-service limit</i> Enter the number of slips that are accumulated within a 5-min interval, before a hit-state alarm for slip is raised. The default value is 255.
	REDST (BCS36-)	numeric (0 to 100)	<i>Red alarm set time</i> Enter the time interval, in units of 0.1 s, for the detection and reporting of a continuous fault. The default value is 25 (2.5 s).
	REDCL (BCS36-)	numeric (0 to 200)	<i>Red alarm clear time</i> Enter the time interval, in units of 0.1 s, that a SONET carrier must remain sane before a red alarm state can be cleared. The default value is 150 (15 s).

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	REDSLPE (BCS36-)	numeric (4 to 15)	<i>Red alarm set limit parameter entry</i> Enter the red alarm parameter defining the count-up to count-down ratio for the accumulation of red alarm time. Field REDSLPE is used to accumulate repeat occurrences of short intermittent faults. Field REDSLPE defines the ratio between increase and decrease counter law. The default value is 4.
	AISST (BCS36-)	numeric (0 to 100)	<i>Alarm indication signal alarm set time</i> Enter the alarm indication signal (AIS) alarm set time in units of 0.1 s. If a continuous fault is detected during this interval, an alarm hit is reported. The default value is 25 (2.5 s).
	AISCL (BCS36-)	numeric (0 to 200)	<i>AIS alarm clear time</i> Enter the time interval, in units of 0.1 s, that a SONET carrier must remain sane before an AIS alarm state can be cleared. The default value is 150 (15 s).
	AISSLPE (BCS36-)	numeric (4 to 15)	<i>AIS set limit parameter entry</i> Enter the AIS alarm parameter defining the count-up to count-down ratio for the accumulation of AIS alarm time. Field REDSLPE is used to accumulate repeat occurrences of short intermittent faults. Field REDSLPE defines the ratio between increase and decrease counter law. The default value is 4.
	LFRST (BCS36-)	numeric (0 to 100)	<i>Line far-end-receive-failure alarm set time</i> Enter the line far-end-receive-failure (LFRF) alarm set time in units of 0.1 s. If a continuous fault is detected during this interval, an alarm hit is reported. The default value is 25 (2.5 s).

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	LFRCL (BCS36-)	numeric (0 to 200)	<i>LFERF alarm clear time</i> Enter the time interval, in units of 0.1 s, that a SONET carrier must remain sane before an LFERF alarm state can be cleared. The default value is 150 (15 s).
	PTRML (BCS36-)	numeric (0 to 9 999)	<i>Loss of pointer maintenance limit</i> Enter the number of hits that are accumulated within a 1-min interval, before a hit-state alarm for slip is raised. The default value is 20.
	PTROL (BCS36-)	numeric (0 to 9 999)	<i>Loss of pointer out-of-service limit</i> Enter the number of hits that are accumulated within a 5-min interval, before a hit-state alarm for slip is raised. The default value is 250.
	FRAMEML (BCS36-)	numeric (0 to 9 999)	<i>Loss of frame maintenance limit</i> Enter the number of hits that are accumulated within a 1-min interval, before a hit-state alarm for slip is raised. The default value is 20.
	FRAMEOL (BCS36-)	numeric (0 to 9 999)	<i>Loss of frame out-of-service limit</i> Enter the number of hits that are accumulated within a 5-min interval, before a hit-state alarm for slip is raised. The default value is 250.
	SIGML (BCS36-)	numeric (0 to 9 999)	<i>Loss of signal maintenance limit</i> Enter the number of hits that are accumulated within a 1-min interval, before a hit-state alarm for slip is raised. The default value is 20.

CARRMTC (continued)**Field descriptions for conditional datafill (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	SIGOL (BCS36-)	numeric (0 to 9 999)	<i>Loss of signal out-of-service limit</i> Enter the number of hits that are accumulated within a 5-min interval, before a hit-state alarm for slip is raised. The default value is 250.
	SBERML (BCS36-)	numeric (3 to 9)	<i>STS-1 bit error rate maintenance limit</i> Enter the number of hits that are accumulated within a 1-min interval, before a hit-state alarm for slip is raised. Entries outside this range are invalid. The default value is 7.
	SBEROL (BCS36-)	numeric (3 to 9)	<i>STS-1 bit error rate out-of-service limit</i> Enter the number of hits that are accumulated within a 5-min interval, before a hit-state alarm for slip is raised. Entries outside this range are invalid. The default value is 4.
	VBERML (BCS36-)	numeric (3 to 9)	<i>VT1.5 bit error rate maintenance limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 1-min interval, before a hit-state alarm for slip is raised. Entries outside this range are invalid. The default value is 7.
	VBEROL (BCS36-)	numeric (3 to 9)	<i>VT1.5 bit error rate out-of-service limit</i> Enter the number of slips that are accumulated by the peripheral module, within a 5-min interval, before a hit-state alarm for slip is raised. Entries outside this range are invalid. The default value is 4.

CARRMTC (continued)

Datafill examples

Examples of datafill for table CARRMTC with field CSPMTYPE set to DCM or DTC.

Note: The DEFAULT templates are added by the system and they cannot be deleted. The operating company is allowed to change them. The default for IAC, LGC, LTC, RCC, SMR, SMS, and SMU is identical to that of DTC.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
DCM	DEFAULT	255	255	DS1 NT2X35AB 17 511 4 255
DTC	DEFAULT	255	255	DS1 NT6X50AA MU_LAW SF BPV NILD N 250 1000 50 50 100 1000 3 6 864 100 17 511 4 255

An example of datafill for table CARRMTC with field CSPMTYPE set to RCO2 is shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
RCO2	DEFAULT	255	255	D30 NTMX82AA A_LAW NATL 4 4 17 20 30 30 4 20 30 30 4 20 30 30 4 20 30 30 5 20 20 4 4 20 Y 254 253 17 255 N N 5 5 205 42 G714 D30RCC

An example of datafill for table CARRMTC with field CSPMTYPE set to SMA is shown below.

CARRMTC (continued)**MAP display example for table CARRMTC**

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
SMA	DEFAULT	255	255	DS1 NT6X50AA MU_LAW SF B8ZS BPV NILD N 250 1000 50 50 150 1000 3 6 864 100 17 511 4 255

An example of datafill for table CARRMTC with field CSPMTYPE set to LTC and TMPLTNM set to ESFB8ZS is shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
LTC	ESFB8ZS	255	255	DS1 NT6X50AB MU_LAW ESF B8ZS BPV NILD N 250 1000 50 50 150 1000 3 6 864 100 17 511 4 255

An example of datafill for table CARRMTC with field CSPMTYPE set to LTC and TMPLTNM set to GWIP is shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
LTC	GWIP	255	255	DS1 NT7X07AA MU_LAW SF ZCS BPV NILD N 250 1000 50 50 150 1000 3 6 864 100 17 511 4 255

An example of datafill for table CARRMTC of an SMS in mode 1 or mode 2 is shown below.

CARRMTC (continued)**MAP display example for table CARRMTC**

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
SMS	MODE10R2	255	255	DS1 NT6X85AA MU_LAW SF ZCS BPV NILD Y 40 200 50 50 150 1000 3 6 864 100 17 511 4 255

Examples of datafill for table CARRMTC with field SELECTOR set to FRT1 are shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
FRIU	DEFAULT	255	255	FRT1 NTEX30AA SF BPV N 250 1500 50 50 50 1500 8 6 864 100 BEROs 17 17
FRIU	BELL02	10	25	FRT1 NTEX30AA SF BPV N 15 30 30 30 30 100 3 6 864 100 STD 17 511

Examples of datafill for table CARRMTC with field SELECTOR set to HLIU are shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
HLIU	DEFAULT	255	255	DS1 NTEX78AA ESF 250 2000 0 0 250 2000 250 1000 648 65 100 10 10 10 4 1

An example of datafill for table CARRMTC with field CSPMTYPE set to PDTC and field SELECTOR equal to NDS0 is shown below.

CARRMTC (continued)**MAP display example for table CARRMTC**

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
PDTC	NDS0DEF	255	255	NDS0 NT6X55CA 64K CCITTSUB 5 5 100 100 5 5 100 100 5 5 100 100 5 5 100 100 5 5 100 100

An example of datafill for table CARRMTC with field CSPMTYPE set to DTCOI and field SELECTOR equal to D30 is shown below.

MAP display example for table CARRMTC

CSPMTYPE	TMPLTNM	RTSML	RTSOL	ATTR
PDTC	NDS0DEF	255	255	D30 NT6X27BD 64K CCITTSUB 5 5 100 100 5 5 100 100 5 5 100 100 5 5 100 100 5 5 100 100

Table history**CCM13**

Added MAP display example for GWIP. Added Gateway information to fields TMPLTNM, RTSML, and RTSOL.

CSP11

Removed HLIU datafill restrictions.

EUR09

Added NT6X27BD card field and provided conditional datafill.

STP04.0

Removed HLIU datafill restrictions. Added an HLIU MAP display example.

CSP07

Added HLIU to fields CSPMTYPE. Added NTEX78AA to CARD field and provided conditional datafill.

CARRMTC (end)

APC06

Added clear channel (64kb/s) signaling and frame format B8ZS for the HDLC protocol, required for the LAPD messaging for the LTC+. Provisioned for Japan only, for the RLCM-EDC.

APC05.1

Added GPP V5.2 signalling type of D30RCC in field SIGNTYPE when CSPMTYPE is datafilled GPP and interface type is V5.2. Added GPP V5.2 datafill example.

CSP03

Added GPP to fields CSPMTYPE and SELECTOR. Added GPP CAS datafill example.

BCS36

Selector SONET was added.

CATCLASS

Table name

R2 Protocol Category Classification Table

Functional description

Regional signaling systems number 2 (R2) use register signaling to transfer information about a call between two ends of a trunk. The R2 systems are multifrequency compelled (MFC) systems. The R2 systems send signals in one direction. The R2 systems receive acknowledgment tones. A protocol specification describes the information the R2 system transfers.

The R2 signaling applies to the DMS-100, DMS-200, and DMS-100/200 switches.

Table CATCLASS identifies the following categories in an R2 protocol:

- calling categories
- billing categories
- billing and calling categories

Calling categories are activities that indicate the category of the calling subscriber in response to the REQ_CAT activity. Billing categories are activities that indicate the automatic number identification (ANI) phase category of the calling subscriber in response to the REQ_DN_CAT activity. This table makes sure that the categories outgoing from the DMS are correct. This table does not make sure that the categories the DMS receives are correct.

A group of a user-defined string of a maximum of eight characters and an R2 category activity indexes each CATCLASS tuple.

Refer to table SIGACT for additional information on R2 activities.

Datafill sequence and meaning

You must enter data in the following tables before you enter data in table CATCLASS:

- table ACTSIG
- table ACTCTL

Table size

0 to 3840 tuples

CATCLASS (continued)**Datafill**

Datafill for table CATCLASS appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
IDX		see subfields	<i>Catclass index.</i> This field contains subfields CATNAME and CATEGORY. These subfields represent the index in table CATCLASS.
	CATNAME	alphanumeric (to a maximum of 8 characters)	<i>Catclass name.</i> Enter the category name.
	CATEGORY	ANI_FAILURE ATME COIN DATA FREE_CALL LOCAL_COIN MTC_EQ OPER OPER_INTL PBX PRIORITY REGULAR REGULAR_INTL SHARED_1 SHARED_2 SHARED_3 SPARE_CAT1 SPARE_CAT2 TIME_AND_CHG TOLL_COIN or UNIT_FEE_COIN TOLL_AUTO	<i>Category.</i> Enter the category assigned to a class. For additional descriptions, refer to table SIGACT or table TOPS. ANI_FAILURE (automatic number identification failure) ATME (call originated by automatic test and measurement equipment) COIN (coin) DATA (data call) Note: The DATA category prevents double connections to the call for the duration of the call. The system transmits data. Break-in tones or multiple voice connections cause transmission errors. FREE_CALL (free call-handled the same as a REGULAR call. The mark of the call is NOAMA) LOCAL_COIN (call originated from local public telephone) MTC_EQ (maintenance equipment) Note: The MTC_EQ calls originate from the MAP or test equipment.

CATCLASS (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CATEGORY(continued)		OPER (operator) OPER_INTL (international operator originated call) PBX (call from a private branch exchange) PRIORITY (priority subscriber) REGULAR (regular subscriber or category of subscriber is not known) REGULAR_INTL (international direct dial call) SHARED_1, SHARED_2, SHARED_3 (first, second, or third subscriber on a party line) SPARE_CAT1, SPARE_CAT2 (spare categories) TIME_AND_CHG (subscriber requests time and charge) TOLL_COIN (call that originates from a long distance public telephone) UNIT_FEE_COIN (unit fee coinbox call) TOLL_AUTO (automatic toll call)
	CATDATA	BILLING BOTH or CALLING	<i>Class of category.</i> Enter the class of the category that appears in the CATEGORY field.

Datafill example

Sample datafill for table CATCLASS appears in the following example.

MAP display example for table CATCLASS

IDX CATDATA		
CATIDX	REGULAR	BOTH
CATIDX	OPER	BOTH

CATCLASS (end)

Table history

BCS36

Add entries LOCAL_COIN and TOLL_COIN to subfield CATEGORY in BCS36.

BCS34

Table CATCLASS was introduced in BCS34.

CCS7PPLN

Table name

The CCS7 Preplan Control Table

Functional description

Dynamic overload control is a network management system. The dynamic overload control handles heavy traffic during overload conditions. The congested switch alerts connecting switches of the different levels of congestion. The congested switch transmits congestion level signals through CCS7 to alert the connecting switches.

Table CCS7PPLN contains the far-end routeset of the point code that triggers dynamic overload control (DOC) levels 1, 2, and 3. Each entry in table CCS7PPLN contains a preplan number for the three DOC levels.

The preplan number indexes into table PREPLANS to get the correct overload controls to apply.

Datafill sequence and meaning

You must enter data in table C7RTESET before you enter data in table CCS7PPLN.

Table size

0 to 63 tuples

The tuple size is 5 bytes.

Datafill

Datafill for table CCS7PPLN appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
PCNAME		alphanumeric (1 to 16 characters)	<i>Point code name.</i> Enter the name of a point code routeset entered earlier in table C7RTESET.
PPLNNO		3 entries, each with a value from 0 to 255	<i>Preplan number.</i> Specifies the machine congestion preplan number. Enter the preplan number for congestion number 1, 2 and 3.

CCS7PPLN (end)

Datafill example

Sample datafill for table CCS7PPLN appears in the following example.

MAP example for table CCS7PPLN

PCNAME		PPLNNO	
C7RTESET1	1	2	4
C7RTESET2	1	3	4

CCSALARM

Table name

Common Channel Signaling Alarm Table

Functional description

Table CCSALARM allows operating company personnel to modify the order of common channel signaling (CCS) alarms for each severity level. Operating company personnel modify an entry in this table to modify the order of CCS alarms. The first entry in the table becomes the top level alarm display at the MAP terminal. This event occurs if a difference in the alarm type occurs when more than one CCS system is present on the switch.

This table does not allow operating company personnel to modify the order of alarms associated with Auto Imaging. The Auto Imaging Critical Alarm (IMGC) is the lowest priority CCS7 critical alarm. The Auto Imaging Major Alarm (IMGMA) is the lowest priority CCS7 major alarm.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table CCSALARM.

Table size

24 tuples (fixed)

CCSALARM (continued)

Datafill

Datafill for table CCSALARM appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
ALARMKEY		0 to 23	<i>Alarm key</i> This field is the key to the table. Enter numbers in this field in increasing order. For example, use an entry of 0 before an entry of 1. When numbering gaps in the table appear because of the deletion of entries, use the lowest available number. The lowest value in field ALARMKEY determines which alarms have priority. The lowest value determines which alarms have the lowest priority when a conflict in the top-level alarm display is present.
ALARMS		see subfields	<i>Alarm information area</i> This field contains subfields CCSTYPE and SEVERITY.

CCSALARM (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CCSTYPE	alphanumeric CCS7, CCIS6, CCITT6, DPNSS, or V5	<i>Common channel signaling type</i> Enter the type of common channel signaling (CCS) to which this alarm ordering applies. Only enter data when if you must change the current ordering. You can enter a maximum of three entries for each CCS type. Enter one data entry for each alarm severity. Enter the CCS type as follows: • Enter CCS7 for Common Channel Signaling 7 and enter data in refinement ALARMSET on page Section , "CCSTYPE = CCS7" on page -70. • Enter CCIS6 for Common Channel Interoffice Signaling No. 6 and enter data in refinement ALARMSET in section "CCSTYPE = CCIS6, CCITT6 or DPNSS". • Enter CCITT6 for CCITT No. 6 Signaling and enter data in refinement ALARMSET in section "CCSTYPE = CCIS6, CCITT6, or DPNSS". • Enter DPNSS for Digital Private Network Signaling System and enter data in refinement ALARMSET in section "CCSTYPE = CCIS6, CCITT6, or DPNSS". • Enter V5 for V5.2 and enter data in refinement ALARMSET.
	SEVERITY	CRITICAL MAJOR or MINOR	<i>Alarm severity</i> Enter the alarm severity to order. Two table entries cannot have the same combination of CCS type and alarm severity.

CCSALARM (continued)

CCSTYPE = CCS7

The following table describes datafilling refinement ALARNSET when the entry in subfield CCSTYPE is CCS7.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ALARMSET	(vector of a maximum of 5) LKSET, LM, LSS, PC, RSS, RTESET, or SEAS	<i>CCS top level alarm set order</i> If the entry in subfield SEVERITY is CRITICAL, enter a vector of four elements. This vector must contain local subsystem (LSS), point code (PC), remote subsystem (RSS) and routeset (RTESET). Enter the vector in the order in which the operating company requires the CCS critical alarms to appear. Separate entries with a space. If the entry in subfield SEVERITY is MAJOR, enter a vector of three elements that contains linkset (LKSET), LSS and RTESET. Enter the vector in the order in which the operating company requires the CCS major alarms to appear. Separate entries with a space.

CCSALARM (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
			If the entry in subfield SEVERITY is MINOR, enter a vector of five elements. This vector must contain LKSET, link minor (LM), PC, RTESET, and Signaling, Engineering, and Administration System (SEAS). Enter the vector in the order in which the operating company requires the CCS minor alarms to appear. You can only enter the SEAS or LM alarms if SEAS or signaling link marginal performance report (SLMPR) is on the switch. Separate entries with a space. Note 1: Enter the correct number of alarms. Base this number on the CCS system and the optional packages present on the node. The system notifies operating company personnel if you enter the wrong number of alarms. The system notifies operating company personnel if the alarm entered cannot be entered. Note 2: This table does not allow operating company personnel to modify the order of alarms associated with Auto Imaging. The Auto Imaging Critical Alarm (IMGC) is the lowest priority CCS7 critical alarm. The Auto Imaging Major Alarm (IMGMA) is the lowest priority CCS7 major alarm.

CCSTYPE = CCIS6, CCITT6, or DPNSS

If the entry in subfield CCSTYPE is CCIS6, CCITT6, or DPNSS enter data in refinement ALARMSET. The following table describes datafilling refinement

CCSALARM (continued)

ALARMSET when the entry in subfield CCSTYPE is CCIS6, CCITT6 or DPNSS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ALARMSET	(vector of a maximum of 2) LKSET or RTESET	<i>CCS top level alarm set order</i> If the entry in subfield SEVERITY is CRITICAL, enter a vector of two elements that contain linkset (LKSET) and routeset (RTESET). Enter the vector in the order that the operating company requires the CCS critical alarms to appear. Separate each entry with a blank space. If the entry in subfield SEVERITY is MAJOR, enter a vector of two elements that contain LKSET and RTESET. Enter the vector in the order that the operating company requires the CCS major alarms to appear. Separate each entry with a blank space. If the entry in subfield SEVERITY is MINOR, enter a vector of two elements that contain LKSET and RTESET. Enter the vector in the order that the operating company requires the CCS minor alarms to appear. Separate each entry with a blank space. Note: Enter the correct number of alarms. Base this number on the CCS system and the optional packages on the node. The system notifies you if you enter the wrong number of alarms. The system notifies you if the alarm you enter cannot be datafilled.

CCSALARM (continued)**CCSTYPE = V5**

If the entry in subfield CCSTYPE is V5, enter data in refinement ALARMSET. The following table describes datafilling refinement ALARMSET when the entry in subfield CCSTYPE is V5.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ALARMSET	(vector of a maximum of 6) CCHNL, ISDD, PSTN, V5I, V5LK, or V5LKM	<i>CCS top level alarm set order</i> If the entry in the SEVERITY subfield is CRITICAL, enter a vector of three elements that contain V5 interface (V5I), public switched telephone network (PSTN), and ISDN D (ISDD). Enter the vector in the order that the operating company requires the CCS critical alarms to appear. Separate each entry with a blank space. If the entry in subfield SEVERITY is MAJOR, enter a vector of two elements that contains V5 link major (V5LKM) and C-Channel carrying control channel (CCHNL). Enter the vector in the order that the operating company requires the CCS major alarms to appear. Separate each entry with a blank space. If the entry in subfield SEVERITY is MINOR, enter a vector of one element that contains V5 link (V5LK). Enter the vector in the order that the operating company requires the CCS minor alarms to appear. Separate each entry with a blank space. Note: Enter the correct number of alarms. Base this number on the CCS system and the optional packages on the node. The system notifies you if you enter the wrong number of alarms. The system notifies you if the alarm you enter cannot be datafilled.

Datafill example

Sample datafill for table CCSALARM appears in the following example.

The following example contains a switching unit with one Common Channel Signaling 7 (CCS7) system.

CCSALARM (end)

The order of critical alarms is local subsystem, routeset, point code, and remote subsystem.

The order of major alarms is linkset, routeset, and local subsystem.

The order of minor alarms is point code, link minor, SEAS, linkset, and routeset.

MAP display example for table CCSALARM

ALARMKEY			ALARMS			
0	CCS7	CRITICAL	LSS	RTESET	PC	RSS
1	CCS7	MAJOR	LKSET	RTESET	LSS	
2	CCS7	MINOR	PC	LM	SEAS	LKSET RTESET

CCTR

Table name

Country Code table

Functional description

Local, toll or combined local/toll switching units for direct dial overseas routing require table CCTR.

The system automatically provides memory for all country codes. The system routes all country codes not specified to vacant code treatment.

Translation enters table CCTR if the standard pretranslator specifies international for the prefix digits that the user dials. The standard pretranslator specifies international when the translation system is equal to IN. An example of a prefix digit is 011.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table CCTR.

Datafill

Datafill for table CCTR appears in the following table.

The following warning applies to field MAXDIGSR:

**WARNING**

If number of digits exceeds the maximum, a serious consequence can occur

The maximum number of country code plus national important digits is 15. If you set the field MAXDIGSR greater than 15, serious consequences can occur.

CCTR (continued)**Field descriptions (Sheet 1 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CCNAME		alphanumeric (a maximum of 18 digits)	<i>Country code</i> Enter a country code.
GIVENCC		see subfields	<i>Given country code.</i> This field contains subfield CCSEL and refinement PCC.
	CCSEL	T or P	<i>Country code selector.</i> Enter T if the code is a true country code and enter data in refinement PCC. If the code is not a true country code, enter P for a pseudo country code. No refinements require datafill. Go to field MINDIGSR.
	PCC	alphanumeric (a maximum of 18 digits)	<i>Pseudo country code.</i> If field CCSEL is set to T and the switching unit is toll or combined local/toll, enter a pseudo country code. If the switching unit is local, enter N.
MINDIGSR		0 to 18	<i>Minimum digits required.</i> Enter the minimum number of digits required. These digits must include the country code.
MAXDIGSR		0 to 25	<i>Maximum digits required.</i> Enter the maximum number of digits required. These digits must include the country code. Entries out of this range are not correct.
TMTORRTE		see subfields	<i>Treatment or route reference.</i> This field contains subfield TRSEL.
	TRSEL	T or D	<i>Treatment or route selector.</i> Enter D if translation routes to a treatment and enter data in refinement TREAT. Enter T if translation routes to office route table and enter data in refinement TUPID.

CCTR (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CUSTDIAL	TREAT	alphabetic (a maximum of 4 characters)	<i>Treatment.</i> If the entry in subfield TRSEL is D, enter the treatment to which translation routes.
	TUPID	see subfields	<i>Treatment or route reference.</i> If the entry in subfield TRSEL is T, enter data in this refinement. This field contains subfields TABID and KEY.
	TABID	OFRT	<i>Table name.</i> Enter OFRT for office route table. Entries out of this value are not correct.
	KEY	1 to 1023	<i>Index.</i> Enter the index into the office route table to which translation routes. Entries out of this range are not correct.
		N or Y	<i>Customer dialed.</i> Enter Y (yes) if the customer can dial the code. If the customer must not dial the code, enter N (no). If the call originates from a local source and field CUSTDIAL is N, the system routes the originator to reorder treatment RODR. Examples of local sources are line, incoming CAMA trunk, or local trunk with local source of origination.

Datafill example

Sample datafill for table CCTR appears in the following example.

The example contains one assigned true country code (44) and one vacant pseudo country code (057).

CCTR (end)**MAP display example for table CCTR**

CCNAME	GIVENC	MINDIGSR	MAXDIGSR	TMTORRTE
44 T 057 P	044	6 6	12 12	T OFRT 6 Y D VACT

Table history
NA004

Entry portion of field MAXDIGSR changed from 0 to 24 to 0 to 25 in NA004. This change accommodates 15-digit international dialing.

The system issues a warning for field MAXDIGSR when the field contains a number larger than 15, not 13. The text of the warning reflects this change.

CDRTMPLT

Table name

Call Detail Record Template (CDRTMPLT) table.

Functional description

Table CDRTMPLT allows the service provider to optionally define CDR templates using the set of available CDR fields. Templates can be tailored to certain call scenarios, and new CDR fields can be introduced according to the service provider's time schedule.

Note: The first 10 tuples are either predefined or reserved and may not be modified (even when the SOC option is used).

ATTENTION

Changes to table CDRTMPLT require the UBFR0001 SOC option.

Datafill sequence and implications

Datafill table CDRTMPLT, execute the CTMPLT UPGRADE command, and perform a billing file ROTATE before referencing a template in the following tables:

- ANISCUSP
- AUTHCODU, AUTHCDU2, AUTHCDU3, AUTHCDU4, AUTHCDU5
- FLEXFEAT
- FLEXTYPE
- RTEATTR
- TRKGRP
- TRKFEAT
- UNIPROF
- STDPRTCT
- STDPRT
- OFCVAR (documented in the OPARMS NTP)

Table size

10 to 64 tuples

CDRTMPLT (continued)**Datafill**

The following table describes valid data ranges for table CDRTMPLT.

CDRTMPLT field descriptions

Field	Subfield or refinement	Entry	Explanation and action
KEY		Up to 16 alphanumeric characters	NAME. Enter a name for the template.
ACTIVE		Y or N	ACTIVE. Enter Y to indicate that the template can be used to format CDRs for storage on device independent recording package (DIRP) or Billing Server. Enter N to indicate that this template is not available for formatting.
PRIMARY		Y or N	PRIMARY. Enter Y to indicate that the template can be used to format CDRs during the first pass of the BESTFIT algorithm. Enter N to indicate that the template can be used to format CDRs when no BESTFIT template is found during the first pass.
FIELD			FIELDS. Enter the CDR fields that define the template; enter up to 256 fields. Each field (with the exception of FILLONE, FILLTWO, and FILLFOUR) can only be used once. Note: Spare fields cannot be datafilled
		ACCTCD	ACCOUNT CODE. This entry requires 12 nibbles.
		ACCTV	ACCOUNT CODE VALIDATION. This entry requires 2 bits.
		ACG	AUTOMATIC CALL GAPPING. This entry requires 1 bit.
		ADDRNUM	ADDRESS NUMBER. This entry requires 2 bits.
		ADIN	AUTHCODE DATABASE INDEX. This entry requires 2 nibbles.
		ALTBILL	AMA ALTERNATE BILLING NUMBER. This entry requires 44 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		AMABAFMD	AMABAF MODULES. This field contains the BAF encoded module codes.
		AMACALLC	AMA CALL CODE. This entry requires 10 bits.
		AMACALLT	AMA CALL TYPE VALUE. This entry requires 10 bits. This field contains the call type value.
		AMAMOD1	This field contains the first module code. The entry required is 10 bits.
		AMAMOD2	This field contains the second module code. The entry required is 10 bits.
		AMASC	AMA STRUCTURE CODE. This entry requires 14 bits.
		AMASIZE	This field contains the size of the AMABAFMD field in bytes. This entry requires 7 bits.
		ANISP	AUTOMATIC NUMBER IDENTIFICATION SPILL. This entry requires 10 nibbles.
		ANISUFF	ANI SUFFIX. This entry requires 3 bits.
		ANSCDR	ANSWER CDR. This entry requires 1 bit.
		ANSTYPE	ANSWER TYPE. This entry requires 4 bits.
		BAF	BAF. To be used by itself to indicate special template.
		BILLNUM	BILLING NUMBER. This entry requires 24 nibbles.
		BILLTYPE	BILLING TYPE. This entry requires 6 bits.
		BUSCSTID	BUSINESS Customer ID. Controlled by SOC option CAIN0202 - CAIN FlexCDR.
		CAINCT	CARRIER ADVANCED INTELLIGENT CALL TYPE. This entry requires 3 bits
		CALLDUR	CALL DURATION. This entry requires 4 bytes.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		CALLEDNO	CALLED NUMBER. This entry requires 15 nibbles.
		CALLEVTS	CALL EVENT STATUS. This entry requires 4 bits.
		CALLTYPE	FLEXDIAL CALL TYPE. This entry requires 16 bits.
		CARRSEL	CARRIER SELECTION PARAMETER. This entry requires 4 bits.
		CDRALGOR	CDR ALGORITHM. This entry requires 3 bits.
		CIC	CARRIER IDENTIFICATION CODE. This entry requires 4 nibbles.
		CICCASU	Indicates when the switch uses the call id allowed casual access (CIC_CASU) option and the information in table CICROUTE to route the call. This entry requires 1 bit.
		CICORIGN	Indicates the origin of the CIC used for a call. This entry requires 2 bits.
		CLDNOA	CALLED PARTY NATURE OF ADDRESS. This entry requires 7 bits.
		CLGNOA	CALLING PARTY NATURE OF ADDRESS. This entry requires 7 bits.
		CLGPTYNO	CALLING PARTY NUMBER. This entry requires 15 nibbles.
		CN1TREQ	Holds the number of times the CN1REQ trigger/event sent TDP/EDP Request messages to an SCP during the life of the call. This entry requires 3 bits.
		CN2TREQ	Holds the number of times the CN2REQ trigger/event sent TDP/EDP Request messages to an SCP during the life of the call. This entry requires 3 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		CN3TREQ	Holds the number of times the CN3REQ trigger/event sent TDP/EDP Request messages to an SCP during the life of the call. This entry requires 3 bits.
		CN1REQ	Holds the first NetworkBuilder trigger/event that sent a TDP/EDP Request message to an SCP. This entry requires 6 bits.
		CN2REQ	Holds the second NetworkBuilder trigger/event that sent a TDP/EDP Request message to an SCP. This entry requires 6 bits.
		CN3REQ	Holds the third and the most recent NetworkBuilder trigger/event that sent a TDP/EDP request message to an SCP subsequent to the second NetworkBuilder trigger/event that sent a TDP/EDP request message to an SCP. This entry requires 6 bits.
		CNPREDIG	CALLING PARTY NUMBER PREFIX DIGITS. This entry requires 3 bits.
		CNTOTREQ	Holds the total number of times TDP/EDP Requests messages were sent to an SCP during the life of the call. This entry requires 4 bits.
		COLLTIME	COLLECTION TIME. This entry requires 8 bits.
		COMPCODE	COMPLETION CODE. This entry requires 4 bits.
		COMPCODE2	COMPLETION INDICATOR. This field contains the status of a call completion call (whether the call is completed). This entry requires 10 bits.
		COSINDEX	CLASS OF SERVICE INDEX. This entry requires 10 bits.
		COSOVE	CLASS OF SERVICE OVERRIDE. This entry requires 1 bit.
		CRID	PSN CALL REFERENCE IDENTIFIER. This entry requires 36 bits.
		SPARE5	SPARE5. This is a NIL field.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		DIALEDNO	DIALED NUMBER. This entry requires 15 nibbles.
		DIALNOA	DIALED NUMBER NATURE OF ADDRESS. This entry requires 7 bits.
		DIGDATA	DIGIT DATA. This entry requires 1 bit.
		DIGI300	Controlled by SOC option CAIN0202 - CAIN FlexCDR
		DIGI301	Controlled by SOC option CAIN0202 - CAIN FlexCDR
		DIGIDJIP	Trunk Rating Number. This entry requires 40 bits.
		DIGIDNPA	Numbering Plan Areas. This entry requires 12 bits.
		DIGIDTRN	Jurisdiction Information Parameter. This entry requires 40 bits.
		DISCDATE	DISCONNECT DATE. This entry requires 9 bits.
		DISCAMPM	DISCONNECT AM/PM. This entry requires 1 bit.
		DISCTIME	DISCONNECT TIME. This entry requires 16. bits
		DISCTYPE	DISCONNECT TYPE. This entry requires 2 bits.
		DISCYEAR	DISCONNECT YEAR. This entry requires 4 bits.
		DISC10TH	This field contains the tenths of a second. The entry required is 4 bits.
		DLPRESUB	DIALING AND PRESUBSCRIPTION INDICATOR. This entry requires 4 bits.
		DNIS	DIALED NUMBER IDENTIFICATION SERVICES. This entry requires 15 nibbles.
		DNISNOA	DNIS NATURE OF ADDRESS. This entry requires 7 bits.
		ECRM1	The first Echo Cancellor Resource Module of the ECAN. The 1 refers to the forward echo canceller. This entry requires 5 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		ECRN1	The Resource Number in the first RM. The 1 refers to the forward echo canceller. This entry requires 9 bits.
		ECRM2	The second ECAN Resource module in the second Resource Module. The 2 refers to the backward echo canceller. This entry requires 5 bits.
		ECRN2	The Resource Number in the second RM. The 2 refers to the backward echo canceller. This entry requires 9 bits.
		EXPOPCH	EXPANSION OPCHOICE. This field is used for expansion of the opchoice index. This entry requires 10 bits.
		EXOSEAS	Reserved for future use.
		FILL1	FILLER ONE. This entry requires 1 bit.
		FILL2	FILLER TWO. This entry requires 2 bits.
		FILL3	FILLER THREE. This entry requires 3 bits.
		FILL4	FILLER FOUR. This entry requires 4 bits.
		FILL8	FILLER EIGHT. This entry requires 8 bits.
		FINSID	FINAL SWITCH IDENTIFIER. This entry requires 10 bits.
		FINTKGRP	FINAL TRUNK GROUP. This entry requires 14 bits.
		FINTKMEM	FINAL TRUNK MEMBER. This entry requires 16 bits.
		HEXID	HEXADECIMAL IDENTIFIER. This entry requires 1 bit.
		LATA	LOCAL ACCESS TRANSPORT AREA NUMBER. This entry requires 10 bits.
		LNPCHECK	LOCAL NUMBER PORTABILITY CHECK. This entry requires 3 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		LRNSRC1	This field indicates the value stored in the case of an originating LRN. This entry requires 4 bits.
		LRNSRC2	This field indicates the value stored in the case of a terminating LRN. This entry requires 4 bits.
		MLTCOSID	MULTIPLE CLASS OF SERVICE INDEX. This entry requires 11 bits.
		MODMAP	MODULE CODE MAPPING. This entry requires 16 bits.
		INCBILL	INCREMENTAL BILLING. This entry requires 2 bits.
		INCINTL	INTERNATIONAL. This entry requires 1 bit.
		INFODIG	INFORMATION DIGITS. This entry requires 8 bits.
		NETOPNO	NETWORK OUTPUTPULSED NUMBER. This entry requires 15 nibbles.
		NETOPNOA	NETWORK OUTPUTPULSED NUMBER NATURE OF ADDRESS. This entry requires 7 bits.
		NETSEC	NETWORK SECURITY. This entry requires 1 bit.
		NUMADDRS	NUMBER OF ADDRESSES. This entry requires 2 bits.
		NUMWBCKT	NUMBER OF WIDEBAND CIRCUITS. This entry requires 5 bits.
		OACESID	ORIGINATING ACCESS ID. This entry requires 10 bits.
		OPART	ORIGINATING PARTITION NUMBER. This entry requires 10 bits.
		OPERINV	OPERATOR INVOLVEMENT. This entry requires 4 bits.
		ORIGAMPM	ORIGINATE AM/PM. This entry requires 1 bit.
		ORIGDATE	ORIGINATING DATE. This entry requires 9 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		ORIGECHO	ORIGINATING ECHO CANCELLER. This entry requires 2 bits.
		ORIGGRP	ORIGINATING TRUNK GROUP. This entry requires 14 bits.
		ORIGLRN	ORIGINATING LOCATION ROUTING NUMBER. This entry requires 10 nibbles.
		ORIGMEM	ORIGINATING TRUNK MEMBER. This entry requires 14 bits.
		ORIGOPRT	ORIGINATING PARTITION NUMBER. This entry requires 10 bits.
		ORIGPLAN	Reserved for future use.
		ORIGPVN	ORIGINATING PRIVATE NUMBER. This entry requires 15 nibbles.
		ORIGSTS	ORIGINATING SERVICE TRANSLATION SCHEME. This entry requires 10 bits.
		ORIGYEAR	ORIGINATING YEAR. This entry requires 4 bits.
		ORIG10TH	This field contains the tenths of a second. The entry required is 4 bits.
		ORIGTIME	ORIGINATING TIME. This entry requires 16 bits.
		OSRASSOC	OPERATOR SERVICES RECORD ASSOCIATED. This entry requires 1 bit.
		OTPULNOA	OUTPUTSED NUMBER NATURE OF ADDRESS (NOA). This entry requires 7 bits.
		OUTNOA	OUTPUTSED NATURE OF ADDRESS. If the NOA in the outgoing IAM is updated due to datafill of the OUTNOA option in table TRKGRP, then set the OUTNOA field in the CDR to Y; otherwise, set it to N. This entry requires 1 bit.
		OUTPUTNO	OUTPUTSED NUMBER. This entry requires 15 nibbles.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		OVERFLOW	OVERFLOW INDICATOR. This entry requires 2 bits.
		PASSTHRU	PASS THROUGH. This entry requires 2 bits.
		PINDIGS	PERSONAL IDENTIFICATION DIGITS. This entry requires 4 nibbles.
		PORTEDNO	PORTED NUMBER. This entry requires 40 bits.
		PREDIG	PREFIX DIGITS. This entry requires 3 bits.
		PRESIND	PRESENTATION RESTRICTION INDICATOR. This entry requires 2 bits.
		PRJCODE	PROJECT CODE. This entry requires 32 bits.
		QUEUED	QUEUED. This entry requires 1 bit.
		QRYSTIND	This entry requires 7 bits.
		RELCAUSE	RELEASE CAUSE. This entry requires 8 bits.
		REORGCTR	REORIGINATION COUNTER. This entry requires 4 bits.
		RLTCDR	RELEASE LINK TRUNK CDR. This entry requires 2 bits.
		ROUTIND	ROUTING INDICATOR. This entry requires 3 bits.
		RTEINDEX	ROUTE INDEX. This entry requires 14 bits.
		SPARE4	SPARE4. This a NIL field.
		RTENO	ROUTE NUMBER. This entry requires 5 bits.
		RTETAB	ROUTING TABLE. This entry requires 4 bits.
		SCPBILL	SERVICE CONTROL POINT BILLING. This entry requires 32 bits.
		SEQNUM	SEQUENCE NUMBER. This entry requires 16 bits.
		SLPID	SERVICE LOGIC PROGRAM IDENTIFICATION. This entry requires 36 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		SLPID1ST	SLPID 1. Controlled by SOC option CAIN0202 - CAIN FlexCDR
		SPARE1	SPARE1. This is a NIL field.
		SPARE2	SPARE2. This is a NIL field.
		SPARE3	SPARE3. This is a NIL field.
		STS	SERVICE TRANSLATION SCHEME. This entry requires 10 bits.
		SUBRIDX1	SUBSCRIBER INDEX 1. This entry requires 20 bits.
		SUBRIDX2	SUBSCRIBER INDEX 2. This entry requires 20 bits.
		SUBRLOG1	SUBSCRIBER LOG 1. This entry requires 1 bit.
		SUBRLOG2	SUBSCRIBER LOG 2. This entry requires 1 bit.
		SUBRNUM1	SUBSCRIBER NUMBER 1. This entry requires 16 nibbles.
		SUBRNUM2	SUBSCRIBER NUMBER 2. This entry requires 16 nibbles.
		SUBRTYP1	SUBSCRIBER TYPE 1. This entry requires 10 bits.
		SUBRTYP2	SUBSCRIBER TYPE 2. This entry requires 10 bits.
		SUBRVAL1	SUBSCRIBER VALIDATION 1. This entry requires 2 bits.
		SUBRVAL2	SUBSCRIBER VALIDATION 2. This entry requires 2 bits.
		SVCFTR	SERVICE FEATURE ID. This entry requires 10 bits.
		TERMECHO	TERMINATING ECHO CANCELLER. This entry requires 2 bits.

CDRTMPLT (continued)**CDRTMPLT field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
		TERMGRP	TERMINATING TRUNK GROUP. This entry requires 14 bits.
		TERMLRN	TERMINATING LOCATION ROUTING NUMBER. This entry requires 10 nibbles. (This is not available in the UCS07 default template.)
		TERMMEM	TERMINATING TRUNK MEMBER. This entry requires 14 bits.
		TERMPAN	Reserved for future use.
		TERMPVN	TERMINATING PRIVATE NUMBER. This entry requires 15 nibbles.
		TIMECHNG	TIME CHANGE. This entry requires 1 bit.
		TIMEGARD	TIMING GUARD. This entry requires 2 bits.
		TPART	TERMINATING PARTITION NUMBER. This entry requires 5 bits.
		TRAP	TRAP. This entry requires 1 bit.
		TRKGRP	TRUNK GROUP NUMBER. This entry requires 14 bits.
		TRMOSEAS	OVERSEAS CALL INDICATOR. This entry requires 4 bits.
		TRTMTCD	TREATMENT CODE. This entry requires 8 bits.
		UNIVACC	UNIVERSAL ACCESS CODE. This entry requires 10 nibbles.
		WBCKTS	WIDEBAND CIRCUITS. This entry requires 32 bits.
REORIGCP		See entries for FIELDS.	Vector of CDR fields that define the CDR template.

Datafill example

The following example shows sample datafill for table CDRTMPLT.

CDRTMPLT (continued)**MAP display example for table CDRTMPLT**

```

NAME ACTIVE PRIMARY FIELDS REORIGCP
-----
CDR2AMA Y N (SEQNUM) (CIC) (ORIGTIME) (ORIGDATE) (ANSTYPE) (INCBILL)
(ORIGAMPM) (DISCTIME) (DISCDATE) (QRYSTIND) (CALLDUR) (CLGPTYNO)
(DIALEDNO) (CALLEDNO) (TERMLRN) (SPLID) (ORIGLRN) (LRNSRC1) (LRNSRC2)
(ORIGL10TH) (ORIGYEAR) (DISC10TH) (DISCYEAR) (AMASC) (TIMECHNG)
(DISCAMPM) (AMACLLT) (DLDPRESUB) (TIMEGARD) (SVCFTR) (ANICPN) (ANISP)
(AMACALLC) (TERMPLAN) (LATA) (LNPCHECK) (ROUTIND) (TRKGRP) (ORIGPLAN)
(CALLEVTS) (COMPCODE2) (TRMOSEAS) (OPERINV) (EXOSEAS) (FILL4) (FILL1)
(MODMAP) (AMASIZE) (HEXID) (FILL8) (AMABAFMD)  $ $

```

Table history**SN07 (DMS)**

Added additional parameters to FIELD according to feature A00005363.

UCS15

Updated CDR fields vector under FIELDS and REORIGCP fields with values DIGIDJIP, DIGIDNPA, DIGIDTRN, OACESID (A60009567) and BAF (A60009580).

UCS14

Updated CDR fields vector under FIELDS and REORIGCP fields with values AMABAFMD, AMACALLT, AMASIZE, COMPCODE2, HEXID, MODMAP, OPERINV, ROUTIND, SVCFTR, and TRMOSEAS. EXOSEAS, ORIGPLAN, and TERMPLAN were added, but are reserved for future use (A60008441).

UCS13

Removed fields PIC, TDP, TRIGGER, RTELIST, and DCR and replaced them with SPARE fields (60007776).

UCS12

Updated CDR field values to add EXPOPCH and delete OPCHOICE options. Added fields PIC, TDP, TRIGGER (60006696).

UCS11

Updated CDR fields vector under FIELDS and REORIGCP fields with values AMASC, AMACALLC, TIMEGARD, ORIG10TH, DISC10TH, ORIGYEAR, DISCYEAR, DISCTYPE, DISCDATE, CALLEVTS, TRKGRP, ANICPN, LATA, AMAMOD1, AMAMOD2, DLPRESUB,

CDRTMPLT (end)

LRNSRC1, LRNSRC2, QRYSTIND (AX1340). Removed PIC, TDP, TRIGGER and replaced with SPARE1, SPARE2, SPARE3 (AX1360).

Added option ALTBILL under FIELDS and REORIGCP option (AX1360).
Added SPARE2 and SPARE3 to FIELDS option (AX1360).

UCS09

Added the following options to the FIELDS options list (AX0986):

- PRJCODE
- SLPID
- RTEINDEX
- RTETAB
- SPARE1

UCS08

Added a predefined template entry and the following options to the FIELDS options list:

- CICORIGN
- CICCASU
- CN1TREQ, CN2TREQ, CN3TREQ
- CN1REQ, CN2REQ, CN3REQ
- ECRM1, ECRM2
- ECRN1, ECRN2
- OUTNOA

UCS07

Added fields CARRSEL, LNPCHECK, and PORTEDNO to FIELDS. Also removed field TERMLRN from UCS07 default template.

UCS06

Table CDRTMPLT is created.

CICROUTE

Table name

Carrier Identification Code Routing (CICROUTE) table.

Functional description

Table CICROUTE provides the following:

- a serving translation schema (STS)
- MLTCOSID
- OPCHIDX
- PRTNM
- IDPRTNM
- ADIN
- CICDELV
- OPTIONS (for the calls originating on SS7 FGD, SS7 inter-network IMTs and MF FGD)

The key to this table is the carrier identification code (CIC) received on the originating trunk.

Datafill sequence and implications

Before entering data in table CICROUTE, datafill the following:

- STS field in table HNPACONT
- OPCHIDX field in table OPCHOICE
- IDPRTNM field in table STDPRTCT
- MLTCOSID field in table MULTICOS
- ADIN field in table AUTHDIN
- CARRNUM field in table OCCINFO

If the TRKGRP option CICRTE is set, then the information derived from table CICROUTE overrides similar information derived from table TRKGRP. This section describes how the information derived from CICROUTE is used and how similar information contained or derived from other tables can override

CICROUTE (continued)

the CICROUTE information. The following descriptions pertain only to calls identified as CIC Routing calls:

- The PRTNM obtained from table CICROUTE must be set to NPRT. Otherwise, the PRTNM obtained from table TRKGRP or the RP selector in table STDPRTCT can override CICROUTE PRTNUM.
- The IDPRTNM obtained from table CICROUTE table overrides the IDPRTNM obtained from table TRKGRP.
- Cut-through calls on SS7 FGDs with the option CTRAUTH set in table TRKGRP require an AUTHCODE. Translation of the authcode requires ADIN, a key to the authcode database. The ADIN is initially obtained from table TRKGRP. The ADIN obtained from the CICROUTE table overrides the TRKGRP ADIN. The OPART/TPART is obtained from table AUTHCODU or AUTHCDx. This is translated into a new STS. The new STS overrides the CICROUTE STS. This call also gets a new MLTCOSID that overrides the CICROUTE MLTCOSID.
- If the status of the ANI associated with the call is filed as CASUAL in the ANI tables (ANISCUSP, ANIVAL, and UNIPROF) the CICROUTE STS, MLTCOSID, and PRTNM overrides the STS, MLTCOSID and PRTNM obtained from ANISCUSP. If the status of the ANI associated with the call is not CASUAL, then the STS, MLTCOSID, and PRTNM obtained from ANISCUSP override the CICROUTE STS, MLTCOSID, and PRTNM.
- For an operator assisted call, OPCHIDX obtained from table ANISCUSP or AUTHCODx overrides the CICROUTE OPCHIDX. If the OPCHIDX obtained from the table CICROUTE is 0, the ZEROMPOS from table TRKGRP is used to route the call.
- The RX Selector used in RTEREF subtables can return a new STS used to route the call. The new STS overrides the CICROUTE STS.
- The N00 SCP responds with a new OPART and TPART that are translated into an STS used to route the N00 call. This new STS overrides the CICROUTE STS.
- For UA calls, the 800 number is pretranslated in table STDPRTCT, where it can obtain a new OPART. This OPART is translated into a new STS that overrides the CICROUTE STS.
- In tables INWFEAT or INWTRANS, an N00 call receives a new STS that is used to route INWATS calls. This new STS overrides the CICROUTE STS.
- If an MCCA call needs validation of the calling card number in a remote database like SCP, the SCP returns an OPART that can be translated to a different STS. This new STS overrides the CICROUTE STS. If the response from the SCP times out, then the STS is provided by the Office

CICROUTE (continued)

parameter MCCS_STS. This STS overrides the CICROUTE STS. If the calling card number is validated in-switch through table TCNFAST, it gets an OPART that is translated into a new STS. This STS overrides the CICROUTE STS. CIC routing calls also derive the operator position from table OPCHOICE using the CICROUTE OPCHIDX.

- If a CIC is not received on the originating trunk, the switch proceeds with normal call processing and does not access table CICROUTE.
- The switch records the received CIC in the call detail record for all calls.

Table size

The maximum size of table CICROUTE is 1,000 tuples. Each tuple requires 16 words of memory.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CICROUTE.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
KEY			KEY. KEY is a key field consisting of two parts: CIC_KEY and CSI_KEY.
	CIC_KEY	0 to 9999	Enter a CIC received on the originating trunk. Valid entries are CARRNUMs defined in table OCCINFO.
	CSI_KEY	DEF, 1, 2, 3, 4, 5-999	CARRIER SELECTION INDICATOR KEY. Enter either a) or b) a) a carrier selection indicator (CSI). This allows an inter-exchange carrier (IEC) to determine how an end-user has access to the IEC's network based on the value received from the local exchange carrier (LEC). b) the LATA ID values to access calls that require CIC routing based on the originating LATA. The possible values are as follows: DEF= Default, No indication. The default value is 0.

CICROUTE (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
			1 = Selected CIC is presubscribed to and not input by calling party, or LATA ID=1. 2 = Selected CIC is presubscribed to and input by calling party, or LATA ID=2. 3 = Selected CIC is presubscribed to, no indication of whether input by calling party, or LATA ID=3 4 = Selected CIC is not presubscribed to and input by calling party, or LATA ID=3. 5 to 999 = Spare, or LATA ID=5 to 999.
NATLSTS		000 to 999	NATIONAL STS. Enter a valid STS from table HNPACONT.
INTLSTS		000 to 999	INTERNATIONAL STS. Enter a valid entry from table HNPACONT.
MLTCOSID		0 to 2047	MULTIPLE CLASS OF SERVICE (COS) INDEX. This field indexes into table MULTICOS to point indirectly to table MULTICOS. The default value is 0 to indicate no COS screening is performed. With table MULTICOS, a single MLTCOSID can contain up to 32 MULTICOS indexes, and therefore COS screening can be performed up to 32 times per call.
OPCHIDX		0 to 1023	OPERATOR CHOICE INDEX. This is a key into table OPCHOICE. Used for routing all types of operator-assisted calls and international operator- assisted calls.
PRTNM		NPRT or valid pretranslator name defined in table STDPRTCT	PRETRANSLATOR NAME. This is a key to table STDPRTCT for address digits pretranslations. Enter a valid PRTNM from table STDPRTCT or NPRT.

CICROUTE (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
IDPRTNM		NPRT or valid pretranslator name defined in table STDPRTCT	INFORMATION DIGITS PRETRANSLATOR NAME. This is a key to table STDPRTCT for screening and translations of Info Digits. Enter a valid IDPRTNM from table STDPRTCT or NPRT.
ADIN		0 to 99	AUTHCODE DATABASE INDEX. This is a key into the authcode database for incoming cut-through calls.
CICDELV		ALWAYS, NEVER	CIC DELIVERY. This field specifies whether the CIC is to be sent in the call setup message on the terminating trunk group.
OPTIONS	CICOPT		Enter a valid entry in the CICOPT subfield.
			CIC OPTIONS. Enter a vector of up to six multiples.
		NIL	
		NOSCRNSB	NO SCREEN. When this option is datafilled, the CLI in the IAM is not screened.
		BLOCKOPT	BLOCK OPTION. This option blocks calls coming in from unwanted carriers.
		RESERVE	Option added for future implementation.
		TNSDELV	TNS DELIVERY. Datafill option CKTCODE to provision the circuit ID which is sent out with the TNS.
		CKTCODE	CKTCODE. CKTCODE is the circuit code that will be delivered with the TNS. Datafill the value for this option.

CICROUTE (continued)**Field descriptions (Sheet 4 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	CKTCODE	UNSPEC,INTL_NO_OP, INTL_OP, SPARE3, SPARE4, SPARE5, SPARE6, SPARE7, RESNTET8, RESNTET9, RESNTET10, RESNTET11, RESNTET12, RESNTET13, RESNTET14, RESNTET15	CKTCODE. Enter the value to be used for the CKTCODE option.
		INTLPRTM	INTERNATIONAL PRETRANSLATOR NAME. If entered, INTLPRTM is used as the pretranslator. If this option is not selected, the PRTM field will be used for international calls as well. Datafill refinement INTLPRTM.
	INTLPRTM	international pretranslator	INTERNATIONAL PRETRANSLATOR NAME. Enter the name of the pretransator to use for international calls.
		CIC_CASU	CIC CASUAL ACCESS. Enter CIC_CASU to allow the CIC casual access. The information found in table CICROUTE will be used to route the call.
		STSOVRID	STS OVERRIDE. Enter STSOVRID to use the STS, either national or international (depending on the call type). Use the STS found in table CICROUTE to route the call rather than the STS derived from the ANI.

CICROUTE (continued)**Field descriptions (Sheet 5 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
		ANIBYP	ANI BYPASS. Enter ANIBYP to bypass ANI screening for the call. The information found in table CICROUTE will be used to route the call. Note: If the ANIBYP option is entered against a CIC/CSI combination in table CICROUTE, the CIC_CASU or STSOVRID option will not be allowed for that same CIC/CSI combination. Conversely, if the CIC_CASU or STSOVRID option is entered against a CIC/CSI combination in table CICROUTE, the ANIBYP option will not be allowed for that same CIC/CSI combination.
		RESERVE2	RESERVE2. This option is added for future use.

Data example

The following example shows sample data for the CICROUTE table.

MAP display example for table CICROUTE

KEY	NATLSTS	INTLSTS	MLTCOSID	OPCHIDX	PRTNM	IDPRTNM	ADIN	CICDELV	OPTIONS
123 DEF	711	213	2	0	EAN	EAPT	2	NEVER	\$
333 1	611	212	0	2	CIC	EAPT	3	ALWAYS (CIC_CASU)	\$
456 4	711	213	1	2	CIC	EAPT	3	ALWAYS (CIC_CASU)	(STSOVRID) \$
777 0	611	611	1	12	EAN	EAPT	1	ALWAYS (INTLPRTM NPRT)	(NOSCRNSB) \$
863 3	613	613	1	0	EAN	EAPT	1	ALWAYS (BLOCKOPT)	\$

CICROUTE (continued)**Table history****UCS14**

The range of option field CKTCODE is increased by adding SPARE3, SPARE4, SPARE5, SPARE6, SPARE7, RESNET8, RESNET9, RESNET10, RESNET11, RESNET12, RESNET13, RESNET14, and RESNET15. Option RESERVE2 is added for future use (A60008450).

UCS13

Two-part key (CIC, CSI) that indexes to the table CICROUTE is updated. The range of CIC is expanded to 0-9999 and CSI is expanded to DEF, 0-999. Two new options, TNSDELV and RESERVE, are added. TNSDELV includes option field CKTCODE. Only table control is changed by this feature; call processing changes will not occur until after UCS13. RESERVE is added for future implementation (A60008210).

UCS11

The OPCHIDX field is updated. The maximum number of entries is expanded to 1023. (A60006449).

UCS09

Updated CSI field to include LATAID values (AX1249).

UCS08

The KEY and OPTIONS fields were updated for table CICROUTE.

UCS07

Table CICROUTE was updated with OPTIONS field.

UCS06

Table CICROUTE was updated with MLTCOSID field.

UCS05

Table CICROUTE was created.

Supplementary information

During the one night process (ONP) for table CICROUTE, all tuples on the dump side are restored as the CIC/DEF (default CSI) key. None of the CICOPT options (CIC_CASU, STSOVRID, or ANIBYP) are placed on the restored tuples during the ONP.

If the CIC_CASU or STSOVRID option is entered against a CIC/CSI combination in table CICROUTE, and an attempt is made to enter ANIBYP, the following warning message is displayed:

CICROUTE (end)

ANIBYP option is not allowed with CIC_CASU or STSOVRID
option

CICSETS

Table name

Carrier Identification Code Sets Table

Functional description

Table CICSETS defines and stores carrier identification code (CIC) sets for the control of carrier information parameter (CIP) inclusion in the Initial Address Message (IAM) for equal access (EA) feature group D (FGD) multifrequency (MF) to signaling system 7 (SS7) interworking calls. Defining CIC set names and adding CICs to or deleting CICs from CIC sets are performed using this table.

The single field LTKEY (Logical Tuple) in table CICSETS contains the following:

- 1- to 16-character set name string
- CIC value (0000-9999)

A CIC set in table CICSETS consists of all tuples with the same set name string. Tuples are sorted by set name and CIC value.

Existing tuples in table CICSETS cannot be modified. Additions and deletions are allowed.

Datafill sequence and implications

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

Table size

Table CICSETS is sized based on the number of CIC sets defined in the office. There is no limit on the size of table CICSETS.

Datafill

The following table lists datafill for table CICSETS.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
LTKEY		16 character Set Name string number between 0000 - 9999	Logical Tuple key. This field contains the 16 character Set Name string and the CIC value. The CIC value is between 0000 and 9999.

CICSETS (end)

Datafill example

The following example shows sample datafill for table CICSETS.

MAP display example for table CICSETS

LTKEY

CARRIER_A_DATA	0468
CARRIER_A_DATA	0838
CARRIER_A_SPEECH	0063
CARRIER_B_DATA	9742

Table history**NA004**

This table was introduced.

Supplementary information

A carrier identification code set defined in table CICSETS can be datafilled against an access to carrier (ATC) trunk group by datafilling option CICSET in table TRKGRP. Trunk groups without option CICSET datafilled (the default) do not include the CIP in the IAM. If option CICSET is datafilled as SSET for a trunk group, the CIP is always included in the IAM for the trunk group.

Table CICSETS must contain at least one tuple with a given CIC set name before that CIC set can be assigned with option CICSET in table TRKGRP. Attempts to delete the last tuple for a CIC set assigned against an ATC trunk group tuple in table TRKGRP result in the following error message:

CIC set is assigned against an ATC trunk group type in table TRKGRP.

CITYCODE

Table name

City Code (CITYCODE) table

Functional description

Table CITYCODE contains the speed list index number associated with each originating partition (OPART). Each speed list index is based on the trunk group originating OPART and the AUTHCODE table OPART number. Each OPART number has a speed list index number that points to an associated speed list contained in table SPEEDTAB.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CITYCODE.

Field	Subfield or refinement	Entry	Explanation and action
KEY		0 to 999	KEY. Enter the 3-digit OPART with an associated speed list index number.
SPDLIST		0 to 262140	SPEED LIST NUMBER. Enter the speed list number (index) associated with the OPART.

Datafill example

The following example shows datafill for table CITYCODE.

KEY	SPDLIST
111	111
112	111
113	111

CKTDIGIT

Table name

Circuit Digit Table

Functional description

Table CKTDIGIT allows the end office to map a particular 0ZZ, 1NX code (field CKTDIGS) into a transit network selector (TNS) (field CKT_CODE) when originating an equal access (EA) call to an access tandem (AT) over Signaling System #7 (SS#7) trunking. This table is also used to allow the AT to map the received TNS into a particular 0ZZ or 1NX code. The AT extracts field CARRIER_NAMES from table OCCINFO using the XXX digits received in the TNS.

Calls arriving at an AT on SS7 trunks are identified as EA calls by the presence of the TNS parameter. The TNS parameter contains the equivalent of the multifrequency (MF) EA 0ZZXXX or 1N/NZXXX digits.

In the AT switch, the combination of the resultant 0ZZ or 1NX with the XXX digits (and CCC or 01R for international carrier calls) from the TNS is provided to pretranslations. The pretranslation either results in an interexchange carrier (IEC) route selection or the activation of a service switching point (SSP) function such as an Enhanced 800 Service (E800) database query.

Datafill sequence and implications

The following tables must be datafilled before table CKTDIGIT:

- OCCNAME
- OCCINFO

An entry can be deleted from table CKTDIGIT at any time without special requirements. If the carrier is deleted from table OCCINFO without deleting it from table CKTDIGITS first, the entry in table CKTDIGIT is automatically deleted.

Table size

0 to 1780 tuples

CKTDIGIT (continued)**Datafill**

The following table lists datafill for table CKTDIGIT.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfields	<i>Key</i> This field consists of subfields CARRIER_NAMES and CKT_CODE.
	CARRIER_NAMES	alphanumeric (1 to 16 characters)	<i>Carrier names</i> Enter the name of the carrier for equal access (EA) calls. See table OCCNAME.
	CKT_CODE	1, 2, 8 to 15	<i>Circuit code</i> At the end office, enter the circuit code to be included in the TNS optional parameter in an initial address message (IAM). At the AT, enter the circuit code expected in the TNS optional parameter in an IAM received at the switching unit for an EA call from an EA end office.
CKTDIGS		000 to 999	<i>Circuit digits</i> Enter the first three digits in the EA signaling digit sequences 0ZZ XXX, 1N/NX XXX CCC, or 1N/NX XXX 01R transmitted on multifrequency (MF) trunks. In the AT, these digits are used to single out one of the outgoing circuits in the carrier group identified by the XXX digits. Note: The first digit must be 0 or 1. The remaining two digits can be any value from 00 to 99.

Datafill example

The following example shows sample datafill for table CKTDIGIT.

CKTDIGIT (end)

MAP display example for table CKTDIGIT

KEY		CKTDIGS
GTE	1	179
GTE	11	099
ITT	1	179
ITT	11	099
SSP	8	088

CLIDN

Table name

Calling Line Identification Table

Functional description

Table CLIDN contains the ten-digit directory numbers (DN) for which calling line identification (CLI) is available. These DNs are external to the switching unit. The ten-digit DNs include an area code + office code + directory number.

In a local switching unit, the NPA (area code) must be the same NPA as the originating subscriber to produce log report TRK163.

In a toll switching unit, the NPA (area code) must be the same as the serving NPA of the incoming trunk to produce log report TRK164.

To generate a TRK164 log for FGD calls with two-stage outpulsing, include SNPA+0ZZ+XXX in table CLIDN. If this event does not occur, the system does not generate a TRK164 log.

The letter N must prefix service codes like 411, 911, and 0 to make the total digit count equal to 10. The system internally translates the letter N to 0. This condition requires two entries. One entry, NPAAnnnn911, has the serving NPA (SNPA) of the trunk. The other entry, nnnnnnn911, does not have the SNPA of the trunk.

For CLI numbers internal to the switching unit, see feature CLI in table LENFEAT.

Use feature CLI in a local, toll or local/toll switching unit.

If a local line calls an external DN that table CLIDN identifies for calling line identification, the system generates log report TRK163. Log report TRK163 contains the following:

- the DN of the calling party
- the outgoing trunk number
- the DN of the called party
- the date and the time

If the system cannot identify the calling DN, the originating equipment number and tip-and-ring side identification replace the number. The tip-and-ring side identification must be available.

CLIDN (continued)

An incoming trunk can receive a call for an external DN that table CLIDN identifies for CLI. When this event occurs the system generates log report TRK164. Log report TRK164 contains:

- the incoming trunk number
- the outgoing trunk number
- the DN of called party
- the date and time

An incoming SS7 trunk on a tandem switch can receive a call for an external DN that table CLIDN identifies for CLI. When this event occurs the system generates log report TRK605. Log report TRK605 contains:

- the incoming trunk number
- the outgoing trunk number
- the DN of the called number
- the DN of the originating number
- the date and time

United Kingdom

In the UK market, log TRK164 cannot trace the origin of a call. Log report TRK602 replaces TRK164 in this market for PCM30 digital trunk controller (PDTC) MEL and Digital Private Network Signaling System No. 1 (DPNSS) calls to BTUP. The BTUP is the UK variant of national user part.

The TRK602 contains the same information as log TRK164 and a default CLI in table TRKMEM (CLI).

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table CLIDN.

Table size

67 tuples

CLIDN (continued)**Datafill**

Datafill for table CLIDN appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DIGITS		numeric and N	<i>Digits.</i> The entry is equal to the ten-digit DN of a line external to the switching unit. - The letter N must prefix service codes like 411, 911, and 0. This action makes the total digit count equal to 10. The system translates the letter N internally to 0. This condition requires two entries. One entry, NPAnnn911, has the NPA. One entry, nnnnnnn911, does not have the NPA. - To produce log report TRK163 in a local switching unit, the NPA must be the same NPA as the originating subscriber. - You can produce log report TRK164 in a toll switching unit. The NPA must be the same NPA as the serving NPA of the incoming trunk. - Log report TRK602 replaces log TRK164 in the UK market. This log report contains the same information, and a default CLI.

Datafill example

An example of datafill for table CLIDN appears in the following table. The example contains two lines in NPA 613 with assigned DNs 224-4579 and 238-2378. These DNs appear for CLI in table CLIDN.

MAP example for table CLIDN

DIGITS
6132244579
6132382378

CLIDN (end)

Table history

NA100

In accordance with CSR Q00272213 (UD10015), table CLIDN documentation is modified.

EUR003

Design activity AE1497 (CLI from Type II MEL) introduced log report TRK602 in EUR003.

Table name

Common Language Location Identifier (CLLI) table

Functional description

The common language location identification (CLLI) codes are used to uniquely identify the far end of each announcement, tone, or trunk group.

Codes are assigned to identify in a descriptive manner each announcement, tone, trunk group, test trunk, national milliwatt test line, and service circuit.

The CLLI codes for all national milliwatt test lines must be datafilled in tables CLLI and TRKGRP. In table TRKGRP (type TTL2), field MWDBLEVEL specifies the card code of the milliwatt test line, which indicates the dB level of the milliwatt source. Field MWSPRVSN specifies the supervision. The old fixed pseudo CLLI codes can continue to exist, but the dB level and supervision cannot be assumed by the pseudo CLLI code.

The international milliwatt test lines continue to use the fixed pseudo CLLI codes, INTL102T, INTL102L, and INTL100Q. In table TRKGRP (type TTL2), the international test lines, INTL102T, INTL102L, and INTL100Q also have fields MWDBLEVEL and MWSPRVSN datafilled, but the switch does not use the information in these fields.

The list of codes must contain the fixed pseudo codes that are applicable to the switch, plus the codes that are defined by the operating company.

Use the command interpreter (CI) command RENAMECLLI to change the spelling of (rename) an existing CLLI code, and use the CI command CLLINUMBER to obtain the number associated with the CLLI name. Some tables require the CLLI number rather than the CLLI name. See the *Basic Translations Tools Guide*, 297-1001-360, for additional information.

There are four types of CLLI codes:

- CLLI codes that are contained in external (EXT) files and are automatically added to table CLLI if a feature is present in the switch
- fixed CLLI codes that must be added to table CLLI and must be spelled exactly as shown
- suggested CLLI codes that must be added to table CLLI and can be spelled differently if the code is spelled the same in each table in which it appears
- CLLI codes defined by the operating company

CLLI (continued)

Table 1 shows the CLLI codes contained in the EXT files that are automatically added to table CLLI for a corresponding feature.

The list specifies the type of restart needed after adding the CLLI code to table CLLI so the CLLI code can be entered in another table. The restart is also needed to increase the TRKGRSIZ for the specified CLLI.

If your switch has the NORESTARTSWACT utility, you can activate data changes without interrupting service. See the *NORESTARTSWACT User Guide*, 297-1001-546.

**CAUTION****Possibility of service interruption**

Perform restarts only during low traffic periods. Data can be entered at anytime, but activates only after the restart indicated in the following information tables.

CLLI codes dependent on feature (Sheet 1 of 3)

CLLI	Explanation	Related table	Restart
BBTOUT	Board-to-board testing	None	None
DLSE	Dial line service evaluation	None	None
DMODEMC	Digital modem, Bell 212 communication protocol	DMODEM	None
DPPSC	Distributed processing peripheral scan circuits	DPP	None
DSCKT	Dialable short	MTAHORIZ	None
EADNMCLLI	Engineering and Administration Data Acquisition System for Network Management	EADNMTG	None

CLLI (continued)**CLLI codes dependent on feature (Sheet 2 of 3)**

CLLI	Explanation	Related table	Restart
FRBTONE	Faultsman's ringback tone (used to access acknowledgement tone, a special information tone that resides in the digital recorded announcement machine [DRAM])	DRAMS	Cold
ITSE	Incoming toll service evaluation	None	None
MISCSC	Miscellaneous scan group (SC) circuits (see note 9)	SCGRP	None
MISCSD	Miscellaneous signal distributor (SD) circuits (see note 9)	SDGRP	None
NWMSC	Network Management scan point	NWMSC	None
NWMSD	Network Management signal distributor point	NWMSD	None
OFFHKSUP	Supervision signal off-hook (see note 5)	OFRT and all RTEREF subtables	None
ONHKSUP	Supervision signal on-hook (see note 5)	OFRT and all RTEREF subtables	None
ROTLSC	Remote office test line scan point	ROTLSCSD	None
ROTLSD	Remote office test line signal distributor point	ROTLSCSD	None
STGOVFL	Equal access shared trunk group overflow peg	IBNRTE	None
STRG	Station ringer (see the new station ringer test example on page 17)	None	None

CLLI (continued)**CLLI codes dependent on feature (Sheet 3 of 3)**

CLLI	Explanation	Related table	Restart
SYNCH	Synchronous test line (see route reference 11 for table OFRT)	OFRT and all RTEREF subtables	None
TERMARTE R	International ARTER transmission testing of Turkish trunks (added at initial program load [IPL] time by terminating ARTER software code)	None	Cold
TOPSCOINC OLLECT	TOPS coin collect (see note 4)	OFRT and all RTEREF subtables	Cold
TOPSCOIND ISABLE	TOPS coin key pad disable (see note 4)	OFRT and all RTEREF subtables	Cold
TOPSCOINE NABLE	TOPS coin key pad enable (see note 4)	OFRT and all RTEREF subtables	Cold
TOPSCOINR ETURN	TOPS coin return (see note 4)	OFRT and all RTEREF subtables	Cold
TRKL PBK	Dialable loopback for trunks that are DS-0 channels (including ISDN user part [ISUP] trunks (see note 10)	None	None
WINKSUP	Supervision signal wink (see note 5)	OFRT and all RTEREF subtables	None

CLLI (continued)

Table 2 shows the fixed CLLI codes that must be added to table CLLI and must be spelled exactly as shown.

Fixed CLLI codes (Sheet 1 of 8)

CLLI	Explanation	Related table	Type of restart needed
AIS	Automatic Intercept System trunk	TRKGRP (type AI)	None
ALL	SATOVER table generic CLLI	SATOVER	None
AOSSANN	Auxiliary Operator Services System (ADSS) announcement	ANNSDRMUSER S	None
AOSSDEV	ADSS device	AOSSDEV	Cold
AOSSPOS	ADSS position	AOSSPOS	Cold
AOSSPOSD ATA	ADSS position data	AOSSPOS	Cold
ASCS	Alarm sending and checking	ASCS	None
ATMERA	ATME2 type A responder (see note 11)	OVR0-9	Cold
ATMERB	ATME2 type B responder (see note 11)	OVR0-9	Cold
ATMERC	ATME2 type C responder (see note 11)	OVR0-9	Cold
AVPMT	Autovon maintenance tone	STN	Warm
AVPSPD	Autovon permanent signal partial dial tone	STN	Warm
BVTONE	Busy verification tone (see note 7)	STN	Warm
CAPOX	CAMA Call Waiting suspension	CAMACSWs	Cold
CF3P	Three-port conference circuit	CONF3PR	None
CF6P	Six-port conference circuit	CONF6PR	None

CLLI (continued)**Fixed CLLI codes (Sheet 2 of 8)**

CLLI	Explanation	Related table	Type of restart needed
COPP	Cutoff on permanent signal and partial dial	None	None
CPOS	CAMA position talk circuit	CAMACSW	Cold
CPOSKEY	CAMA position key circuit	CPOS	Cold
CSUSP	Traffic Operator Position System (TOPS) CAMA suspension circuit	CSUSP	None
CWT	Call Waiting tone	STN	Warm
DCLTONE	Dialable cable locator tone	TRKGRP (type MAINT)	None
DCTTERMB ERT	Data call tester bit error tester termination application	DNIBERT	None
DGT300	DMS-300 digital Digitone receivers	RECEIVER	None
DISTCWT	Distinctive Call Waiting tone	STN	Warm
DMODEM	Digital modem (Integrated Business Network [IBN], TOPS)	None	None
DQB300	Dial-up autoquote modem at 300 baud	DQMODEM	None
DQB1200	Dial-up autoquote modem at 1200 baud	DQMODEM	None
DRCWTONE	Distinctive ringing/call waiting tone	STN	Warm
DTU	Digital test unit	TRKGRP (type MAINT)	None
EAPEG	Equal access overflow peg	AMAOPTS	None
EBOT	Executive Busy Override warning tone (used by all except UK switches)	STN	Warm

CLLI (continued)**Fixed CLLI codes (Sheet 3 of 8)**

CLLI	Explanation	Related table	Type of restart needed
ENHCWT1	Enhanced Call Waiting tone for the first secondary directory number (SDN)	STN	Warm
ENHCWT2	Enhanced Call Waiting tone for the second SDN	STN	Warm
ENHCWT3	Enhanced Call Waiting tone for the third SDN	STN	Warm
ERWT	Expensive route warning tone	STN	Warm
ESADGTR	Emergency stand-alone Digitone receivers	TRKGRP(type MAINT)	None
ESUP1 to ESUP5	Digital echo suppressors (see note 3)	ECHOSUP	None
FMTSC	Fiber multiplex terminal scan point	FMTSC	None
FPOT	Foreign potential test (see example F at the end of this section)	OFRT and all RTEREF subtables	None
HOBICDEV	Hotel billing information center device	HOBICDEV	Cold
HSET	Maintenance head set circuit	TRKGRP(type MAINT)	None
IEBOT	International Executive Busy Override tone (used only by UK switches)	STN	Warm
IDLE	Idle (for use only in a North American switch, see example G at the end of this section)	OFRT and all RTEREF subtables	None
INTL100Q	International 100 balance test line	TRKGRP(type ITL2)	None
INTL102T	International 102 test line	TRKGRP(type ITL2)	None

CLLI (continued)**Fixed CLLI codes (Sheet 4 of 8)**

CLLI	Explanation	Related table	Type of restart needed
INTL102L	International 102 test line	TRKGRP(type MAINT)	None
IROH	International receiver off-hook	TONES	Warm
ITOPSDEV	International TOPS device (see note 6)	ITOPSDEV	Cold
ITOPSPPOS	International TOPS position voice trunk (see note 6)	ITOPSPPOS	Cold
ITOPSPPOS ATA	International TOPS position data trunk (see note 6)	ITOPSPPOS	Cold
JACK	TTP - toll jack circuit	TRKGRP(type MAINT)	None
KSR2ICVR	For licensee use only	RECEIVER	None
KSR2OCVR	For licensee use only	RECEIVER	None
LKOUT	Lockout (see example G at the end of this section)	OFRT and all RTEREF subtables	None
LOOPA1	Loop-around test line, port 1	TRKGRP(type LOOPA)	None
LOOPA2	Loop-around test line, port 2	TRKGRP(type LOOPA)	None
LTU	Line test unit	TRKGRP(type MAINT)	None
MF300	DMS-300 analog and digital MF receivers	RECEIVER	None
MJACK	Metallic jack	MTAMDRVE	Cold
MOBICPT	Mobile intercept	None	Cold
MOBRODR	Mobile reorder	None	Cold
MONTALK	Talk and monitor (for line test unit [LTU])	TRKGRP(type MAINT)	None

CLLI (continued)**Fixed CLLI codes (Sheet 5 of 8)**

CLLI	Explanation	Related table	Type of restart needed
MTADRIVER	Metallic test access driver	MTAHORIZ	None
MTU	Metallic test unit (non-domestic) or multiline test unit (domestic)	TRKGRP(type MAINT)	None
NOSYN	Nonsynchronous test line (see route reference 11 for table OFRT)	OFRT and all RTEREF subtables	None
OAUSC	Office alarm unit scan groups(see note 2)	ALMSCGRP	None
OAUSD	Office alarm unit signal distributor groups (see note 2)	ALMSDGRP	None
OCKT	Open circuit termination	TRKGRP(type SOCKET)	None
OHQT	Off-hook queuing tone	STN	Warm
OOCDEV	Overseas operator center (OOC) device	TOPSDEV	Cold
OOCPOS	OOC operator position - voice	TOPSPOS	Cold
OOCPOS DATA	OOC operator position - data	TOPSPOS	Cold
OPMPES	Outside plant module power and environmental system	OPMINV	None
PCNOR	Preset conference normal notification tone	STN	Warm
RCVATDUK	A-Law automatic tone detector UK	RECEIVER	None
RCVRATD	Audio tone detector	RECEIVER	None
RCVRCDC	Coin detection circuit receiver	RECEIVER	None
RCVRCOIN	Automatic coin toll service receiver	RECEIVER	None

CLLI (continued)**Fixed CLLI codes (Sheet 6 of 8)**

CLLI	Explanation	Related table	Type of restart needed
RCVRDGT	Digital Digitone receiver circuits	RECEIVER	None
RCVRDTUK	A-Law Digitone receiver UK	RECEIVER	None
RCVRMCCS	Mechanized calling card receiver	RECEIVER	None
RCVRMF	Analog and digital MF receivers	RECEIVER	None
ROH	Receiver off-hook	STN	Warm
ROTLTP	Remote office test line (ROTL) port	TRKGRP(type ROTL)	None
SIGTERM	CCS6 signaling terminal	None	None
SCKT	Short circuit termination	TRKGRP(type SOCKT)	None
SSMAN	Silent switchman (see table OFCENG, parameter SILENT_SWITCHMAN_TIME OUT)	OFCENG	None
SVDTMF	Dual-tone multifrequency (DTMF) transmitter	SVRCKT	Warm
SVMFC	R2 interregister signaling circuit	SVRCKT	Warm
SVOBSV	Service observing circuit	SVRCKT	Warm
TASISC	TASI state controller	TASIB	None
TASISD	TASI state controller	TASIB	None
TERM100Q	Termination 100 test line	TRKGRP(type TTL2)	None
TERM102L	Termination 102 test line	TRKGRP(type TTL2)	None

CLLI (continued)**Fixed CLLI codes (Sheet 7 of 8)**

CLLI	Explanation	Related table	Type of restart needed
TERM102T	Termination 102 test line	TRKGRP(type TTL2)	None
TERM103T	Terminating 103 test line	OFRT and all RTEREF subtables	None
TERM105	Terminating 105 test line (fixed pseudo CLLI TERM105 is used if ROTL equipment is present)	TRKGRP(type T105)	Cold
TERM105T	Terminating 105 test line (fixed pseudo CLLI TERM105T is used if ROTL equipment is not present, which permits the use of the 105 test line using the transmission test unit (TTU) at the terminating office). No further datafill is required in tables TRKGRP, TRKSGRP or TRKMEM.		None
TERM107T	Terminating 107 test line (preemption test line)	None	Cold
TERM108	Terminating 108 test line	TRKGRP(type MAINT)	None
TISS	Terminating international 103 signal supervisory test line	TSTLCONT(subtable TLNOS)	None
TOPSDEV	TOPS device (see note 6)	TOPSDEV	Cold
TOPSPOS	TOPS position - voice (see note 6)	TOPSPOS	None
TOPSPOSD ATA	TOPS position - data (see note 6)	TOPSPOS	None
TTT	Transmission trunk test	TRKGRP(type MAINT)	None

CLLI (continued)**Fixed CLLI codes (Sheet 8 of 8)**

CLLI	Explanation	Related table	Type of restart needed
TTU	Transmission test unit	TRKGRP(type MAINT)	None
VER90	Operator verification (see note 1)	TRKGRP(type VR)	None

Table 3 shows a list of suggested CLLI codes must be added to table CLLI and can be spelled differently if the code is spelled the same in each table in which it appears. It is recommended that the spelling below be used whenever possible.

Suggested CLLI codes

CLLI	Explanation	Related table	Type of restart needed
ACCSTOPS	Automatic Calling Card Service bilingual announcement	ANNS	None
ACTSTOPS	Automatic coin toll service	ANNS	None
RING	Ringback tone (see note 8)	TONES	None
DSCDBUSY	DSCWID busy announcement	RESOFC	None
DSCWDDFLT	DSCWID default announcement	RESOFC	None
DSCWDDSCN	DSCWID disconnect announcement	RESOFC	None
DSCWDHOLD	DSCWID hold announcement	RESOFC	None
DSCWDRMDR	DSCWID reminder announcement	RESOFC	None

Note 1: Code VER90 is for the operator verification trunk group in the host switch. The codes for the operator verification trunk groups at the remote location are defined by the operating company.

CLLI (continued)

Note 2: The trunk group size for fixed pseudo CLLI codes OAUSC and OAUSD is equal to the number of scan and signal distributor groups required for office alarm.

Note 3: For codes ESUP1 to ESUP5, the value in field TRKGRSIZ must be equal to two times the number of digital echo suppressors (one for each port) assigned to the code in table ECHOSUP.

Note 4: The pseudo CLLI codes TOPSCOINCOLLECT, TOPSCOINENABLE, TOPSCOINDISABLE, and TOPSCOINRETURN give the operating company the capability of specifying coin signals for calls that arrive at an access tandem on Traffic Operator Position System (TOPS) trunks but do not route to an operator. In particular, one of these CLLI codes allows the operating company to ensure that Digitone key pads on coin phones are enabled for feature group B calls and for 800 service calls.

Because some end offices do not leave the key pads in the correct state, special CLLI code TOPSCOINENABLE allows the operating company to have complete flexibility in the enabling of these pads. To use this CLLI code, it is placed at the beginning of a route list that routes the call to an incoming (IC) trunk. For example, if an operating company wishes to route a call on trunk group OGEACAR1, the operating company can datafill a route in table OFRT in the following way:

```
999 ( S D TOPSCOINENABLE) (N D OGEACAR1 0 N N)
```

This datafill sends a coin enable signal to enable a Digitone key pad for all coin calls that use route list. After the coin signal is finished, the call routes to trunk group OGEACAR1. If a coin call originates from an end office that left the key pad in the correct state, then calls from those offices can route to a different route list that does not include the coin enable CLLI code. Such routing avoids the additional post-dial delay incurred by the coin enable signal.

Each coin signal added to a route list adds approximately 3 s of post-dial delay to each coin call using that route list. The time required to send the coin signal is 3 s.

There are three other kinds of coin signals: pad disable, coin collect, and coin return. There can be a requirement to send these signals for some calls on TOPS trunks that do not route to TOPS operators. Three CLLI codes, TOPSCOINDISABLE, TOPSCOINCOLLECT, and TOPSCOINRETURN are provided for this purpose.

These coin CLLI codes are placed at the beginning of a route list (that is, before any trunk CLLI codes). If more than one coin signal is needed, more

CLLI (continued)

than one CLLI code can be added to the route list. These CLLI codes can only be used for calls that originate on TOPS trunks and are not completed by a TOPS operator. In particular, these CLLI codes can be used for Centralized Automatic Message Accounting (CAMA) calls that route to a TOPS operator, and for calls that are transferred to an IC operator service, since neither of these calls are completed by the TOPS operator.

Non-coin calls can be routed to a route list with the special coin CLLI code. The software determines that the call is non-coin and no coin signaling is attempted.

To use the four CLLI codes, add them to table CLLI and do a cold restart. Do not do a restart during periods of high traffic.

Note 1: These CLLI codes can be used at the end of a route list to send the appropriate supervision signal to the originating office, if all members of the outgoing trunk group are busy, before proceeding to the standard treatment. Only the following trunk group types are supported: SC, IS, IT, OI, OC, OP, TI, T2, TOPS, A5, and TDDO.

Note 2: After entering the fixed CLLI code TOPSDEV, ITOPSPPOS, ITOPSPPOS DATA, or ITOPSPDEV in table CLLI, a cold restart must be performed before entering tuples in the associated tables.

To increase the size of tables TOPSDEV, ITOPSPPOS, or ITOPSPDEV, all members of these tables must be deleted. The value in field TRKGRSIZ in table CLLI is then increased for the associated fixed CLLI code or codes, a cold restart or a reload restart is performed, and the members of the table are reentered.

Note 1: The busy verification tone (BVTONE) circuit is required on the remote switch in the network busy verification line (BVL). Table CLLI must be datafilled with the fixed CLLI code BVTONE on the remote switch.

Note 2: When either treatment NTRS (no terminal responding) or CREJ (call rejected) is reached on an ISDN basic rate access (BRA) call, the caller is already receiving audible ringback. Ringback at the originating agent can be applied, even after these events have occurred. A software-generated tone called *RING is defined in table TONES for ISDN switches and datafilled in table CLLI. Tuples are defined in table OFRT and in fields LNT and OFFTREAT in table TMTCNTL.TREAT to map treatments NTRS and CREJ to this tone. When either of these treatments is reached, audible ringback is sustained at the originating end of the call.

CLLI (continued)

Note 3: When members of the SC and SD groups are datafilled in tables SCGRP and SDGRP, a tuple is automatically datafilled in table CLLI for pseudo fixed CLLI codes MISCSC and MISCSD respectively.

Note 4: Trunk group size for CLLI code TRKLPBK is equal to 0 (zero), since no trunks are assigned in table TRKMEM.

Note 5: For ATME2 to work, add the three CLLI codes ATMERA, ATMERB, and ATMERC to table CLLI and then do a cold restart. Failure to do this results in not binding in the correct CLLI codes.

Deleting CLLI codes from table CLLI

To delete a CLLI code, the CLLI code must be deleted from all tables in which it appears (except table CLLIMTCE) before it is deleted from table CLLI. When it is deleted from table CLLI, it is automatically deleted from table CLLIMTCE.

The CI command TABREF can be used to determine which other tables are potentially referenced by a CLLI code.

Assigning CLLI codes for spare analog trunks

All spare analog trunks in the switch must be listed in the table TRKGRP with a CLLI code of SPAREXXXXXX, where XXXXXX is the card code of the spare analog trunk or trunks. For example, if there are spare analog trunks with a card code of 2X83AA, the CLLI code is SPARE2X83AA. The value of field TRKGRSIZ must be large enough to handle all spare analog trunks until the next extension. The spare analog trunks must also be added to table CLLIMTCE.

SEAS 1.1 Enhancements

Feature AL1334 (SEAS 1.1 Enhancements) changes the way routeset CLLI codes are formed. Routeset CLLI codes are used as the key to table C7RTESET whenever the Signaling Engineering and Administration System (SEAS) commands ADD_RTE or CHG_RTE are used to modify data routing information.

Feature AL1334 also maintains tuples in table CLLI that are used as the key to table C7LKSET. Field ADMININF in table CLLI contains the far-end office name (field FECLLI in table C7LKSET) as provided in SEAS commands ADD_LS or CHG_LS.

Note: With feature AE0901 for BT7, EMERGENCY_CALL_ANN must be entered in field ADMININF in table CLLI. This entry specifies that an emergency call announcement will be made.

CLLI (continued)

Routeset CLLI codes

With feature AL1334, the name chosen as the routeset name is changed to reflect information about the routeset derived from the data. This can happen in two ways:

First, the name used can be the exact name datafilled in field FECLLI of table C7LKSET of the linkset that is defined as the associated route of the routeset. A route is associated if the far-end point code (field FEPC of table C7LKSET) of this linkset is the exact point code of this routeset (field DPC of table C7RTESET).

Second, if none of the routes are associated, the routeset name can consist of the textual representation of the point code of the routeset (a nine-digit field).

The name of the routeset must be created when a route is defined for a new destination (no routes are defined to this point code). When an additional route is added to an existing routeset, no changes are made to the routeset name. If SEAS uses the command CHG_RTE to add an associated route where there was not one before, or to remove an existing associated route, the routeset name is changed to reflect the new configuration.

Field ADMININF for linkset CLLI tuples

Field ADMININF of table CLLI is used to store any additional information regarding the CLLI code defined. With feature AL1334, the field ADMININF indicates the corresponding far-end CLLI name (field FECLLI in table C7LKSET) of the linkset being added. If the name datafilled in field FENAME of the linkset is changed using SEAS command CHG_LS, field ADMININF must be updated to maintain this new relationship.

The far-end name information is provided with SEAS commands ASGN_LS and CHG_LS.

Restrictions and limitations

The routeset name relationship defined by feature AL1334 is maintained only if the data is changed using the SEAS interface. If similar changes are made using the DMS table control interface, the routeset name does not change.

Similarly, field ADMININF of table CLLI is not updated to reflect the far-end name of the linkset if changes are made to table C7LKSET using the DMS table control interface.

These name relationships must be maintained manually by operating company personnel if changes are made using the DMS table control interface.

CLLI (continued)

Station ringer test examples

The older method of invoking the station ringer test (SRT) is by dialing a two-digit code (typically 57) followed by the last five digits of the directory number (DN) being tested. For example, to test DN 621-1234, the tester dials 571-1234. This assumes that no two DNs in an office share the same last five digits. If two DNs, 621-1234 and 631-1234, are served by the same office, it is not possible to test the stations uniquely since the only dialing pattern possible is 571-1234, which refers to both of the DNs.

A newer method of invoking SRT is by dialing the SRT access code followed by the DN being tested. This method can coexist with the method previously described.

The SRT access code is nominally three digits but can be modified by datafill. Since both access methods work on the same switch, datafill access codes can be used unambiguously for either method of dialing SRT.

The DN tested can be either seven digits without the numbering plan area (NPA) or ten digits (including NPA). If a seven-digit DN is used, the NPA cannot be included in SRT tests that compare the number dialed against the station dialing. This is not usually a problem since it is unlikely the same switch serves two DNs that differ only by their NPA. By varying datafill, operating companies can allow access code plus either seven- or ten-digit DN dialing of SRT, access code plus seven-digit dialing only, or access code plus ten-digit dialing only. If the first option is chosen (seven- or ten-digit DNs), a pause of several seconds occurs before the call is processed when seven-digits are dialed. The pause is a result of the line module (LM) waiting to make sure no more digits are dialed (for example, a ten-digit DN).

Example

If DN 613-621-1234 is tested, and if 57 is the older SRT access code and 999 the newer, SRT can be invoked by dialing any of 571-1234, 999-621-1234, or 999-613-621-1234 from that station.

Administrative trunk group number (ADNUM)

In table CLLI, field ADNUM, which can range from 0 to 8191 (one less than the maximum size of table CLLI), allows the operating company to associate an ADNUM with each DMS-100 family trunk group CLLI code. This ADNUM must be unique among the CLLI codes and remains fixed throughout the life of the trunk group, regardless of the number of dump-and-restore actions performed on the switch.

The range of values for field ADNUM is from 0 (zero) to a number that is one less than the size of table CLLI shown in table DATASIZE. For example, if

CLLI (continued)

the size of table CLLI is 650, then the maximum value that can be used in field ADNUM is 649.

For pseudo CLLI codes (that is, CLLI codes added from EXT files), a specific ADNUM is assigned. These numbers start with 1 and continue in ascending order. A value of 0 (zero) is avoided since some downstream processors, such as Engineering and Administrative Data Acquisition System (EADAS) for network management (EADAS/NM), do not accept 0 as a legitimate identifier. Assigning a 0 results in an error message, but the entry is not rejected.

It is recommended that CLLI codes defined by the operating company be assigned sequentially starting with lower numbers. ADNUM values 1 to 50 are reserved for pseudo CLLI codes and 0 (zero) might not be valid for some downstream processing.

If the number of CLLI codes defined by the operating company is greater than the size of table CLLI minus 50, the size of table CLLI should be increased to avoid using ADNUM values reserved for additional future pseudo CLLI codes.

Modifying the value in field ADNUM

The value in field ADNUM can be modified only if its CLLI code is not referred to by any other tables in the DMS-100 switch. This means that in order to modify the ADNUM value, tuples containing the CLLI code must be removed from all routing tables, trunk tables, and any other tables. The tuple containing the CLLI code in table CLLI must be deleted and then reentered in table CLLI in order to modify the value of field ADNUM.

See also sections EADAS/DC changes and EADAS/NM changes.

CLLI (continued)**Default ADNUMs for pseudo CLLI codes**

Table 4 identifies the default ADNUM assigned to each pseudo CLLI code added by an EXT file.

Default ADNUMs (Sheet 1 of 2)

CLLI	ADNUM
DLSE	1
DMODEMC	2
DPPSC	3
DSCKT	4
EADNMCLLI	5
FRBTONE	6
ITSE	7
NWMSC	8
NWMSD	9
OFFHKSUP	10
ONKHSUP	11
STGOVFL	12
STRG	13
SYNCH	14
TERM105T	15
TOPSCOINCOLLECT	16
TOPSCOINDISABLE	17
TOPSCOINENABLE	18
TOPSCOINRETURN	19
Note: The ADNUM assigned to a CLLI code must be unique. Attempting to assign an ADNUM that is associated with another CLLI code is not permitted. It is important to avoid using an ADNUM assigned to a pseudo CLLI code for CLLI codes defined by the operating company.	

CLLI (continued)

Default ADNUMs (Sheet 2 of 2)

CLLI	ADNUM
WINKSUP	20
BBTOUT	21
ROTLSC	22
ROTLSD	23
TRKLPBK	24
TERMARTER	25
MISCSC	26
MISCSD	27
Note: The ADNUM assigned to a CLLI code must be unique. Attempting to assign an ADNUM that is associated with another CLLI code is not permitted. It is important to avoid using an ADNUM assigned to a pseudo CLLI code for CLLI codes defined by the operating company.	

The EADAS for data collection (EADAS/DC) and EADAS network management (EADAS/NM) interfaces to the DMS-100 are modified to use the ADNUM datafilled in table CLLI.

EADAS/DC changes

The record identification (ID) fields in the EADAS/DC sections for operational measurement (OM) groups TRK, TRK250, NWMSILC, and DCRICTRK contain the administrative number associated with that CLLI code. The records within those sections are ordered by the ADNUM.

The EADAS/DC section contains the counts for the above OM groups. The information associated with these counts is as follows:

- The numeric record ID parameter associated with the feature commands EADASKEY and EADASFMT is the ADNUM value.
- The output of the CI command OMDUMP for EADAS/DC collection classes identifies the CLLI codes by their character name.

CLLI (continued)

The operating company cannot modify the ADNUM for a CLLI code if both of the following conditions apply:

- OM counts for that CLLI code are being reported to EADAS/DC.
- The OM counts being reported to EADAS/DC are for one of the following OM groups: TRK, NWMSILC, TRK250, or DCRICTRK.

To modify an ADNUM, tuples that refer to its CLLI code must be removed from all tables. The tuple in table CLLI containing the ADNUM must be deleted and then reentered in table CLLI, with the new ADNUM value. The tuples containing the CLLI code are reentered in the tables from which they were originally removed.

EADAS/NM changes

If an ADNUM is changed, it sets the EADAS/NM trunk group list discrete to indicate the change. If the office is equipped with feature package X455AB (1A EADAS Network Management), a change to the ADNUM also creates two entries in the EADAS/NM trunk group changed list. One of these entries identifies the old ADNUM; the other identifies the new ADNUM.

Table TRKNAME

Table TRKNAME, a read-only table, is datafilled automatically through entries in table CLLI. Given an ADNUM value, the corresponding CLLI code can be displayed in table TRKNAME. Table CLLI shows the reverse mapping. See the example at the end of this section.

Datafill sequence and implications

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

Table size

0 to 8192 tuples

Memory requirements

The size of table TOPSPOS is specified in field TRKGRSIZ of table CLLI for the two fixed CLLI codes, TOPSPOS and TOPSPOSDATA. For each of the two fixed CLLI codes, the value in field TRKGRSIZ must be identical. Following are the procedures for increasing and deallocating memory.

Increase prior to TOP04: A restart is required.

1. Delete all tuples in table TOPSPOS.
2. Increase the value of field TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs.

CLLI (continued)

3. Perform a cold or reload restart.
4. Re-add the tuples to table TOPSPOS.

Increase for TOP04 and up: The restart requirement for increasing size is eliminated in TOP04.

1. Increase the value of TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs.
2. Add the new tuples in table TOPSPOS. No restart is required.

Deallocate: Deallocation of memory is not changed; all tuples must be deleted.

1. Delete all tuples in table TOPSPOS.
2. Change the value of field TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs to value 0.
3. Change the value of field TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs to the new desired size.
4. Add or re-add desired tuples to table TOPSPOS. No restart is required.

Tuples are allocated in blocks of 32, with each tuple consuming 106 bytes:(32*106 = 3392 bytes)

Each time a new CLLI is added, additional memory is allocated according to the following formula:(Truncate((TRKGRSIZ + 64 - 1)/64)) * 8

An example calculation for 32 tuples is as follows:(32 * 106) + 32 ((Truncate((TRKGRSIZ + 64 -1) / 64)) * 8)

To extend table CLLI, increase the value of field SIZE in table DATASIZE and perform a cold restart. If your switch has the NORESTARTSWACT utility, you can activate data changes without interrupting service. See the *NORESTARTSWACT User Guide*, 297-1001-546.

Note: Table DATASIZE does not have any impact on memory allocation with the exception of controlling maximum table size. In other words, datastore is not allocated when table DATASIZE is changed, but when the corresponding tuple increase occurs within the corresponding table.

CLLI (continued)

Datafill

The following table lists datafill for table CLLI.

CLLI (continued)**Field descriptions (Sheet 1 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (vector of up to 16 characters)	<i>Common language location identifier</i> Enter a CLLI code to uniquely identify the far end of each announcement, tone, or trunk group. Note: Only alphabetic characters, numeric characters, and _ (underscores) can be used to datafill this field. The first character must be alphabetic. The use of other special characters such as @, #, \$, %, ^, &, *, (,), -, +, =, /, ', ;, :, ?, }, and { can cause errors in the data in this field. For optimum use, a CLLI code must not contain more than 12 characters, as only the first 12 characters are displayed on the maintenance and administration position (MAP). When a CLLI code is displayed in a log report, the entire 16-character CLLI code appears. The recommended code for a gateway switch consists of the following elements: • <i>SITE - Site</i> This three-character element is used to identify the name of the site (switch). If there is more than one site in a city, each site has its own name. If there is only one site in a city, datafill the abbreviated city name. • <i>SUFFIX - Suffix</i> This two-character element is used to uniquely identify the trunk group. If there is more than one trunk group to the same site, each trunk group is given a different number for unique identification. • <i>COUNTRY - Country</i> This three-character element is used to identify the name of the country where the site is located. • <i>CITY - City</i> This three-character element identifies the name of the city at the far end of each trunk group. If there is only one site in a city, and the entry has been identified by the abbreviated city name, leave CITY blank. If there is more than one site in a city, use both element SITE and element CITY.

CLLI (continued)**Field descriptions (Sheet 2 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
			Note: The CLLI code can occupy 11 characters of the 16-character string and the field ends at the first blank character. For example, if there is only one trunk group to a specific switch, only the element SITE needs to be datafilled as the CLLI code. The recommended CLLI code for other than a gateway switch consists of the following elements: • <i>PLACE - Place</i> This four-character element identifies the name of the city or town at the far end of each group, or the name defined for each tone or announcement. • <i>PROV - Province or state</i> This two-character element identifies the province or state at the far end of the trunk group. • <i>BLDG - Building</i> This two-character element identifies the building number at the far end of the trunk group. • <i>TRAFUNIT - Traffic unit</i> This three-character element identifies the designation of the traffic unit at the far end of the trunk group. • <i>SUFFIX - Suffix</i> This one-character element uniquely identifies trunk groups that terminate at the same location. Note 1: This CLLI code can occupy 12 characters of the 16-character field. The CLLI code is treated as a character string and the field ends at the first blank character. For example, if there is only one trunk group ending at a specific switch, only the element PLACE needs to be datafilled for the CLLI code. Note 2: With feature AE0901 for BT7, the entry EMERCALL in this field specifies the emergency call feature.

CLLI (continued)**Field descriptions (Sheet 3 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
ADNUM		numeric (0 to 8191)	<i>Administrative trunk group number</i> Enter a number in the range from 0 to one less than the current size of table CLLI datafilled in field SIZE of table DATASIZE. It is not recommended that the operating company assign administrative numbers (ADNUM) below 51 to allow for future growth in the number of pseudo CLLI codes. ADNUMs for fixed CLLI codes and operating company defined CLLI codes must be in the range from 51 to the size of table CLLI defined in table DATASIZE minus one. ADNUMs for pseudo CLLI codes added by external (EXT) files must use the default value. The value of field ADNUM in table CLLI must be unique. Attempts to add a CLLI code with an ADNUM already in use are rejected. Field ADNUM in table CLLI cannot be modified if the operational measurement (OM) counts being reported to the Engineering and Administrative Data Acquisition System (EADAS) for data collection (EADAS/DC) are for OM groups TRK, NWMSILC, TRK250, or DCRICTRK or if the CLLI code is in the EADAS network management (EADAS/NM) trunk group schedule. The operating company can modify the ADNUM value only if its CLLI code is not referred to by any other tables in the switch. An ADNUM value cannot be changed without deleting the tuple containing the ADNUM value to be modified. The tuple must be deleted, the ADNUM value modified, and the tuple reentered in table CLLI.

CLLI (continued)**Field descriptions (Sheet 4 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
TRKGRSIZ		numeric(0 to 2047)	<i>Trunk group size</i> Enter the maximum quantity of trunk members that are expected to be assigned in the trunk group. This number is used to allocate storage, consequently it can be greater than the number of initial working trunks. The only change that can be made dynamically to this quantity is to increase the size. An attempt to decrease TRKGRSIZ results in an error message. The only size reduction permitted is to decrease the quantity entered in field TRKGRSIZ to 0 (zero). In this case, all members using this CLLI code must be deleted before decreasing the quantity to 0. An announcement CLLI must be defined for Audiogram Delivery Services (ADS). If only one EDRAM card is provisioned for ADS, the field TRKGRSIZ can be set to 30, allowing for all 30 channels on the EDRAM card to be simultaneously connected for the purpose of playing ADS OOSPs. Refer to the Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013) in this document.
ADMININF		alphanumeric (vector of up to 32 characters)	<i>Administrative information</i> Enter operating company administration information. The information in this field is not used by the switch. Note: Only alphabetic characters, numeric characters, and _ (underscores) can be used to datafill this field. The use of other special characters such as @, #, \$, %, ^, &, *, (,), -, +, =, /, ', ;, :, ?, }, and { can cause errors in the data in this field.

CLLI (continued)**Field descriptions (Sheet 5 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
			The recommended entries in field ADMININF for a gateway switch are as follows: DIR, MED, SIG, SRVCAT, N6MODE, and MISC. • <i>DIR - Direction</i> This entry is optional datafill for administration only. If direction is required, datafill the direction of the traffic in the trunk group. If direction is not required, datafill a - (dash) for entry DIR. • <i>MED - Medium</i> This one-character entry is optional datafill for administration only. If the medium is required, datafill the medium of the trunk group, that is, S for satellite or C for cable. If the medium is not required, datafill a - (dash) for entry MED. If the entries following MED contain no information, leave MED blank. • <i>SIG - Signaling</i> This one-character entry is optional datafill for administration only. If signaling is required, datafill the signaling type for the trunk group, that is, 5 for CCITT Signaling No. 5 (N5) and 6 for CCITT Signaling No. 6 (N6). If signaling is not required, datafill a - (dash) for entry SIG. If the entries following entry SIG contain no information, leave SIG blank.

CLLI (continued)**Field descriptions (Sheet 6 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
			The recommended entries in field ADMININF for a gateway switch (continued): • <i>SRVCAT - Service category</i> This three-character entry is optional datafill for administration only. If the service category is required, datafill the type of service the trunk group provides, that is, TEL for telephone. If the service category is not required, datafill a - (dash) in entry SRVCAT. If the entries following entry SRVCAT contain no information, leave SRVCAT blank. • <i>NO6MODE - Signaling 6 mode</i> This four-character entry is optional datafill for administration only. If the N6 mode is required, datafill FA for fully associated, QA for quasi-associated, or FQ for fully and quasi-associated. If needed, this entry can be used to identify which route set or signaling link set is carrying the signal for this trunk group. If the N6 mode is not required, enter a - (dash) for entry NO6MODE. If the entries following entry NO6MODE contain no information, leave MO6MODE blank. • <i>MISC - Miscellaneous information</i> This 12-character entry is optional datafill for administration only. If miscellaneous information is required, anything can be datafilled. For example, the entry can contain the full name of the abbreviated site name. If this entry is not required, leave MISC blank.

CLLI (continued)**Field descriptions (Sheet 7 of 7)**

Field	Subfield or refinement	Entry	Explanation and action
			Note: The field ADMININF can occupy 32 characters and is treated as a character string. The field ends at the first blank character. An _ (underscore) must be datafilled between each entry in field ADMININF, if the entries following it are not blank. The recommended entries for field ADMININF for other than a gateway switch are as follows: TRAFCLS, OFFCLS, and TRKGRTYP. • <i>TRAFCLS - Trunk group traffic class</i> This entry is optional datafill for administration only. If traffic class is required, datafill one of the traffic classes defined in operating company practices. If traffic class is not required, datafill a - (dash) for entry TRAFCLS. • <i>OFFCLS - Office class</i> This entry is optional datafill for administration only. If office class is required, datafill one of the office classes defined in operating company practices. If office class is not required, datafill a - (dash) for entry OFFCLS. If entry TRKGRTYP is blank, entry OFFCLS can be left blank. • <i>TRKGRTYP - Trunk group type</i> This entry is optional datafill for administration only. If the trunk group type is required, datafill an alphanumeric entry equal to one of the trunk group types defined in operating company practices. If trunk group type is not required, leave TRKGRTYP blank. Note 1: The field ADMININF can occupy 32 characters and is treated as a character string. The field ends at the first blank character. An _ (underscore) must be datafilled between each entry in field ADMININF, if the entries following it are not blank. Note 2: With feature AE0901 for BT7, the entry EMERGENCY_CALL_ANN in this field specifies that an emergency call announcement will be made.

CLLI (continued)**Datafill example**

An example of datafill for tables CLLI for a North American local, toll, or combined local and toll DMS switch is shown below.

MAP display example for table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
HLFXNS0101T	100	24	PH_43_IT
OTWAON23CG00	101	225	FG_45_DTS
OTWAON23CG00	102	30	CO_54_CA
OTWAON2323H1	103	150	LA_54_LA
CF3P	54	12	MI
ESUP1	55	128	MI
TERM102T	57	1	MI
TERM102L	58	0	MI
TERM100Q	59	0	MI
SCKT	60	0	MI
OCKT	61	0	MI
ASCS	62	0	MI
FB0T	51	0	MI
LKOUT	52	0	MI
IDLE	53	0	MI
CF6P	56	12	MI

The corresponding datafill of table TRKNAME is shown below.

CLLI (continued)**MAP display example for table TRKNAME**

ADNUM	CLLI
51	FPOT
52	LKOUT
53	IDLE
54	CF3P
55	ESUP1
56	CF6P
57	TERM102T
58	TERM102L
59	TERM100Q
60	SCKT
61	OCKT
62	ASCS
100	HLFXNS0101T0
101	OTWAON23CG00
102	OTWAON23CG01
103	OTWAON2323H1

An example of datafill for a gateway DMS switch is shown below.

MAP display example for table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
MOS01URS	300	2	BS5TEL_MOSCOW
MOL03GBNLON	301	52	OC5TEL_MOLLISON
CF3P	51	12	MI
ESUP1	52	128	MI
TERM102T	53	1	MI
TERM102L	54	0	MI
TERM100Q	55	0	MI
ALL	56	2	SATOVER_CLLI
MF300	57	250	MF_RECEIVERS
DGT300	58	100	DIGITONE_RCVRS

An example of datafill for feature AE0901 in BT7 is shown below.

CLLI (continued)**MAP display example for table CLLI**

CLLI	ADNUM	TRKGRSIZ	ADMININF
EMERCALL	124	3	EMERGENCY_CALL_ANN

Explanation of above examples

This pseudo fixed CLLI code CF3P is required for switches equipped with three-port conference circuits. The trunk group size is equal to three times the number of conference circuits (one for each port) assigned in table CONF3PR.

This pseudo fixed code ESUP1 is required for switches, other than gateway, equipped with less than 1024 digital echo suppressors. The trunk group size is equal to two times the number of digital echo suppressors (one for each port) assigned to this code in table ECHOSUP.

The CLLI codes TERM102T, TERM102L, and TERM100Q are required for switches equipped with the terminating 102 test lines and must be datafilled in table TRKGRP (type TTL2), which defines the dB level and supervision.

Trunk group size for CLLI code TERM102T is equal to 1, since only one milliwatt trunk for each dB level can be assigned in table TRKMEM. Trunk group size for CLLI codes TERM102L and TERM100Q is equal to 0 (zero), since no trunks are assigned in table TRKMEM.

These pseudo fixed CLLI codes SCKT and OCKT are associated with the transmission termination trunk group in a local or combined local/toll switch.

Trunk group size for CLLI code SCKT is equal to the number of transmission termination trunk circuits allocated in table CLLI. Trunk group size for CLLI code OCKT is equal to 0 (zero).

This pseudo fixed CLLI code ASCS is required in a local or a combined local/toll switch that is arranged for alarm sending and checking with tones or alarm sending over a Traffic Service Position System (TSPS) or TOPS trunk, using automatic number identification (ANI) information digit 8.

The foreign potential test code (FPOT) is required in a local or combined local and toll switch and must be one of the routes in the route lists for partial dial

CLLI (continued)

time-out and permanent signal time-out treatments for lines if a foreign potential test is required.

The line lockout (LKOUT) and idle (IDLE) codes are required in a North American local or combined local and toll switch.

One of these codes must be the last route in the route lists associated with the treatments for lines. The code IDLE must not be used in an international switch.

This pseudo fixed code CF6P is required for switches equipped with six-port conference circuits. The trunk group size is equal to six times the number of six-port conference circuits.

The pseudo fixed code ALL is required for DMS-300 gateway switches that permit an incoming trunk group that receives signaling by satellite to connect to an outgoing trunk group that transmits signals by satellite.

The pseudo fixed CLLI codes, MF300 and DGT300, are required for DMS-300 gateway switches that are equipped with digital Digitone receivers and digital or analog multifrequency (MF) receivers.

Table CLLI for BT7

With feature AE0901 for BT7, table CLLI must contain the entry EMERCALL in the field CLLI. This entry specifies the emergency call feature. Table CLLI must contain the entry EMERGENCY_CALL_ANN in the field ADMININF. This entry specifies that an emergency call announcement will be made.

Table history**NA005**

Trunk group sizing information is added in the TRKGRSIZ field for Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013).

Added TOPSPOS and TOPSPOSDATA sizing information to Table size section and deleted TOPSPOS and TOPSPOSDATA from list of CLLIs that require a cold restart in Note 6 of Functional description section, in accordance with TOPS04 Robustness: Restart Elimination.

CSP05

Added restart information for increasing TRKGRSIZ for CLLIs.

CLLI (continued)

Removed related table information for TERM105T. No further datafill is required in table TRKGRP, TRKSGRP or TRKMEM.

NA004

Added suggested DSCWID announcements in table 3.

CSP03

Changed restart activation to None for these CLLIs in table 1:

- OFFHKSUP
- ONHKSUP
- WINKSUP

Changed restart activation to None for these fixed CLLIs in table 2:

- TERM103T
- TERM105T
- TRKL PBK

CSP02

Changed restart activation to None for these CLLIs in table 1:

- DSCKT
- STGOVFL
- STRG
- SYNCH

Changed restart activation to None for these fixed CLLIs in table 2:

- ASCS
- DGT300
- IDLE
- KSR2ICVR
- KSR2OCVR
- LKOUT
- MF300
- NOSYN
- RCVATDUK
- RCVRATD

CLLI (continued)

- RCVRCDC
- RCVRCOIN
- RCVRDGT
- RCVRDTUK
- RCVRMCSS
- RCVRMF
- SS MAN

Clarified explanation of field ADNUM.

BCS36

The following changes were made:

- Fixed CLLI DCTTERMBERT was added to table 2.
- Reference to limitations in the maximum number of trunks in a single trunk group that the audit can process was removed.
- The NORESTARTSWACT utility was introduced to enable data changes to be activated without a service-interrupting restart.

No restarts are required for the following fixed CLLIs for BCS36 and up:

- BVTONE
- COPP
- CWT
- DISTCWT
- EAPEG
- EBOT
- ENHCWT1
- ENHCWT2
- ENHCWT3
- ERWT
- FPOT
- IEBOT
- OHQT
- PCNOR

CLLI (end)

- ROH
- TERM105T

CLLIAUTH

Table name

Common Language Location Identifier Authorization (CLLIAUTH) table

Functional description

Table CLLICDR associates the originating common language location identifier (CLLI) with an authorization code.

Table size

Table CLLIAUTH contains up to 2000 tuples.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CLLIAUTH.

Field	Subfield or refinement	Entry	Explanation and action
CLLIKEY			COMMAND LANGUAGE LOCATION IDENTIFIER KEY. This field consists of a 3-part key: CLLI, RANGE_LWB, and RANGE_UPB.
	CLLI	Up to 16 alphanumeric characters	EXTERNAL NUMBER. Enter the external value to be associated with a CLLI name in the CDR.
	RANGE_LWB	0 to 9999	LOWER BOUND RANGE. Enter a value up to 9999.
	RANGE_UPB	0 to 9999	UPPER BOUND RANGE. Enter a value equal to or greater than the LOWER BOUND RANGE.
AUTHCODE		5-7 digits (0-9, B-F, N)	AUTHORIZATION CODE. Enter a 5, 6, or 7-digit number.

Datafill example

The following example shows datafill for table CLLIAUTH.

CLLIAUTH (end)

CLLIKEY

AUTHCODE

DAL220TWDGGS

100

200

85361

CLLICDR

Table name

Common Language Location Identifier Call Detail Record (CLLICDR) table

Functional description

Table CLLICDR associates the originating common language location identifier (CLLI) with the terminating trunk group number identified in the call detail record (CDR).

Datafill sequence and implications

Datafill table CLLI before table CLLICDR.

Datafill this table after a load dump and before restoring a load.

Table size

Table CLLICDR contains up to 8192 tuples.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CLLICDR.

Field	Subfield or refinement	Entry	Explanation and action
CLLINAME		Valid CLLI datafilled in table CLLI	CLLINAME. Enter any CLLI name in table CLLI.
EXTNUM		0 to 9999	EXTERNAL NUMBER. Enter the external value to be associated with a CLLI name in the CDR.

Datafill example

The following example shows datafill for table CLLICDR.

CLLINAME	EXTNUM
DLSE	1
DMODEMC	2
DPPSC	3
EADNMCLLI	5

CLLIMTCE

Table name

CLLI Maintenance Table

Functional description

Table CLLIMTCE stores information for each trunk group common language location identifier (CLLI). The following lists the CLLI types:

- hardware tone group CLLIs. Table STN lists these CLLIs. Table CLLIMTCE does not store information for CLLIs assigned to software tone groups. Table TONES lists these CLLIs.
- digital recording announcement machine (DRAM) trunk CLLIs
- metallic test access driver (MTADriver) CLLIs

The following information appears in table CLLIMTCE:

- an abbreviated CLLI code for use by maintenance staff
- the percentage of trunks or service circuits that you can remove from service before a specified type of alarm appears for a specified CLLI
- the type of test line equipment at the far end of each outgoing trunk group. The type of test line equipment can be synchronous or not synchronous.
- the index to table TSTLCONT for each outgoing or two-way trunk group when the far end contains test lines
- the index to the table MWDATA
- if a signaling test runs after a diagnostic test
- prefixed digits in addition to the four digits in subtable TLNOS. The system outputs these digits on a given trunk group for test line access.

Note: Do not enter IBN consoles in table CLLIMTCE. The field INSV in table ATTCONS determines if the return-to-service (RTS) of an attendant console is over a switch of activity (SWACT) or over a cold restart.

Datafill sequence and meaning

You must enter data in the following tables before you enter data in table CLLIMTCE:

- ANNMEMS
- CLLI
- CONF3PR
- CPOS

CLLIMTCE (continued)

- DRAMTRK
- STN
- TONES
- TRKMEM

Table size

0 to 8192 tuples

The size of table CLLIMTCE is equal to the size of table CLLI. The entry for table CLLI in table DATASIZE determines the size of both tables. The maximum number of different CLLI names is 8192.

You can change tuples in table CLLIMTCE. You cannot add or delete tuples in this table. The addition and deletion of tuples occurs through table CLLI.

Datafill

The following table lists datafill for table CLLIMTCE.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	<i>Common language location identifier.</i> Enter the code in table CLLI that the operating company assigns to the trunk group.
SCLLI		alphanumeric (6 characters)	<i>Short common language location identifier.</i> Enter the abbreviated CLLI that the maintenance staff uses.
MINALM		numeric (1 to 5 or 101)	<i>Minor alarm.</i> If you require a minor alarm indication, enter the percentage of out-of-service (OOS) trunks in the trunk group that activates the minor alarm. If you do not require a minor alarm indication, enter 101. Any entry out of the range of values this field indicates is not correct. Note: The entry in this field must not be greater than 5, except for the entry of 101 - no major alarm. This entry prevents the system from leaving receivers that wait a system test in a busy state.

CLLIMTCE (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
MAJALM		numeric (1 to 101)	<i>Major alarm.</i> If you want a major alarm indication, enter the percentage of OOS trunks in the trunk group that activates the major alarm. If you do not want a major alarm indication, enter 101. Any entry out of the range of indicated values is not correct.
CRITALM		numeric (1 to 101)	<i>Critical alarm.</i> If you want a critical alarm, enter the percentage of OOS trunks in the trunk group that activates the critical alarm. If you do not want a critical alarm, enter 101. Any entry out of the range of indicated values for this field is not correct.
SYNCTYPE		NSS or SYN	<i>Synchronous type.</i> If the far end of an outgoing or two-way trunk group has a synchronous test line, enter SYN. The far end of an outgoing or two-way trunk group has a nonsynchronous test line or does not have a test line circuit. Enter NSS.
TSTNOIND		numeric (0 to 164)	<i>Test number index</i> Enter the number that the operating company assigns to the subtable TLNOS in table TSTLCONT. This number translates the test line codes. The entry in this field indicates which TLNOS subtable, in table TSTLCONT, is for the test line that originates end translations. The ISDN user part (ISUP) trunks have an index value to reference subtable TSTLCONT.TLNOS. The CCITT no. 7 signaling ISUP trunks in a DMS-300 switching unit also have an index value to reference subtable TSTLCONT.TLNOS.

CLLIMTCE (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
MWIDX		numeric (0 to 9)	<i>Milliwatt data table index.</i> Enter the index to table MWDATA that specifies the level and frequency of the milliwatt test tone. The default value for this field is 0 (zero).
SIGTST		Y or N	<i>Signaling test.</i> Enter Y if a signaling test completes after the diagnostic test. If this condition does not occur, enter N. The default value for this field is N. Note: This test only applies to outgoing or two-way trunks with a start signal of wink or delay dial. This test also applies to outgoing or two-way trunks with an immediate start signal and trunk card PEC code 2X83AA or 2R83AA.
PRFXDIGS		numeric (to a maximum of 4 digits) or N	<i>Prefix digits.</i> Enter the digits that prefix the test line number. The maximum number of prefix digits is 4. If prefix digits are not present, enter N.
DIAGDATA		does not apply	<i>Diagnostic data.</i> This field is a read-only field. Only the used_space field appears. See table CLLIMTCE.DIAGDATA for additional information.

Datafill example

An example of first input for table CLLIMTCE appears in the following example. This example specifies the following information:

- the trunk group CLLI is OTWAON23CG00 and the CLLI (SCLLI) is OCOESS
- the alarm indications agree with the information in table “Alarm indication threshold levels” when the percentage of trunks in the trunk group are OOS
- the far end of trunk group has synchronous test lines
- subtable TLNOS#0 lists the test line names and test line codes for the trunk group

CLLIMTCE (end)

- the index to table MWDATA is 0 (the default)
- the system performs the signaling test after diagnostic test
- for test lines, digit 8 prefixes the number in subtable TSTLCONT.TLNOS (field TLNUMBER)

MAP example for table CLLIMTCE

```

CLLI          SCLLI MINALM MAJALM CRITALM
SYNCTYPE TSTNOIND MWIDX SIGTST PRFXDIGS DIAGDATA
-----
OTWA0N23CG00  OCOESS  5      10      50
SYN           0      0      Y      8      ( 0 )

```

Alarm indication threshold levels

Percentage trunks out of service	Alarm indication
5	Minor alarm
10	Major alarm
50	Critical alarm

CLSVSCRC

Table name

Class-of-service screening control table

These tables allow the switching unit to screen calls. The switching unit screens calls based on the serving numbering plan area (SNPA) code, class of service (COS), type of call or digits dialed.

The COS screening tables are as follows.

- CLSVSCRC - COS screening control table
- CLSVSCRS.CLSVSCR - COS screening subtable
- SCRNCCLAS - list of screening class names

A local (DMS100) switching unit provides COS screening based on the following:

- each line attribute telephone
- each trunk group
- multiple line attributes
- multiple trunk groups

If the local level does not provide COS screening, a toll (DMS-200) switch can provide COS screening. Screening is available for single or multiple:

- intertoll calls
- AMR5 trunk groups
- incoming AMR5 calls
- Centralized Automatic Message Accounting (CAMA) billing codes

Three types of calls route to the COS screening tables for call screening. These types of calls are:

- calls with codes that the system does not route from a standard pretranslator
- calls routed to treatment from local call area screening
- calls routed to a treatment from a home NPA subtable.

Calls that do not route to a treatment or to an office route proceed to wide area telephone service band screening.

CLSVSCRC (continued)

The NA009 release increases the range of screening classes for table SCRNCLAS from 255 to 8 000. The increased number of screening classes requires more storage allocation in table CLSVSCRC. The NA009 release increases the number of digilator pools from one to four.

Partitioned Table Edit (PTE) feature

The DMS offices can have the feature BC1459. This feature is the Partitioned Table Editor. With this feature, the operating company can authorize an operating company to use PTE to edit specified tuples of table CLSVSCRC. This feature allows the operating company to edit all the tuples of the subtables CLSVSCRC.CLSVSCR at the authorized positions of table CLSVSCRC.

To access a tuple in table CLSVSCRC, the operating company must own the STS and SCRNCL.

Datafill for table DATAOWNR appears in the following example:

KEY		OWNER
STS	001	CARLING
SCRNCL	OTWA	CARLING

In this example, the operating company, CARLING can access the tuples that have a key 001 or OTWA. The operating company CARLING cannot view any other tuple. The operating company CARLING can view tuples owned by other operating companies if the tuples are classified as public in table OWNER.

The PTE feature allows the operating company to limit editing access to a specified operating company. The PTE feature can limit editing access to the following tuples:

- denied
- read only
- change only
- add and delete

The recommended PTE access for operating companies is as follows:

Table CLSVSCRC
change only access

CLSVSCRC (continued)

Subtables CLSVSCRC.CLSVSCR

add and delete tuples access

See table OWNER for additional information.

Functional description

Table CLSVSCRC contains the following information for each screening class:

- the serving NPA of the screening class
- the screening class name that the operating company defines
- the type of call to which screening applies. Examples of this type of call are direct dial operator assistance or no prefix.

The digits dialed can determine the destination of a call. If this condition occurs, subtable CLSVSCRC.CLSVSCR must specify the total number of different routes or treatments (results) available to the call.

The destination of a call can be independent of the digits dialed. If this condition occurs, control table CLSVSCR can specify the treatment or route of the call. Control table CLSVSCR can specify the type of position in which all calls route when the calls require operator intervention. Subtables are not necessary.

If the call routes to table OFRT, the route does not depend on the digits dialed. The selector is equal to T (table). In this condition, subfield RTEREFIX contains the indexes to the office route tables in table OFRT.

If the call routes to table OFRT, the route does not depend on the digits dialed. The selector is equal to D. If this condition occurs, subfield TREAT specifies the treatments available to the call.

The call destination can depend on the digits dialed. If this condition occurs, the selector is equal to N. The subtable CLSVSCRC.CLSVSCR specifies the routes or treatments available to the calls.

In a local or toll switching unit, a call can route to a position that table POSITION specifies. The screening selector of the unit is equal to N. The number of results is equal to 0 (zero). Field POSN specifies the point in table POSITION at which the system routes translation.

Datafill sequence and meaning

You must enter data in table HNPACONT before you enter data in table CLSVSCRC.

CLSVSCRC (continued)**Table size**

0 to 1000 tuples

If the table has less than 128 screening classes assigned, the system allocates 512 words of memory for each serving NPA.

If the table has more than 127 screening classes assigned, the system allocates 1024 words of memory for each serving NPA.

Datafill

Datafill for table CLSVSCRC appears in the following table.

Selector T

Table CLSVSCRC selector T is used if translation proceeds to table OFRT at the specified route reference index.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NPASCTYP		see subfields	<i>NPA screening class type.</i> This field has the subfields STS, SCRNCCL, and TYPCALL.
	STS	numeric	<i>Serving translation scheme.</i> Enter the serving home numbering plan area (NPA) for a specified trunk group or line attribute.
	SCRNCCL	alphanumeric (1 to 4 digits)	<i>Screening class.</i> Enter the class of service screening subtable name for the trunk group, line attribute or CAMA or AMR5 billing code.
	TYPCALL	DD, OA, or NP	<i>Type of call.</i> Enter the call type. The call types are direct dial (DD), operator assisted (OA) no prefix (NP).
NORSLTS		0 to 255	<i>Number of results.</i> Enter the number of results required.
TMTOFRT		see subfields	<i>Treatment or office route.</i> This field has the subfields SCRNCSEL and RTEREFIX.
	SCRNCSEL	T	<i>Screening selector.</i> If translation routes to table OFRT enter the screening selector T.
	RTEREFIX	see subfields	<i>Route reference index.</i> This field has the subfields OFC_RTE and RTE_ID.

CLSVSCRC (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	OFC_RTE	OFRT, OFR2, OFR3, or OFR4	<i>Office route table name.</i> Enter the office route table name to which the system directs the translations.
	RTE_ID	0 to 1023	<i>Route reference table index.</i> Enter the route index in table OFRT to which the translation routes.

Selector D

Use table CLSVSCRC selector D if translation proceeds to the correct subtable TMTCNTL.TREAT at the specified treatment.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NPASCTYP		see subfields	<i>NPA screening class type.</i> This field has the subfields STS, SCRNCCL and TYPCALL.
	STS	numeric	<i>Serving translation scheme.</i> Enter the serving home numbering plan area (NPA) for a specified trunk group or line attribute.
	SCRNCCL	alphanumeric (1 to 4 digits)	<i>Screening class.</i> Enter the class of service screening subtable name for a specified trunk group, line attribute or centralized automatic message accounting (CAMA) or AMR5 billing code.
	TYPCALL	DD, OA, or NP	<i>Type of call.</i> Enter the call type. The call types are direct dial (DD), operator assisted (OA) no prefix (NP).
NORSLTS		0 to 255	<i>Number of results.</i> Enter the number of results required.
TMTOFRT		see subfields	<i>Treatment or office route.</i> This field has the subfields SCRNCSEL and TREAT.

CLSVSCRC (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SCRNSEL	D	<i>Screening selector.</i> Enter the screening selector D if translation routes to one of the treatments in table TREAT.
	TREAT	alphanumeric	<i>Treatment.</i> Enter the treatment in table TREAT to which translation routes.

Selector N

Use table CLSVSCRC selector N if translation proceeds to one of the following tables:

- table POSITION at a position that field POSN specifies
- subtable CLSVSCRC.CLSVSCR, for additional digit translation

Selector N = POSITION**Field descriptions (Sheet 1 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
NPASCTYP		see subfields	<i>NPA screening class type.</i> This field has the subfields STS, SCRNCCL, and TYPCALL.
	STS	numeric	<i>Serving translation scheme.</i> Enter the serving home NPA for a specified trunk group or line attribute.
	SCRNCCL	alphanumeric	<i>Screening class.</i> Enter the class of service screening subtable name for a specified trunk group, line attribute or CAMA or AMR5 billing codes.
	TYPCALL	DD, OA or NP	<i>Type of call.</i> Enter the type of call direct dial (DD), operator assisted (OA) no prefix (NP).
NORSLTS		0 to 255	<i>Number of results.</i> Enter the number of results required.
TMTOFRT		see subfield	<i>Treatment or office route.</i> This field has the subfields SCRNCSEL and POSN.

CLSVSCRC (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SCRNSEL	N	<i>Screening selector.</i> Enter the screening selector N if translation routes to a position in table POSITION.
	POSN	CAMA, TOPS, CTOP, TSPS, AMRX, RTE1, RTE2, RTE3, or RTE4	<i>Position.</i> Enter the position in table POSITION in which translation routes.

Selector N = CLSVSCRC.CLSVSCR

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NPASCTYP		see subfields	<i>NPA screening class type.</i> This field has the subfields STS, SCRNCCL and TYPCALL.
	STS	numeric	<i>Serving translation scheme.</i> Enter the serving home NPA for a specified trunk group or line attribute.
	SCRNCCL	alphanumeric	<i>Screening class.</i> Enter the class of service screening subtable name for a specified trunk group, line attribute, or CAMA or AMR5 billing code.
	TYPCALL	DD, OA or NP	<i>Type of call.</i> Enter the type of call direct dial (DD), operator assisted (OA) no prefix (NP).
NORSLTS		0 to 255	<i>Number of results.</i> If class of service screening requires only one route, enter the digit 2.
TMTOFRT		see subfield	<i>Treatment or office route.</i> This field has the subfield SCRNCCL and POSN.

CLSVSCRC (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SCRNSEL	N	<i>Screening selector.</i> Enter the screening selector N if class of service screening requires more than one route.
	POSN	NONE	<i>Position.</i> This field is not necessary. Enter the default value NONE.

Datafill example**Example 1: Call proceeds to table OFRT (local or toll)**

A call can route to one of the routes in table OFRT in a local or toll switching unit. This condition appears in the following example. The example includes tables SCRNCCLAS, CLSVSCRC and OFRT.

A local or combined local/toll switching unit with Traffic Operator Position System (TOPS) requires this screening class to route 0+ calls from a 1FR line. All correct operator-assisted calls route to the TOPS or Traffic Service Position System (TSPS) trunk group. Route reference index number 6 in table OFRT specifies this trunk group.

The screening class and flat rate message rate (FRMR) appear in table SCRNCCLAS. This table assigns the screening class a value of 4.

MAP example for table SCRNCCLAS

VALUE	SYMBOL
4	FRMR

Table CLSVSCRC lists the index, number 6, in table OFRT to which the system routes all correct operator assisted (OA) calls. Correct OA calls originate from lines that have a line attribute that specifies screening class FRMR and serving NPA 613.

CLSVSCRC (continued)

MAP example for table CLSVSCRC

NPASCTYP		NORSLTS		MTOFRT		CLSVSCR
613	FRMR	0A	0	T	OFRT	6

Route reference index number 6 in table OFRT specifies the common language location identifier (CLLI) of the trunk to which the call routes.

MAP example for table OFRT

RTE	RTELIST
6	(S D ATWA0N2303T0)\$

Example 2: Call proceeds to table POSITION (local or toll)

Calls that route to a position in table POSITION for a local or toll switching unit appears in the following example.

A toll or combined local/toll switching unit with TOPS requires this screening class for incoming TOPS trunk groups. All correct operator assisted calls on the incoming TOPS trunk groups route to the position TOPS in table POSITION.

The example includes tables SCRNCCLAS, CLSVSCRC and POSITION.

The screening table name TOPS appears in table SCRNCCLAS. This table assigns the screening table a value of 3.

CLSVSCRC (end)

MAP example for table SCRNCCLAS

VALUE	SYMBOL
3	TOPS

The position TOPS appears in table CLSVSCRC. All correct OA calls on incoming TOPS trunk group in serving NPA 613 route to this position.

MAP example for table CLSVSCRC

NPASCTYP	NORSLTS	TMTOFRT
613 FRMR OA 0	N	TOPS

The position TOPS in table POSITION routes calls to the TOPS operator trunk group with a fixed pseudo CLLI code of TOPSPOS.

MAP example for table POSITION

POS	PRTE
TOPS	S TOPSPOS

CMDS

Table name

Command Screening table

Functional description

Command screening table CMDS is part of the enhanced security feature. Office parameter ENHANCED_COMMAND_SCREENING, in table OFCOPT, determines if the feature is active. You set office parameter ENHANCED_COMMAND_SCREENING to Y if you purchased the feature or N if you did not purchase the feature. You cannot set office parameter ENHANCED_COMMAND_SCREENING after the first datafill. This prevention stops any person from overriding security.

Each command that has between one and thirty-one command classes appears in table CMDS.

You can assign any set of up to 31 classes to a command. For more information, refer to the description of table TERMDEV in the data schema section of *Translations Guide*. Command screening ensures that the command classes of the user match the classes of the commands the user wants to use. You must datafill each command for the directory in which you intend to use the command. For example, if you want the FRLS (force release command) to be accessible at the LTP level of the MAP, you must make an FRLS entry in table CMDS for the LTP directory.

The PRIVCLAS command allows multiple command classes to be set.

Fields LOGONUSE, USEALARM, LOGABUSE, and ALRMABUS determine if the system generates a log or alarm for command use or abuse.

The system automatically inserts tuples in this table with default values.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table CMDS.

Table size

The system dynamically allocates memory for this table. The initial size of the table is 100 entries. The system automatically expands the table size when necessary.

CMDS (continued)**Datafill**

The following table describes datafill for table CMDS.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
CMDINCR		see subfields	<i>Command and increment</i> This field has the subfields CMDNAME and INCRNAME.
	CMDNAME	alphanumeric (1 to 16 characters)	<i>Command name</i> Enter the command name.
	INCRNAME	alphanumeric (1 to 16 characters) or \$	<i>Increment name</i> Enter the increment name. If the command is not part of an increment, enter \$.
DUMPSAFE		NOTSAFE, DSPS, or PS	<i>Command availability</i> The default value NOTSAFE makes the command not available during data store (DS) dump and program store (PS) dump. Enter DSPS if you want the command available during both DS dump and PS dump. Enter PS if want want the command available only during PS (after DS is complete).
LOGONUSE		Y or N	<i>Command use log status</i> Enter Y if you want a log report for each use of the command. Enter N if you do not want a log report for each use of the command. The default value is N.

CMDS (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
USEALARM		CR, MJ, MN or NA	<i>Command use alarm status</i> Enter one of the following values: • CR if you want a critical alarm for command use • MJ if you want a major alarm for command use • MN if you want a minor alarm for command use • NA if you want no alarm for command use The default value is NA.
LOGABUSE		Y or N	<i>Command abuse log status</i> Enter Y if you want a log report when a user with the wrong command set tries to use the command. Enter N if you do not want a log report when a user with the wrong command set tries to use the command. The default value is N.

CMDS (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
ALRMABUS		CR, MJ, MN or NA	<i>Command use alarm status</i> Enter one of the following values: • CR if you want a critical alarm for command abuse • MJ if you want a major alarm for command abuse • MN if you want a minor alarm for command abuse • NA if you want no alarm for command abuse The default value is NA.
PRIVSET		0 to 30, ALL, or '(NONE)'	<i>Privileged set</i> Enter the set of command classes that correspond to the specified command. The default value is '(NONE)'. The system defaults an incorrect entry to '(NONE)'.

Datafill example

The following example shows sample datafill for table CMDS.

MAP display example for table CMDS

	CMDINCR	DUMPSAFE	LOGONUSE	USEALARM	LOGABUSE	ALRMABUS	PRIVSET
DUMP	\$	DSPS	N	NA	N	NA	ALL
STOPDUMP	\$	DSPS	N	NA	N	NA	ALL
HPDUMP	\$	DSPS	N	NA	N	NA	ALL
JFFREEZE	\$	DSPS	N	NA	N	NA	ALL
DCN	\$	DSPS	N	NA	N	NA	ALL
TABLE	\$	PS	N	NA	N	NA	ALL
DMOPRO	\$	PS	N	NA	N	NA	ALL
SERVORD	\$	PS	N	NA	N	NA	ALL
RESTART	\$	NOTSAFE	N	NA	N	NA	30

CMDS (end)

Table history

BASE11

The correct entries for field DUMPSAFE changed from Y and N to NOTSAFE, DSPS, and PS.

BASE03

In field PRIVSET a default value and an explanation of the `(NONE)` entry were added.

CNPREXLA

Table name

CAIN Pretranslator Name (CNPREXLA) table

Functional description

CAIN uses table CNPREXLA to determine the pretranslator name that has been returned to the switch by the SCP in the `pretranslatorName` extension parameter in a *Send_To_Resource* message.

Datafill sequence and implications

Define a valid PRETRANSLATOR_NAME in table STDPRTCT before use in table CNPREXLA.

Note: You cannot delete the PRETRANSLATOR_NAME values in table CNPREXLA from table STDPRTCT.

Table size

The table size is upto 255 tuples.

Datafill

The following table lists datafill for table CNPREXLA.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
PREXID		0-255	This field contains the index into the table
XLANAME		Valid PRETRANSLATOR_ NAME	This field contains the PRETRANSLATOR_NAME that indexes table STDPRTCT.

Datafill example

The following example shows sample datafill for table CNPREXLA.

CNPREXLA (end)

MAP display example for table CNPREXLA

PREXID	XLANAME
1	DAL
2	EAN
3	AXX

Table history

UCS08

Feature AX0188 created table CNPREXLA.

Supplementary information

none

CNPRTNUM**Table name**

CAIN Pretranslator Number (CNPRTNUM) table

Functional description

This table assigns an adnum to a CAINPRT and enables the *O_Feature_Requested* Enhancements. The service control point indicates to the switching service point to use a CAINPRT by passing the CAINPRT's adnum. Table CNPRTNUM provides this adnum.

Datafill sequence and implications

Populate table CNPRTNUM before table CAINPRT.

Table size

0 to 4095 tuples

Field Description

The following table describes field names, subfield names, and valid data ranges for table CNPRTNUM.

CNPRTNUM field descriptions

Field	Subfield or refinement	Entry	Explanation and action
PRTID		Vector of up to 16 characters	PRETRANSLATOR NAME IDENTIFICATION. This is where the keys for table CAINPRT are declared.
ADNUM		0 to 4095	KEY

Datafill example

The following example shows sample datafill for table CNPRTNUM.

MAP display example for table CNPRTNUM

```

CAINPRT_KEY  ADNUM
-----
UA_PRT       1
ACCT1        2

```

CNPRTNUM (end)

Table history

UCS08

Table CNPRTNUM created (AX0199).

CONF3PR

Table name

Three-port Conference Circuit Table

Functional description

Table CONF3PR lists the conference trunk number and the external trunk number of the first port. This table contains the equipment location of the conference trunk.

Table CLLI contains pseudo fixed codes CF3P and CF3PX to represent this group of circuits.

Datafill sequence and meaning

You must enter data in the following tables before you enter data in table CONF3PR:

- CLLI
- PADDDATA
- TMINV
- office parameter PM_PCM_PROTOCOL_SELECTION in table OFCENG

You must enter data in table CLLIMITCE after you enter data in table CONF3PR.

Table size

0 to 1364 tuples

The system allocates memory to this table.

Activation

Immediate

CONF3PR (continued)

Datafill

Datafill for table CONF3PR appears in the following table.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Description
CNFCKTNO		0 to 1363	<i>Conference circuit number.</i> Enter the circuit number assigned to the three-port conference trunk circuit.
GRPCLLI		CF3P, CF3PX	<i>Group CLLI.</i> Enter the value of the group common language location identifier (CLLI) for the three-port conference circuit.
EXTRKNM		0 to 9990	<i>External trunk number.</i> Enter the lowest of the three following external trunk numbers assigned to the three-port conference trunk circuit. The value for this field is 0 (zero) or multiples of 10.

CONF3PR (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Description
TMTYPE		ATM CTM MMA, MTM OAU RSM RMM STM TAN TMA TM2 TM4 TM8 or T8A	<i>Trunk module type.</i> Enter the acronym for the type of trunk module on which the three-port conference trunk circuit is mounted. If the entry in field CARDCODE is 1X31AA, the three-port conference trunk circuit can be mounted on the listed peripheral trunk modules. The entry in field CARDCODE can be 3X67AA, 3X67BA or 3X67BB. For these entries, the three-port conference trunk circuit can be mounted on a maintenance trunk module (MTM). If the entry in field CARDCODE is 1X81AA or 1X81BA, the three-port conference trunk circuit resides on a conference trunk module (CTM). Office parameter PM_PCM_PROTOCOL_SELECTION configures the CTM in table OFCENG. The office parameter configures the CTM to be a Mu-law (domestic) or A-law (international) peripheral module. The parameter determines the available options and combinations for the CTM. Entries other than the specified entry values are not correct.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the number assigned to the trunk module on which the three-port conference trunk circuit is mounted.

CONF3PR (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Description
TMCKTNO		0 to 29	<i>Trunk module circuit number.</i> Enter the lowest of the three trunk module circuit numbers assigned to the three-port conference trunk circuit. The entry in field CARDCODE can be NT1X31AA. In this event, the lowest trunk circuit numbers are the circuit numbers assigned to port 0 or 3. The entry in field CARDCODE can be NT3X67AA, BA or BB. In this event, the lowest trunk circuit numbers are the circuit numbers assigned to port 0 or 1. The entry in field CARDCODE can be 1X81AA or 1X81BA. The trunk module circuit number of the first conference trunk circuit on the card can be equal to x. In this event, the trunk module circuit numbers of the following conference trunks on the card are equal to: • x + 1 • x + 6 • x + 7 • x + 12 • x + 13 • x + 18 • x + 19 • x + 24 • x + 25

CONF3PR (continued)**Field descriptions (Sheet 4 of 5)**

Field	Subfield or refinement	Entry	Description
CARDCODE		1X31AA	<i>Conference card code.</i>
		3X67AA	Enter the card code used for the conference circuit.
		3X67BA	
		3X67BB	Enter 1X31AA for a domestic three-port conference circuit (Mu-law PCM) (A&M).
		1X81AA	Enter 3X67AA for a domestic six-party conference circuit (Mu-law PCM).
		1X81BA	Enter 3X67BA international six-party conference circuit (A-law PCM).
			Enter 3X67BB international six-party conference circuit (A-law PCM) with continuous toll break (TB) in background tone.
			Enter 1X81AA domestic or international (Mu-law/A-law) conference trunk module.
			Enter 1X81BA Mu-law conference trunk module for Japan.
			Note: The NT1X81AA and NT1X81BA are not present in the same office. If the entry for EQPEC is 1X81AA, remove entry 1X81BA. If the entry for EQPEC is 1X81BA, remove entry 1X8AA. Use entry 1X81BA for the Japanese market.
			The TB applies to the trunk signaling types NTLS06 and NTLS07. The entry for each trunks, up to the near-end switching unit, must be OPR.

CONF3PR (continued)**Field descriptions (Sheet 5 of 5)**

Field	Subfield or refinement	Entry	Description
PADGRP		CONF or alphabetic	<i>Pad group.</i> Enter the name of the pad group assigned to the conference circuits in table PADDDATA. Table PADDDATA lists the value of the pad circuits that switch to the network. The pad circuits switch to the network if one of the members of the group takes part in a call. The table specifies different values for the pad circuits if the circuit connects to an agent with a different pad group. Network pad switching applies if the circuit connects to a new network. The name can be the predefined name CONF in table PADDDATA or a name that the operating company specifies. The predefined name CONF in table PADDDATA can be the name of the pad group. A name that the operating company specifies can be the name of the pad group.

Datafill example

Sample datafill for table CONF3PR appears in the following table.

MAP example for table CONF3PR

CNFCKTNO	GRPCLLI	EXTRKNM	TMTYPE	TMNO	TMCKTNO	CARDCODE	PADGRP
0	CF3P	0	STM	1	18	1X31AA	CONF

Table history**TL06**

Information for the NT1X81BA card was added in TL06.

CSP03

Activation was changed to immediate in CSP03.

A dependency on table DATASIZE, and a restart to expand the table size, was removed in CSP03.

BCS36

The reference to the NORESTARTSWACT utility was added in BCS36.

BCS35

The following entries were added in BCS35:

- CTM to field TMTYPE
- 1X81AA to field CARDCODE

CONF6PR

Table name

Six-port Conference Circuit Table

Functional description

Table CONF6PR contains datafill for conference trunks. The pseudo common language location identifier (CLLI) CF6P in table CLLI represents this group of circuits.

Conference circuit cards with six circuits enable a single card to handle a six-port conference circuit.

Six-port conference circuits are present, to a maximum of 2047. Each six-port conference circuit has a conference trunk circuit number assigned. The conference trunk circuit numbers are 0 to 2046. Each six-port conference circuit has six external trunk numbers in sequence, one for each port. The lowest of the six external trunk numbers in sequence must be a multiple of ten.

An example of external trunk number to conference circuit number assignment appears in table 1.

Trunk number to conference circuit number assignment

Conference circuit number	External trunk number, one for each port					
	port 1	port 2	port 3	port 4	port 5	port 6
0	00	01	02	03	04	05
1	10	11	12	13	14	15
2	20	21	22	23	24	25

Each NT3X67 conference card uses six trunk module circuit numbers. The two card slots at the right of the conference circuit must remain not used.

The trunk module circuit number of the first conference trunk circuit on the card equals x . The trunk module circuit number of the second conference trunk on the next card equals $x + 6$.

Each NT1X81 conference card uses 30 trunk module circuit numbers. The trunk module circuit number of the first conference trunk circuit on the card equals x . The trunk module circuit number of the second, third, fourth, and fifth conference trunks on the same card equal $x + 6$; $x + 12$; $x + 18$; and $x + 24$, respectively. The trunk module circuit number of the sixth conference trunk, which is on the next card, equals $x + 30$.

CONF6PR (continued)

Field PADGRP contains the name of the pad group in table PADDDATA. Table PADDDATA lists the values of pad circuits. The pad circuits can switch in to the network if one member of the group is in a call.

If the circuit connects to an agent that has a different pad group, you can specify different values for the pad circuits.

Network pad switching applies if the circuit connects to a new network.

Table PADDDATA predefines the name CONF. The operating company can specify the name.

Northern Telecom produces the data for table CONF6PR for the initial load and all extension loads.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table CONF6PR:

- the CLLI
- the PADDDATA
- the TMINV
- the TRKMEM

After any value change, you must increase the value of field TRKGPSIZ in table CLLI for the entry with code CF6P. The increase must occur before the addition of any new circuits to table CONF6PR.

Table size

0 to 2047 tuples

The system allocates memory table when the addition of tuples occur.

Activation

Immediate

CONF6PR (continued)**Datafill**

Datafill for table CONF6PR appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CNFCKTNO		numeric (0 to 2046)	<i>Conference circuit number.</i> Enter the conference circuit number that the operating company assigns to the six-port conference trunk circuit.
EXTRKNM		numeric (0 to 9999 in multiples of 10)	<i>External trunk number.</i> Enter the lowest of the six external trunk numbers in sequence that the operating company assigns to the six-port conference trunk circuit.
TMTYPE		ATM, CTM, ISM, MMA, MTM, OAU, PTM, RMM, RSM, STM, TAN, TMA, TM2, TM4, TM8, or T8A	<i>Trunk module type.</i> Enter the type of trunk module where the mounting of a six-port conference trunk circuit occurs. For operating companies that have a package trunk module (PTM) peripheral module, enter maintenance trunk module (MTM). The only possible entries are listed.
TMNO		numeric (0 to 2047)	<i>Trunk module number.</i> Enter the number assigned to the trunk module where the mounting of a six-port conference trunk circuit occurs.
TMCKTNO		numeric (0 to 29)	<i>Trunk module circuit number.</i> Enter the lowest of the six trunk module circuit numbers assigned to the six-port conference trunk circuit.

CONF6PR (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE		1X81AA 1X81BA 3X67AA 3X67BA 3X67BB	<i>Card code.</i> This field contains the product engineering code (PEC) of the type of card used. If CTM is in field TMTYPE, enter 1X81AA domestic or international (Mu-law/A-law) conference trunk module. Enter 1X81BA Mu-law conference trunk module for Japan. Note: The NT1X81AA and NT1X81BA do not occur together in the same office. If EQPEC is 1X81AA, you must remove entry 1X81BA. If EQPEC is 1X81BA, you must remove entry 1X81AA. Entry 1X81BA is for the Japanese market only. In any other condition: The 3X67AA, 6-Port conference circuit, is for mu-law PCM. The 3X67BA, 6-port conference CP, is for A-law PCM. The 3X67BB is for A-law PCM and TBI tone generation.
PADGRP		CONF or alphabetic	<i>Pad group.</i> Enter the name of the pad group assigned to the conference circuits in table PADDATA.

Datafill example

Sample datafill for table CONF6PR appears in the following example.

MAP display example for table CONF6PR

CNFCKTNO	EXTRKNM	TMTYPE	TMNO	TMCKTNO	CARDCODE	PADGRP
0	0	MTM	4	8	3X67AA	CONF

CONF6PR (end)

Table history

TL06

Information for NT1X81BA card was added in TL06.

CSP03

Activation to immediate was changed in CSP03.

A requirement for table DATASIZE was removed in CSP03 and a restart expanded the table size.

Table name

Class of Service Screening (COSSCRN)

Functional description

Table COSSCRN provides incoming and outgoing digits for destination number screening.

Datafill sequence and implications

Datafill this table before table COSUS.

Table size

The minimum size for this table is 0 tuples; the maximum depends upon the digit block availability.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table COSSCRN.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SCRKEY			SCREEN KEY. This field consists of subfields SCRINDX, FROMDIGS, and TODIGS.
	SCRINDX	Alphanumeric	SCREEN NAME. Enter up to an 8-character vector that allows a maximum of 4,000 distinct screening names.

COSSCRN (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	FROMDIGS	Numeric0 to 18 digs	FROM DIGITS. Enter the dialed digits from range.
	TODIGS	Numeric0 to 18 digs	TO DIGITS. Enter the dialed digits to range.

Datafill example

The following example shows datafill for table COSSCRN.

SCRKEY		
SALES	214	214
BUSINESS	2376789	2376789

Table name

Class of Service Universal Screening (COSUS) table

Functional description

Table COSUS performs Class of Service (COS) screening based upon call type, time of day, and whether the dialed destination digits are allowed or disallowed. Call processing determines the type of call based on the dialed digits.

The key of the COSUS table is named INDEX and has a range of 0 to 1023. The tuple contains a key and a vector of up to 16 elements. Each element contains a screen selector and the refinement specific to this selector. The operating company datafills the areas that require screening for that particular COS index.

The 16 screening selectors include IDISALLOW, IRESTRICT, ISCRNCLS, IDESTSCR, DDISALLOW, DRESTRICT, DSCRNCLS, DDESTSCR, ODISALLOW, ORESTRICT, OSCRNCLS, ODESTSCR, ZMDISALLOW, ZMRESTRICT, ZPDISALLOW, and ZPRESTRICT.

The 18 COS failure specific treatment codes are IDPB, IRET, ISCN, IDST, DDPB, DRET, DDSN, DDST, ONPB, ORET, OSCN, ODS, ZMPB, ZMRT, ZPPB, ZPRT, RSDT and COSX. IDPB, RSDT and COSX are existing treatment codes.

The fail action added by this feature includes the TRMT_SEL and its subfields. The TRMT_SEL has the values of TRMT (treatment), ANNC (announcement) and TONE. For TRMT_SEL TRMT, there is a subfield called TRMT_ACT that is a type of extended treatment code. For TRMT_SEL ANNC and TONE, there are subfields called ANNC_CLLI and TONE_CLLI respectively. The ANNC_CLLI and TONE_CLLI are the type of Common Language Name (CLLIs).

Datafill sequence and implications

Datafill table STDPRTCT before datafilling screening selectors IDESTSCR, DDESTSCR, and ODESTSCR in table COSUS.

Datafill table COSSCRN before datafilling screening selectors IDESTSCR, DDESTSCR, and ODESTSCR in table COSUS.

Table COSUS is indexed from tables AUTHCODU, AUTHCDU2, AUTHCDU3, AUTHCDU4, AUTHCDU5, ANISCUSP, CICROUTE,

COSUS (continued)

TCNFAST, FRLCOS, and FLEXFEAT. Index MULTICOS is used in those tables.

Table size

The minimum size for this table is 0 tuples; the maximum is 1024 tuples.

Memory requirements

Table COSUS dynamically allocates data. Each entry requires 42 words, and the total data store requires approximately 43,000 words.

Limitations

Table COSUS always performs screening against the dialed number before any digit manipulation occurs, with the exception of hotline and speed dial calls. An entry of zero is not allowed in the COSUS table.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table COSUS.

SCREEN_SEL=IDISALLOW, DDISALLOW, ODISALLOW, ZMDISALLOW, or ZPDISALLOW

When SCREEN_SEL=IDISALLOW, DDISALLOW, ODISALLOW, ZMDISALLOW, or ZPDISALLOW, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
TRMT_SEL			TREATMENT SELECTOR. Enter one of the following: TRMT, ANNC, or TONE. Default is TRMT.
		TRMT	TREATMENT. When TRMT_SEL=TRMT, datafill the TRMT_ACT subfield.

COSUS (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	TRMT_ACT	COSX, RSDT, IDPB, IRET, ISCN, IDST, DDPB, DRET, DDSN, DDST, ONPB, ORET, OSCN, ODST, ZMPB, ZMRT, ZPPB,ZPRT, or valid extended treatment code	TREATMENT CODE. Enter an extended treatment code. The codes listed in this table are specific for COS screening.
		ANNC	ANNOUNCEMENT. If TRMT_SEL=ANNC, datafill the ANNC_CLLI subfield.
	ANNC_CLLI	Valid CLLI datafilled in table CLLI	ANNOUNCEMENT CLLI. Enter the announcement CLLI.
		TONE	TONE. If TRMT_SEL=TONE, datafill the TONE_CLLI subfield.
	TONE_CLLI	Valid CLLI datafilled in table CLLI	TONE CLLI. Enter the tone CLLI.

COSUS (continued)**SCREEN_SEL=IRESTRIC, DRESTRIC, ORESTRIC, ZMRESTRIC, or ZPRESTRIC**

When SCREEN_SEL=IRESTRIC, DRESTRIC, ORESTRIC, ZMRESTRIC, or ZPRESTRIC, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
RESTRICT_SEL		0 to 255	RESTRICTION SELECTOR. Enter the restriction selector.
RESTRICT_TRM T_OPT		RESDT, BLKDT	RESTRICTION TREATMENT OPTION. RESTRICT_TRMT_OPT is a multiple of up to two restriction treatment options. Enter one of the following: RESDT or BLKDT. Datafill the TRMT_SEL subfield.
	TRMT_SEL		TREATMENT SELECTOR. Enter one of the following: TRMT, ANNC, or TONE. Default is TRMT.
		TRMT	TREATMENT. When TRMT_SEL=TRMT, datafill the TRMT_ACT subfield.
	TRMT_ACT	COSX, RSDT, IDPB, IRET, ISCN, IDST, DDPB, DRET, DDSN, DDST, ONPB, ORET, OSCN, ODST, ZMPB, ZMRT, ZPPB,ZPRT, or valid extended treatment code	TREATMENT CODE. Enter an extended treatment code. The codes listed in this table are specific for COS screening.
		ANNC	ANNOUNCEMENT. If TRMT_SEL=ANNC, datafill the ANNC_CLLI subfield.

COSUS (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	ANNC_CLLI	Valid CLLI datafilled in table CLLI	ANNOUNCEMENT CLLI. Enter the announcement CLLI.
		TONE	TONE. If TRMT_SEL=TONE, datafill the TONE_CLLI subfield.
	TONE_CLLI	Valid CLLI datafilled in table CLLI	TONE CLLI. Enter the tone CLLI.

SCREEN_SEL=ISCRNCLS, DSCRNCLS, or OSCRNCLS

When SCREEN_SEL=ISCRNCLS, DSCRNCLS, or OSCRNCLS, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
SCREEN_ELEM			SCREENING ELEMENTS. SCREEN_ELEM is a multiple of up to four two-part selectors. Enter a selector and a screening name, separated by a space.
	SEL	EXC, INC	SELECTOR. Enter exclude (EXC) or include (INC) to indicate the screening action.
	SCRINDEX	NIL, SALES, BUSINESS MARKET, ENGINEER	SCREENING INDEX. Enter up to an eight-character vector from table COSSCRN that defines the screening name.
TRMT_SEL			TREATMENT SELECTOR. Enter one of the following: TRMT, ANNC, or TONE. Default is TRMT.
		TRMT	TREATMENT. When TRMT_SEL=TRMT, datafill the TRMT_ACT subfield.

COSUS (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	TRMT_ACT	COSX, RSDT, IDPB, IRET, ISCN, IDST, DDPB, DRET, DDSN, DDST, ONPB, ORET, OSCN, ODST, ZMPB, ZMRT, ZPPB,ZPRT, or valid extended treatment code	TREATMENT CODE. Enter an extended treatment code. The codes listed in this table are specific for COS screening.
		ANNC	ANNOUNCEMENT. If TRMT_SEL=ANNC, datafill the ANNC_CLLI subfield.
	ANNC_CLLI	Valid CLLI datafilled in table CLLI	ANNOUNCEMENT CLLI. Enter the announcement CLLI.
		TONE	TONE. If TRMT_SEL=TONE, datafill the TONE_CLLI subfield.
	TONE_CLLI	Valid CLLI datafilled in table CLLI	TONE CLLI. Enter the tone CLLI.

COSUS (continued)**SCREEN_SEL=IDESTSCR, DDESTSCR, or ODESTSCR**

When SCREEN_SEL=IDESTSCR, DDESTSCR, or ODESTSCR, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
DESTSCR		DESTINCL,D ESTEXCL	DESTINATION SOURCE. Enter DESTINCL for destination include, DESTEXCL for destination exclude.
PRTNAME		NPRT or valid pretranslator datafilled in table STDPRTCT	STANDARD PRETRANSLATOR TABLE NAME. Enter a pretranslator name, if standard pretranslation is required. Enter NPRT for no pretranslation. Note: This name is datafilled in table STDPRTCT.
TRMT_SEL		TRMT	TREATMENT SELECTOR. Enter one of the following: TRMT, ANNC, or TONE. The default is TRMT. TREATMENT. When TRMT_SEL=TRMT, datafill the TRMT_ACT subfield.
		ANNC	ANNOUNCEMENT. If TRMT_SEL=ANNC, datafill the ANNC_CLLI subfield.
	TRMT_ACT	COSX, RSDT, IDPB, IRET, ISCN, IDST, DDPB, DRET, DDSN, DDST, ONPB, ORET, OSCN, ODST, ZMPB, ZMRT, ZPPB,ZPRT, or valid extended treatment code	TREATMENT CODE. Enter an extended treatment code. The codes listed in this table are specific for COS screening.

COSUS (end)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	ANNC_CLLI	Valid CLLI datafilled in table CLLI	ANNOUNCEMENT CLLI. Enter the announcement CLLI.
		TONE	TONE. If TRMT_SEL=TONE, datafill the TONE_CLLI subfield.
	TONE_CLLI	Valid CLLI datafilled in table CLLI	TONE CLLI. Enter the tone CLLI.

Datafill example

The following example shows datafill for table COSUS.

```
INDEX  SCREEN_VECTOR
```

```
20 (IDISALLOW TRMT IDPB) ( DDISALLOW TRMT COSX) ( ODISALLOW COSX
```

```
21 (IDISALLOW TRMT IDPB)$
```

```
22 (IRESTRICT 2 (RESDT TRMT RSDT) (BLKDT TRMT RSDT) $)
```

```
23 (DRESTRICT 3 (RESDT TRMT RSDT) (BLKDT TRMT RSDT) $)
```

```
24 (ORESTRICT 4 (RESDT TRMT RSDT) (BLKDT TRMT RSDT) $)$
```

Table history
UCS06

Restructured the COSUS table to allow the customer to datafill the action for each COS screening failure. Fifteen new treatment codes are introduced.

Updated table to accommodate expansion of TOD restriction tables.

CPCSCRN

Table name

Calling Party Category (CPC) Screening table

Functional description

Table CPCSCRN provides CPC screening, routing, and override functionality. Table CPCSCRN is only accessible by ISUP'92 and Q.767 gateway trunk agencies. The table is accessed as a two-part key with the NT/CT option CPCSCRN index value (CPCINDEX) and the incoming call CPC value (1 to 255). If the tuple is not present in table CPCSCRN, the call is allowed to continue.

Datafill sequence and implications

Table HNPACONT must be datafilled before table CPCSCRN.

Table size

The maximum size of table CPCSCRN is 255 tuples.

Datafill

The following table lists datafill for table CPCSCRN.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
KEY			KEY. This field is a multiple, containing CPCINDEX and CPC.
	CPCINDEX	1 to 255	CALLING PARTY CATEGORY INDEX. This is the NT/CT selector option CPCINDEX found in subtable STDPRT of table STDPRTCT.

CPCSCRN (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	CPC	UNKNOWN, OP_FRENCH, OP_ENGLISH, OP_GERMAN, OP_RUSSIAN, OP_SPANISH, CPC_6, CPC_7, CPC_8, OP_NATIONAL, SUBSCRIBER1, PRIORITY, DATA, TEST, NON_VOICE, PAYPHONE, CPC_16 to CPC_255	CALLING PARTY CATEGORY. This is the incoming call CPC value.
ACTION		ACTION_CONTINUE, ACTION_BLOCK	ACTION. Enter ACTION_CONTINUE to allow the call to proceed. Enter ACTION_BLOCK to route the call to treatment call not allowed (CNAD).
OVRDSTS		Y or N	OVERRIDING SERVING TRANSLATION SCHEME. Enter Y to override Serving Translation Scheme (STS) with provisioned STS. If OVRDSTS=Y, enter datafill for the STS refinement. Enter N to maintain existing STS value for call routing.
	STS	0 to 999	SERVING TRANSLATION SCHEME. Enter the new STS value which will override the incoming STS value.

CPCSCRN (end)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
OVRDCPC		Y or N	OVERRIDING CPC. Enter Y to override with provisioned CPC. If OVRDCPC=Y, enter datafill for the CPC refinement. Enter N to maintain incoming CPC value.
	CPC	UNKNOWN, OP_FRENCH, OP_ENGLISH, OP_GERMAN, OP_RUSSIAN, OP_SPANISH, CPC_6, CPC_7, CPC_8, OP_NATIONAL, SUBSCRIBER1, PRIORITY, DATA, TEST, NON_VOICE, PAYPHONE	CPC. Enter the CPC value which will override the incoming CPC value.

Datafill example

The following example shows sample datafill for table CPCSCRN.

MAP display example for table CPCSCRN

KEY	ACTION	STSAREA	CPCAREA
200 OP_ENGLISH	ACTION_CONTINUE	Y 611	Y OP_FRENCH

Table history**UCS08**

This table was introduced to support Gateway functionality.

CRSFMT

Table name

Call Record Stream Format Table (CRSMFT)

Overview

The call record stream tables are in switches with the following feature packages:

- TOPS Call Processing
- Local Automatic Message Accounting
- Centralized Automatic Message Accounting
- IBN—Station Message Detail Recording
- CNS—Standard Base Package
- ISC—Call Detail Recording

Functional description

Table CRSFMT defines format characteristics for specified data streams. Several billing streams can be in a specified switch.

Data streams

The system automatically enters data streams NIL and AMA. The NIL is only for initialization purposes. The AMA is the default stream. The AMA contains Northern Telecom automatic message accounting (AMA) format (NTFMT).

The data stream name corresponds to the Device Independent Recording Package (DIRP) subsystem identification (ID). The DIRP ID is the key to table DIRP. Refer to *Device Independent Recording Package (DIRP) Administration Guide*. The DIRP subsystem ID allows the definition of data stream characteristics. The format of a specified stream is static for a specified office. For example, a Station Message Detail Recording (SMDR) stream always has format SMDRFMT. Change the format of a stream only when you perform the first entry of the office before call processing starts.

From the time you add a new stream until you perform a restart reload, the system merges both call data types to the current active stream. This combination creates data that the downstream processor cannot read. Perform

CRSFMT (continued)

a restart reload immediately after the tuple change to clear any recording units (RU) in the formatter.

Note: If the NORESTARTSWACT utility is on your switch, you can activate data changes without service interruption. Refer to *NORESTARTSWACT User Guide*.

AMA data in format BCFMT and SMDR is sent to the AMA stream. You must send SMDR data to a separate stream, like SMDR.

Changing the format of a stream

To configure a DMS-100 switch as a private branch exchange (PBX) with SMDR, the first data entry must change NTFMT to SMDRFMT. You can change the format at any time. Understand the implications of this change. This change can cause the file to have a mix of two formats. The system generates a warning if you change the format of an active stream.

Deleting a stream

Before you can delete a stream from table CRSFMT, you must delete the stream from table DIRPSSYS. Delete all references to the stream from table CRSMAP.

Datafill sequence and meaning

You do not have to enter data in other tables before you enter data in table CRSFMT.

Table size

The parameter NUM_CALLREC STREAMS in table OFCENG determines the size of this table. This parameter specifies the number of streams that you can enter in table CRSFMT. The maximum number of entries is 15. This parameter excludes NIL.

CRSFMT (continued)

Datafill

Datafill for table CRSFMT appears in the following table.

CRSFMT (continued)

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		AMA, CDR, ICAMA, OCC, SMDR, or alphanumeric (a maximum of 16 characters)	<i>Key</i> Enter one of the predefined or operating company-defined call data stream names, like the following names. The system enters call data stream name AMA. • AMA (Automatic Message Accounting) • CDR (Call Detail Recording) • ICAMA (International Centralized AMA) • OCC (DMS-250) • SMDR (Station Message Detail Recording)
FORMAT		BCFMT CDR250FMT CDR300FT ICAMAFMT INTLFMT ITOPFMT NTFMT SMDRFMT TDRFMT	<i>Format</i> Enter one of the following formats. • BCFMT (Bellcore toll offices use only this format) • CDR250FMT (DMS-250 switches use this format) • CDR300FT (DMS-300 gateway switches use this format) • ICAMAFMT (International toll switches for ICAMA format stream use this format) • INTLFMT (International local switches use this format) • ITOPFMT -(International toll switches use this format) • NTFMT (default format. Refer to <i>Meridian Digital Centrex Station Message Detail Recording Reference Guide</i>.) • SMDRFMT (like NTFMT. This format is for Station Message Detail Recording. Refer to <i>Meridian Digital Centrex Station Message Detail Recording Reference Guide</i>.) • TDRFMT (TOPS call detail recording records format for billing TOPS calls)

CRSFMT (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
DATADUMP		Y or N	<i>Data dump</i> Enter Y to indicate that a data dump of C2C2 records is a requirement. Enter N to indicate that a data dump is not a requirement. Enter Y in field DATADUMP to activate package X076AA (AMA—Enhanced), feature BR0156 (Trunk Identifier in AMA/SMDR Record). This feature allows the AMA/SMDR record for each call to include the identification of the trunk groups that the call involves. If DATADUMP is on (entry of Y), the amount of disk storage required for the AMA/SMDR billing information is increased.
CDRSRCH		NIL_FM	<i>Call detail recording search</i> This field is for DMS-250 switches. An entry of NIL_FM satisfies the table editor.
ALARMS		Y or N	<i>Alarms</i> Enter Y to indicate that this stream requires audible alarms for billing failures. Enter N to indicate that audible alarms are not a requirement.
TIMERDMP		Y or N	<i>Timer dump</i> Enter Y to activate the timer dump mechanism. Enter N to deactivate the timer dump. The default value is N.
TIMERVAL		0 to 32767	<i>Timer interval</i> Enter the time in even-numbered seconds between timer dumps. The default value is 0 (zero).

Datafill example

Sample datafill for table CRSFMT appears in the following example.

CRSFMT (end)**MAP example for table CRSFMT**

KEY	FORMAT	DATADUMP	CDRSRCH	ALARMS	TIMERDMP	TIMerval
NIL	NTFMT	N	NIL_FM	N	N	0
AMA	BCFMT	N	NIL_FM	N	N	0
SMDR	SMDRFMT	N	NIL_FM	N	N	0

Table history**TOPS11**

Field FORMAT value TDRFMT added by feature AF7817 in functionality TOPS/Carrier Interworking, OSB00001.

TL09

References to VCDR were removed in TL09.

BCS36

The reference to the NORESTARTSWACT utility was added in BCS36.

CRSMAP

Table name

Call Record Stream Mapping Table

Functional description

Table CRSMAP defines the types of call recording data the system routes to the different streams. Some call data types are predefined.

Examples of call data types are:

- central automatic message accounting (CAMA)
- local automatic message accounting (LAMA)
- Station Message Detail Recording (SMDR)
- Traffic Operator Position System (TOPS)

The operating company can define the call data type and call data stream names. The system enters predefined call data types to use the automatic message accounting (AMA) stream. You cannot delete these tuples from table CRSMAP.

In a specified load, only the known names of features in the load appear to the user. For example, in a DMS-100 local office, only LAMA is available.

Changing the target stream

Change the target stream of a call data type after a restart. Until a restart occurs, when you read the tuple, the system displays the new stream. To read the tuple, the system generates a warning that the tuple is not active. The system displays the current active stream.

Note: If the NORESTARTSWACT utility is on your switch, you can activate data changes without service interruption. Refer to *NORESTARTSWACT User Guide*, 297-1001-546.

Limits

You cannot fill the NIL stream against a call data type. The default stream is AMA. The NIL only appears as the active stream for each call data type before the first restart. This action activates the AMA stream. The AMA is the active stream for all call data types. The call data types do not have changes for all deleted call data types.

See table CRSFMT for additional information.

CRSMAP (continued)**Datafill sequence and meaning**

You must enter data in table CRSFMT before you enter data in table CRSMAP.

Table size

Memory is statically allocated for a maximum of 32 call data types.

Datafill

Datafill for table CRSMAP appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
KEY		AOSS, CAMA, CDR, ICAMA, ITCR, ITOPS, LAMA, MCDR, MTX, OCC, SMDR, TOPS, or alphanumeric (a maximum of 16 characters)	<i>Key.</i> Enter one of the following set or operating company-defined call data types routed to one of the different streams. The following are set call data types: • AOSS: Auxiliary Operator Service System or DMS-250 CDR-TOPS • CAMA: Central Automatic Message Accounting • CDR: Call Detail Recording • ICAMA: International CAMA • ITCR: International Toll Call Recording • ITOPS: International Traffic Operator Position System • LAMA: Local Automatic Message Accounting • MTX: Mobile Telephone Exchange • OCC: DMS-250 • SMDR: Station Message Detailed Recording • TOPS: Traffic Operator Position System
STREAM		AMA, CDR, ICAMA, ITOP, OCC, SMDR, or alphanumeric	<i>Stream.</i> Enter the stream name used in table CRSFMT. The system automatically enters set call data types to use the AMA stream. You cannot delete the tuples from table CRSMAP.

CRSMAP (continued)

Datafill example

Sample datafill for table CRSMAP appear in the following example.

MAP example for table CRSMAP

KEY STREAM	
CAMA	AMA

Table history

TL09

References to VCDR were removed in TL09.

BCS36

A reference to the NORESTARTSWACT utility was added in BCS36.

Supplementary information

This section provides information on how to enter data in table CRSMAP for specified applications. This section provides information on product description information that relates to table CRSMAP.

The steps a customer uses to define a new stream to store SMDR call data appear in the following example. In table CRSFMT, add the call data type SMDR and the format SMDRFMT as follows:

MAP example for table CRSFMT

TIMERVAL	KEY	FORMAT	DATADUMP	CDRSRCH	ALARMS	TIMERDMP
0	SMDR	SMDRFMT	N	NIL_FM	N	N

CRSMAP (end)

The following is an example of datafill for table CRSFMT after you added the SMDR.

MAP example for table CRSFMT

TIMERVAL	KEY	FORMAT	DATADUMP	CDRSRCH	ALARMS	TIMERDMP
0	NIL	NTFMT	N	NIL_FM	N	N
0	AMA	NTFMT	N	NIL_FM	Y	N
0	SMDR	SMDRFMT	N	NIL_FM	N	N

Tables DIRPPPOOL and DIRPSSYS are changed to allow the DIRP to use of the new stream name (SMDR).

In table CRSMAP, the KEY (call data type) SMDR changes to indicate the correct stream as follows:

1. Enter table CRSMAP, position on field STREAM. This entry indicates AMA as the active stream.
2. Change the stream to SMDR. List the tuple to indicate that the stream is SMDR. This action warns that AMA is the active stream.
3. QUIT table CRSMAP.
4. Perform a RESTART WARM.

The position on SMDR, in table CRSMAP, indicates that SMDR is the active stream. Warnings do not appear.

CSEMAP

Table name

Cause Treatment Mapping (CSEMAP) table

Functional description

The CSEMAP table consists of information to map an inbound cause value to applied treatment. It contains four fields for each tuple that include a multi-part key for table indexing.

Table size

The table size for CSEMAP is fixed and is allocated during Initialization Program Load (IPL). CSEMAP consists of 127 tuples.

Memory requirements

Each physical tuple in table CSEMAP requires three bytes. Therefore, the table requires 762 bytes of memory.

Datafill sequence and implications

Table CSEMAP is not datafilled during IPL. The operating company personnel must add the desired tuples to the table.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CSEMAP.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CSEMPKEY		see subfields	CAUSE MAP KEY. This field consists of a 2-part key: PROTOCOL and CAUSE.
	PROTOCOL	Q764, Q931, Q767	PROTOCOL. Enter the standard protocol used by a terminating trunk. Enter Q764 for message protocol for SS7 ISUP trunks; enter Q931 for message protocol for SS7 PRI trunks.
	CAUSE	Symbolic value corresponding to ISUP or PRI cause	CAUSE. Enter the cause value received from a non-normal call clearing message

CSEMAP (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
RTEADV		N or Y	ROUTE ADVANCE. Enter Y if route advance is attempted as part of the action. Enter N if route advance is not attempted as part of the action. Note: SOC option UTRS0003 must be activated to enter Y in the RECOL or RTEADV fields.
TMT		Symbolic value corresponding to ISUP or PRI treatment	TREATMENT. Enter the treatment to be applied based on the protocol and cause value.
	MLNP	Treatment plus MLNP	Misrouted Local Number Portability. Enter the treatment to be applied based on the protocol and cause value (and optionally enter the treatment MLNP).
RTEADV		N or Y	ROUTE ADVANCE. Enter Y if route advance is attempted as part of the action. Enter N if route advance is not attempted as part of the action. Note: SOC option UTRS0003 must be activated to enter Y in the RECOL or RTEADV fields.
RECOL		N or Y	RESUME COLLECTABLE PROCESSING. Enter Y to resume collectable processing for AXXESS trunks. Enter N if resume collectable processing is not applicable for the trunk. Note: RECOL only occurs with AXXESS trunks and overrides RTEADV if RECOL=Y. For information on AXXESS trunks, see <i>UCS DMS-250 FLEXDIAL Framework Application Guide</i> .
OPTION			This field is not being used at this time.

Datafill example

The following example shows datafill for table CSEMAP.

CSEMAP (end)

MAP display example for table CSEMAP

	CSEMPKEY	TMT	TREADV	RECOL	OPTION
	Q764	INTWUNSP	RODR	Y	N \$
	Q931	OGCBARD	RODR	Y	Y \$
	Q767	USERBUSY	GNCT	N	Y \$

Table history

UCS09

The TMT field was updated for table CSEMAP (AX0953).

UCS08

The PROTOCOL field was updated for table CSEMAP.

UCS06

Table CSEMAP was created.

CSUSP

Table name

TOPS CAMA Suspension Circuit Table

Functional description

The TOPS CAMA Suspension Circuit table is used in a switching unit with the Traffic Operator Position System (TOPS).

The TOPS CAMA Suspension Circuit feature is enabled prior to the evacuation of TOPS Operators due to a fire, bomb, or other type of threat. Once the TOPS CAMA Suspension Switch is on, no calls will be directed to a TOPS position by the DMS switch TOPS program. Instead, the TOPS program will dispose of calls normally requiring connection to a TOPS position as follows:

- If noncoin Operator Number Identification (ONI) or Automatic Number Identification (ANI) Fail are entered on the CAMA tape with 0 for the calling number, the call is allowed to proceed.
- All other operator calls go to reorder.

Calls not requiring TOPS operator intervention are not affected when the TOPS CAMA Calls Suspension switch is on. For example, 1+ noncoin ANI success calls are allowed to proceed after being recorded on the CAMA tape as usual.

The TOPS CAMA Suspension Circuit table CSUSP stores the NT2X66AA equipment location (the maximum of circuits is one).

The TOPS CAMA Suspension Circuit table CSUSP is represented in the CLLI by the fixed code CSUSP.

Datafill sequence and implications

The following tables must be datafilled before table CSUSP:

- CLLI
- TMINV

CSUSP (end)**Datafill**

The following table lists datafill for table CSUSP.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CLLI		CSUSP	<i>Common language location identifier</i> Enter CSUSP, the pseudo common language location indicator (CLLI) code for the TOPS CAMA Suspension Circuit. It must be known to table CLLI.
TMTYPE		TM8	<i>Trunk module type</i> Enter the trunk module number on which the trunk card is located.
TMNO		0 to 2047	<i>Trunk module number</i> Enter the trunk module number on which the trunk card is located.
TMCKTNO		0 to 28(even numbers only)	<i>Trunk module circuit number</i> Enter the trunk module circuit number of the CAMA call suspension circuit.
SIGOPT		EM or LP	<i>Signalling option</i> Enter the signalling option associated with the NT2X66AA circuit, EM or LP (Loop).

Datafill example

The following example shows sample datafill for table CSUSP.

MAP display example for table CSUSP

CLLI	TMTYPE	TMNO	TMCKTNO	SIGOPT
CSUSP	TM8	3	2	LP

CTCODE

Table name

Country Code (CTCODE)

Functional description

The Country Code (CTCODE) table contains the country code translators that determine, according to the dialed digits, which route list to use to route the call.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CTCODE.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
XLANAME		alphanumeric	TRANSLATION NAME. Enter the one- to eight-character name from the corresponding head table.
FROMD		up to 11 numeric characters	FROM DIGITS. Enter a one- to eleven-digit number which represents a single number or the first in a block of consecutive numbers which have the same result given in XLADATA.
TOD		up to 11 numeric characters	TO DIGITS. If field FROMD represents a single number, enter that number. If field FROMD represents the first number of a block of consecutive numbers, enter the last number in the block.

CTCODE (continued)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
XLADATA		XLASEL	TRANSLATION DATA. This field is a vector and consists of subfields XLASEL plus a set of options (refinements) dependent on the entry in XLASEL. The following text describes subfield XLASEL and its refinements.
	XLASEL	FEAT, DNRTE, IAC, DBQ, DMOD, RTE, CONT, or TRMT	TRANSLATION SELECTOR. Make entries as follows: • If access to a feature is required, enter FEAT and complete subfield OPT. • If input digits are routed, enter DNRTE and complete subfield OPT. • If insertion of own area code is required when an ambiguous area code is found through translations, enter IAC and complete subfield OPT. • If performing a database query, enter DBQ and complete subfield OPT. • If the input digit stream is to be modified, enter DMOD and complete subfield OPT. • If a translation result is found, and translation is to terminate, enter RTE and complete subfield OPT. • If further translation is required, enter CONT and complete subfield OPT. • If a call is routed to a treatment, enter TRMT and complete subfield OPT. • FEATINFO and NET are not used in the UCS DMS-250 switch. • For global ISUP IMTs (SOC GIMT0001 is enabled), only DMOD, RTE, CONT, and TRMT are supported.

CTCODE (continued)**XLASEL = FEAT**

The following describes the options when XLASEL is FEAT.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FEAT	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of FEAT options.
	OSEL	FTR, FUNC, MM, or PF	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.
	FTR	CFW, CFB, CFD, PRIVSD, or PUBSD	FEATURE NAME. Enter one of the following feature names to which the call is transferred if FRT is entered as option selector: • CFW (call forward) • CFB (call forward busy) • CFD (call forward did not answer) • PRIVSD (private speed (short) dialing] • PUBSD [public speed (short) dialing]
	FUNC	ACT, DEACT, DELETE, INTER, PROG, or USAGE	FUNCTION. Enter the international line feature function and one of the following refinements if FUNC is entered as option selector: • ACT (activate) • DEACT (deactivate) • DELETE (delete) • INTER (interrogate) • PROG (programming) • USAGE (usage)
	MM		MINIMUM/MAXIMUM DIGITS. If MM is entered as option selector, datafill the MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.

CTCODE (continued)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PF		PREFIX DIGITS. If PF is entered as option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	Enter the number of digits to be prefixed.

XLASEL = DNRTE

The following describes the options when XLASEL is DNRTE.

(Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DNRTE	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of DNRTE options.
	OSEL	PF, MM, CLASS, DN, CAMA	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.
	PF		PREFIX DIGITS. If entry is PF for the option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	Enter the number of digits to be prefixed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for the option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.

CTCODE (continued)

(Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	CLASS. Enter the translation class determined by the digits dialed if CLASS is entered as option selector. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • IAGRP (interagent group) • ICNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	DN		DIRECTORY NUMBER. If DN is entered as option selector, datafill SNPA and OFC refinements.
	SNPA	000 to 999	SERVING NUMBER PLAN AREA. Enter the required SNPA. This number must be in table HNPACONT.
	OFC	1 -7	OFFICE CODE. Enter the office code for the DN the call is routed to.

CTCODE (continued)

(Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CAMA		CAMA. The entry for CAMA indicates whether the international centralized AMA (ICAMA) record is generated with either the originally-signalized directory number or the final public switched telephone network number. If CAMA is entered as option selector, datafill CLDFMT refinement.
	CLDFMT	CURRENT or POSTXLA	CALLED FORMAT. Enter CURRENT if an ICAMA record is produced with the signaled DN. Enter POSTXLA is an ICAMA record is produced with public switched telephone network number.

XLASEL = IAC

The following describes the options when XLASEL is IAC.

Field	Subfield or refinement	Entry	Explanation and action
IAC	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of IAC options.
	OSEL	PF	OPTION SELECTOR. Enter PF for the option selector then datafill the PFDIGS refinement.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits.

CTCODE (continued)**XLASEL = DBQ**

The following describes the options when XLASEL is DBQ.

Field	Subfield or refinement	Entry	Explanation and action
DBQ	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of DBQ options.
	OSEL	NSC, PF, MM	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.
	NSC		NUMBER SERVICE CODE. If entry is NSC for option selector, datafill NSCODE refinement.
	NSCODE	FREENIL	Enter FREENIL for the number service code operation.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.

CTCODE (continued)**XLASEL = DMOD**

The following describes the options when XLASEL is DMOD. This refinement does not apply to country code translations.

(Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DMOD	OPT	alphanumeric	OPTIONS. This subfield consists of up to eight options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL. The various refinements are described in subfield OSEL. For each option specify OSEL and the refinements with each separated from the next by a space.
	OSEL	PF, CONSUME, RBP, XLT AFTER, DEL, INSRT, REPL	OPTION SELECTOR. Enter the option selector then datafill the subfields and refinements as required.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement. If the whole digit stream is to be replaced, after skipping over digits to be left alone, enter REPL, and complete subfield REPLDIGS.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outpulsed, and are not used to index the next translation table.
	CONSUME		COMSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUME DIGITS. Enter the number of digits that are consumed during translation.
	RBP		Enter RBP without refinements. This option selector is used when a call is marked as Ringback Price.
Note: not supported for global ISUP IMTs.			

CTCODE (continued)

(Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	XLT		TRANSLATION. If entry is XLT for option selector, datafill XLASYS and XLANAME subfields and refinements.
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX	TRANSLATION SYSTEM. Enter the next translation system to use, followed by a space, and complete subfield XLANAME (the instance of the translation system). NIL appears in the switch range but is not a valid entry. NIL is only used to satisfy internal software functionality. The translation systems are as follows: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric	TRANSLATION NAME. Enter the one- to eight-character translation name of the table instance within the XLASYS that the call is routed to, then complete subfield RTEREF.
	AFTER		AFTER. If entry is AFTER for option selector, datafill AFTER refinement.

CTCODE (continued)

(Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	AFTER	0-18	AFTER. Enter the number of digits to skip before modifying the digit stream. The default is to calculate the new prefix fence, then replace, insert, or delete digits after the fence (starting at the next digit). The AFTER option is an additional number of digits to skip, before modifying the digit stream. The AFTER option refers to the option datafilled immediately before it. For example: DMOD DEL 3 AFTER 2 INSRT 11 skips two digits, deletes the next three and inserts digits 11 at the beginning of the digit string. The result when applied to 234567 is 11237.
	DEL		DELETION. If entry is DEL for option selector, datafill DELFIGS refinement.
	DELDIGS	0-18	DELETE DIGITS. Enter the number of digits to delete, after skipping digits to be left alone.
	INSRT		INSERTION. If entry is INSRT for option selector, datafill INSRDIGS refinement
	INSRDIGS	numeric (1 to 11 digits)	INSERT DIGITS. Enter the digits to insert, after skipping digits to be left alone.
	REPL		REPLACE. If entry is REPL for option selector, datafill REPLDIGS refinement.
	REPLDIGS	numeric (1-11 digits)	REPLACE DIGITS. Enter the digits to replace the existing digits, after skipping digits to be left alone.

XLASEL = NET

NET is not currently used.

CTCODE (continued)**XLASEL = RTE**

The following describes the options when XLASEL is RTE.

(Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
RTE	OPT	alphanumeric	OPTIONS. This subfield consists of up to 11 options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL, is separated from the next by a space. The various refinements are described in subfield OSEL. For each option, specify OSEL followed by a space, and specify the specific refinements with each separated from the next by a space.
	OSEL	ACF, CALLCTRL, CAMA, CLASS, CONSUME, CPMCALL, DEST, MM PCC, PF PRIVL	OPTION SELECTOR. Enter the option selector then datafill refinements as required. Note: For global ISUP IMTs (SOC GIMT0001 is enabled), only CONSUME, DEST, and PF are supported.
	ACF		
	ACF	0-18	AREA COIDE FENCE. Enter the number of digits between the beginning of the digits that index the table, and the end of the area code.
	CALLCTRL		CALL CONTROL. If entry is CALLCTRL, datafill CALLCTRL refinement.
	CALLCTRL	CALLING, CALLED, MUTUAL	CALL CONTROL. This entry determines who has control of the call. Enter as follows: • CALLING for calling party • CALLED for called party • MUTUAL for both calling and called party
	CAMA		CAMA. If entry is CAMA for option selector, datafill CLDFMT refinements.

CTCODE (continued)

(Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CLDFMT	CURRENT, POSTXLA	CALLED FORMAT. Enter CURRENT if ICAMA record is produced with the signaled DN (without translation). Enter POSTXLA if ICAMA record is produced with a public switched telephone network number (with translation).
	CLASS		CLASS. If entry is CLASS for option selector, datafill CLASS refinement.
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	TRANSLATION CLASS. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • AGRP (interagent group) • CNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	CONSUME		CONSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUMED DIGITS. This field defines the number of digits consumed during call processing.
	CPMCALL		CALLED PARTY METERING. If entry is CPMCALL for option selector, datafill CPMCALL refinement.

CTCODE (continued)

(Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CPMCALL	Y or N	CALLED PARTY METERING. Enter Y if calls are billed against the called party for intraoffice calls. Enter N for the default value of billing against the calling party for intraoffice calls.
	DEST		DESTINATION. If entry is DEST for option selector, datafill DEST refinement.
	DEST	0-1023	DESTINATION ROUTE LIST INDEX. Enter the number in the route list, of the same translation system, to which the call is to be routed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.
	PCC		PSEUDO COUNTRY CODE. If entry is PCC for option selector, datafill PCCDR refinement.
	PCCDR	alphanumeric (0-9, and B, C, D, or E)	PSEUDO COUNTRY CODE DIGITS. Enter the one to three digit pseudo country code.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	NUMBER OF PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outpulsed, and are not used to index the next translation table.

CTCODE (continued)

(Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	PRIVL		PRIVILEGED USER. If entry is PRIVL for option selector, datafill PRIVIL refinement.
	PRIVL	Y or N	PRIVILEGED USER. Enter Y if the user is privileged (such as an operator). Otherwise, enter N (no).

XLASEL = CONT

The following describes the options when XLASEL is CONT.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
CONT	OPT	alphanumeric	OPTIONS. This subfield consists of up to 12 options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL, is separated from the next by a space. The various refinements are described in subfield OSEL. For each option, specify OSEL followed by a space and specify the refinements with each separated from the next by a space.
	OSEL	ACF, CALLCTRL, CAMA, CLASS, CONSUME, CPMCALL, DEST, MM PCC, PF PRIVL, XLT	OPTION SELECTOR. Enter the option selector then datafill refinements as required. Note: For global ISUP IMTs (SOC GIMT0001 is enabled), only CONSUME, DEST, PF, and XLT are supported.
	ACF		
	ACF	0-18	AREA COIDE FENCE. Enter the number of digits between the beginning of the digits that index the table, and the end of the area code.
	CALLCTRL		CALL CONTROL. If entry is CALLCTRL, datafill CALLCTRL refinement.

CTCODE (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CALLCTRL	CALLING, CALLED, MUTUAL	CALL CONTROL. This entry determines who has control of the call. Enter as follows: • CALLING for calling party • CALLED for called party • MUTUAL for both calling and called party
	CAMA		CAMA. If entry is CAMA for option selector, datafill CLDFMT refinements.
	CLDFMT	CURRENT, POSTXLA	CALLED FORMAT. Enter CURRENT if ICAMA record is produced with the signaled DN (without translation). Enter POSTXLA if ICAMA record is produced with a public switched telephone network number (with translation).
	CLASS		CLASS. If entry is CLASS for option selector, datafill CLASS refinement.

CTCODE (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	TRANSLATION CLASS. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • AGRP (interagent group) • CNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	CONSUME		CONSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUMED DIGITS. This field defines the number of digits consumed during call processing.
	CPMCALL		CALLED PARTY METERING. If entry is CPMCALL for option selector, datafill CPMCALL refinement.
	CPMCALL	Y or N	CALLED PARTY METERING. Enter Y if calls are billed against the called party for intraoffice calls. Enter N for the default value of billing against the calling party for intraoffice calls.
	DEST		DESTINATION. If entry is DEST for option selector, datafill DEST refinement.

CTCODE (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DEST	0-1023	DESTINATION ROUTE LIST INDEX. Enter the number in the route list, of the same translation system, to which the call is to be routed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.
	PCC		PSEUDO COUNTRY CODE. If entry is PCC for option selector, datafill PCCDR refinement.
	PCCDR	alphanumeric (0-9, and B, C, D, or E)	PSEUDO COUNTRY CODE DIGITS. Enter the one to three digit pseudo country code.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	NUMBER OF PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outputted, and are not used to index the next translation table.
	PRIVL		PRIVILEGED USER. If entry is PRIVL for option selector, datafill PRIVIL refinement.
	PRIVL	Y or N	PRIVILEGED USER. Enter Y if the user is privileged (such as an operator). Otherwise, enter N (no).
	XLT		TRANSLATION. If entry is XLT for option selector, datafill XLASYS and XLANAME subfields and refinements.

CTCODE (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX	TRANSLATION SYSTEM. Enter the next translation system to use, followed by a space, and complete subfield XLANAME (the instance of the translation system). NIL appears in the switch range but is not a valid entry. NIL is only used to satisfy internal software functionality. The translation systems are as follows: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric	TRANSLATION NAME. Enter the one- to eight-character translation name of the table instance within the XLASYS that the call is routed to, then complete subfield RTEREF.

XLASEL = TRMT

The following describes the options when XLASEL is TRMT.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TRMT	OPT	See subfields.	OPTIONS. This subfield is a vector that consists of TRMT options.

CTCODE (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OSEL	PF	OPTION SELECTOR. Enter OFC for the option selector then datafill the OFC refinement.
	OFC	alphanumeric	OFFICE TREATMENT. Enter a treatment name that is contained in the office treatment subtable, TMTCNTL.TREAT.

Datafill example

The following example shows datafill for table CTCODE.

The example assumes the following:

- STND250 is the normal international routing translator
- SC250 is the specific customer international routing translator

	XLNAME		FROMD	TOD	XLASEL	OSEL
	SC250		44	44	RTE	PF
PFDIGS	OSEL	MIN	MAX	OSEL	DEST	OSEL
0	MM	7	12	DEST	1	\$

CTHEAD

Table name

Country Code Head (CTHEAD)

Functional description

The Country Code Head (CTHEAD) table identifies the names and characteristics of the Country Code translators entered in the Country Code (CTCODE) table.

The starting point for translations is the code table given in the trunk group data. Before the subtable name can be filled in, it must be defined in the head table of the translation system. The order is given exclusively by the XLT option, as specified in the CONT and DMOD selectors in the code table, or in the DFOP and DFLT fields of the head table.

Table size

This table is allocated to a size of 64 and increases dynamically as required. The maximum number of tuples equals 2048. Eighteen words of datastore are required for each table entry.

Note: If an entry is deleted from a head table, all code and route table entries with the given XLANAME are also deleted. However, all XLT references to the deleted XLANAME in other tables must be removed manually. If references to deleted XLANAMES are not removed, translation will not continue when it reaches the missing reference, and a call dump occurs. This applies to all UXLA translation systems.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table CTHEAD.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
XLANAME		alphanumeric	TRANSLATION NAME. Enter the one- to eight-character name assigned to the universal translator.
DFLT		DFLTSEL	DEFAULT. This is the result that translation uses if the dialed digits are not datafilled in the code table associated with this head table. Datafill either DFLT or SDFLT.

CTHEAD (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DFLTSEL	SDFLT or DFLT	DEFAULT SELECTOR. Enter SDFLT if a standard default is required for dialed digits not found in the code table. The standard default is TRMT OFC VACT. That is, if dialed digits are not found in the code table, the call is routed to vacant code treatment. No additional subfields are completed. Enter DFLT and complete subfields XLASEL and OSEL when the standard default is not correct.
	XLASEL	FEAT, DNRTE, IAC, DBQ, RTE, CONT, or TRMT	TRANSLATION SELECTOR. Make entries as follows: • If access to a feature is required, enter FEAT and complete subfield OPT. • If input digits are routed, enter DNRTE and complete subfield OPT. • If insertion of own area code is required when an ambiguous area code is found through translations, enter IAC and complete subfield OPT. • If performing a database query, enter DBQ and complete subfield OPT. • If the input digit stream is to be modified, enter DMOD and complete subfield OPT. • If a translation result is found, and translation is to terminate, enter RTE and complete subfield OPT. • If further translation is required, enter CONT and complete subfield OPT. • If a call is routed to treatment, enter TRMT and complete subfield OPT. • FEATINFO and NET are not used on the UCS DMS-250 switch. • For global ISUP IMTs (SOC GIMT0001 is enabled), only RTE, CONT, and TRMT are supported.

CTHEAD (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DFOP	DFOPSEL	NODFOP or DFOP	DEFAULT OPTIONS. If the dialed digits use the RTE or CONT selectors and any options are not datafilled against the digits, the default options can be datafilled in this field. If entry is NODFOP (no default options) no additional refinements are required. If entry is DFOP complete subfield OSEL.
	OSEL	ACF, CALLCTRL, CAMA, CLASS, CONSUME, CPMCALL, DEST, MM PCC, PF PRIVL, XLT	OPTION SELECTOR. Enter the option selector then datafill refinements as required. Note: For global ISUP IMTs (SOC GIMT0001 is enabled), only CONSUME, DEST, PF, and XLT are supported.
	ACF		
	ACF	0-18	AREA CODE FENCE. Enter the number of digits between the beginning of the digits that index the table, and the end of the area code.
	CALLCTRL		CALL CONTROL. If entry is CALLCTRL, datafill CALLCTRL refinement.
	CALLCTRL	CALLING, CALLED, MUTUAL	CALL CONTROL. This entry determines who has control of the call. Enter as follows: • CALLING for calling party • CALLED for called party • MUTUAL for both calling and called party
	PCC		PSEUDO COUNTRY CODE. If entry is PCC for option selector, datafill PCCDR refinement.
	PCCDR	alphanumeric (0-9, and B, C, D, or E)	PSEUDO COUNTRY CODE DIGITS. Enter the one to three digit pseudo country code.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.

CTHEAD (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	PFDIGS	0-18	NUMBER OF PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outpulsed, and are not used to index the next translation table.
	PRIVL		PRIVILEGED USER. If entry is PRIVL for option selector, datafill PRIVIL refinement.
	PRIVL	Y or N	PRIVILEGED USER. Enter Y if the user is privileged (such as an operator). Otherwise, enter N.
	XLT		TRANSLATION. If entry is XLT for option selector, datafill XLASYS and XLANAME subfields and refinements.
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX	TRANSLATION SYSTEM. Enter the next translation system to use, followed by a space, and complete subfield XLANAME (the instance of the translation system). NIL appears in the switch range but is not a valid entry. NIL is only used to satisfy internal software functionality. The translation systems are as follows: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix)

CTHEAD (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
CON	XLANAME	alphanumeric	TRANSLATION NAME. Enter the one- to eight-character translation name of the table instance within the XLASYS that the call is routed to, then complete subfield RTEREF.
		NOCON or CON	CONSUME DIGITS. This option applies to the CONT selector. The default cause is not to consume digits (NOCON). Which means the next table is indexed using the same digits as the current table. If translation should consume the current index digits so digits are not used to index the next table, enter CON. Consume does not mean the digits are deleted from the digit register. They are still there and are outpulsed unless deleted in the code or route tables.
MAXIDX		STD, 9, C, or F	MAXIMUM INDEX. These are dialed digits that index the translation tables. The default case is these digits fall in the range 0 to 9. In certain cases, code tables may be required to include Hex C or Hex F in their index. This is done by entering C or F in the field MAXIDX in the head table.

XLASEL = FEAT

The following describes the options when XLASEL is FEAT.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FEAT	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of FEAT options.
	OSEL	FTR, FUNC, MM, or PF	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.

CTHEAD (continued)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	FTR	CFW, CFB, CFD, PRIVSD, or PUBSD	FEATURE NAME. Enter one of the following feature names to which the call is transferred if FRT is entered as option selector: • CFW (call forward) • CFB (call forward busy) • CFD (call forward did not answer) • PRIVSD [private speed (short) dialing] • PUBSD [public speed (short) dialing]
	FUNC	ACT, DEACT, DELETE, INTER, PROG, or USAGE	FUNCTION. Enter the international line feature function and one of the following refinements if FUNC is entered as option selector: • ACT (activate) • DEACT (deactivate) • DELETE (delete) • INTER (interrogate) • PROG (programming) • USAGE (usage)
	MM		MINIMUM/MAXIMUM DIGITS. If MM is entered as option selector, datafill the MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.
	PF		PREFIX DIGITS. If PF is entered as option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	Enter the number of digits to be prefixed.

CTHEAD (continued)**XLASEL = DNRTE**

The following describes the options when XLASEL is DNRTE.

(Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DNRTE	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of DNRTE options.
	OSEL	PF, MM, CLASS, DN, CAMA	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.
	PF		PREFIX DIGITS. If entry is PF for the option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	Enter the number of digits to be prefixed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for the option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.

CTHEAD (continued)

(Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	CLASS. Enter the translation class determined by the digits dialed if CLASS is entered as option selector. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • IAGRP (interagent group) • ICNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	DN		DIRECTORY NUMBER. If DN is entered as option selector, datafill SNPA and OFC refinements.
	SNPA	000 to 999	SERVING NUMBER PLAN AREA. Enter the required SNPA. This number must be in table HNPACONT.
	OFC	1 -7	OFFICE CODE. Enter the office code for the DN the call is routed to.

CTHEAD (continued)

(Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	CAMA		CAMA. The entry for CAMA indicates whether the international centralized AMA (ICAMA) record is generated with either the originally-signaled directory number or the final public switched telephone network number. If CAMA is entered as option selector, datafill CLDFMT refinement.
	CLDFMT	CURRENT or POSTXLA	CALLED FORMAT. Enter CURRENT if an ICAMA record is produced with the signaled DN. Enter POSTXLA is an ICAMA record is produced with public switched telephone network number.

XLASEL = IAC

The following describes the options when XLASEL is IAC.

Field	Subfield or refinement	Entry	Explanation and action
IAC	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of IAC options.
	OSEL	PF	OPTION SELECTOR. Enter PF for the option selector then datafill the PFDIGS refinement.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits.

CTHEAD (continued)**XLASEL = DBQ**

The following describes the options when XLASEL is DBQ.

Field	Subfield or refinement	Entry	Explanation and action
DBQ	OPT	see subfields.	OPTIONS. This subfield is a vector that consists of DBQ options.
	OSEL	NSC, PF, MM	OPTION SELECTOR. Enter the option selector then datafill the refinements as required.
	NSC		NUMBER SERVICE CODE. If entry is NSC for option selector, datafill NSCODE refinement.
	NSCODE	FREENIL	Enter FREENIL for the number service code operation.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.

CTHEAD (continued)**XLASEL = DMOD**

The following describes the options when XLASEL is DMOD. This refinement does not apply to country code translations.

(Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DMOD	OPT	alphanumeric	OPTIONS. This subfield consists of up to eight options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL. The various refinements are described in subfield OSEL. For each option specify OSEL and the refinements with each separated from the next by a space.
	OSEL	PF, CONSUME, RBP, XLT AFTER, DEL, INSRT, REPL	OPTION SELECTOR. Enter the option selector then datafill the subfields and refinements as required.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement. If the whole digit stream is to be replaced, after skipping over digits to be left alone, enter REPL, and complete subfield REPLDIGS.
	PFDIGS	0-18	PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outpulsed, and are not used to index the next translation table.
	CONSUME		COMSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUME DIGITS. Enter the number of digits that are consumed during translation.
	RBP		Enter RBP without refinements. This option selector is used when a call is marked as ringback price.
Note: not supported for global ISUP IMTs.			

CTHEAD (continued)

(Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	XLT		TRANSLATION. If entry is XLT for option selector, datafill XLASYS and XLANAME subfields and refinements.
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX	TRANSLATION SYSTEM. Enter the next translation system to use, followed by a space, and complete subfield XLANAME (the instance of the translation system). NIL appears in the switch range but is not a valid entry. NIL is only used to satisfy internal software functionality. The translation systems are as follows: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric	TRANSLATION NAME. Enter the one- to eight-character translation name of the table instance within the XLASYS that the call is routed to, then complete subfield RTEREF.
	AFTER		AFTER. If entry is AFTER for option selector, datafill AFTER refinement.

CTHEAD (continued)

(Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	AFTER	0-18	AFTER. Enter the number of digits to skip before modifying the digit stream. The default is to calculate the new prefix fence, then replace, insert, or delete digits after the fence (starting at the next digit). The AFTER option is an additional number of digits to skip, before modifying the digit stream. The AFTER option refers to the option datafilled immediately before it. For example: DMOD DEL 3 AFTER 2 INSRT 11 skips two digits, deletes the next three and inserts digits 11 at the beginning of the digit string. The result when applied to 234567 is 11237.
	DEL		DELETION. If entry is DEL for option selector, datafill DELFIGS refinement.
	DELDIGS	0-18	DELETE DIGITS. Enter the number of digits to delete, after skipping digits to be left alone.
	INSRT		INSERTION. If entry is INSRT for option selector, datafill INSRDIGS refinement
	INSRDIGS	numeric (1 to 11 digits)	INSERT DIGITS. Enter the digits to insert, after skipping digits to be left alone.
	REPL		REPLACE. If entry is REPL for option selector, datafill REPLDIGS refinement.
	REPLDIGS	numeric (1-11 digits)	REPLACE DIGITS. Enter the digits to replace the existing digits, after skipping digits to be left alone.

CTHEAD (continued)**XLASEL = RTE**

The following describes the options when XLASEL is RTE.

(Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
RTE	OPT	alphanumeric	OPTIONS. This subfield consists of up to 11 options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL, is separated from the next by a space. The various refinements are described in subfield OSEL. For each option, specify OSEL followed by a space, and specify the specific refinements with each separated from the next by a space.
	OSEL	ACF, CALLCTRL, CAMA, CLASS, CONSUME, CPMCALL, DEST, MM PCC, PF PRIVL	OPTION SELECTOR. Enter the option selector then datafill refinements as required. Note: For global ISUP IMTs (SOC GIMT0001 is enabled), only CONSUME, DEST, and PF are supported.
	ACF		
	ACF	0-18	AREA COIDE FENCE. Enter the number of digits between the beginning of the digits that index the table, and the end of the area code.
	CALLCTRL		CALL CONTROL. If entry is CALLCTRL, datafill CALLCTRL refinement.
	CALLCTRL	CALLING, CALLED, MUTUAL	CALL CONTROL. This entry determines who has control of the call. Enter as follows: • CALLING for calling party • CALLED for called party • MUTUAL for both calling and called party
	CAMA		CAMA. If entry is CAMA for option selector, datafill CLDFMT refinements.

CTHEAD (continued)

(Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CLDFMT	CURRENT, POSTXLA	CALLED FORMAT. Enter CURRENT if ICAMA record is produced with the signaled DN (without translation). Enter POSTXLA if ICAMA record is produced with a public switched telephone network number (with translation).
	CLASS		CLASS. If entry is CLASS for option selector, datafill CLASS refinement.
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	TRANSLATION CLASS. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • AGRP (interagent group) • CNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	CONSUME		CONSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUMED DIGITS. This field defines the number of digits consumed during call processing.
	CPMCALL		CALLED PARTY METERING. If entry is CPMCALL for option selector, datafill CPMCALL refinement.

CTHEAD (continued)

(Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CPMCALL	Y or N	CALLED PARTY METERING. Enter Y if calls are billed against the called party for intraoffice calls. Enter N for the default value of billing against the calling party for intraoffice calls.
	DEST		DESTINATION. If entry is DEST for option selector, datafill DEST refinement.
	DEST	0-1023	DESTINATION ROUTE LIST INDEX. Enter the number in the route list, of the same translation system, to which the call is to be routed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.
	PCC		PSEUDO COUNTRY CODE. If entry is PCC for option selector, datafill PCCDR refinement.
	PCCDR	alphanumeric (0-9, and B, C, D, or E)	PSEUDO COUNTRY CODE DIGITS. Enter the one to three digit pseudo country code.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	NUMBER OF PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outpulsed, and are not used to index the next translation table.

CTHEAD (continued)

(Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	PRIVL		PRIVILEGED USER. If entry is PRIVL for option selector, datafill PRIVIL refinement.
	PRIVL	Y or N	PRIVILEGED USER. Enter Y if the user is privileged (such as an operator). Otherwise, enter N.

XLASEL = CONT

The following describes the options when XLASEL is CONT.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
CONT	OPT	alphanumeric	OPTIONS. This subfield consists of up to 12 options. Each option, consisting of subfields OSEL and refinements dependent on the entry in subfield OSEL, is separated from the next by a space. The various refinements are described in subfield OSEL. For each option, specify OSEL followed by a space and specify the refinements with each separated from the next by a space.
	OSEL	ACF, CALLCTRL, CAMA, CLASS, CONSUME, CPMCALL, DEST, MM PCC, PF PRIVL, XLT	OPTION SELECTOR. Enter the option selector then datafill refinements as required. Note: For global ISUP IMTs (SOC GIMT0001 is enabled), only CONSUME, DEST, PF, and XLT are supported.
	ACF		
	ACF	0-18	AREA CODE FENCE. Enter the number of digits between the beginning of the digits that index the table, and the end of the area code.
	CALLCTRL		CALL CONTROL. If entry is CALLCTRL, datafill CALLCTRL refinement.

CTHEAD (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CALLCTRL	CALLING, CALLED, MUTUAL	CALL CONTROL. This entry determines who has control of the call. Enter as follows: • CALLING for calling party • CALLED for called party • MUTUAL for both calling and called party
	CAMA		CAMA. If entry is CAMA for option selector, datafill CLDFMT refinements.
	CLDFMT	CURRENT, POSTXLA	CALLED FORMAT. Enter CURRENT if ICAMA record is produced with the signaled DN (without translation). Enter POSTXLA if ICAMA record is produced with a public switched telephone network number (with translation).
	CLASS		CLASS. If entry is CLASS for option selector, datafill CLASS refinement.

CTHEAD (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, or UNKW	TRANSLATION CLASS. The translation classes are as follows: • ATT (attendant console) • CNTL (continental) • DATT (dial attendant) • EMRG (emergency) • AGRP (interagent group) • CNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown)
	CONSUME		CONSUME. If entry is CONSUME for option selector, datafill CONDIGS refinement.
	CONDIGS	0-11	CONSUMED DIGITS. This field defines the number of digits consumed during call processing.
	CPMCALL		CALLED PARTY METERING. If entry is CPMCALL for option selector, datafill CPMCALL refinement.
	CPMCALL	Y or N	CALLED PARTY METERING. Enter Y if calls are billed against the called party for intraoffice calls. Enter N for the default value of billing against the calling party for intraoffice calls.
	DEST		DESTINATION. If entry is DEST for option selector, datafill DEST refinement.

CTHEAD (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DEST	0-1023	DESTINATION ROUTE LIST INDEX. Enter the number in the route list, of the same translation system, to which the call is to be routed.
	MM		MINIMUM/MAXIMUM DIGITS. If entry is MM for option selector, datafill MIN and MAX refinements.
	MIN	0-18	MINIMUM DIGITS. Enter the minimum number of digits to dial.
	MAX	0-18	MAXIMUM DIGITS. Enter the maximum number of digits to dial.
	PCC		PSEUDO COUNTRY CODE. If entry is PCC for option selector, datafill PCCDR refinement.
	PCCDR	alphanumeric (0-9, and B, C, D, or E)	PSEUDO COUNTRY CODE DIGITS. Enter the one to three digit pseudo country code.
	PF		PREFIX. If entry is PF for option selector, datafill PFDIGS refinement.
	PFDIGS	0-18	NUMBER OF PREFIX DIGITS. Enter the number of prefix digits. If prefix digits are identified in a previous table, then this number is added to the existing value. Prefix digits are not stored in call detail records, are not outputted, and are not used to index the next translation table.
	PRIVL		PRIVILEGED USER. If entry is PRIVL for option selector, datafill PRIVIL refinement.
	PRIVL	Y or N	PRIVILEGED USER. Enter Y if the user is privileged (such as an operator). Otherwise, enter N.
	XLT		TRANSLATION. If entry is XLT for option selector, datafill XLASYS and XLANAME subfields and refinements.

CTHEAD (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, DN, FA, FT, NSC, OFC, PX	TRANSLATION SYSTEM. Enter the next translation system to use, followed by a space, and complete subfield XLANAME (the instance of the translation system). NIL appears in the switch range but is not a valid entry. NIL is only used to satisfy internal software functionality. The translation systems are as follows: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric	TRANSLATION NAME. Enter the one- to eight-character translation name of the table instance within the XLASYS that the call is routed to, then complete subfield RTEREF.

XLASEL = TRMT

The following describes the options when XLASEL is TRMT.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TRMT	OPT	See subfields.	OPTIONS. This subfield is a vector that consists of TRMT options.

CTHEAD (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	OSEL	PF	OPTION SELECTOR. Enter OFC for the option selector then datafill the OFC refinement.
	OFC	alphanumeric	OFFICE TREATMENT. Enter a treatment name that is contained in the office treatment subtable, TMTCNTL.TREAT.

Datafill example

The following example shows datafill for table CTHEAD.

XLNAME	DFLTSEL	XLASEL	OSEL	OFC	OSEL
STND250	DFLT	TRMT	OFC	VCCT	\$

DFOPSEL	OSEL	CON	MAXIDX
DFOP	\$	NOCON	STD

XLNAME	DFLTSEL	XLASEL	OSEL	XLASYS	XLNAME	OSEL
SC250	DFLT	CONT	XLT	CT	STND250	\$

DFOPSEL	OSEL	CON	MAXIDX
DFOP	\$	NOCON	STD

CTRTE

Table name

Country Code Route Table

Functional description

Table CTRTE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table CTRTE translates the country code digit segment, together with tables CTHEAD and CTCODE.

For related information, refer to table ACRTE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and implications

Table CTHEAD must be datafilled before tables CTRTE and CTCODE.

Table size

Refer to table ACRTE.

Datafill

Field names, subfield names, and valid data ranges for table CTRTE are described in table ACRTE.

Datafill example

Refer to table ACRTE.

Table history

NA017

Feature 59035336 introduces the Supergroup (SG) option.

CUSTAB

Table name

Customer Table

Functional description

Table CUSTAB contains the following data for each table assigned in the switching unit:

- the version of table control (old or new)
- the logical (or real or internal) name of the table

Table control automatically produces the first datafill for this table.

The operating company cannot change this table.

Datafill sequence and meaning

You must enter data in table SYSDATA before you enter data in table CUSTAB.

Table size

0 to 2048 tuples

Datafill

Datafill for table CUSTAB appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TABNAME		alphanumeric (a maximum of 16 characters)	<i>Table name.</i> This field specifies the table name.
OLDTC		Y or N	<i>Old table control.</i> This field specifies if old table control applies. A Y (yes) entry defines that the old table control applies. An N (no) entry defines that the new table control applies.
LOGTAB		alphanumeric (a maximum of 16 characters)	<i>Logical table name.</i> This field specifies the logical, or the real or internal, name of the table.

CUSTAB (end)

Datafill example

Sample datafill for table CUSTAB appears in the following example.

MAP example for table CUSTAB

TABNAME	OLDTC	LOGTAB
CUSTAB	N	CUSTAB
CUSTFLDS	N	CUSTFLDS

Table name

Customized Dialing Plan (CUSTDP) table

Functional description

The Carrier Advanced Intelligent Network (CAIN) uses trigger tables to set triggering criteria. A call requiring CAIN services subscribes to a CAIN group (table CAINGRP), which, in turn, subscribes to one or more trigger sets.

Note: A CAIN group subscribes to a trigger set defining the point in call (PIC), trigger detection point (TDP), and trigger.

Table CUSTDP defines the trigger criteria for the *Customized_Dialing_Plan* trigger at the *Information_Analyzed* TDP of the *Analyze_Information* PIC (PIC 4). When the datafilled trigger criteria is met, the datafilled action is performed. Available actions are: ignore the current trigger, block the call, leave trigger detection point, continue with no trigger, invoke the PSN framework, or query the service control point (SCP).

Refer to the *UCS DMS-250 NetworkBuilder Application Guide* for CAIN services information; refer to the *UCS DMS-250 Programmable Service Node (PSN) Application Guide* for PSN information.

Datafill sequence and implications

Datafill a valid CAIN group in table CAINGRP before datafilling table CUSTDP.

Table size

0 to 65,535 tuples.

CUSTDP (continued)**Field descriptions**

The following table describes field names, subfield names, and valid data ranges for table CUSTDP.

CUSTDP field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
CUSTDPKY		CAINGRP, DIGTYPE, FROMDIGS	CUSTOMIZED DIALING PLAN KEY. Datafill the 3-part key: CAINGRP, DIGTYPE and FROMDIGS.
	CAINGRP	Valid CAIN group datafilled in table CAINGRP	CAIN GROUP. Enter a valid CAIN group datafilled in table CAINGRP.
	DIGTYPE		Specifies the type of digits being referenced.
		XLAADDR	Sets the digit type to "Translated Address"
		ADDR	Sets the digit type to address.
	FROMDIGS	Up to 24 digits (0 to 9, *, #)	FROM DIGITS. Enter the first number used to define the collected address or translated address range. Note: Only enter * or # as the first digit. The digit values from least to greatest are: 0 1 2 3 4 5 6 7 8 9 * #.
TODIGS		Up to 24 digits (0 to 9, *, #)	TO DIGITS. Enter the second number used to define the range of the collected address or translated address range. Note: Only enter * or # as the first digit. The digit values from least to greatest are: 0 1 2 3 4 5 6 7 8 9 * #.
ACTION		see subfield	ACTION. ACTION consists of one subfield: TRIGACT.
	TRIGACT		TRIGGER ACTION. Enter the action call processing performs when trigger criteria is met. Enter one of the following: IGNORE, CONT_NOTRIG, LEAVE_TDP, BLOCK, QUERY, or QUERYSCU

CUSTDP (continued)**CUSTDP field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		IGNORE	IGNORE - CAIN call processing ignores these calls and regular switch processing continues.
		BLOCK	BLOCK - CAIN call processing blocks the call and AINF treatment is applied.
		QUERY	QUERY - CAIN call processing queries the SCP. Datafill the ERRACT refinement when TRIGACT=QUERY.
		QUERYSCU	QUERYSCU - Call enters server mode and becomes a PSN call.
		LEAVE_TDP	LEAVE TRIGGER DETECTION POINT. Ignore the fact that a match was made, and continue call processing at the next trigger detection point.
		CONT_NOTRIG	CONTINUE WITH NO TRIGGER. Ignore the fact that a match was made and continue the call without further CAIN processing.
			OPTIONS. Datafill this field to specify optional CAIN features. Enter up to 3 options.
			Note: Currently, the available options are only valid for TRIGACT=QUERY.
		NIL	Enter NIL to remove an option.
		BUFFER	Enter BUFFER to activate digit buffering while the SCP is queried. The collected digits are delivered during conversational digit collection.
		GT	Enter GT to identify the global title used to identify the SCP handling the query. Datafill the GT_VALUE refinement.
		T1OVFLGT	This option the global title to use for SCP querying after a T1 timeout occurs on the default global title. Datafill the GT_VALUE refinement.

CUSTDP (continued)**CUSTDP field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
		ACGOVFLGT	ACG OVERFLOW GT. This option specifies the global title to use for requerying when query is blocked by an ACG control. Datafill the GT_VALUE refinement.
	GT_VALUE		GLOBAL TITLE VALUE. Enter one of the following: CAIN_CLID, CAIN_ADDR, or CAIN_FEAT.
		CAIN_CLID	Enter CAIN_CLID to send overflow queries to the SCP associated with the CAIN_CLID_GT global title defined in table C7GTTYPE.
		CAIN_ADDR	Enter CAIN_ADDR to send overflow queries to the SCP associated with the CAIN_ADDR_GT global title defined in table C7GTTYPE.
		CAIN_FEAT	Enter CAIN_FEAT to send overflow queries to the SCP associated with the CAIN_FEAT_GT global title defined in table C7GTTYPE. Datafill the GT_DIGITS refinement.
	GT_DIGITS	0 to 4095	Enter the digits associated with CAIN_FEAT_GT from table C7GTTYPE.
		VERSION	VERSION. This option controls the CAIN protocol version for outgoing messages.
	VERSION	V0, V1, V2, V3, V4, V5	Enter one of the following values: V0, V1, V2, V3, V4 or V5.
		STREAM	STREAM. This option controls the NetworkBuilder protocol stream.
	STREAM	UCS05, UCS06, UCS07, UCS08, UCS09, UCS11	Enter one of the following values: UCS05, UCS06, UCS07, UCS08, UCS09, UCS11.

CUSTDP (continued)**TRIGACT=QUERY**

When TRIGACT=QUERY, datafill the following refinement:

TRIGACT=QUERY refinement datafill

Refinement	Subfield or refinement	Entry	Explanation and action
ERRACT			ERROR ACTION. Enter the action the switch performs in response to a fatal application error associated with the query. Enter one of the following: ROUTE or TREAT.
		ROUTE	ROUTE - CAIN call processing releases control of the call and in-switch routing continues.
		TREAT	TREAT - CAIN call processing applies AINF treatment and any other treatment prescribed before the query.

Datafill example

The following example shows datafill for table CUSTDP.

```

CUSTDPKY TODIGS ACTION OPTIONS
-----
SPECGRP ADDR 444 4449999 QUERY TREAT (BUFFER ) $
SITAGRP XLAADDR 504 504885 IGNORE $
VPNGRP ADDR 684 6849 QUERY ROUTE (GT CAIN_CLID) $
PRIBGRP XLAADDR 900 900 BLOCK $
AUTHGRP XLAADDR 444 444999 QUERY ROUTE (T10VFLGT
CAIN_CLID) $

```

Table history**UCS14**

Added new option, STREAM (SR 60105565).

UCS12

Updated to add editorial changes.

UCS11

Updated the VERSION option to include a new value V5 (AX1373).

CUSTDP (end)

UCS09

Added VERSION to options vector (AX0973). Added option ACGOVFLGT to options vector (AX0976).

UCS07

Entries LEAVE_TDP and CONT_NOTRIG are added to the TRIGACT subfield.

T1OVFLGT is added to the OPTIONS field.

DIGTYPE is expanded to handle translated address digits.

UCS06

The following changes were made in the UCS06 software release:

- FROMDIGS and TODIGS range is increased to include * and #.
- The QUERYSCU ACTION is added for PSN.
- An OPTIONS field is added for specifying digit buffering (BUFFER) or global titles (GT).

UCS05

Table CUSTDP was created.

CUSTPROT

Table name

Customer Protection Table

Functional description

Table CUSTPROT defines the command class of users that can read, change, add, or delete tuples for each table. These tables are assigned in the switching unit.

The privilege class with read protection ability can read tuples from the table. The privilege class cannot update, add, or delete tuples from the table.

The privilege class with update protection ability can read and update. The privilege class cannot add or delete tuples from the table.

The privilege class with all protection ability can read, update, add, or delete tuples from the table.

If the switching unit has the feature BC1459, Partitioned Table Editor, a non-operating company user can use the tables entered in table OWNTAB.

The privilege classes assigned to tables that are not entered in table OWNTAB are not assigned to non-operating company users. This action occurs so that non-operating company users do not have access to these tables.

To create new data, tables can add new tuples. These tables are read-only or change-only tables for non-operating company users. Read-only or change-only tables for non-operating company users appear in the following list:

- CLSVSCRC
- COSMAP
- DIGCOL
- FNPACONT
- HNPACONT
- LCASCRCN
- TODHEAD
- VFGENG
- XLANAME

CUSTPROT (continued)

Command PERMIT assigns privilege classes for commands and access to tables. A privilege class used in table CUSTPROT or table TERMDEV can appear in one table.

Security Table Enhancement feature

If the switching unit has feature BC1305, Security Table Enhancement, the operating company can select the tables to monitor.

Feature STE allows the system to generate log reports if users modify or attempt to modify the customer data tables.

The privilege class assigned to the table controls access to customer data tables.

In an attempt to access a table, the privilege class of the user is matched against the privilege class of the table. If the two classes match, access to the table occurs.

Feature STE allows the operating company to monitor the tables and the users that access these tables.

If feature STE is activated, the following action occurs. The completed or terminated attempts to access a table are recorded in a log report to examine at a later time.

The system generates log reports for tables when you attempt to read and display a tuple. The system generates log reports for tables when you attempt to write the tuple.

Log TABL that feature STE introduces is a SECRET-type log. The system automatically routes all SECRET-type logs to the system log (SYSLOG). Use of this feature can cause the SYSLOG log queue to flood. The operating company must minimize the number of tables monitored.

The operating company must monitor the following tables:

- CUSTAB
- CUSTPROT
- DATASIZE
- OFCENG, OFCOPT
- OFCSTD
- OFCVAR

CUSTPROT (continued)

The data store allocated to store the table access log reports is 20 000 words. This allocation allows storage of a maximum of 500 log reports of type TABL101 and TABL103. Each log report is 60 words. Log reports of type TABL100 and TABL102 are 20 words. The log queue can store from 333 to 1000 log reports. This log storage depends on the type of log reports stored.

Northern Telecom (Nortel) can activate or deactivate feature STE through a change in office parameter MONITOR_TABLE_ACCESS in table OFCOPT.

If Nortel activates office parameter MONITOR_TABLE_ACCESS, operating company personnel can activate or deactivate feature STE. This action occurs through a change in office parameter TABLE_ACCESS_CONTROL in table OFCVAR.

Authorized operating company personnel can activate or deactivate feature STE for specified tables (field TABNAME). This action occurs through a change in the values of fields VALACC (valid table access control) and DENACC (denied table access control) in table CUSTPROT.

If you set field VALACC to WRITE, the system generates a TABL101 log. The system generates a log each time you use table control to add, delete, or change a tuple.

If you set field VALACC to ALL, the system generates a TABL101 log. The system generates this log when the following action occurs. The log generates each time you use table control to write in the table to add, delete, or change a tuple. The system generates a TABL100 log each time you use table control to read or display the table.

If you set field DENACC to WRITE, the following action occurs. The system generates a TABL103 log each time you attempt to use table control to write in a table.

If you set field DENACC to ALL, the system generates a TABL103 log. The system generates this log each time you attempt to use table control to write in a table. The system generates TABL102 log each time you attempt to use table control to read or display a table.

The operating company can set the alarms for these logs. Change the correct tuples in table AUDALARM to set these alarms. The alarms that these logs generate turn off after approximately 15 s.

Table control automatically produces the first input for this table. Set the first value for the privilege classes to 15. Fields VALLACC and DENACC are set to OFF.

CUSTPROT (continued)

To change this table, the operating company must load the module ENGWRITE from the non-resident tape and enter command ENGWRITE ON.

For the first datafill, the operating company provides input for the tables with a minimum of one privilege class. This class must have a value that is not 15. Fields VALLACC and DENACC must not be OFF.

Use command REP (replace) for each entry you submit to change the default values assigned to this table.

Datafill sequence and meaning

You must enter data in table CUSTAB before you enter data in table CUSTPROT.

Table size

0 to 2047 tuples

Datafill

Datafill for table CUSTPROT appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TABNAME		alphanumeric (a maximum of 16 characters)	<i>Table name.</i> Enter the table name.
READPROT		0 to 30	<i>Read protection.</i> Enter the privilege class that can read this table.
UPDTPROT		0 to 30	<i>Update protection.</i> Enter the privilege class that can read the table and update tuples. This class cannot add or delete tuples from the table.
ALLPROT		0 to 30	<i>All protection .</i> Enter the privilege class that can read, update, add, or delete tuples from the table.

CUSTPROT (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
VALACC		ALL, OFF, or WRITE	<i>Correct access.</i> If TABL100 and 101 logs are a requirement, enter ALL. If feature BC1305 Security Table Enhancement (STE) is not provided or logs TABL100 and 101 are not requirements, enter OFF. If the switching unit has feature STE and TABL101 logs are a requirement, enter WRITE.
DENACC		ALL, OFF, or WRITE	<i>Denied access.</i> If TABL102 and 103 logs are a requirement, enter ALL. If the switching unit has feature STE and TABL103 logs are requirements, enter WRITE. If feature STE is not provided or logs TABL102 and 103 are not requirements, enter OFF.

Datafill example

Sample datafill for table CUSTPROT appears in the following example.

Table CLLI with privilege classes of 2, 4, and 6 appears in this example. The correct access and denied access options are off.

MAP example for table CUSTPROT

TABNAME	READPROT	UPDTPROT	ALLPROT	VALACC	DENACC
CLLI	2	4	6	OFF	OFF

DART

Table name

Dump and Restore Table

Functional description

Table DART is a read-only table that determines the datafill order during a dump and restore procedure. The table provides an automated method to replace the sequence list that determines the datafill order. Application of a table uses list determines the datafill order. Each table in the system must specify the tables that the table requires when initialization of the system occurs. The required tables are tables that require data entry before or after the specified table. Table DART contains an entry for each table. The table uses list determines how the system sorts these entries to provide the datafill order.

The XFER (transfer) utility uses the data in table DART to record restore statistics for tables. Examples of statistics are timing and tuple counts.

The command interpreter (CI) command TABAUDIT (table audit) uses table DART to determine the table datafill order before data integrity checks.

The command TABAUDIT allows the user to specify the following:

- the tables to verify
- when the verification occurs
- the type of data integrity report
- the destination of the report

The functions of command TABAUDIT that affect table DART are as follows:

- Schedule the verification of one table in table DART.
- Schedule the verification of a range of tables in table DART.
- Schedule the verification of tables in table DART.
- Generate a data integrity report for tables in table DART.
- Generate a data integrity report for verified tables.
- Generate a list of tables that command TABAUDIT does not check.
- Generate a data integrity report for one table.
- Display the status of the scheduler.
- Activate or deactivate the scheduler.
- Clear scheduling information.

DART (continued)

- Specify select tables to include in a table range.
- Specify select tables not to check.

Datafill sequence and meaning

You do not have to enter data in other tables before you enter data in table DART.

The system enters data in table DART when entry occurs in table CUSTAB.

Table size

0 to 2048 tuples

The number of tables in the operating company office determines the number of tuples in table DART. Table size is set to the maximum number of tables in the system. Parameter MAX_NUM_OF_TABLES in module TABUSES determines table size. After the table has datafill, the system sorts the table. After the sort, the system allocates store for table DART with the correct number of tuples.

Datafill

Datafill for table DART appears in the following tuple.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
TABKEY		see subfield	<i>Table key.</i> This field is the key to the table and contains subfield TABNAME.
	TABNAME	alphanumeric (to a maximum of 32 characters)	<i>Table name.</i> This field contains the name of the table for dump and restore. The entry in this field is the same table name that table CUSTAB defines.
CHKCNT		0 to 4294967295	<i>Check count.</i> This field contains the number of tuples for the table that subfield TABNAME specifies. The command TABAUDIT calculates this number.

DART (continued)**Field descriptions (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
CHKFAIL		0 to 4294967295	<i>Check failure.</i> This field contains the number of tuples that do not check for the table that subfield TABNAME specifies. Command TABAUDIT calculates this number. Updates occur to this field when TABAUDIT runs.
CHKDATE		see subfields	<i>Check date.</i> This field contains a timestamp that indicates when the check for the table occurs. This field contains subfields MONTH, DAY and YEAR. Updates occur to this field when TABAUDIT runs.
	MONTH	JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC	<i>Month.</i> This field contains the month the check for this table occurs.
	DAY	1 to 31	<i>Day.</i> This field contains the day of the month the check for this table occurs.
	YEAR	1976 to 3000	<i>Year.</i> This field contains the year the check for this table occurs.
CHKTIME		see subfields	<i>Check time.</i> This field contains a timestamp that indicates when the check for this table occurs. This field contains subfields HOUR, MINUTE and SECOND. Updates occur to this field when TABAUDIT runs.
	HOUR	0 to 9 (2 digits)	<i>Hour.</i> This field contains the hour the check for the table occurs.
	MINUTE	0 to 9 (2 digits)	<i>Minutes.</i> This field contains the minute of the hour the check for the table occurs.
	SECOND	0 to 9 (2 digits)	<i>Seconds.</i> This field contains the seconds of the hour the check for the table occurs.

DART (continued)**Field descriptions (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
INCLUDE		Y or N	<i>Include.</i> Enter Y (yes) when the automated table audit (tabaudit) is to verify the table. For other conditions, enter N (no).
DRAREA		see subfields	<i>Dump and restore area.</i> This field contains subfield DUMPREST.
	DUMPREST	Y or N	<i>Dump and restore.</i> Enter Y when dump and restore is required. Enter data in refinements RESTCNT, RESTFAIL, RESTDATE, RESTTIME and RESTTYPE. Enter N when dump and restore is not required. Table DART does not require additional data entry.
	RESTCNT	0 to 4294967295	<i>Restore count.</i> This field contains the number of tuples now restored. The dump and restore driver updates this field when a dump and restore is in progress.
	RESTFAIL	0 to 4294967295	<i>Restore fail.</i> This field contains the number of tuples in each table that fails to restore.
	RESTDATE	see subfields	<i>Restore date.</i> This field contains a timestamp that indicates when the restore occurs for the table. This field contains subfields MONTH, DAY and YEAR.
	MONTH	JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC	<i>Month.</i> This field contains the month the restore for the table occurs.
	DAY	1 to 31	<i>Day.</i> This field contains the day the restore for the table occurs.
	YEAR	1976 to 3000	<i>Year.</i> This field contains the year the restore for the table occurs.

DART (continued)**Field descriptions (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
	RESTTIME	see subfields	<i>Restore time.</i> This field contains a timestamp that indicates when the restore for the table occurs. This field contains subfields HOUR, MINUTE and SECOND.
	HOUR	0 to 9 (2 digits)	<i>Hour.</i> This field contains the hour of the day the restore for the table occurs.
	MINUTE	0 to 9 (2 digits)	<i>Minutes.</i> This field contains the minutes of the hour the restore occurs for the table.
	SECOND	0 to 9 (2 digits)	<i>Seconds.</i> This field contains the seconds of the hour the restore for the table occurs.
	RESTTYPE	EXTERNAL LOGICAL PHYSICAL or SPECIFIC	<i>Restore type.</i> This field contains the restore type to support different restore procedures. The restore types are external, logical, physical, or table specified.

Datafill example

Sample datafill for table DART appears in the following example.

MAP example for table DART

INCLUDE	TABKEY	CHKCNT	CHKFAIL	CHKDATE DRAREA	CHKTIME
	CUSTFLDS	0	0 JAN 1 1976	00 00 00	
N				N	
	DART	0	0 JAN 1 1976	00 00 00	
N Y	0	0 JAN 1 1976	00 00 00	EXTERNAL	

Table history
NA009

The TABAUDIT replaced the CHECKTAB utility in NA009.

BCS36

Table DART was introduced in BCS36.

Additional information

This section provides information on dump and restore for table DART.

Dump and restore

Normal dump and restore procedures apply. The restore for fields CHKCNT, CHKFAIL, CHKDATE, CHKTIME, and INCLUDE requires a reformat.

DATASIZE

Table name

Data Size (DATASIZE)

Functional description

Table DATASIZE specifies the table length for tables that require datafill from the operating company.

Datafill sequence and implications

After the initial datafill, the value of field SIZE can only be changed by Northern Telecom. The table is initially datafilled with default values for the field SIZE as follows:

(Sheet 1 of 3)

Table name	Range of values
AIODGRP	0-256
AIODMEM	0-256
AVNMPPLN	0-256
CLLI	0-2048
CONF3P	0-999
CONF6P	0-999
CPOS	0-127
Note: To change default values, use the replace (REP) command.	

DATASIZE (continued)

(Sheet 2 of 3)

Table name	Range of values
NLUPCLLI	0-8192 (Make sure that parameter MAXNUCS in the Engineered Office Parameter table is equal to or greater than the value of field SIZE for table NLUPCLLI. When you change field SIZE, a cold restart is required to activate the new value.)
NWMAOCR	0-64
NWMPPLN	0-256
NWMSC	0-256
N6LINKS	0-150
N6LNKSET	0-33
N6RTESET	0-33
N6SIGTRM	0-40
N6STPENT	0-8
SCGRP	0-512
SDGRP	0-512
TFANINT	0-2048
TONES	0-19
Note: To change default values, use the replace (REP) command.	

DATASIZE (end)

(Sheet 3 of 3)

Table name	Range of values
TRKGRP	0-8191
TRKSGRP	0-16384
Note: To change default values, use the replace (REP) command.	

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table DATASIZE.

Field	Subfield or refinement	Entry	Explanation and action
DATSKEY		alphanumeric	DATA KEY. Enter the table name.
SIZE		numeric	SIZE. Enter the size of the table required before the next extension.

Datafill example

The following example shows sample datafill for table DATASIZE.

DATSKEY	SIZE
TRKGRP	1000

DAYOWEEK

Table name

Day of Week Table

Functional description

Table DAYOWEEK is used to define the required Time of Day (TOD) system for each day of the week. The result of this table is used only if table DAYOYEAR is not datafilled for the current day of the year. This makes it possible to put in standard results for each day of the week, and set up special holidays in table DAYOYEAR.

In some instances, such as something occurring every other week, it may be simpler to define all the relevant days at the beginning of the year in table DAYOYEAR, rather than change the table DAYOWEEK entry back and forth every other week.

If the Partitioned Table Editor feature is purchased for an IBN switching unit, the ownership of each tuple in this table is defined in tables DATAOWNR and OWNTAB.

The entries in table DATAOWNR that apply to this table have the entry in field TABNAME equal to TODNAME and the entry in field TODNAME equal to the value of field TODNAME in this table.

The table OWNTAB entry that applies to this table has the entry in field TABNAME equal to DAYOWEEK.

Datafill sequence and implications

The following tables must be datafilled before table DAYOWEEK.

- DAYTYPES
- TODHEAD

Table size

0 to 1785 tuples

DAYOWEEK (continued)

Datafill

The following table lists datafill for table DAYOWEEK.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TODNAME		alphanumeric (1 to 8 characters) or NILTODNM	<i>Time of day name</i> Enter NILTODNM or the time of day name predefined in table TODHEAD.
WEEKDAY		MON, TUE, WED, THU, FRI, SAT, SUN	<i>Weekday</i> Enter the day of the week to which this entry applies.
DAYTYPE		alphanumeric (1 to 8 characters) or NILDAY	<i>Type of day</i> Enter NILDAY or the type of day name, predefined in table DAYTYPES, that is assigned to the day of the week.

Datafill example

The following example shows sample datafill for table DAYOWEEK.

The example defines the daytypes assigned to the days of the week for TOD system LONTODN.

DAYOWEEK (continued)

MAP display example for table DAYOWEEK

TODNAME	WEEKDAY	DAYTYPE
LONTODN	MON	WEEKDAY
LONTODN	TUE	WEEKDAY
LONTODN	WED	WEEKDAY
LONTODN	THU	WEEKDAY
LONTODN	FRI	WEEKDAY
LONTODN	SAT	SATDAY
LONTODN	SUN	SUNDAY

The following example specifies the datafill that can be used when calls are to be routed differently after business hours. Two daytypes are specified, WEEKDAY for Monday to Friday, and WEEKEND for Saturday and Sunday.

DAYOWEEK (end)

MAP display example for table DAYOWEEK

TODNAME	WEEKDAY	DAYTYPE
GOCTODN	MON	WEEKDAY
GOCTODN	TUE	WEEKDAY
GOCTODN	WED	WEEKDAY
GOCTODN	THU	WEEKDAY
GOCTODN	FRI	WEEKDAY
GOCTODN	SAT	WEEKEND
GOCTODN	SUN	WEEKEND

Table history**EUR006**

The size of table DAYOWEEK was increased from 217 to 1785 tuples

DAYOYEAR

Table name

Day Of Year Table (DAYOYEAR)

Functional description

Table DAYOYEAR defines any special days of the year for the time of day (TOD) system that override values in table DAYOWEEK.

The definition of floating holidays occurs each year. Holiday definition occurs any time after the holiday occurs in the current year and less than one year before the holiday occurs the following year. For example, the holiday can be March 28 this year and April 5 next year. When this event occurs, wait until April 6 this year to the date to April 5 .

You can install feature BC1459 (Partitioned Table Editor) in an Integrated Business Network (IBN) switch. If you install this feature, tables DATAOWNR and OWNTAB define the ownership of each tuple in this table.

The entries in table DATAOWNR that apply to table DAYOYEAR have the same entries in subfield TODNAME. These entries are the same entries as the entries in field TODNAME in this table.

The entry in table OWNTAB that applies to this table has the entry DAYOYEAR in field TABNAME.

Datafill sequence and meaning

You must enter data in the following tables before you enter data in table DAYOYEAR.

- TODHEAD
- DAYTYPES.

Table size

0 to 93 330 tuples

DAYOYEAR (continued)

Datafill

Datafill for table DAYOYEAR appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TODNAME		alphanumeric (1 to 8 characters) or NILTODNM	<i>Time of day name.</i> Enter the time of day name set in table TODHEAD.
MONTH		JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, or DEC	<i>Month.</i> Enter the month for which this entry applies.
DAY		numeric (1 to 31)	<i>Day.</i> Enter the day of the month for which this entry applies.
DAYTYPE		alphanumeric (1 to 8 characters) or NILDAY	<i>Type of day.</i> Enter the type of day name of the day of the year. Table DAY TYPES sets the type.

Datafill example

Sample datafill for table DAYOYEAR appears in the following example.

The example defines the DAYTYPES of the statutory and public service holidays for TOD systems GROUP1, GROUP2 and GROUP3.

DAYOYEAR (end)

MAP example for table DAYOYEAR

TODNAME	MONTH	DAY	DAYTYPE	
GROUP1	JAN	1	STATHOL	New Year's Day
GROUP1	APR	6	STATHOL	Easter
GROUP1	DEC	24	PSHOL	CHRISTMAS EVE (public service only)
GROUP1	DEC	25	STATHOL	Christmas Day
GROUP1	DEC	26	STATHOL	Boxing Day
GROUP2	JAN	2	STATHOL	Statutory Holiday
GROUP3	JUL	2	PSHOL	Public Service Holiday

Table history**EUR006**

The size of table DAYOYEAR increases from 8192 to 93330 tuples in EUR006.

DAYTYPES

Table name

Type Of Day Table (DAYTYPES)

Functional description

This table defines the names of all the DAYTYPES necessary in the Time of Day (TOD) system. You must enter a DAYTYPE in the TOD before the system can use the entry in tables TODHEAD, DAYOWEEK, DAYOYEAR and TIMEODAY.

When the table defines the names, you cannot change or delete these names. You must remove all the references to these names in the four tables before you change or delete the names.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table DAYTYPES.

Table size

1 to 1024 tuples

Datafill

Datafill for table DAYTYPES appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DAYTYPE		alphanumeric (1 to 8 characters)	<i>Type of day.</i> Enter the name of the type of day. Normal entries are: • WEEKDAY • WEEKEND • XMAS • HOLIDAY • JULY4 • the days of the week • any other day or set of days that is treated in a different method.

DAYTYPES (end)

Datafill example

Sample datafill for table DAYTYPES appears in the following example.

Some normal day types for the TOD system appear in the example.

MAP example for table DAYTYPES

DAYTYPE
PSHOL
SATDAY
STATHOL
WEEKDAY
WEEKEND
SUNDAY
HOLIDAY

DCANETID

Table name

Dynamically Controlled Access (DCA) Network Table

Functional description

Table DCANETID defines the valid DCA networks to which the incoming or two-way trunk groups on a given switch may belong. DCA networks referenced in table TKTONODE (Dynamically Controlled Routing (DCR) Trunk Groups from DCR Offices) must belong to one of the following DCA networks:

- the FOREIGN DCA network
- the DEFAULT DCA network
- a specific, user-defined DCA network defined in table DCANETID

The FOREIGN DCA network is used by the operating company to indicate that a specific trunk group in table TKTONODE originates from a network other than the one to which the node belongs. By default, the FOREIGN DCA network always appears in table DCANETID.

The DEFAULT DCA network identifies the default DCA network for the switch. The following two sets of trunk groups will always belong to the default DCA network:

- all incoming trunk groups for which DCA information is not datafilled in table TKTONODE
- all trunk groups for which DCA information is datafilled in table TKTONODE with field DCANET set to default

Table DCANETID is limited to seven tuples. Six of the tuples are distinct, user-defined DCA networks datafilled by the operating company. The seventh tuple is the FOREIGN DCA network that appears in the table by default.

Datafill sequence and implications

Table TKTONODE must be datafilled after table DCANETID.

Table size

1 to 7 tuples

DCANETID (end)**Datafill**

The following table lists datafill for table DCANETID.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NETNAME		alphanumeric (1 to 12 characters)	<i>Network name</i> Enter the name of the DCA network.
SNETNAME		alphanumeric (1 to 4 characters)	<i>Short network name</i> Enter the short network name that is used for displaying network information. This name must be unique within the DCANETID table.

Datafill example

The following example shows sample datafill for table DCANETID.

MAP display example for table DCANETID

NETNAME	SNETNAME
DCANETWORK1	DCA1
DCANETWORK2	DCA2
FOREIGN	FRGN

Table history**NA004**

Table DCANETID was introduced.

DCMEINV

Table name

Digital Circuit Multiplication Equipment Inventory (DCMEINV) table

Functional description

This table defines the physical DCME lines available to the switch and ascribes a parameter set to each one. Up to 10 sets of parameters are allowed.

Datafill sequence and implications

Tables LTCINV, LTCPSINV, and DCMEMTC must be datafilled before table DCMEINV.

Table size

up to 2047 tuples

Datafill

The following table lists datafill for table DCMEINV.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DCMENAME		12 alphanumeric characters	DCME NAME. Enter the name for the DCME.
MTCPARM		a valid entry in table DCMEMTC	MAINTENANCE PARAMETERS. Enter the name of a parameter set from table DCMEMTC.
CSLNKTAB		see subfields	C-SIDE LINK TABLE. Enter a vector of the seven following subfields to describe a link to the DCME. Up to 10 sets of parameters are allowed.
	LINKNO	0 to 9	DCME LINK NUMBER. Enter the number assigned to the DCME connection.
	PMTYPE	PDTC	PERIPHERAL MODULE TYPE. Enter the type of peripheral module. Currently only PDTC is supported.
	DEQNO	0 to 511	DIGITAL EQUIPMENT NUMBER. Enter the digital equipment number.

DCMEINV (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	DEQCKTNO	0 to 15	DIGITAL EQUIPMENT CIRCUIT NUMBER. Enter the circuit number.
	SIGBITS	AB or CD	SIGNALING BITS. Enter which bits will be used for signaling from the PCM30 multiframe.
	TRM	Y or N	TRANSITION RESOURCE MANAGEMENT. Enter Y if TRM signals are supported. Enter N if they are not.
	MTC	Y or N	MAINTENANCE SIGNALS. Enter Y if maintenance requests from this link will be acknowledged. Enter N if they will not be. If TRM is set to N, this must also be set to N.

Datafill example

The following example shows sample datafill for table DCMEINV.

MAP display example for table DCMEINV

```
DCMENO MTC Parm CSLINKTAB
10      DEFAULT (PDTC 4 0 AB Y Y) (PDTC 4 1 CD N N) $
```

Table history**UCS07**

Table DMCEINV is created.

DCMEMTC

Table name

Digital Circuit Multiplication Equipment Maintenance (DCMEMTC) table

Functional description

This table defines parameter sets that can be assigned to the DCME lines. Up to 10 sets of parameters are allowed.

Datafill sequence and implications

Table DCMEMTC must be datafilled before table DCMEINV.

Table size

1 to 10 tuples

Datafill

The following table lists datafill for table DCMEMTC.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PARMSET		8 alphanumeric characters	PARAMETER SET. This is the name given to a set of parameters.
MINALCT		1 to 300	MINOR ALARM CIRCUITS. Enter the number of circuits that must have "Channel Out of Service" or spare signals before triggering a minor alarm. Defaults to 100.
MAJALCT		1 to 300	MAJOR ALARM CIRCUITS. Enter the number of circuits that must have "Channel Out of Service" or spare signals before triggering a major alarm. Defaults to 150.
CRITALCT		1 to 300	CRITICAL ALARM CIRCUITS. Enter the number of circuits that must have "Channel Out of Service" or spare signals before triggering a critical alarm. Defaults to 200.
OMTRESH		0 to 32767	OPERATIONAL MEASUREMENTS THRESHOLD. Enter the number of times a Bearer Service must become unavailable before a log is generated. Defaults to 500.

DCMEMTC (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
SIGREC		SR20 or SR40	DCME SIGNAL RECOGNITION TIME. Enter the recognition time for DCME signals (in ms). Defaults to SR20.
BEARACK		50 to 250	BEARER SERVICE ACKNOWLEDGE TIME-OUT. Enter the length of time (in hundredths of a second) the switch should wait for acknowledgement of a DCME signal before assuming an error has occurred. Defaults to 200
SPARSIG		50 to 250	SPARE SIGNAL RECOGNITION TIME. Enter the time to wait before recognizing a 'spare' signal (in hundredths of a second). Defaults to 200.
ACK3K1		Y or N	ACKNOWLEDGMENT FOR 3.1 kHz BEARER SERVICE REQUESTS. Enter Y to request 3.1 kHz bearer service and expect a "Special Service Acknowledgement" from the DCME. Enter N to treat 3.1 kHz bearer service calls as speech calls. Defaults to N.

Datafill example

The following example shows sample datafill for table DCMEMTC.

MAP display example for table DCMEMTC

```
PARMSET MINALCT MAJALCT CRITALCT OMTHRESH SIGREC BEARACK
SPARSIG ACK3K1
```

```
DEFAULT 100 150 200 500 SR20 200 200 N
```

Table history**UCS07**

Table DCMEMTC is created.

DCMINV

Table name

Digital Carrier Module Inventory Table

Functional description

Table DCMINV contains the following assignment data for each digital carrier module (DCM):

- floor, row, bay position, and base mounting position of each DCM
- frame type and number where the DCM mounts
- network assignments
- the name assigned to the issue of the peripheral module (PM) software. For a list of available names, see the batch change supplement (BCS) for the appropriate software release.
- the set of executive programs the DCM requires. For a list of available names, refer to the BCS for the appropriate software release.
- specifies if the DCM is for a remote line module (RLM) or Traffic Operator Position (TOPS) optical carrier (OC) datalink application.
- specifies if the DCM P-side links must be placed out of service when the values exceed out-of-service limit for frame or slip.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table DCMINV.

Table size

The system automatically allocates memory in segmented blocks. Each block can accommodate a maximum of 16 DCMs.

The maximum number of DCMs is 512.

DCMINV (continued)**Datafill**

Datafill for table DCMINV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DCMNM		see subfields	<i>Digital carrier module number.</i> This field contains subfields DCMTYPE and DCMNO.
	DCMTYPE	DCM or DES	<i>Digital carrier module.</i> Enter DCM for digital carrier module DES for digital echo suppressor.
	DCMNO	0 to 511	<i>Digital carrier module number.</i> Enter the digital carrier module number.
FRTYPE		DCE	<i>Frame type.</i> Enter the DCE (digital carrier equipment) frame where the digital carrier module mounts.
FRNO		0 to 511	<i>Frame number.</i> Enter the frame number of the DCE frame where the digital carrier module mounts.
SHPOS		04, 18, 32, 51, or 65	<i>Shelf position.</i> Enter the base mounting position of the DCM on the DCE frame. An entry outside this range is not correct.
FLOOR		0 to 99	<i>Floor.</i> Enter the floor or remote location number where the DCE frame mounts.
ROW		A to H J to N P to Z AA to HH JJtoNN and PP to ZZ	<i>Row.</i> Enter the row of the DCE frame location.
FRPOS		0 to 99	<i>Frame position.</i> Enter the bay position of the DCE frame.

DCMINV (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
EQPEC		2X31AA 2X31AB 2X31AC 2X31AK 2X31AH 2X31AJ 2X31AL 2X12AA 2X12AD	<i>Equipment product engineering code.</i> Enter the product engineering code (PEC) of the DCM. The PECS of the DCM are 2X31AA, AB, AC, AK, AH, AJ, or AL. The PECs of the DES module are 2X12AA or AD.
LOAD		alphanumeric (one to eight characters)	<i>Load.</i> Enter the name assigned to the issue of the PM software. For a list of available names refer to the batch change supplement for the appropriate BCS.
LKDATA		see subfields	<i>Link data.</i> For switches equipped with the junctored network (JNET), this field contains subfields NMMPAIR and NMPORT. For switches equipped with the enhanced network (ENET), this field contains subfields ENSHELF, ENSLOT, ENLINK, and ENDS30.

Junctored Network (JNET)

If the switch has JNET, the following two fields form a vector of a maximum of four multiples. The method you must follow to enter data for each subfield appears in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NMPAIR	0 to 31	<i>Port A network module number.</i> Enter the network module number assigned to the digital carrier or echo suppressor module.
	NMPORT	0 to 63	<i>Port A network module port number.</i> Enter the network module port number assigned to the digital carrier or echo suppressor module.

DCMINV (continued)**Enhanced Network (ENET)**

If the switch has ENET, the following fields form a vector of a maximum of four multiples. The method you must follow to enter data for each subfield appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ENSHELF	0 to 7	<i>ENET shelf number.</i> Enter the network shelf number assigned to the digital carrier or echo suppressor module.
	ENSLOT	<i>for ENET</i> 128k10to16, 25 to 32 <i>for ENET 16k,</i> 13 to 19	<i>ENET slot number.</i> Enter the crosspoint slot number assigned to the digital carrier or echo suppressor module.
	ENLINK	0 to 18	<i>ENET link number.</i> Enter the crosspoint link number assigned to the digital carrier or echo suppressor module.
	ENDS30	0 to 15	<i>ENET DS30.</i> This field defaults to 0, because DS30 links do not use field ENDS30. Fiber links can use the range 0 to 15.
	EXECS	ADCMEX ADCMIX ATVDCMEX BTRSPTS DCMCSC DCMEX DCM25EX DCM250EX DCM300 DESEX FXODCMEX MOCD- CM- TEX PXFEX R2GWEX TRSCCS TRISD TRSTRF TRS327 TRS727	<i>Executive programs.</i> Enter the set of executive programs that the DCM requires. Entries MOCDCMTEX and R2GWEX are only for DCMT. Entries outside this range are not correct.

DCMINV (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	USER	RLM, OCDL, or NONE	<i>User.</i> Enter RLM if DCM is for a remote line module. Enter OCDL if DCM is for a TOPS OC datalink. The entry for field EQPEC must be 2X31AC or 2X31AJ. Otherwise, enter NONE.
	VARINFO	vector from 1 to 5 multiples	<i>Variable information.</i> This field depends on the value of field DCMSEL. If you set field DCMSEL to DCM, field VARINFO is a vector. The vector contains one to five entries of subfields PSLINKS, CARRIDX, or SETACTN. If you set field DCMSEL to DES, then field VARINFO does not have entries. Field VARINFO does not have entries because the DES does not have P-side links equipped.
	DCMSEL	DCM or DES	<i>DCM selector.</i> Enter DCM or DES.

Digital Carrier Module (DCM)

If the entry for field DCMSEL is DCM, enter data in the following subfields:

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	PSLINKS	0 to 4	<i>P-side links.</i> Enter the link number equipped in the DCM.
	CARRIDX	alphanumeric (a maximum of 16 characters)	<i>Carrier index.</i> Enter the template name for the DCM. Table CARRMTC field TMPLTNM defines this entry. The default value is DEFAULT.
	SETACTN	Y or N	<i>Set action.</i> Enter Y to put the link out of service if the values exceed the out-of-service limit for frame or slip. In other conditions, enter N.

Datafill example

Sample datafill for table DCMINV appears in the following example.

DCMINV (end)**MAP example for table DCMINV**

DCMNM	FRTYPE	FRNO	SHPOS	FLOOR	ROW	FRPOS	EQPEC	LOAD LKDATA
EXECUS							USER	VARINFO
DCM 2	TME	2	32	1	B	9	2X31AC	ADCMMA02
								0 25 0 0
								1 10 1 0
								2 32 2 0
								3 14 3 0
DCMEX							RLM	
DCM (0 DEFAULT N) (1 DEFAULT N) (2 DEFAULT N) (3 DEFAULT N)								
(4 DEFAULT N)\$								

DCNTAB

Table name

Data Change Notification

Functional description

The Data Change Notification Table contains information about tables that TelePATH monitors.

This table is read-only and can only change when the system transfers data during a One Night Process (ONP). During an ONP, the system updates the new software load with data from the old software load.

TelePATH is an Operational Support System that provides a DMS switch. TelePATH uses a datalink to send and receive table datafill to and from a switch.

Datafill sequence and meaning

Does not apply. This table is a read-only table.

Table size

Does not apply. This table is a read-only table.

Datafill

Datafill for table DCNTAB appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TNAME		alphanumeric (16 characters)	This field contains the name of the table that TelePATH monitors.
LOST		N or Y	Set this field to Y. If the system discards data changes to the selected table and does not transfer changes to TelePATH.

Datafill example

Sample datafill for table DCNTAB appears in the following example.

DCNTAB (end)

MAP example for table DCNTAB

TNAME	LOST

CLLI	N

Table history**BASE08**

Table DCNTAB was introduced in BASE08.

Additional information

There is no additional information.

DCRNETID

Table name

Dynamically Controlled Routing Network Identification Table

Functional description

Table DCRNETID is used to input the dynamically controlled routing (DCR) network information. Each DCR network that the DMS switch is a member of must be defined in table DCRNETID. The table must contain at least one network name if the node is operating as a DCR node. For multiple network access, table DCRNETID keeps track of all the DCR networks to which this node belongs.

Datafill sequence and implications

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

The following tables must be datafilled after table DCRNETID:

- DESTKEY
- DESTNODE
- DCROPT
- TKTONODE
- OFRT subtable of tables HNPACONT and FNACONT
- RTEREF subtable of tables HNPACONT and FNACONT

Table size

Table size is controlled by office parameter NUM_DCR_NP_ACCESS in table OFCENG.

DCRNETID (continued)**Datafill**

The following table lists datafill for table DCRNETID.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NETNAME		alphanumeric (1 to 12 characters)	Dynamically controlled routing network name. This field is the key to the table. Enter the dynamically controlled routing (DCR) network name.
SNETNAME		alphanumeric (1 to 4 characters)	Short dynamically controlled routing network name. Enter the short DCR network name used by the CI (command interpreter) MAP network management level display.
NETTYPE		HPR, LDR, or RDR	Dynamically controlled routing network type. Enter the DCR network type: HPR (high performance routing), LDR (local dynamic routing), or RDR (regional dynamic routing).
FHR		ACTIVE or ENABLED	Fixed hierarchical routing. Enter ACTIVE if the switch is operating in fixed hierarchical routing (FHR) mode. Enter ENABLED if the switch is allowed to operate in FHR mode, but is not currently operating in FHR mode. DISABLED is not a valid entry. This entry indicates that the switch is not allowed to operate in FHR mode. The default is ACTIVE.
NONTANDM		ACTIVE, DISABLED, or ENABLED	Nontandem. Enter ACTIVE if the switch is operating in nontandem mode. Enter DISABLED if the switch is not allowed to operate in nontandem mode. Enter ENABLED if the switch is allowed to operate in nontandem mode, but is not currently operating in nontandem mode.
TANDEM		ACTIVE, DISABLED, or ENABLED	Tandem. Enter ACTIVE if the switch is operating in tandem mode. Enter DISABLED if the switch is not allowed to operate in tandem mode. Enter ENABLED if the switch is allowed to operate in nontandem mode, but is not currently operating in tandem mode.

DCRNETID (end)

Datafill example

The following example shows sample datafill for table DCRNETID.

MAP display example for table DCRNETID

NETNAME	SNETNAME	NETTYPE	FHR	NONTANDM	TANDEM
DCR_NET_1	DCR1	HPR	ACTIVE	ENABLED	ENABLED

Table history
BCS36

Table DCRNETID was introduced.

Supplementary information

This section provides information on dump and restore procedures for table DCRNETID.

Dump and restore

The network name is required for tables DESTKEY, DESTNODE, DCROPT, TKTONODE, OFRT, and RTEREF. The name can be supplied by inserting the first tuple into table DCRNETID on the restore side before the datafill is transferred from the dump side. Otherwise, the default name TELECOM_DCR is automatically inserted as the only tuple in table DCRNETID (field NETNAME) during the dump and restore process.

The defaults for the remaining fields in table DCRNETID are as follows:

- The entry in field SNETNAME is TLCM.
- The entry in field NETTYPE is HPR.
- The entry in field FHR is ACTIVE.
- Field NONTANDM is set to ENABLED unless there is a dump-side DCRNONTANDEM tuple in table DCROPT that has field ENABLE set to N. In this case, field NONTANDM in table DCRNETID is set to DISABLED.
- Field TANDEM is set to ENABLED unless there is a dump-side DCRTANDEM tuple in table DCROPT that has field ENABLE set to N. In this case, field TANDEM in table DCRNETID is set to DISABLED.

DCROPT

Table name

Dynamically Controlled Routing Mode of Operation Control Table

Functional description

For BCS36 and up, information previously contained in table DCROPT is now recorded in table DCRNETID. Table DCROPT remains for dump and restore purposes only. Tuples can no longer be added to this table.

Prior to BCS36, table DCROPT was used by the operating company monitoring the office to control the different modes of operation introduced by feature BV1534, Dynamically Controlled Routing (DCR).

Datafill sequence and implications

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

Table size

For BCS36 and up, table size is 0 (zero).

Prior to BCS36, extension from 0 (zero) to 3 tuples is automatic. Field SIZE in table DATASIZE was not used and must be set to 0 (zero).

DCROPT (continued)

Datafill

The following table lists datafill for table DCROPT.

1Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
OPTKEY		FHR, DCRTAN-, DEM, or DCRNONTA NDEM	Mode of operation. Enter the possible modes of operation of the switch. Enter FHR for fixed hierarchical routing. Enter DCRTANDEM to indicate to the network processor (NP) that the switch can be used as Dynamically Controlled Routing (DCR) tandem switch if field ENABLE is set to Y (yes). Enter DCRNONTANDEM to indicate to the NP that the switch can be used as DCR non-tandem switch if field ENABLE is set to Y. Tuples cannot be deleted once they are added.

DCROPT (continued)**1Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
ENABLE		Y or N	<i>Enable mode of operation</i> Enter Y (yes) to indicate that the operating company administering the office allows the NP to place the switch in the associated mode of operation. Enter N (no) to indicate DCRTANDEM and DCRNONTANDEM modes of operation only since the fixed hierarchical mode of operation cannot be disabled. If a currently active mode is disabled, a message is sent to the NP to request a mode change. Field ACTIVE is not updated until the NP acknowledges the mode change. Field ACTIVE is automatically updated to FHR if both DCR tandem and DCR non-tandem are disabled and DCR routing is also disabled.
ACTIVE		Y or N	Active mode of operation. This field is set by the NP to indicate the mode of operation selected. It cannot be changed by the operating company administering the office except indirectly by changing field ENABLE of the associated mode of operation. Exactly one of the ACTIVE fields from the possible three tuples can be set to Y at one time. The others are set to N. Enter Y for FHR and N for DCRTANDEM and DCRNONTANDEM, which corresponds to the initial values.

Datafill example

The following example shows sample datafill for table DCROPT.

DCROPT (end)

MAP display example for table DCROPT

OPTKEY	ENABLE	ACTIVE
FHR	Y	N
DCRNONTANDEM	Y	Y
DCRTANDEM	Y	N

Table history

BCS36

Statements that information in table DCROPT is now recorded in table DCRNETID were added.

Supplementary information

This section provides information on dump and restore for table DCROPT.

Dump and restore

During dump and restore, table DCROPT is used to transfer the DCR operation mode states from table DCROPT, on the dump side, to table DCRNETID on the restore side.

Table name

Data Communication Site (DCSITE)

Functional description

Table DCSITE provides a translation of network connections that are defined in table RASLAPPL to remote site names. Datafill the network connection names in table RASLAPPL.

Table size

Eight tuples

Datafill sequence and implications

Datafill the following tables before table DCSITE.

- Link tables (for example, MPC and MPCLINK)
- RASLAPPL

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table DCSITE.

Field	Subfield or refinement	Entry	Explanation and action
SITE		Vector of up to six characters	SITE. Enter the location datafilled in table RASLAPPL.
APPLS		Vector of up to four multiples	APPLICATIONS. The key is INLOG and the network connection name is the subfield.

Datafill example

The following is an example of datafill for table DCSITE.

```

SITE      APPLS
-----
DALLAS    (INLOG DALLAS_INLOG) $

```

DDTAB

Table name

Data Dictionary Table (DDTAB)

Functional description

Table DDTAB displays the data schema information of the data dictionary (DD) in the form of standard table tuples. Table DDTAB also sends schema change information to TelePATH as DCN records. The table improves the ability of the TelePATH system to monitor the DMS switch, and is for internal use.

TelePATH is an operational support system (OSS) for a DMS switch. TelePATH uses a datalink to send and receive table datafill to and from a switch.

This table is a read-only table. The table cannot be augmented or changed by operating company personnel.

Datafill sequence and implications

There is no requirement to datafill other tables before table DDTAB.

Table size

DDTAB is a read-only table. The system controls the size of the table.

Datafill

The following table lists datafill for table DDTAB.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
NAME		1 to 32 characters	Name. This is a vector, 1 to 32 characters long, that contains the type name. The term "type" indicates the software codes added to the data dictionary during loadbuild. There is one entry in the data dictionary for each type in the data dictionary. This field is the key to the table.
TID		0 to 65535	Type identification. This is an integer value that corresponds to the internal type identification.

DDTAB (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
BITSIZE		-32768 to 32767	Bit size. This is an integer value, measured in bits, that represents the internal size of an instance of the type.
CHARSIZE		-32768 to 32767	Character size. This is an integer value that contains the number of characters required to represent the largest external instance of this type.
ASPINF			Aspect information. This is an area with refinements that contains additional information if the type has a format aspect bound to it. This field consists of subfield FMTASP.
	FMTASP	N or Y	Format aspect. "Y" indicates that the type has a format aspect bound against it. When set to "Y", the following subfields are present: MODNAME, EDITION, and PROCNAME.
	MODNAME	1 to 22 characters	Module name. This is a vector, 1 to 22 characters long, that indicates the name of the module that implements the input procedure for this format aspect.
	EDITION	4 characters	Edition. This is a table, 4 characters long, that indicates the version and the issue of the MODNAME on the switch.
	PROCNAME	1 to 64 characters	Procedure name. This is a vector, 1 to 64 characters long, that indicates the name of the input procedure for this format aspect.
INFO			Information. This is an area with refinements that contains additional information about the kind of type in the tuple.

DDTAB (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	MARK	AREA, DEFINED, DESC, INVALID, NUMERIC_RANGE, OVERLAY, PROC, PTR, SET, STRING_RANGE, STRUCTURE, SYMBOLIC_RANGE, TABLE, UNDEFINED, VECTOR	Mark. If the entry is AREA, the following subfields appear: NUMFLDS, FATHER, and SON. Refer to MARK = AREA for additional information. If the entry is DEFINED, the subfield FATHER appears. Refer to MARK = DEFINED for additional information. If the entry is DESC, the following subfields appear: SUBTYPE and STRIDE. Refer to MARK = PTR, SET, or DESC for additional information. The entries INVALID, OVERLAY, PROC, and UNDEFINED have no additional information. These types do not accept any input on output. The system displays only the used space field. If the entry is NUMERIC_RANGE, the following subfields appear: BOTTOM and TOP. Refer to MARK = NUMERIC_RANGE for additional information. If the entry is PTR, the following subfields appear: SUBTYPE and STRIDE. Refer to MARK = PTR, SET, or DESC for additional information.

DDTAB (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
FLDNAMES			If the entry is SET, the following subfields appear: SUBTYPE and STRIDE. Refer to MARK = PTR, SET, or DESC for additional information. If the entry is STRUCTURE, the subfield NUMFLDS appears. Refer to MARK = STRUCTURE for additional information. If the entry is STRING_RANGE, the following subfields appear: NUMSYS, MAXLEN, and MULTI. Refer to MARK = STRING_RANGE for additional information. If the entry is SYMBOLIC_RANGE, the following subfields appear: NUMSYMS and MAXLEN. Refer to MARK = SYMBOLIC_RANGE for additional information. If the entry is TABLE, the following subfields appear: SUBTYPE, BOTTOM, and TOP. Refer to MARK = TABLE for additional information. If the entry is VECTOR, the following subfields appear: SUBTYPE and MAXNUM. Refer to MARK = VECTOR for additional information.
			Field names. This is a subtable that contains information about fields of the type. This subtable has tuples if the type is an area, structure, or vector. This subtable has the following subfields: INDEX, FLDNAME, FLDTYPE, BOFFSET, and BSIZE.
	INDEX	-32768 to 32767	Index. This is an integer that represents the number of the field starting from 1.
	FLDNAME	1 to 32 characters	Field name. This is a vector, 1 to 32 characters long, that indicates the name of the field.
	FLDTYPE	1 to 32 characters	Field type. This is a vector, 1 to 32 characters long, that indicates the type of the field.

DDTAB (continued)**Field descriptions (Sheet 5 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
AREAREFS	BOFFSET	-32768 to 32767	Bit offset. This is an integer that represents the bit offset of the field within the structure or area.
	BSIZE	-32768 to 32767	Bit size. This is an integer that represents the size of the field in bits.
			Area Refinements. This is a subtable that contains information about refinements bound for the father area. There is one subtable tuple for each area refinement. This subtable has the following refinements: INDEX, SELVAL, and REFTYPE.
	INDEX	-32768 to 32767	Index. This is an integer that represents the selector value in internal decimal format.
	SELVAL	1 to 32 characters	Selector value. This is a vector, 1 to 32 characters long, that indicates the selector value.
STRINGS	REFTYPE	1 to 32 characters	Refinement type. This is a vector, 1 to 32 characters long, that indicates the type of the refinement.
			Strings. This is a subtable that contains information about symbols of the type. There is one subtable tuple for each string or symbol. This subtable has the following refinements: INDEX, and STRING.
	INDEX	-32768 to 32767	Index. This is an integer that represents the number bound to this string.
	STRING	1 to 32 characters	String. This is a vector, 1 to 32 characters long, that indicates the value of the string.

DDTAB (continued)

The following table describes the subfields if MARK = AREA.

Field descriptions MARK = AREA

Field	Subfield or refinement	Entry	Explanation and action
	NUMFLDS	-32768 to 32767	Number of fields. This is an integer that represents the number of fields in this area, but excludes the father.
	FATHER	N or Y	Father. This is a BOOL set to `Y` if this type is a refinement of another area. If set to `Y`, the following subfield is present: TID.
	SON	N or Y	Son. A BOOL set to `Y` if this area has a SELECTOR field.
	TID	1 to 64 characters	Type identification. This indicates the type of the father area. A vector, 1 to 64 characters long, that occurs if father is `Y`.
	SELECTOR	1 to 32 characters	Selector field name. This is a vector, 1 to 32 characters long, that occurs if son is `Y`.

The following table describes the subfields if MARK = STRUCTURE.

Field descriptions MARK = STRUCTURE

Field	Subfield or refinement	Entry	Explanation and action
	NUMFLDS	-32768 to 32767	Number of fields. This is an integer that represents the number of fields in this structure.

The following table describes the subfields if MARK = VECTOR.

Field descriptions MARK = VECTOR

Field	Subfield or refinement	Entry	Explanation and action
	SUBTYPE	1 to 32 characters	Subtype. This is a type identification that indicates the type of the vector elements. Subtype is a vector, 1 to 32 characters long.
	MAXNUM	-32768 to 32767	Maximum number. This is the maximum size of the vector.

DDTAB (continued)

The following table describes the subfields if MARK = TABLE.

Field descriptions MARK = TABLE

Field	Subfield or refinement	Entry	Explanation and action
	SUBTYPE	1 to 32 characters	Subtype. This is a type identification that indicates the type of the table elements. Subtype is a vector, 1 to 32 characters long.
	BOTTOM	integer	Bottom. This is an integer that represents the bottom of the table range.
	TOP	integer	Top. This is an integer that represents the top of the table range.

The following table describes the subfields if MARK = SYMBOLIC_RANGE.

Field descriptions MARK = SYMBOLIC_RANGE

Field	Subfield or refinement	Entry	Explanation and action
	NUMSYMS	-32768 to 32767	Number of symbols. This is an integer that represents the number of symbols in the range.
	MAXLEN	-32768 to 32767	Maximum length. This is an integer that represents the character length of the longest symbol in the range.

The following table describes the subfields if MARK = STRING_RANGE.

Field descriptions MARK = STRING_RANGE

Field	Subfield or refinement	Entry	Explanation and action
	NUMSYMS	-32768 to 32767	Number of symbols. This is an integer that represents the number of strings in the range.
	MAXLEN	-32768 to 32767	Maximum length. This is an integer that represents the character length of the longest string in the range.
	MULTI	N or Y	Multiple range. This is a BOOL set to "Y" if the string range is a multiple range.

DDTAB (continued)

The following table describes the subfields if MARK = NUMERIC_RANGE.

Field descriptions MARK = NUMERIC_RANGE

Field	Subfield or refinement	Entry	Explanation and action
	BOTTOM	-2147483648 to 2147483647	Bottom. This is an integer that represents the bottom of the numeric range.
	TOP	-2147483648 to 2147483647	Top. This is an integer that represents the top of the numeric range.

The following table describes the subfields if MARK = PTR, SET, or DESC.

Field descriptions MARK = PTR, SET, or DESC

Field	Subfield or refinement	Entry	Explanation and action
	SUBTYPE	1 to 32 characters	Subtype. This is a type identification, 1 to 32 characters long, that represents the type of the elements.
	STRIDE	-32768 to 32767	Stride. This is an integer that represents the bit size of the elements.

The following table describes the subfields if MARK = DEFINED.

Field descriptions MARK = DEFINED

Field	Subfield or refinement	Entry	Explanation and action
	FATHER	1 to 32 characters	Father. This is a type identification, 1 to 32 characters long, that represents the type of the defining type.

Datafill example

The following example shows sample datafill for table DDTAB.

DDTAB (end)

MAP display example for table DDTAB

NAME	TID	BITSIZE	CHARSIZE	ASPINF
FLDNAMES	AREAREFS	STRINGS		INFO
COMMON_NAME	19	133	1	N
(0) (0) (0)	DEFINED	SIXTEEN_CHAR_VECTOR		
SIX_CHAR_COUNT	20	3	1	N
(0) (0) (0)	NUMERIC_RANGE	0		6

Table history
BASE11

TID field range changes to 0 to 65535 (from -32768 to 32767).

Subfields BOTTOM and TOP for field NUMERIC RANGE change to -2147483648 to 2147483647 (from -32768 to 32767).

BASE10

Documented table DDTAB.

DDU

Table name

Disk Drive Unit Table

Functional description

The input/output controller (IOC) assignments for a maximum of ten disk drive units (DDU) appear in table DDU.

The system can boot an image from DDUs that have an IOC assignment for the following disk drive controller cards:

- NT1X55AA
- AB
- CA
- DA
- FA

The Field Descriptions Table describes this condition.

IOC assignments

Card slot and base circuit number on shelf with product engineering code (PEC):						
NT1X61AA	NT1X61AB	NT2X76nn				
IOC number	Slot	Circuit	Slot	Circuit	Slot	Circuit
0	12	16	04	00	21	00
0	04	00	06	04	19	04
1	12	16	04	00	21	00
1	04	00	06	04	19	04
Note: nn = AB (replaced), AM, AN, AP, AR, AS, AT, and AW						

Refer to table MTD for the disk drives that contain fixed assignments for the IOC.

DDU (continued)

Note: A switch that has magnetic tapes as the primary storage device does not require DDUs.

Refer to table MTD for related information.

Datafill sequence and meaning

Enter data in table IOC before table DDU.

Northern Telecom provides the input for table DDU.

Table size

The system automatically allocates memory for ten DDUs.

Datafill

Datafill for table DDU appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DDUNO		0 to 9	<i>Disk drive unit number.</i> Enter the number assigned to the disk drive unit (DDU).
IOCNO		0 to 19	<i>Input/output controller number.</i> Enter the number of the input/output controller (IOC) that has the DDU assigned.
IOCKTNO		0, 4, 8, 12, 16, 20, 24, 28, or 32	<i>Input/output controller circuit number.</i> Enter the number of the IOC circuit that has the DDU assigned. Any entry outside the range for this field is not correct.
EQPEC		1X55AA 1X55AB 1X55CA 1X55DA or 1X55FA	<i>Product engineering code.</i> Enter the product engineering code (PEC) of the DDU controller card. Any entry outside the range for this field is not correct.

Datafill example

Sample datafill for table DDU appears in the following example.

DDU (end)

An example of datafill for table DDU for a switching unit equipped with three DDU's appears in the following example.

MAP example for table DDU

DDUNO	IOCNO	IOCCKTNO	EQPEC
0	0	4	1X55AA
1	1	4	1X55AA
0	0	4	1X55FA

Table history
CSP02

Entry value 1X55FA was added to field EQPEC in CSP02.

DEFDATA

Table name

Default Data Table

Functional description

Feature BC1036 (Default Data) allows a user to specify default values for data types defined in the DMS switch. Use table DEFDATA to specify these default values. The data type name and the default value for that data type appears in table DEFDATA. With this table, you can add, change, or delete the default value for a specified data type.

Use table DEFDATA to specify default data for logical tuple types in tables. You can input data to a table in a string of fields or as separate fields. You must determine the logical tuple type for which a default data is necessary before you enter data in table DEFDATA. Refer to the Additional information section for a complete example on how to determine logical tuple types.

The prompt mode allows you to enter data one field at a time. You must enter a value for each field. The table does not define default data for the logical tuple. When this condition occurs the default value for each field appears after the field name. The default value for the tuple key field does not appear. For each field, you can specify a required value or enter a carriage return to accept the default value appears.

If the table does not define defaults for the logical tuple, the prompt mode only displays a default value for a field. This condition occurs when the field is an area, or a refinement for an area. The table can define defaults for a logical tuple and an area or refinement for an area in the tuple. When this condition occurs you receive the default defined for the complete tuple.

Datafill sequence and meanings

You do not need to enter data in other tables before you enter data in table DEFDATA.

Table size

0 to 1000 tuples

The system allocates memory dynamically for a maximum of 1000 tuples.

DEFDATA (continued)**Datafill**

Datafill for table DEFDATA appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DATATYPE		alphanumeric (1 to 32 characters)	<i>Data type.</i> Enter the name of the data type that requires a default value.
DEFAULT		alphanumeric (1 to 32 characters)	<i>Default values.</i> This field contains two parts. The first part is the data type entry in field DATATYPE. The second part contains the default values for the specified data type. You must enter the key field of the tuple as part of the default. The default value does not appear in table editor prompt mode. Refer to example. A blank space must separate each value you enter in field DEFAULT. The default data has a limit of 46 words of data. The default data is the second part of field DEFAULT.

Datafill example

Sample datafill for table DEFDATA appears in the following example.

A data type of METERING_DATA_INDEX with a default value of 0 (zero) appears in the example.

MAP example for table DEFDATA

DATATYPE	DEFAULT
METERING_DATA_INDEX	METERING_DATA_INDEX 0

DEFDATA (continued)**Additional information**

This section provides information on how to enter default data types in table DEFDATA.

Defining a default tuple for a logical tuple type

To define a default tuple for the logical tuple of a table, the logical tuple type name of the table is necessary. At the MAP terminal, table command RANGE displays the logical tuple type.

In the following example, table TERMDEV determines the logical tuple type name.

Determining logical tuple type name

TABLE: TERMDEV

Example input:

>RANGE

Example of a MAP response:

```

1 TERMDSE          EIGHT_CHAR_VECTOR
2 IOCNO            IOC_NUMBER
3 IOCKKTNO         IOC_CCT_NO
4 TERMTYPE         CONSOLE_TYPE
5 BAUDRATE         BAUDRATES
6 INTYPE           COMMUNICATION_INTERFACES
7 EQPEC           PEC
8 PARITY           PARITYS
9 COMCLASS         COMMANDSET
LOGICAL TUPLE TYPE: TTY_TUPLE
```

In this example, the name of the logical tuple type is TTY_TUPLE. A default tuple for logical tuple type TTY_TUPLE appears in table DEFDATA as follows:

DATATYPE	DEFAULT
TTY_TUPLE	TTY_TUPLE TERM5 0 0 VT100 B1200 CL 1X67AB NONE ALL

DEFDATA (continued)

Entry of the TTY_TUPLE occurs twice. The first entry is the entry in field DATATYPE. The second entry of TTY_TUPLE occurs as the first part of the entry in field DEFAULT. Enter the complete default tuple in field DEFAULT in one string. Separate the data type and all default values with single spaces.

The input for table TERMDEV at the MAP terminal after you define the results appears in the following example.

Datafill input for table TERMDEV table DEFDATA is datafilled

```
TABLE:  TERMDEV
Example input:
>ADD
  TERMDIS:
>TERM5
  IOCNO: 0
>
  IOCCKTNO: 0
>24
  TERMTYPE: VT100
>
  BAUDRATE: B1200
>
  INTYPE: CL
>
  EQPEC: 1X67AB
>1X67BC
  PARITY: NONE
>
  COMCLASS: ALL
>
```

The default value for each field, appears after the field name. This condition does not apply to TERMDIS, the key. The user selected values for fields circuit number (field IOCCKTNO) and the card type (field EQPEC). The user also selects the default values. The system enters the defaults in table DEFDATA in all other fields.

Table DEFDATA requires two tuples to provision Call Forward Indication (CFIND) in table CUSTSTN.

DEFDATA (end)

Datafill input for table DEFDATA

TABLE: DEFDATA

Example input:

>add

DATATYPE:

>special_tone_index

DEFAULT:

>special_tone_index cwt

TUPLE TO BE ADDED:

SPECIAL_TONE_INDEX SPECIAL_TONE_INDEX CWT

In this example, the name of the tuple types are SPECIAL_TONE_INDEX and CFIND_TONE_DURATION_TYPE. The default tuples appear in table DEFDATA as follows.

DATATYPE	DEFAULT
SPECIAL_TONE_INDEX SPECIAL_TONE_INDEX CWT	
CFIND_TONE_DURATION_TYPE CFIND_TONE_DURATION_TYPE	1000

DESTKEY

Table name

Destination Key (DESTKEY) table

Functional description

Table DESTKEY is used to input all DCR destinations, including destinations accessible in more than two DCR links. When the addition of a new DCR network destination is required, the common language location identifier (CLLI) of the destination must first be added to table DESTKEY.

Datafill sequence and implications

Datafill table DCRNETID before datafilling table DESTKEY.

Datafill the following tables after datafilling table DESTKEY.:

- DESTNODE
- TKTONODE
- RTEREF
- OFRT
- OFR2
- OFR3
- OFR4
- HNPACONT.RTEREF
- FNPACONT.RTEREF (route selectors DCRT or NODE)

Table size

The maximum number of tuple entries allowed in table DESTKEY is 252. Memory is allocated during initial program load and does not change.

DESTKEY (end)

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table DESTKEY.

Field	Subfield or refinement	Entry	Explanation and action
DESTKEY		Up to 16 alphanumeric characters	DESTINATION KEY. This field contains the DCR destination names or CLLIs.
NETLIST		Up to 12 alphanumeric characters	NETWORK LIST. Enter 1 to 6 network names that are valid tuple entries in table DCRNETID. Each network name may contain up to 12 alphanumeric characters.

Datafill example

The following example shows datafill for table DESTKEY.

```
DESTKEY NETLIST
```

```
DESTNODE_CLLI1 (DCR_NETWORK1) (DCR_NETWORK2) $  
DESTNODE_CLLI2 (DCR_NETWORK1) $
```

DESTNODE

Table name

Dynamically Controlled Routing Destination Office Route Table

Functional description

Table DESTNODE contains a tuple for every destination office reachable in one or two links from the present office. Table DESTNODE is used to select a Dynamically Controlled Routing (DCR) route to each destination. For multiple network access it is necessary to specify the DCR network name of the DCR destination node.

The following fields are associated with each tuple:

- the network processor recommended office (NPREC) to tandem to the destination office
- the direct route (DIRSEL and refinements) from the present office to the destination office
- the exceptional route (EXCSEL and refinements) used whenever the network processor (NP) recommended tandems fail or when the NP cannot recommend any tandems

For related information, refer to table DESTKEY.

Datafill sequence and implications

The following tables must be datafilled before table DESTNODE:

- DESTKEY
- DCRNETID
- OFRT
- OFR2
- OFR3
- OFR4

A tuple can be deleted from table DESTNODE even if the (DCR) destination is referenced in one of the route reference tables (or subtables).

Table size

0 to 1512 (6×252) tuples

The maximum number of tuples is 252 for each DCR network. Table size is dynamically allocated during datafill.

DESTNODE (continued)**Datafill**

The following table lists datafill for table DESTNODE.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DESTKEY		see subfields	<i>Destination node key</i> This field consists of subfields NETNAME and DESTNAME.
	NETNAME	alphanumeric	<i>Destination network name</i> Enter a valid network name from table DCRNETID.
	DESTNAME	alphanumeric	<i>Destination node name</i> Enter the name of each destination office positioned one or two links (trunks) away from the present office. Names datafilled in table DESTKEY are the only valid entries.
NPREC		CONT BLOCK NILREC	<i>NP routing recommendation</i> This field represents the destination office that must be used as a tandem to get to the office datafilled in field DESTKEY. Values in this field can only be modified through software communication with the NP. This is a read-only field.
			The possible value types that appear in this field are as follows: • a destination name indicating a tandem destination • BLOCK - indicating that a call is to be blocked • CONT - indicating that exceptional routing (EXCSEL) is to be used • NILREC - indicating the absence of a recommendation Enter NILREC as the default value for initial datafill. Field NPREC is read only and cannot be changed. BLOCK, CONT, and other valid NPREC field values (the latter group is found in table DESTKEY) can also be used to satisfy the table editor.

DESTNODE (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
OTSRTE		see subfields	<i>Outpulsing scheme routes</i> This field consists of subfields OSID and DIRSEL. These subfields define up to 55 outpulsing schemes and the route associated with each scheme.
	OSID	1 to 55	<i>Outpulsing scheme identification</i> Enter the outpulsing scheme identification (ID) number and complete the associated direct route fields (DIRSEL and refinements) and exceptional route fields (EXCSEL and refinements). Up to 55 outpulsing schemes can be defined for each entry in field DESTKEY. There is no requirement to enter the outpulsing scheme ID numbers in numerical order. The same outpulsing scheme ID number must not be entered twice in field DESTKEY.
	DIRSEL	S, T, or NIL	<i>Direct route selector</i> If a single common language location identifier (CLLI) with standard digit manipulation is sufficient to define the direct route, enter S and datafill refinements CLLI, then go to field EXCSEL. If the direct route has alternatives, or requires nonstandard digit manipulation enter T in this field and datafill refinements DIR_TABNAME and DIR_INDEX, then go to field EXCSEL. If there is no direct route to the destination office, enter NIL and go to field EXCSEL.
	CLLI	alphanumeric (up to 16 characters)	<i>Direct route common language location identifier</i> If the entry in field DIRSEL is S, datafill this refinement. Enter the direct route CLLI.

DESTNODE (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
EXCSEL	DIR_TAB-NAME	OFRT, OFR2, OFR3, or OFR4	<i>Direct route table name</i> If the entry in field DIRSEL is T, datafill this refinement. Enter the OFRx table name for the direct route. The route list in table OFRx is valid if it contains only routes with route selectors S, N, MN, TS, NQ, or CND.
	DIR_INDEX	0 to 1023	<i>Direct route table OFRx index</i> If the entry in field DIRSEL is T, datafill this refinement. Enter the direct route reference index into table OFRx.
		T or NIL	<i>Exceptional route selector</i> If the destination has exception routes, enter T in this field and datafill both the OFRx table name in refinement EXC_TABNAME and the route index in refinement EXC_INDEX. If there is no exceptional route to the destination office, enter NIL. No further datafill is required.
	EXC_TAB-NAME	OFRT, OFR2, OFR3, or OFR4	<i>Exceptional route table name</i> If the entry in field EXCSEL is T, datafill this refinement. Enter the OFRx table name for the exceptional route.
	EXC_INDEX	0 to 1023	<i>Exceptional route table OFRx index</i> If the entry in field EXCSEL is T, datafill this refinement. Enter the exceptional route reference index into table OFRx.

Datafill example

The following example shows sample datafill for table DESTNODE.

DESTNODE (end)

DESTKEY	NPREC	OTSRTE
DCR_NET_1	MTL05 TOR06 (1 S CLLIMTL05 T OFRT 23) (2 T OFRT 36 T OFRT 25) (3 S CLLIQUE03 NIL) \$	
DCR_NET_2	MTL277 TOR0266 (1 S CLLIMTL277 T OFR2 11) (2 T OFR2 25 T OFR2 30) (3 S CLLIQUE99 NIL) \$	
DCR_NET_3	DESTNODE_CLLI_1 DESTNODE_CLLI_N (1 S TRK_CLLI_1 NIL) \$	

Table history**SHR07**

The default value for field NPREC was changed to NILREC.

BCS36

The following items were added:

- table DCRNETID was referenced for network names
- datafill sequence was changed to include table DCRNETID
- table size was changed to 1512
- example was revised
- table size is dynamically allocated during datafill

DGCODE

Table name

Digit Analysis Code Table

Functional description of table DGCODE

Table DGCODE contains the digit analysis data that applies to specified types of calls. The following determines the type of digit analysis that the system performs:

- digit analysis index name (DGNAME) for the originating line or trunk
- first one or two digits dialed

If table DGCODE does not contain digit analysis data for the call, the default values specified in table DGHEAD apply. When this condition occurs, the DGNAME and first one or two digits dialed do not index a tuple. The DGNAME and first one or two digits dialed do not index a tuple that corresponds in table DGCODE. In all other conditions, table DGCODE specifies one of the types of digit analysis described below.

Collect a fixed number of digits Digit analysis collects a specified number of digits and the digits that index this table. Digit collection stops if the system dials a specified stop digit.

Collect in two step Digit analysis collects a specified number of digits and the digits that index this table. The system enables overlap signaling.

Continues Digit analysis continues with another DGNAME that this table specifies.

Collect a range of digits Digit analysis collects a specified minimum number of digits. Collection stops when one of the following conditions occur:

- the digit analysis collects the specified maximum number of digits
- the time-out exceeds the specified time-out
- the system dials a specified stop digit

Report Digit analysis reports on the digits collected at this time.

Refer to table DGHEAD for related information.

Datafill sequence

Enter data into table DGHEAD before you enter data into table DGCODE.

DGCODE (continued)**Table size**

0 to 600 tuples

The number of tuples with a minimum of two digits in fields FROMD and TOD determines the maximum number of tuple. The storage available for this table also determines the number of tuples. The storage available for this table is in the extended multiprocessor system (XMS)-based peripheral module (XPM).

**CAUTION****Possibility of dropped calls**

When the system deletes a tuple from table DGCODE, the status of the PCM30 line group controllers (PLGC) changes. The status of the PLGC changes from in-service (.) to in-service trouble (ISTb). The system can drop calls.

The addition or deletion of tuples in table DGCODE affects the static data in PLGC peripheral modules (PM). When the system deletes a tuple from table DGCODE, the status of the PLGC goes to in-service-trouble. The fault description is static data.

To add or delete tuples in table DGCODE with minimum impact to call processing on the DMS switch, perform the following steps:

1. Select a low-traffic time period to perform data changes.
2. Add or delete the required tuples for table DGCODE.
3. Perform two warm restart switch of activity (WARMSWACT) operations on all PLGCs in the central office.

The WARMSWACT action reloads the static data in the PLGC to clear the ISTb condition. This action occurs twice to allow the static data in plane 0 and plane 1 of each PLGC to load.

If you do not use caution, the PLGCs can drop calls.

Field descriptions

Field names, subfield names, and correct data ranges for table DGCODE appear in the following table.

DGCODE (continued)**Field descriptions for table DGCODE (Sheet 1 of 2)**

Field or subfield	Entry	Description
DGCLKEY	see subfields	<i>Digit analysis key.</i> This field contains subfields DGNAME, FROMD, and TOD.
DGNAME	alphanumeric (a maximum of eight characters) or NIL	<i>Digit analysis index name.</i> Enter the digit analysis index name. This index name must also appear in field DGNAME of table DGHEAD. Field DGCLNAME in table LINEATTR refers to the DGNAME entered here. Fields DGCLSEL(CONT).DGNAME and DGCLSEL(COL2STEP).DGNAME in table DGCODE refer to the DGNAME entered here. For non-international offices, enter NIL.
FROMD	oneortwodigits (0 to 9, B, or C)	<i>From digits.</i> Fields FROMD and TOD specify the range of digits that require a specified type of analysis. Enter the first one or the first two digits of the range.
TOD	oneortwodigits (0 to 9, B, or C)	<i>To digits</i> Enter the last one or the last two digits of the range. Fields FROMD and TOD must have the same number of digits.

DGCODE (continued)**Field descriptions for table DGCODE (Sheet 2 of 2)**

Field or subfield	Entry	Description
DATA	see subfield	<i>Digit analysis data.</i> This field contains subfield DGCLSEL.
DGCLSEL	COLL COL2STEP CONT RAN or REP	<i>Digit analysis selector</i> Select the type of digit analysis required for the specified range of digits. Enter COLL to collect a fixed number of dialed digits. Enter refinements NUMDGTS and STOPDGT as described on page 5. If the tuple specifies stop digits, digit collection stops when the system dials a stop digit. Enter COL2STEP to enable overlap signaling for the specified range of digits. Enter refinements COLNREP and DGNAME as described on page 5Section , "DGCLSEL = COLL" on page -339. Enter CONT to continue digit analysis that another tuple in this table specifies. Enter refinements DGNAME, REPORT, and DIALTONE as described on page 5Section , "DGCLSEL = COLL" on page -339. Enter RAN to collect a specified minimum and a specified maximum number of digits. Enter refinements MINDGTS, MAXDGTS, IDGTTMO, and STOPDGT as described on page 7Section , "DGCLSEL = RAN" on page -341. If the tuple specifies stop digits, digit collection stops when the system dials a stop digit. Enter REP to report the digits collected at this time. This table does not require additional datafill.

DGCODE (continued)

DGCLSEL = COLL

If the entry in subfield DGCLSEL is COLL, enter refinements NUMDGTS, and STOPDGT. These refinements appear in the following table.

Conditional datafill for table DGCODE

Field or subfield	Entry	Description
NUMDGTS	1 to 24	<i>Number of digits to collect.</i> Enter the number of digits to collect and the number collected at this time.
STOPDGT	vector of a maximum of 12 digits (0 to 9, B, C) or N	<i>Stop digit</i> Enter the stop digit or digits. Each stop digit (0 to 9, B, C) specified here stops digit collection when dialed. Enter N if a stop digit is not necessary.

DGCLSEL = COL2STEP

If the entry in subfield DGCLSEL is COL2STEP, enter refinements COLNREP and DGNAME. These refinements appear in the following table.

Conditional datafill for table DGCODE

Field or subfield	Entry	Description
COLNREP	1 to 24	<i>Collect and report.</i> Enter the number of digits to collect and the number collected at this time before the analysis reports the digits.
DGNAME	alphanumeric (a maximum of eight characters)	<i>Digit analysis index name</i> Enter the digit analysis index name. The digit analysis continues with this index name.

DGCODE (continued)**DGCLSEL = CONT**

If the entry in subfield DGCLSEL is CONT, enter refinements DGNAME, REPORT, and DIALTONE. These refinements appear in the following table.

Conditional datafill for table DGCODE

Field or subfield	Entry	Description
DGNAME	alphanumeric (a maximum of 8 characters)	<i>Digit analysis index name.</i> Enter the digit analysis index name. The digit analysis continues with this index name.
REPORT	Y or N	<i>Report collected digits</i> Enter Y (yes) to report the digits collected at this time before the digit analysis continues. Enter N (no) for all other conditions.
DIALTONE	NORM SPEC NONE or SPEC2	<i>Dial tone</i> Specify the type of dial tone to connect to the originating line before the analysis continues. Enter NORM for normal dial tone, SPEC for a special dial tone, or NONE if dial tone is not necessary. Enter SPEC2 to return the international second dial tone in offices with feature AE0448 (Moroccan Tones). The international second dial tone is a complex periodic tone that contains four tones repeated each 500 ms, as follows: • 440-Hz tone for 500 ms • 590-Hz tone for 300 ms • 740-Hz tone for 200 ms • 660-Hz tone for 500 ms • idle tone for 500 ms Note: The DIALTONE option is for dial pulse (DP) trunks only.

DGCODE (continued)**DGCLSEL = RAN**

If then entry in subfield is RAN, enter refinements MINDGTS, MAXDGTS, IDGTTMO, and STOPDGT. These refinements appear in the following table.

Conditional datafill for table DGCODE

Field or subfield	Entry	Description
MINDGTS	1 to 24	<i>Minimum number of digits to collect.</i> Enter the minimum number of digits to collect. Enter the number of digits collected at this time.
MAXDGTS	1 to 24	<i>Maximum number of digits to collect.</i> Enter the maximum number of digits to collect. Enter the number of digits collected at this time.
IDGTTMO	1 to 30	<i>Interdigit time-out.</i> Enter the maximum time to wait between digits after the analysis collects the minimum number of digits. Enter the time in seconds.
STOPDGT	vector of a maximum of 12 digits (0 to 9, B, C) or N	<i>Stop digit.</i> Enter the stop digit or digits. Each stop digit (0 to 9, B, C) specified here stops the digit collection when dialed. Enter N if a stop digit is not necessary.

Datafill example

This section describes two examples of datafill for the digit analysis tables DGHEAD and DGCODE.

Example 1

To provide background information for example 1, the dial plan for Anguilla appears in the following table.

(Sheet 1 of 2)

Type of call	Number of digits
Local calls	Four digits
Calls in Caribbean area (numbering plan area [NPA] 809)	0 + 1 + seven digits
Calls outside NPA 809, but in world numbering zone 1	0 + 1 + ten digits

DGCODE (continued)

(Sheet 2 of 2)

Type of call	Number of digits
International calls outside zone 1	0 + country code + national significant number
Special codes	999 emergency 1XX (for example, 100 is the operator)

In the following example, table DGHEAD specifies 15 s as the maximum time to wait for the first dialed digit. If table DGCODE does not contain the first digits dialed, the digit analysis collects four digits by default. Table DGHEAD specifies that the maximum wait time between digits is 10 s.

The first digits dialed can be 0 followed by 1. If the system dials these digits, the digit analysis collects a minimum of seven digits and a maximum of ten digits. Table DGCODE specifies the collection of these digits. After the analysis collects seven digits, the maximum time to wait between digits changes from 10 s to 5 s.

If the first digit that the system dials is a 1, the digit is one of the service codes. A service code can be 100 for the operator. The analysis collects two additional digits.

MAP example for table DGHEAD

DGNAME	INITTMO	IDGTTMO	NUMDGTS	STOPDGT	DTONE	DGTYPE
NTRS02	20	10	7	C	NORM	LINE
NATIONAL	10	5	8	C	NORM	LINE

Example 2

To provide background information for example 2, the dial plan for Turkey appears in the following table.

(Sheet 1 of 2)

Type of call	Number of digits
local calls	four to seven digits (according to the office)
national calls	9 + dial tone + eight digits

DGCODE (end)

(Sheet 2 of 2)

Type of call	Number of digits
international calls	9 + dial tone + 9 + 4 to 13 digits
special codes	0 + one digit 77 (for hospital - Istanbul only)

In the following example, if table LINEATTR specifies NTRS02 as the index to the digit analysis tables, table DGHEAD specifies 20s. Table DGHEAD specifies 20 s as the maximum time to wait for the first digit dialed.

If table DGCODE does not contain the first digits dialed for field DGNAME = NTRS02, the digit analysis collects seven digits. Table DGHEAD specifies that the maximum wait time between digits is 10 s.

If 0 is the first digit dialed, the digit analysis collects only one additional digit. Table DGCODE specifies the additional digit.

If the first two digits dialed are 77, this is a call to the hospital. The digit analysis reports the call immediately. Each area has a code for the hospital. The code for Istanbul is 77.

If 9 is the first digit dialed, the system connects the special dial tone. The tuple with field DGNAME set to NATIONAL specifies the next action. If another 9 is the next digit dialed, the digit analysis collects between 4 to 13 additional digits. If 9 is not the next digit dialed, the digit analysis collects a total of eight additional digits. The tuple with field DGNAME set to NATIONAL in table DGHEAD specifies this action.

MAP example for table DGCODE

DGCLKEY			DATA
NTRS02	0	0	COLL 1 C
NTRS02	77	77	REP
NTRS02	9	9	CONT NATIONAL N SPEC
NATIONAL	9	9	RAN 4 13 5 C

DGHEAD

Table name

Digit Analysis Head Table

Overview

Tables DGHEAD and DGCODE provide the universal digit analysis system in DMS international.

The following can use the universal digit analysis tables:

- a line
- a trunk of a trunk group type OPR (international with operator)
- a trunk of a trunk group type MTR (international with metering)

The line attribute index can associate a line originates a call with a specified type of digit analysis.

To associate a line, the line attribute index selects the tuple. The line attribute index selects the tuple that applies to the line in table LINEATTR. The entry in field DGCLNAME of table LINEATTR indicates entries that match in field DGNAME of tables DGHEAD and DGCODE. These entries indicate the digit analysis data that applies to the originating line.

The common language location identifier (CLLI) of the trunk group can associate a trunk that originates a call with a specified type of digit analysis. The CLLI associates a trunk of trunk group OPR or MTR that originates a call with a specified type of digit analysis. The CLLI selects the tuple that applies to the trunk in table TRKGRP. The entry in field GRPTYP(MTR|OPR).DIRSEL.DIR(IC).DGNAME of table TRKGRP indicates entries that match in field DGNAME of tables DGHEAD and DGCODE. This procedure selects the digit analysis data that applies to the originating trunk.

Table DGCODE specifies the type of digit analysis to perform for each originating line or trunk. The type of digit analysis depends on the actual digits dialed. The first one or two digits dialed on the line or trunk indexes the tuple in table DGCODE. This tuple contains the digit analysis. If a tuple in table DGCODE does not correspond to the first one or two digits dialed, the defaults specified in table DGHEAD apply. Table DGCODE contains only digits that require a special type of analysis.

DGHEAD (continued)

Functional description of table DGHEAD

Table DGHEAD specifies the following default values for the originating line or trunk associated with each digit analysis index name (DGNAME):

- the maximum time in seconds to wait for the first dialed digit
- the maximum time in seconds to wait between digits
- the number of digits to collect
- the stop digit or digits (to stop digit collection)
- the type of dial tone to return when the system seizes a trunk
- the type of originator in tables DGHEAD and DGCODE that can use this digit analysis tuple. The originator can include the following:
 - a line
 - a trunk of a trunk group type MTR
 - a trunk of a trunk group type OPR
 - or a trunk of trunk group types MTR and OPR

Datafill sequence

You do not need to enter data in other tables before you enter data in table DGHEAD.

Table size

1 to 127 tuples

**CAUTION****Possibility of dropped calls**

When the system deletes a tuple from table DGCODE, the status of the PCM30 line group controllers (PLGC) changes from in-service (.). The PLGC becomes in-service trouble (ISTb). The system can drop calls.

The addition or deletion of tuples in table DGCODE affects the static data in PLGC peripheral modules (PM). When the deletion of a tuple from table DGCODE occurs, the status of the PLGC becomes in-service-trouble (ISTb) with the fault description static data.

DGHEAD (continued)

To add or delete tuples in table DGHEAD with minimum impact on call processing on the DMS switch, perform the following steps:

1. Select a low-traffic time period to perform data changes.
2. Add or delete the required tuples for table DGHEAD.
3. Perform two warm restart switch of activity (WARMSWACT) operations on all PLGCs in the central office.

The WARMSWACT action loads the static data in the PLGC again to clear the ISTb condition. This procedure occurs twice to allow the static data in plane 0 and plane 1 of each PLGC to load.

If you do not perform these precautions, the PLGCs can drop calls.

Field descriptions

Field names, subfield names, and correct data ranges for table DGHEAD appear in the following table.

Field descriptions for table DGHEAD (Sheet 1 of 2)

Field or subfield	Entry	Description and action
DGNAME	alphanumeric (a maximum of 8 characters) or NIL	<i>Digit analysis index name.</i> Enter the digit analysis index name. The digit analysis index name is the key to this table. Table LINEATTR field DGCLNAME and table DGCODE fields DGNAME, DGCLSEL(CONT).DGNAME, and DGCLSEL(COL2STEP).DGNAME refer to this key. For noninternational offices, enter NIL.
INITTMO	1 to 40	<i>Initial time-out.</i> Enter the maximum time, in seconds, to wait for the first dialed digit.
IDGTTMO	1 to 30	<i>Interdigit time-out.</i> Enter the default maximum time to wait between digits. Enter the time in seconds.
NUMDGTS	1 to 24	<i>Number of digits to collect.</i> Enter the default number of digits to collect.
STOPDGT	vector of a maximum of 12 digits (0 to 9, B, or C) or N	<i>Stop digit.</i> Enter the default stop digit or digits. Each stop digit (0 to 9, B, C) specified here stops digit collection when dialed. Enter N if you do not require a default stop digit.

DGHEAD (end)

Field descriptions for table DGHEAD (Sheet 2 of 2)

Field or subfield	Entry	Description and action
DTONE	NONE NORM SPEC or SPEC2	<i>Dial tone.</i> Enter the type of dial tone to return to an originating party after the originating party seized a trunk. The entry NONE indicates a dial tone does not apply. The entry NORM is for standard dial tone. The entries SPEC and SPEC2 are for special dial tones. In the CIS register signaling systems, to send the 425 kHz dial tone requires this field as SPEC.
DGTYPE	LINE, TRK, or BOTH	<i>Digit analysis originator type.</i> Enter LINE if an originating line can use the DGNAME in tables DGHEAD and DGCODE. Enter TRK if an originating trunk of trunk group type MTR or OPR can use the DGNAME in tables DGHEAD and DGCODE. Enter BOTH if an originating line and a trunk of trunk group type MTR or OPR can use the DGNAME in tables.

Datafill example

See table DGCODE for examples of datafill for the universal digit analysis tables DGHEAD and DGCODE.

Table history**BCS38**

The following changes were introduced to table DGHEAD in BCS38:

- values RCC and RCC2 from field XPMTYPE were deleted. The values were moved to table RCCPSINV.
- entry M200 from field TRMTYPE was deleted for BCS35 and later versions
- the entry in field TONESET was corrected (changed NZLG to NZLC)

DIALBACK

Table name

Automatic Dial Back Table

Functional description

Table DIALBACK improves the security of dial-up ports.

The current method to dial to a DMS from a remote site contains the following steps:

1. Place the call.
2. Receive an answer tone.
3. Send an originate tone (press data button).
4. Enter <break> login to start login.
5. Supply the required user identification (userID) and password.

After the system verifies the user identifier (ID) and password, the remote user can access the system. If the userID or password are not correct, the system does not allow access. The correct userID and password allows any person to access a DMS switch. Feature BC1043 (Automatic Dial Back) provides a second level of security to eliminate this access.

After a remote user logs in, the system disconnects the modem. The system calls the user and the remote user must login again. The user can access the DMS only after this second login. A remote user with the correct dial-back ID and password cannot access the system. This user can only access the system if the call originates from the correct remote site.

Dial back requires feature package NTX293AA (Enhanced Security Package II) to function correctly.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table DIALBACK.

Table size

The system allocates memory dynamically to a maximum of 256 tuples.

DIALBACK (continued)**Datafill**

Datafill for table DIALBACK appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
ID		alphanumeric (a maximum of 16 characters)	<i>Dial-back identifier.</i> Enter a dial-back identifier that is the key to the table. This dial-back identifier identifies the directory number (DN) used in the dial back.
DIRNUM		alphanumeric (a maximum of 30 characters without embedded blanks)	<i>Directory number.</i> Enter a dial-back DN. The normal digits in a telephone number and the following special characters control the dialing of the number.
		0 to 9	a digit
		A	ignored on Rixon modem. Abort call if a dial tone is not on CTS (clear to send) 212AH modem
		D	
		N	ignored on Rixon modem. Automatic dial the rest of the number on the CTS212AH modem
		P	
		S	#, correct only if selected dial type is tone
		T	pulse dial the rest of the number
		W	*, correct only if selected dial type is tone
			tone dial the rest of the number
			wait a few seconds, 4 s for modem dependent Rixon
			ignored, for accuracy only

DIALBACK (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
DIRNUM (continued)		—	In some conditions, the command interpreter (CI) does not allow specified groups of characters and digits in field DIRNUM. For example, the DN 9A5551212 specifies that the call aborts if a dial tone is not heard after the user dials 9. The CI can not interpret the DN 9A5551212 correctly because the DN appears to be a correct hexadecimal address. To solve this problem, add an underscore () that precedes the number. For example, _9A5551212.
MISCINFO	alphanumeric (a maximum of 36 characters without imbedded blanks)		<i>Miscellaneous information.</i> Enter any information that the operating company requires to associate with the tuple. For example, the location of the DN or address. Field MISCINFO cannot contain embedded blanks because the blank functions as a terminator in the table editor. Underscores () can replace blank spaces.

Datafill example

Sample datafill for table DIALBACK appears in the following example.

The example contains a remote user with an ID of JOHNSMITH with a DN of 234-5678. The remote user can be tone dialed. The remote user must access a dial pulse tie line first. The access number for the tie line is 88. After the tie line connects, the system must receive the dial tone before the remote user can complete dialing. The address of the DN is 1111 Happy Road, ANYTOWN.

MAP example for table DIALBACK

ID	DIRNUM	MISCINFO
JOHNSMITH	88AT234_5678	1111_HAPPY_ROAD_ANYTOWN

DIALBACK (continued)

Table history

BCS36

A note that requires the use of cable CAOX15 was added in BCS36.

Additional information

This section provides product information that relates to table DIALBACK.

Dial back

The special dial-back login sequence occurs only if the following two conditions are present:

- the correct hardware and firmware are available
- the dial-back flag associated with the modem is set

The first login is a special dial-back login that requires a dial-back ID and password. The second login is the current normal login to access the system. The operating company assigns and maintains the passwords associated with the dial-back IDs. Passwords must have a minimum length.

After the system receives the dial-back ID and password, the system disconnects the modem. The system expects the remote user to go off-hook. A message appears before the disconnect. A random number of garbage characters can appear on the terminal of the user because the disconnect occurred. This action does not cause an alarm. The system does not attempt to inform the user if the entered ID and password are correct. A person that attempts to break in to the system cannot immediately know if the attempt completed. If the attempt does complete a dial back occurs. An attempt completes when correct ID and password pair are entries occur.

A delay allows the originator to off-hook the line and set up the modem. The system dials out on a second modem with the DN associated with the dial-back ID that the user entered. One-to-one mapping occurs between dial-back IDs and DNs. The DN is a function of the dial-back ID. The method to determine this number provides a level of security. This condition occurs because the called number that the system calls is not the calling number of the remote site. These numbers are the same if the user enters the correct dial-back ID. The amount of time elapsed between the modem disconnect and the completion of the return call can be different. For the Rixon modem, the time required is between 80 s and 240 s. The CTS212AH modem requires less than between 80 s and 240 s. The time depends on the following conditions:

- the baud rate of the port
- the load on the switch
- the length of the DN dialed

DIALBACK (continued)

- the number of dial backs attempted
- the type of modem used for the dial back

The operating company must assign and maintain the DNs associated with the dial-back IDs.

When the system connects the call, the following message appears. The system prompts the user to login:

DIALBACK COMPLETE

The user must not press the break key to obtain the login prompt. This action starts the dial-back sequence again. The system aborts automatic login.

Commands

If feature package NTX293AA (Enhanced Security Package II) is in the switch, the following command interpreter (CI) commands are available:

- LOGINCONTROL
- DIALBACKPW
- SHOWDBPW
- office parameter DIALBACKPW_ENCRYPTED in table OFCOPT

The CI command LOGINCONTROL allows the operating company to turn dial back on or off for a specified port. The command allows the operating company to change three dial-out-related values. These values include the number of rings for each dial-back attempt and dial-back attempts. These values include the type of dial line.

The CI command DIALBACKPW allows the operating company to change dial-back passwords. This command is a privileged command because the command prevents security problems. The security of this feature depends on the following action. The operating company must assign appropriate command classes for this command.

The CI command SHOWDBPW can display dial-back passwords. The command is available if the office parameter DIALBACKPW_ENCRYPTED is not set.

The system dial-back occurs on a line different from the line used for the incoming call. A minimum of two modems must connect to the switch. The CI command LOGINCONTROL specifies if a modem is in use as an answer modem or dial-out modem. This use occurs when the dial-back function is active.

DIALBACK (continued)

Tables

Field MODEM specifies the type of modem connected to the port. Use table editor to change this field to any permitted value.

Table DIALBACK stores data related to dial-back. The table contains fields for the dial-back ID and the DN. The table contains fields for data that the operating company requires associated with a specified DN or dial-back ID.

Modems

The Companion CTS212AH smart modem and the Rixon R212A intelligent modem can function with feature BC1043 (Automatic Dial Back). These two modems satisfy the following requirements:

Disconnect

Toggle the data terminal ready (DTR) line of the RS232C interface must disconnect the modem. Do not use a control character sequence to disconnect the modem.

Autodial

The modem must be able to autodial any number without manual support.

Autoanswer

The modem must be able to answer incoming calls. The use of control characters must allow the operating company to toggle the modem in and out of autoanswer mode.

Modem ready

The operating company must be able to force the data set ready (DSR) line of the RS232C interface of the modem on.

Note 1: The operation of the Rixon depends on cable length. If the cable is long, the system can generate MODEM UNSTABLE log report often.

Note 2: Outgoing dial-back modems set with the CI command LOGINCONTROL with device DIALBACK DIAL have the following requirement. A step must tie the digital coupling device (DCD) and call-through simulator (CTS) leads high in the IOC connector. The DCD is the input/output controller (IOC) connector pin 31. The CTS is pin 34. In all other conditions, the DMS cannot send the modem initialization string. The system generates the SECU122 log reports, DIALBACK FAILED. NO MODEM AVAILABLE.

Dial-back modems require cable CAOX15. This cable has pin 31 and pin 37 strapped at the IOC end. This condition allows the DMS to send initialization strings to the modem.

DIALBACK (end)

Disconnect

The disconnect requires that the system drop the call. If the system modem disconnects, check that the system dropped the call. To perform this check, the system places the outgoing dial-back call on a line that did not receive the original call. This method requires a minimum of two modems on the system.

The system places outgoing calls on another modem. The system does not have to drop the line connected to the first modem. In most conditions, the system drops the line when the system disconnects the modem. When this condition does not occur, the system places the original call through a cross-bar or step-by-step switch. In these two conditions, only the originator can drop the call.

A modem disconnect that is not normal can occur if the modem detects noise on the line. A modem disconnect can occur if the connection between the modem of the user and the DMS fails. Telephone lines that connect to modems normally do not have the Call Waiting feature. This feature causes an audible tone. The modem handles this tone as noise. The system can place modems that are not connected in this method off-hook. The system requires the user to force busy (BSY) and return the port to service (RTS) twice before the modem is available. The system can require the operating company to enable the dial-in and dial-out modems again with the command LOGINCONTROL.

Disconnections that occur during login prompts for dial-back password or CI password can cause the login process to hang the port. All dial-back ports must have a login time-out and an idle time-out set with the command LOGINCONTROL.

Note: The operating company must limit the read and write access to this table. Enter data in table CUSTPROT for dial-back IDs and DNs of the modems that have feature Automatic Dial Back enabled.

DIGMAN

Table name

Digit Manipulation Table

Functional description

Simplified dialing with table DIGMAN allows a subscriber to adopt a destination code-based dialing plan for the private network. The switching unit is a part of this private network. This procedure allows users that the switch serves to dial a fixed number of digits to reach a called party. The number of digits in the connection does not affect this action. The dialing plan is the same as the direct distance dialing (DDD) network when a user dials NPA-Nxx-xxxx.

The destination code contains an access code to identify access to the private network of the subscriber. The destination code also contains a location code that identifies the end private branch exchange (PBX). Integrated Business Network (IBN) translation supports this type of dialing plan.

At the end of dialing, the DMS switch transforms the fixed-length number dialed by the user. The DMS switch transforms this number to a sequence of access codes and the extension number of the called party.



CAUTION

Use of table DIGMAN in DMS Packet call translation does not allow packet calls to complete.

The DMS Packet Handler for ISDN Basic Rate Interface call translation does not support table DIGMAN.

Tandem tie trunk network

A DMS switching unit can output digits to a tandem tie trunk network (TTTN) with senderized operation.

See the example of a subscriber with a complete TTTN. A user dials the directory number (DN) of another user located three tandem points away. The switch must output the appropriate digits and insert pauses or detect dial tones between the access codes. The switch seizes a trunk, and performs the following actions:

1. pauses for a determined time or detects dial tone
2. outputs 144
3. pauses for a determined time or detects dial tone

DIGMAN (continued)

4. outpulses 85
5. pauses for a determined time or detects dial tone
6. outpulses the extension number dialed by the user

Note: The subscriber enters the pauses or dial tone detections at each end point. The subscriber enters the pauses or tone detections occurs when the system requires a pause or tone detection.

The far end returns dial tone between access codes to indicate that the far end can receive digits. The far end returns reorder tone to indicate an all-trunks-busy condition. An error condition can cause silent tone, reorder tone, or attendant intercept.

When outpulsing ends, the switching unit establishes a network connection between the user and the outgoing trunk. When the network connection occurs, the user receives a signal that indicates the state of the connection:

- ringing indicates the complete termination of the call with the called line idle
- busy tone indicates the complete termination of the call with the called line busy. Refer to note.
- reorder tone indicates that the call encounters an all-trunks-busy condition at some point in the connection. The location does not appear to the location.
- silent tone indicates an error condition at some location. The cause of the error and the location do not appear to the user.

Note: Some PBXs return a busy tone and not a reorder tone when an idle trunk is not available.

Listed directory number

The DMS switching units can perform listed directory number (LDN) replacement.

The user can dial a location code and an extension number. The user can program the switch with an alternate route to DDD. When these actions occur, the system can require LDN replacement. A LDN replacement must occur if the end PBX does not support direct inward dialing (DID) for all lines.

For example, the user dialed 8-236-7855 and all tie trunks are busy. The system selects an alternate route that uses a dial-9 trunk. The number 7855 is not a DID number. Datafill must specify this condition. The digits this example outpulses appear in the following example:

DIGMAN (continued)

(1)(NPA) - Nxx - xxxx

where

(1)

is optional and depends on the central office (CO) requirement

(NPA)

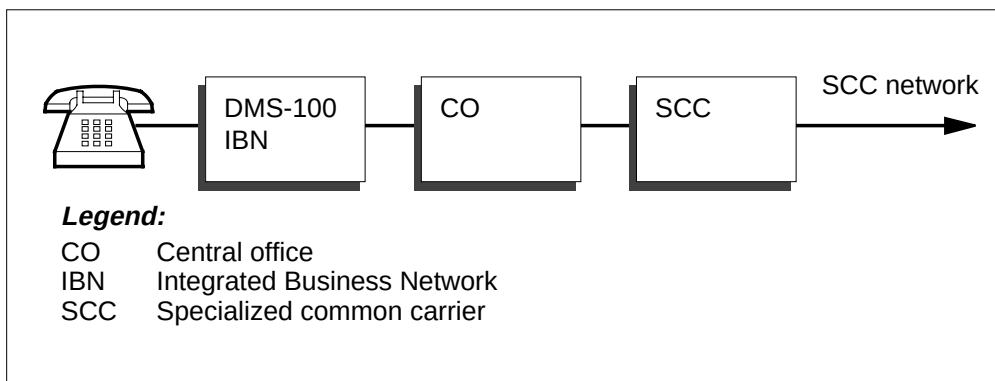
is optional and depends on the destination

Nxx-xxxx

is the substituted LDN of the far end PBX

Specialized common carrier

A DMS switch can access a specialized common carrier (SCC) through a CO as described in the following figure. The user dials a DN for access through the SCC. The DMS switch seizes a trunk to the local CO and outpulses the SCC DN. A pause follows the outpulse to allow the SCC to answer. The DMS switch outpulses an authorization code. Another pause follows to allow the SCC to process the authorization code. The DMS switch outpulses the destination DN.

SCC access

If the user dials a destination only, a direct access line (DAL) from the SCC can serve the switch. The switch can select a route through the DAL for the destination. For the DAL, the SCC uses an authorization code associated with the subscriber. In this condition, the DMS switch outpulses an authorization code. A pause follows and the switch outpulses the DN in the correct format. Normally, the correct format is DDD.

Note: The authorization code is a string of digits stored for outpulsing only. Only the SCC checks these digits. All outpulses for this application are dual-tone multifrequency (DTMF).

DIGMAN (continued)**End of dial signal on outgoing trunks**

For DTMF outputting, signify the end of dialing to the far end. The system adds an octothorpe (#) at the end of the dialing sequence and outputted to the far end. The far end must be able to receive the octothorpe. An example of this procedure follows:

- CL END (move cursor to end of string of digits)
- INC C (C in hex is the equivalent of # on the dial pad)

Post-dial considerations

A standard dial plan for the network of the subscriber creates a network like the public network dial plan. Signaling continues to use dial pulse and Digitone. Senderization can cause post-dial delay. Digit timeouts cause the post-dial delay. This action occurs when the system output pulses different lengths of digit strings preceded by the same access code.

For example, for a call from node A to node C, node A can output pulse 8-232-0 for the attendant. Node A can output pulse 8-232-Mxxx for users. The digit M is the digit assigned for extensions. If the extension starts with the digit 3, the system expects a three-digit extension. If the extension starts with the digit 4, the system expects a two-digit extension. If the extension starts with the digit 2, 5, 6, or 7, the system expects a four-digit extension.

If the digit 8 impulses at node A, translation expects five to eight digits. The system limits the digit timeout to 4 s on digit strings under the minimum 5 digits. The system adds an additional 4 s adds to the dialing time of the user.

To solve this problem, use a standard length of digits. For example, the subscriber of the network assigns 0000 as the attendant DN on other switches. The subscriber of the network can also assign 1212 as the attendant DN on other switches. Two-digit and three-digit extensions have dummy digits to appear as four-digit extensions. To call node B, a user on node A dials:

8-231-444x

where

8

is the private network selector

231

is the location code for B

44

are dummy digits

DIGMAN (continued)

4x

is the extension.

The system only outputs 4x.

Access table DIGMAN from table IBNRTE for digit manipulation. This condition occurs for inward wide area telephone service (INWATS) and outward wide area telephone service (OUTWATS) calls.

In offices with feature BC1459 (Partitioned Table Editor), tables DATAOWNR and OWNTAB define ownership of each tuple in table DIGMAN.

The entries in table DATAOWNR that apply to table DIGMAN have field TABNAME equal to DIGMAN. The entries in field DMIKEY of table DATAOWNR also match the value of field DMIKEY in table DIGMAN.

The entry in table OWNTAB that applies to table DIGMAN has the field TABNAME equal to DIGMAN.

Limits

Trunks that require digit manipulation must be IBN trunks specified in table IBNRTE. Plain ordinary telephone service (POTS) trunks specified in table IBNRTE cannot transmit complex outpulsing sequences.

Datafill sequence and meaning

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

- COSMAP
- IBNATD
- LCASCRCN

Enter data in the following tables after you enter data in table DIGMAN:

- DATAOWNR
- IBNRTE
- IBNRT2
- IBNRT3
- INBRT4
- OFRT
- OFR2

DIGMAN (continued)

- OFR3
- OFR4

Table size

0 to 32 766 tuples

The system allocates memory dynamically for table DIGMAN.

Datafill

Datafill for table DIGMAN appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DMIKEY		1 to 32 766	<i>Digit manipulation key</i> Enter the digit manipulation key if this record is the first for the DMIKEY. The digit manipulation key is the key to this table. Leave this field blank if this record is not the first for the DMIKEY. An entry of 0 indicates to the switch that the switch must not use the data after this key (NIL KEY).
DMIDATA		see subfield	<i>Digit manipulation data</i> This field contains subfield DIGCOM and the refinements.
	DIGCOM	ANS, ARDENY, ATD, CALL, CB, CF, CL, CLI, COM, FAIL, FLD, IFCC, INC, IPD, NEX, PAU, REM, SDN, SETCDN, or SIG	<i>Digit command</i> Enter one digit command for each line for the function required. Each DMIKEY can have a maximum of six lines. Refer to the following pages for a complete description of each digit command.

DIGMAN (continued)

DIGCOM = ANS

Enter ANS to allow the NT5X29AC to detect an answer on terminating trunks from the far end switching unit for answer supervision generation. The NT5X29AC card is the audio, answer, detect Digitone multifrequency circuit card. Enter refinement ANSTYPE.

Field descriptions

Field	Subfield or refinement	Entry	description and action
ANSTYPE		VOX, ELEC, or ALL	<i>Answer type</i> Enter VOX if dial tone or voice is needed to answer the call. Enter VOX if the answer updates Station Message Detail Recording (SMDR) and continues the call to the talk state. Enter ELEC if the system returns an electrical answer from the trunk. This procedure updates the SMDR and allows the system to outpulse more digits. Enter ALL if the system can return the dial tone (or voice) or an electrical answer. The first returned updates the SMDR and allows the call to continue.

DIGCOM = ARDENY

Enter ARDENY to allow an alternate route denial for a call. Refinements do not require datafill.

Enter this command before you enter an ATD or ANS command. If the system detects a failure, the system routes the caller to treatment. Failures that the system can detect include reorder, busy, or timeout. The system does not allow alternate routing.

This command performs the following functions:

- does not allow alternate routing to a specified destination if the system shares tie trunks are shared
- does not allow alternate routing if the subscriber does not want users to wait a long time for the call to fail or complete

DIGMAN (continued)**DIGCOM = ATD**

Enter ATD to allow the NT5X29AC to detect tones returned from the trunk. The NT5X29AC card is the audio, answer, detect Digitone multifrequency circuit card. Enter refinement ATDTONE.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
ATDTONE		AR, DT, or GLARE	<i>Audio tone detection tone</i> Enter AR to detect ringing from far end. Enter DT to detect dial tone from intermediate links in a tandem tie trunk network. Enter GLARE to detect dial tone to resolve glare on the trunk when the system seizes the trunk.

DIGCOM = CALL

Enter CALL to transfer to another DMIKEY and return. Enter refinement DMI. When you complete the commands for the new DMIKEY, translation starts again. Translation starts again at the original DMIKEY at the command that immediately follows the CALL command.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DMI		1 to 32 766	<i>Digit manipulation index</i> Enter the DMIKEY that the translation must transfer.

DIGMAN (continued)

DIGCOM = CB

Enter CB (cursor back) to move the cursor backwards a specified number of digits. Enter refinement CBCOUNT.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
CBCOUNT		0 to 15	<i>Cursor back count</i> Enter the number of digits in the digit string to move the cursor backward. The cursor only counts digits. The cursor does not detect pauses.

DIGCOM = CF

Enter CF (cursor forward) to move the cursor forward a specified number of digits. Enter refinement CFCOUNT.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
CFCOUNT		0 to 15	<i>Cursor forward count</i> Enter the number of digits in the digit string to move the cursor forward. The cursor only counts digits. The cursor does not detect pauses.

DIGCOM = CL

Enter CL (cursor locate) to place the cursor at the start or the end of the digit string. Enter refinement POSITION.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
POSITION		BEG or END	<i>Position</i> Enter BEG to set the cursor at the start of the digit string. Enter END to set the cursor at the end of the digit string. The cursor only counts digits. The cursor does not detect pauses.

DIGMAN (continued)**DIGCOM = CLI**

Enter CLI (calling line identifier) to insert the calling number to the outpulse string, with dual-tone multifrequency (DTMF) signaling. Refinements do not require datafill.

The CLI command does not require any datafill parameters. The CLI command obtains the calling number from the call processing information. If the calling number is not in the call processing control information, the CLI command does not change the outpulse string.

DIGCOM = COM

Enter COM (compare) to perform additional digit manipulation on the dialed digits if the dialed digits are in a specified range of values. Enter refinements MINEXT, MAXEXT, and DMI.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
MINEXT		numeric (one to seven digits)	<i>Minimum extension</i> Enter the extension number with the lowest numeric value in the range of values that the system compares dialed digits.
MAXEXT		numeric (one to seven digits)	<i>Maximum extension</i> Enter the extension number that has the highest numeric value in the range of values that system compares dialed digits.
DMI		1 to 32 766	<i>Digit manipulation index</i> Enter the DMIKEY to indicate where the call proceeds for additional digit manipulation. Perform this procedure if the number is in the range of values specified.

DIGMAN (continued)

DIGCOM = DTO

Enter DTO (digits to outpulse) to select the number of digits the switch is to outpulse.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DTOCOUNT		numeric (1 to 15)	<i>Digits to outpulse</i> Enter a value from 1 to 15 to represent the number of digits that the switch is to outpulse.

DIGCOM = FAIL

Enter FAIL to reject the current route list if the element does not apply to the current call. Refinements do not require datafill. If the system encounters a FAIL command, translation continues with the next route list element. This action occurs when all trunks in the current route list element are busy.

DIGCOM = FLD

Enter datafill for refinement FIELD appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
FIELD		COS, DDD, IBNATD, or PVNTCM	<i>Field</i> Enter the field name. Enter the correct subfields to perform the required action.

FIELD = IBNATD

Enter IBNATD to use audio tone detector parameters entered in table IBNATD. Enter subfield INDEX.

Enter command FLD IBNATD before the ATD or ANS commands to which the audio tone detector parameters apply. If specified, the new audio tone detector parameters in table IBNATD function for all ATD or ANS commands

DIGMAN (continued)

used after this call. If not specified, the system uses default values for the audio tone detector.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
INDEX		0 to 127	<i>Index</i> Enter the index to the entry in table IBNATD that applies to this command.

FIELD = DDD

Enter DDD to convert numbers dialed in ten-digit electronic switching network (ESN) off-net format to equivalent DDD numbers. This conversion is for ESN automatic route selection. Enter subfields LCA, STS, and SMDR.

Translation uses the local calling area screening. Translation determines if the system requires the numbering plan area (NPA) and a prefix 1 for outpulsing. The NPA can be the home or adjacent NPA.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
LCA		alpha-numeric (one to eight characters)	<i>Local calling area screening table name</i> Enter the name of the local calling area screening table two which the system routes the translation.
STS		numeric (three digits)	<i>Serving translation system</i> Enter the number of the serving translation system for local calling area screening.

DIGMAN (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
SMDR		Y or N	<i>Station message detail recording</i> Enter Y (yes) if all calls that use this command require SMDR records. In all other conditions, enter N (no).
VCDR		Y or N	<i>Variable call detail record</i> Enter Y if you require variable call detail record (VCDR) billing. In all other conditions, enter N.

FIELD = COS

Enter COS (class of service) to insert digits in the outpulsed digit string that indicates the COS associated with the call. Enter subfields DIGS, and MAP.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DIGS		0 to 15	<i>Number of digits</i> Enter the number of digits to outpulse for the COS field.
MAP		alpha-numeric (1 to 16 characters)	<i>MAP</i> Enter the name of the class of service from table COSMAP that contains the value of the COS to outpulse.

FIELD = PVNTCM

Enter PVNTCM for private virtual network (PVN) calls on switching units with PVN capability. Enter PVNTCM to add an outgoing travelling class mark (TCM) to the outpulsed number on a specified trunk group. Refinements do not require datafill.

Enter command FLD PVNTCM after command CL. Command FLD PVNTCM locates the affixing position in the outpulse digit string at the start or at the end. The start of the outpulse digit string uses ESN TCM signaling. The end of the outpulse digit string uses electronic tandem network (ETN) TCM signaling. For ESN TCM signaling, command INC can separate

DIGMAN (continued)

commands CL and FLD PVNTCM. The INC command inserts a call code before the TCM.

For example, the DMS switch functions as a service switching point (SSP). The switch receives instructions from the service control point (SCP) about the facility to which the system routes the call. The SSP contains associated datafill in table IBNRTE that specifies a DMIKEY in table DIGMAN. The DIGMAN tuple causes the SSP to add a TCM that the SCP supplies for that call.

DIGCOM = IFCC

Enter IFCC to perform additional digit manipulation on the dialed digits. These dialed digits depend on the value of a specified call characteristic from table CALLCHR. Enter refinements CALLCHAR, VALUE, and DMI.

Set field DIGCOM equal to IFCC to test a call characteristic in table CALLCHR. If that characteristic contains the tested value, an NEX operation to a specified DMIKEY occurs.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
CALLCHAR		DIGDATA or SAT	<i>Call characteristic</i> Enter the call characteristic from table CALLCHR to which the system routes the translation.
VALUE		Y or N	<i>Value</i> Enter the value, Y or N, to test for the specified call characteristic.
DMI		1 to 32 766	<i>Digit manipulation index</i> Enter the DMIKEY to which the call proceeds if the specified call characteristic contains the specified value.

DIGMAN (continued)

DIGCOM = INC

Enter INC (included digits) to add additional digits to the digit string. Enter refinement INCDIGS.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
INCDIGS		numeric (1 to 15 digits)	<i>Included digits</i> Enter the digits to include in the digit string. The system places the digits in the digit string before the cursor.

DIGCOM = IPD

Enter IPD (insert prefix digits) to allow the system to recover digits prefixed by the standard pretranslator table (STDPRTCT) for outpulsing. Refinements do not require datafill.

The command inserts all digits between the Integrated Business Network (IBN) access code in the digit string before the cursor. Table IBNXLA sets the IBN access code. The command inserts the prefix limit in the digit string before the cursor. Table STDPRTCT sets the prefix limit. This procedure is like the operation of the Include (INC) command. The IPD can function with an equal access primary interLATA carrier (PIC) call. In this event, the system inserts the 10xxx digits of the PIC in the digit string. The system inserts the digits even if the digits are not dialed.

DIGCOM = NEX

Enter NEX (next) to proceed to a new DMIKEY if the number of digit commands for a DMIKEY is more than six. Enter refinement DMI.

DIGMAN (continued)

Use the NEX command for long sets of commands. Each DMIKEY can accept six digit commands. If you require more than six digit commands, use NEX to move to a new DMIKEY.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
DMI		1 to 32 766	<i>Digit manipulation index</i> Enter the DMIKEY to which the call proceeds if the number of digit commands for a specified DMIKEY is more than six. The digit commands that remain are in the specified DMIKEY.

DIGCOM = PAU

Enter PAU (pause) to insert a pause in the digit string. Enter refinement PAUSETIM.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
PAUSETIM		0 to 99	<i>Pause time</i> Enter the length of the pause to insert in the digit string, in units of 100 ms. For example, an entry of 50 is 5 s. The insertion of pauses does not affect the cursor position.

DIGMAN (continued)

DIGCOM = REM

Enter REM (remove digits) to remove digits from the digit string. Enter refinement REMCOUNT.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
REMCOUNT		0 to 15	<i>Remove digits count</i> Enter the number of digits to remove from the digit string. The system starts to remove digits from the digit string at the cursor position.

DIGCOM = SDN

Enter SDN (substitute DN) to replace a directory number (DN) for the dialed number. The dialed number must be in a specified range of values for this condition to function. Enter refinements MINEXT, MAXEXT, and SUBEXT.

Field descriptions

Field	Subfield or refinement	Entry	Description and action
MINEXT		numeric (one to seven digits)	<i>Minimum extension</i> Enter the extension number with the lowest numeric value in the range of values in which the system compares dialed digits.
MAXEXT		numeric (one to seven digits)	<i>Maximum extension</i> Enter the extension number with the highest numeric value in the range of values in which the system compares dialed digits.
SUBEXT		numeric (one to seven digits)	<i>Substitute directory number</i> Enter the DN to replace for the dialed digits when the dialed digits are in the range defined by MINEXT and MAXEXT. The number to replace must contain the same number of digits in the digit manipulation string.

DIGMAN (continued)**DIGCOM = SETCDN**

Enter SETCDN to use the specified CDNNAME when CDNRTE is next encountered. This command also determines the required characteristics to use in the outgoing message, provided that the outgoing protocol is supported. Enter refinement CDNNAME.

Called number name

Field	Subfield or refinement	Entry	Description and action
CDNNAME		Alpha-numeric (1 to 8 characters)	<i>Called number name</i> Enter a value to set the required characteristics to use in the outgoing message. CDNNAME is also used when CDNRTE is next encountered.

DIGCOM = SIG

The default values for the interdigital timing for the SIG command appear in table 20. The default values appear in ms.

Interdigital timing default values

Pulse type	Interdigital timing
Dial pulse	700
Digitone	50
Multifrequency	70

Enter SIG to change the signaling type during outpulsing. Enter refinements PULSTYPE, and IDGTIME.

A call can route out on a dial pulse (DP) trunk. A call can terminate on a direct inward system access (DISA) or specialized common carrier DN. When this condition occurs, wait for an answer. Outpulse the authorization code and

DIGMAN (continued)

dialed number in DTMF format. Enter command ANS followed by command SIG. Enter the digits for the authorization code and DN.

Field description

Field	Subfield or refinement	Entry	Description and action
PULSTYPE		C6, DP, DPNSS, DT, ISDN, MF, MFC, N5MF, N6, NP, RP, or SS7	<i>Pulse type</i> Enter one of the following pulse types: • C6 (C6 signaling) • DP (dial pulse) • DPNSS (digital private network signaling) • DT (Digitone) • ISDN (integrated services digital network) • MF (multifrequency) • MFC (multifrequency compelled) • N5MF (CCITT #5) • N6 (reserved) • NP (no pulse) • RP (revertive) • SS7 (CCITT #7)
IDGTIME		0 to 100	<i>Interdigital timing</i> Enter the interdigital timing in units of 10 ms. For example, an entry of 25 is 250 ms. Enter 0 to use the default value for the specified signaling type.

Datafill example

Sample datafill for table DIGMAN appears in the following example.

DIGMAN (end)**MAP example for table DIGMAN**

DMIKEY DMIDATA

1	(REM 3) (PAU 20) (INC 144) (PAU 30) (INC 85) (NEX 2) \$

Table history**EUR010**

Added option SETCDN for activity AJ5346.

NA011

Added digit command DTO and its subfield DTOCOUNT to specify the number of digits the switch is to output for uniform outputting.

NA010

Modified DMIDATA field with a DIGCOM of FLD and a field of DDD to show the LCA subfield requires an LCA NAME of 1 to 8 characters.

TL08

References to VCDR were removed in TL08.

DIRPHOLD

Table name

Device Independent Recording Package Hold Table

Functional description

Table DIRPHOLD is a directory for all closed files that require transmission. This table functions only with data transfer or the semiautomatic disk-to-tape copy utility DIRPAUTO. If you require the file for manual retransmission, enter data in this table. The Device Independent Recording Package (DIRP) automatically completes table DIRPHOLD with closed files.

You can add or delete tuples, but you cannot change tuples.

Refer to table DIRPPool for related information.

Datafill sequence and meanings

You do not need to enter data in other tables before you enter table DIRPHOLD.

Table size

0 to 100 tuples

Datafill

Datafill for table DIRPHOLD appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description and action
HOLDNO		0 to 99	<i>DIRPHOLD index number.</i> This field is the index to table DIRPHOLD. The system completes table DIRPHOLD down from 99. The user can complete table DIRPHOLD manually up from 0 or any available slot.
SSYSNAME		alphanumeric (one to four characters)	<i>Subsystem name.</i> Enter a correct subsystem name to identify the originating subsystem or journal file (JF). An operational measurement is an example of an originating subsystem. Normally, the system does not transmit JF.
FILENAME		alphanumeric (1 to 17 characters)	<i>File name.</i> Enter a correct file name to identify the file that requires manual transmission.

DIRPHOLD (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Description and action
VOLSER		alphanumeric (one to eight characters)	<i>Volume serial number.</i> Enter a correct volume serial number to indicate the volume identification. For example, enter T2 or a volume serial number for tape or D000AMAO for disk volume number. For tape, the file names can be the same for each tape.
COUNT		numeric (0 to 1073741823)	<i>Count.</i> This field is a double-precision integer field that contains numeric digits. The field tracks the number of records or calls in a file. Downstream systems use the entry in field COUNT to determine if the system received all data. If the counts do not match, manual follow-up determines if data is missing or not correct. Enter the number of logical records in the file.
Note: Manual file additions make a file available for transmission to a downstream data center with manual transmission protocol. This condition does not apply with the DIRPAUTO utility.			

Datafill example

Sample datafill for table DIRPHOLD appears in the following example.

In the example, file OM1 is a closed file that requires manual retransmission.

MAP example for table DIRPHOLD

HOLDNO	SSYSNAME	FILENAME	VOLSER	COUNT
0	OM	OM1	123456	3490

DIRPPOOL

Table name

Device Independent Recording Package Pool Table

Functional description

The Device Independent Recording Package (DIRP) control tables contain tables DIRPHOLD, DIRPPOOL, and DIRPSSYS. The tables make sure of the correct management of data and recording resources.

Table DIRPPOOL lists the collection, or pool, of recording devices allocated to each contributing subsystem. Table DIRPPOOL can contain a maximum of 32 pools. Each pool can contain a maximum 24 recording volumes. Each entry in table DIRPSSYS points to a pool in table DIRPPOOL. Only one contributing subsystem can reference each pool in table DIRPPOOL.

Recommended datafill for table DIRPPOOL

As of BCS32, default datafill for table DIRPPOOL at the time of loadbuild is not present. The following is a list of recommended datafill for table DIRPPOOL:

- Pool 0 is for use by the automatic message accounting (AMA) subsystem. Pool 0 contains two DISK-type recording volumes.
- Pool 1 is for use by the operational measurements (OM) subsystem. Pool 1 contains one TAPE-type recording volume.
- Pool 2 is for use by the journal file (JF) subsystem. Pool 2 contains one TAPEX-type recording volume.
- Pool 7 is for use when the international centralized AMA (ICAMA) subsystem is present in the switch. Pool 7 provides billing information for subtending class 5 switching units connected through automatic number identification (ANI) trunks.
- Pool 30 is for use for parallel recording of the AMA subsystem. See table DIRPSSYS, section "Recommended datafill for table DIRPSSYS".
- Pool 31 is for use for parallel recording of the ICAMA subsystem. See table DIRPSSYS, section "Recommended datafill for table DIRPSSYS".

DIRPPOOL (continued)

The recommended datafill for table DIRPPOOL appears in the following table:.

Table DIRPPOOL recommended datafill (Sheet 1 of 2)

Field name	Recommended datafill					
POOLNO	0	1	2	7	30	31
POOLNAME	AMADISK	OMPOOL	JFPOOL	ICMAPOOL	AMAPARL	ICMAPARL
POOLTYPE	REGULAR	REGULAR	REGULAR	REGULAR	PARALLEL	PARALLEL
DEVTYPE	DISK	TAPE	TAPEX	DISK	DISK	DISK
VOLUME0	\$	Tnn	Tnn	\$	Dnnncccc	Dnnncccc
VOLUME1	\$	\$	\$	\$	\$	Dnnncccc
VOLUME2	\$	\$	\$	\$	Dnnncccc	\$
VOLUME3	\$	\$	\$	\$	Dnnncccc	\$
VOLUME4	\$	\$	\$	\$	Dnnncccc	\$
VOLUME5	\$	\$	\$	\$	\$	\$
VOLUME6	\$	\$	\$	\$	\$	\$
VOLUME7	\$	\$	\$	\$	\$	\$
VOLUME8	\$	\$	\$	\$	\$	\$
VOLUME9	\$	\$	\$	\$	\$	\$
VOLUME10	\$	\$	\$	\$	\$	\$
VOLUME11	\$	\$	\$	\$	\$	\$
VOLUME12	\$	\$	\$	\$	\$	\$
VOLUME13	\$	\$	\$	\$	\$	\$
VOLUME14	\$	\$	\$	\$	\$	\$
VOLUME15	\$	\$	\$	\$	\$	\$
VOLUME16	\$	\$	\$	\$	\$	\$
Note: The Tnn represents the number of the magnetic tape drive used. The Dnnncccc represents the name of the disk volume used. The \$ indicates that a volume is not assigned in that position.						

DIRPPOOL (continued)**Table DIRPPOOL recommended datafill (Sheet 2 of 2)**

Field name	Recommended datafill					
VOLUME17	\$	\$	\$	\$	\$	\$
VOLUME18	\$	\$	\$	\$	\$	\$
VOLUME19	\$	\$	\$	\$	\$	\$
VOLUME20	\$	\$	\$	\$	\$	\$
VOLUME21	\$	\$	\$	\$	\$	\$
VOLUME22	Dnnncccc	\$	\$	\$	\$	\$
VOLUME23	Dnnncccc	\$	\$	\$	\$	\$

Note: The Tnn represents the number of the magnetic tape drive used. The Dnnncccc represents the name of the disk volume used. The \$ indicates that a volume is not assigned in that position.

Log retrieval facility for emergency (E1 & E2) incidents (DLOG)

This subsystem allows operating companies to capture all logs on permanent store. These logs include logs that the system can hold in threshold or suppress in the log utility (LOGUTIL) of a MAP (maintenance and administrative position) terminal. The use of the LOGUTIL can be for a debugging tool for field support or Northern Telecom personnel. The personnel can turn the LOGUTIL on or off. The DLOG subsystem is superior to running logs to disk using LOGUTIL. The DLOG subsystem is superior because the DLOG subsystem uses DIRP to record unformatted logs on permanent store. Unformatted logs are compact logs and are not user-readable. The DLOG subsystem is faster, more compact, and has less chance of losing logs during peak activity.

You can use the command interpreter (CI) command LOGFORMAT to format the logs later. You can use the command SCANLOG to scan the logs for analysis. You can use the interface in the form of a Command Interpreter (CI) level called DLOG to format the logs. This interface gives the user the flexibility to selectively set up formatting parameters through the use of DLOG subcommands. Refer to *Recovery Procedures* for additional information on the DLOG Command Level.

Recommendations for DLOG

The system must store the DLOG subsystem on two volumes on two different disk drive units (DDU). These DDUs must each be on different input/output controllers (IOC). This setup is like AMA and JF allocation. You can use the disk allocation (DSKALLOC) facility to allocate volumes. Refer to the *Disk*

DIRPPPOOL (continued)

Maintenance Subsystem Reference Manual, 297-1001-526 for additional information on DSKALLOC.

The disk storage space required to use this option varies. Office type and size, and the number of subscribers and trunks determines the disk storage space. The office must store the logs for as long as possible. For offices that do not generate many logs, 32 Mbyte for each DLOG volume is normally large enough. The recommended allocation for offices that generate many logs is 64 Mbyte for each DLOG volume.

If the allocation of 32 Mbyte for each DLOG volume occurs, monitor the length of time required to fill up this volume. If to fill up this volume takes less than 14 d, increase the allocation to 64 Mbyte for each DLOG volume. The maximum size of a volume is 64 Mbyte.

The tuples that require addition to table DIRPPPOOL if the DLOG subsystem is present in the switch appear in the following table.

Tuple to add if the DLOG subsystem is present (Sheet 1 of 2)

Field name	Entry value for DLOG
POOLNO	*
POOLNAME	LOGSPOOL
POOLTYPE	REGULAR
DEVTYPE	DISK
VOLUME0	\$
VOLUME1	\$
VOLUME2	\$
VOLUME3	\$
VOLUME4	\$
VOLUME5	\$
VOLUME6	\$
VOLUME7	\$
VOLUME8	\$
VOLUME9	\$

DIRPPOOL (continued)

Tuple to add if the DLOG subsystem is present (Sheet 2 of 2)

Field name	Entry value for DLOG
VOLUME10	\$
VOLUME11	\$
VOLUME12	\$
VOLUME13	\$
VOLUME14	\$
VOLUME15	\$
VOLUME16	\$
VOLUME17	\$
VOLUME18	\$
VOLUME19	\$
VOLUME20	\$
VOLUME21	\$
VOLUME22	<volume2 name>
VOLUME23	<volume1 name>

Note: * is the next available pool number

<volume 1name> is the volume name of the first volume allocated for the DLOG subsystem. The DIRP volume names contain eight alphanumeric characters using the convention D0n0aaaa. In this convention, n is the DDU number as referenced in table DDU and aaa is logs, for example, D000LOGS.

<volume2name> is the volume name of the second volume allocated for the DLOG subsystem, using the same conventions as for <volume1 name>.

When the addition of a volume to the tuple in the above table occurs, the allocation of the volume to DIRP occurs. This action indicates that when the addition of a volume occurs, DIRP automatically allocates and mounts the volume. Mounting and demounting volumes from the DIRP level at a MAP terminal alters this tuple.

DIRPPOOL (continued)**Datafill sequence and meaning**

You must enter data in the following tables before you enter data in table DIRPPOOL:

- MTD
- DDU
- DPP
- SLM

Table size

0 to 64 tuples

Tuples 0 through 62 are for customer use. Pool 63 is reserved for internal use only.

Datafill

Datafill for table DIRPPOOL appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
POOLNO		numeric 0 to 63	<i>Pool number.</i> Enter a value to represent the index number for the recording pool. Select field POOLNO when creating each pool. Pools 0 to 62 are available for operating company use. Pool 63 is for internal use.
POOLNAME		alphanumeric a maximum of eight characters	<i>Pool name.</i> Enter a character string to define the name of the pool. An example of a character string is AMAPOOL, AMADISK, JFPOOL, or AMATAPE. This name is the name by which table DIRPSSYS indexes to table DIRPPOOL.

DIRPPOOL (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
POOLTYPE		PARALLEL or REGULAR	<i>Pool type</i> Enter REGULAR to specify that the pool stores regular recording volumes. Volumes in a REGULAR pool contain DIRP_FILESEGS (file segments) that the device independent recording package (DIRP) uses for regular recording of the data of a subsystem. Enter PARALLEL to specify that the pool stores parallel volumes. Before the system can mount the volumes in a PARALLEL pool, volumes require formatting for parallel recording. You can use the command interpreter (CI) command DIRPPFMT to perform this procedure. The system can mount volumes to parallel pools by changing nil (\$) volume names to correct ones.

DIRPPOOL (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
DEVTYPE		DISK DPP TAPE or TAPEX	<i>Device type.</i> Enter the device type for the pool. Distributed processing peripheral (DPP) volumes are recoverable on reload, switch of activity, and new BCS insertion. The DPP volumes are also recoverable after the magnetic tape drive (MTD) returns to service from a busy state. Recovery only applies to regular DPP volumes. The use of the DPP cannot occur for parallel recording. A device type of DPP and a pool type of PARALLEL are mutually excluded in any pool of table DIRPPOOL. The entry of billing media converters (BMC) must occur as DPP. The NIL is not a correct entry value for this field.
VOLUME0 to VOLUME23		alphanumeric a maximum of eight characters or \$	<i>Volume 0 through volume 23.</i> Fields VOLUME0 to VOLUME23 group together. In each field, enter a volume name to specify the volume assigned in the pools. Enter \$ if a volume is not assigned. Do not mix device types TAPE and DISK or TAPEX and DISK in one pool. For example, T0 or T1 for tape, and D000VOL1 or D000AMA1 for disk are acceptable volume names. The system can mount a volume in a parallel pool before or after the assignment of volume to a subsystem.

Note the following to enter data for DIRPPOOL.

Note 1: All volumes assigned in a specified pool must be of the same device type.

DIRPPOOL (continued)

Note 2: When you change a tuple, volumes must change from a volume name to nil (\$) or from nil (\$) to a volume name. To change from one volume name to another, first change the original to nil (\$). When an appropriate DIRP101 log report confirms this action, change the nil (\$) entry to the new volume name.

Note 3: When a request occurs to change a volume to nil (\$), DIRP closes as many files as possible on that volume. The request remains pending until this process is complete. The system only changes the volume to nil (\$) when open DIRP files do not remain on the volume.

Note 4: The device type can change if volumes are not in the pool.

Note 5: The deletion of a tuple in this table can occur. Deletion occurs if the assignment of all volumes is nil (\$) and a subsystem does not reference this pool from table DIRPSSYS.

Note 6: When the addition or changing of a tuple occurs, DIRP confirms that the volumes assigned are correct and available.

Note 7: The assignment of a specified volume can occur one time in all pools.

Note 8: The assignment of a volume assigned to a pool cannot occur in another place as a parallel volume. See table DIRPSSYS. The assignment of a volume assigned as a parallel volume cannot occur in another place to a pool.

Note 9: The assignment of more than one volume to a specified subsystem can occur. When this assignment occurs, arrange the volumes in the table in a pattern of alternating IOC control.

Note 10: The deletion of a volume from a pool while the remote data polling system transmits files on the pool cannot occur.

Note 11: The deletion of a volume from a pool can occur. This condition causes the deletion of all entries for files on the volume from table DIRPHOLD. Operating company personnel are responsible for transferring and processing these files.

Note 12: You can change the pool name at any time.

Note 13: The system can mount one or more parallel volumes in a parallel pool assigned to a subsystem. When this event occurs, those volumes are available for recording subsystem data. When a volume is full, an automatic rotation to the next READY volume occurs. If the entry of data for only one volume occurs, the system rewinds and uses the volume again.

A subsystem that does not contain volumes in a READY state can reference a parallel pool. When this event occurs, the system immediately uses any volume mounted in that pool for recording. Subsequent parallel rotations can

DIRPPPOOL (continued)

occur for volumes immediately following this one in the pool lineup. This action occurs if other volumes are mounted or become ready before the rotation occurs.

The allocation of multiple parallel volumes can occur and the user can attempt to deallocate the current recording parallel volume. When these events occur, a rotation to the next READY volume in the pool occurs.

Demounting the only READY parallel volume in a pool can cause parallel recording for a subsystem to halt. If files are not available for REGULAR recording of the subsystem data, the parallel volume is marked TO BE DELETED. The parallel volume is not demounted from DIRP until another REGULAR or PARALLEL file becomes available for recording. This event is not a requirement if field MINFILES in table DIRPSSYS has a value of 0 for the subsystem.

Datafill example

Sample datafill for table DIRPPPOOL appears in the following example.

The entry of data in this example occurs according to the following AMA subsystem requirements:

- The assignment of a subsystem to device pool 0 occurs. The pool type is REGULAR. The system records information for the subsystem on a DISK-type recording device. The allocation of two volumes, volume 22 and volume 23, occurs.
- The assignment of a subsystem to device pool 30 occurs. The pool type is PARALLEL. The system records information on DISK. The allocation of four volumes occurs.

DIRPPPOOL (end)

MAP example for table DIRPPPOOL

P00LNO	P00LNAME	P00LTYPE	DEVTYPE	VOLUME0	VOLUME1	VOLUME2	VOLUME3	VOLUME4	VOLUME5	VOLUME6	VOLUME7	VOLUME8	VOLUME9	VOLUME10	VOLUME11	VOLUME12	VOLUME13	VOLUME14	VOLUME15	VOLUME16	VOLUME17	VOLUME18	VOLUME19	VOLUME20	VOLUME21	VOLUME22	VOLUME23
0	AMADISK	REGULAR	DISK		\$	\$																					
	\$	\$	\$	\$	\$	\$																					
	\$	\$	\$	\$	\$	\$																					
	\$	\$	\$	\$	\$	\$																					
	\$	\$	\$	\$	\$	\$																					
30	AMAPARL	PARALLEL	DISK	D000AMP0		\$	D020AMP2																				
	\$	\$	\$	\$	\$	\$																					
D040AMP3	D030AMP4		\$	\$		\$																					
	\$	\$	\$	\$																							

DIRPSSYS

Table name

Device Independent Recording Package Subsystem Table

Functional description

Table DIRPSSYS defines the operating parameters of each contributing subsystem. Table DIRPSSYS can contain a maximum of 24 subsystems. These subsystems include the following:

- automatic message accounting (AMA)
- operational measurement (OM)
- journal file (JF) subsystems by default
- a maximum of 21 other contributing recording streams. The DMS feature configuration determines the inclusion of these streams.

The addition of a new tuple to table DIRPSSYS can require a system warm restart. This requirement depends on the addition of the contributing subsystem.

Note: If the NORESTARTSWACT utility is available on your switch, you can activate data changes without an interruption in service. Refer to the *NORESTARTSWACT User Guide*, 297-1001-546.

Refer to table DIRPPool for additional information.

Recommended datafill for table DIRPSSYS

In BCS32, default datafill for table DIRPSSYS is not present at the time of loadbuild. Enter data in the table to provide the following characteristics for each recording subsystem:

- AMA: The Device Independent Recording Package (DIRP) attempts to maintain two TAPE-type files open for recording AMA. If a STANDBY file is not present, you cannot close the ACTIVE file manually. If files are not present, the system raises a critical alarm (CR). If only one file is present for AMA, the system raises a major alarm (MJ). The AMA files have a 30-day expiration period. A scheduled rotation of recording duty does not occur. File names default to a date, time, and subsystem indicator.
- OM: The DIRP attempts to maintain one TAPE-type file open for recording. If a file is not present, the system raises a minor alarm (MN). The OM files have a 30-day expiration period. File names default to a date, time, and subsystem indicator.
- JF: The DIRP attempts to maintain one TAPEX-type file open for recording. If a file is not present, the system does not raise an alarm (NA).

DIRPSSYS (continued)

The JF files have a 499-day expiration period. File names default to a date, time, and subsystem indicator.

The recommended datafill for table DIRPSSYS appears in the following table .

Recommended datafill for table DIRPSSYS (Sheet 1 of 2)

Field name	Recommended datafill		
SSYSNAME	AMA	OM	JF
READRITE	Y	Y	Y
NUMFILES	2	1	1
MINFILES	1	0	0
POOLNAME	AMADISK	OMPOOL	FPOOL
FILENAME	\$	\$	\$
ALARM0	CR	MN	NA
ALARM1	MJ	NA	NA
ALARM2	NA	NA	NA
ALARM3	NA	NA	NA
RETPD	30	30	499
CRETPD	30	30	499
PARLPOOL	the AMAPARL	\$	\$
PARCONC	N	N	N
MANDPALM	NA	NA	NA
FILEDATE	OPENED	OPENED	OPENED
SHEDDAYS	NNNNNNN	NNNNNNN	NNNNNNN
SHEDBASE	0	0	0
SHEDINCR	NOROTATE	NOROTATE	NOROTATE
ROTACLOS	NONE	NONE	NONE
AUTOXFER	NONE	NONE	NONE

DIRPSSYS (continued)**Recommended datafill for table DIRPSSYS (Sheet 2 of 2)**

Field name	Recommended datafill		
SPACROTE	N	N	N
the MAXDFSIZ	64	64	64
the PRIORTIO	Y	Y	Y

Datafill sequence and meaning

You must data in enter table DIRPPOOL before you enter data in table DIRPSSYS.

Table size

0 to 64 tuples

The number of subsystems entered determines the size of table DIRPSSYS.

Datafill

Datafill for table DIRPSSYS appears in the following table.

Field descriptions (Sheet 1 of 11)

Field	Subfield or refinement	Entry	Explanation and action
SSYSNAME		alphanumeric (one to four characters)	<i>Subsystem name.</i> Enter the subsystem name that serves as the index to table DIRPSSYS. An example is automatic message accounting (AMA).
READRITE		Y or N	<i>Read after write.</i> Enter Y (yes) to activate the read/write check. This check is for data the system writes to device types TAPE or DISK (not TAPEX). The system reads written data. The system proceeds to the next input/output operation. The process makes sure the device receives the information correctly. Enter N (no) if you do not require the read/write check. If the entry in field SSYSNAME is DLOG, the entry in this field must be N. This field must be N because logs do not require read/write checking.

DIRPSSYS (continued)**Field descriptions (Sheet 2 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
NUMFILES		numeric (1 to 4)	<i>Number of files.</i> If recording to tape, enter the number of subsystem files that can be open at a time. If recording to disk, make sure that a maximum of two files are open at one time. In this event, enter 1 or 2. If the value is greater than 1, one of the files serves as the active file. The other files serve as standby files. In an emergency condition, the active file can fail. If this event occurs, the standby files activate a switch of recording duty to a standby device. To make sure alternate input/output controller (IOC) distribution occurs, do not enter the value 3. You can enter the value 3 if the office has three IOCs and each IOC has one recording device.
MINFILES		numeric (0 to 3)	<i>Minimum number of files.</i> Specify the minimum number of files that must be open at all times. The number you enter must equal a minimum of one less than the entry for field NUMFILES. The user cannot close the files of contributing subsystem. If the number of files available to record data at a minimum equals the value you enter, the user can close these files.
POOLNAME		alphanumeric (a maximum of 8 characters) or \$	<i>Pool name.</i> Specify a correct name for the collection, or pool, of volumes available to a contributing subsystem. Make the entry value the same as the equal entry in table DIRPPPOOL. This is necessary this field is the index to DIRPPPOOL. Subsystems cannot share pools. Only one subsystem can use a pool name.

DIRPSSYS (continued)**Field descriptions (Sheet 3 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
tFILENAME		alphanumeric (a maximum of 17 characters) or \$	<i>File name.</i> Enter a file name or enter \$ (nil) to have the system generate a file name. File names can include the characters A to Z and 0 to 9. If you use special characters, enclose the complete character string in single quotes. An example of a special character is a period. If you enter a correct character string, the system adds a file name to device type TAPE or TAPEX. If you enter \$, the system generates the file name. System file names contain a letter identifier that indicates the following: • file status • a time stamp • a file sequence • a contributing subsystem name When the Device Independent Recording Package (DIRP) finishes with files, the system file names manages the files. Disk drive units (DDU) ignore the file names in this field. The DDU always generates a system file name. Note: Enter \$ for the JF subsystem. Use this entry because the \$ provides sequential order information to reconstruct a load from multiple journal file (JF) files.

DIRPSSYS (continued)**Field descriptions (Sheet 4 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
ALARM0 to ALARM3		CR, MJ, MN, or NA	<i>File ALARM0 to file ALARM3</i> The system groups fields ALARM0 to ALARM3 together. When the number of files associated with each field are not present or open to record, the system generates an alarm. When this event occurs, the fields control these alarm levels. These fields perform the following functions: • ALARM0 sets the alarm level if files are not open. • ALARM1 sets the alarm level if one file is open. • ALARM2 sets the alarm level if two files are open. • ALARM3 sets the alarm level if three files are open. In each alarm field, enter the following: • CR for a critical alarm • MJ for a major alarm • MN for a minor alarm • NA when an alarm is not present See note 21 for additional information.
RETPD		numeric (0 to 499)	<i>Retention period in days.</i> Enter a value to specify the retention period in days. This field controls tape file security. If an attempt occurs to erase a tape file before the expiration date the system prompts the user. This warning prevents the accidental damage of data. When the expiration date passes, the system allows the erasure of the file without special security prompts. The system only erases a file on disk if the file name begins with P. In this occurrence, the system erases the oldest file on the volume first. Entry values greater than 499 are not correct.

DIRPSSYS (continued)**Field descriptions (Sheet 5 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
CRETPD		numeric (0 to 499)	<i>Retention period (in days) for copied-to files.</i> Enter a value to specify the retention period in days for copied-to files. The default value is the value that you enter in field RETPD. Entry values greater than 499 are not correct.
PARLPOOL		the AMAPARL DLOGPARL JFPARL OMPARL or \$	<i>Parallel pool.</i> Enter a correct parallel pool name. If the system requires parallel recording, create a parallel pool in table DIRPPPOOL. Enter the pool name in field PARLPOOL. Do not use the pool name of a normal pool in this field. Enter the following: • AMAPARL for the AMA parallel pool • DLOGPARL for the DLOG parallel pool • JFPARL for the JF parallel pool • OMPARL for the operational measurement (OM) parallel pool • \$ (nil) for no parallel pool Parallel recording starts immediately for a subsystem if the pool that field PARLPOOL designates contains preformatted READY volumes. If volumes do not reside in the pool at first, parallel recording does not begin until volumes are mounted. The default value of field PARLPOOL is \$ (nil). The subsystem can record to a file on a parallel volume in the pool. When this process occurs, changes to field PARLPOOL cannot occur. All volumes must be demounted before you can change field PARLPOOL to \$ or another parallel pool name. Problems must be present on all volumes before you can change field PARLPOOL to \$ or another parallel pool name.

DIRPSSYS (continued)**Field descriptions (Sheet 6 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
PARCONC		Y or N	<i>Parallel and normal recording occur concurrently.</i> The system performs an optional parallel recording a backup after the system performs a physical recording. If one recording slows down, this causes the other recording to slow down. This occurs under high traffic conditions. If the two recordings occur together and not serially, throughput improves significantly. For concurrent recording, enter Y. Perform recording at the same time for normal operation. For serial recording, enter N.
MANDPALM		NA, MN, MJ, or CR	<i>Mandatory parallel alarm</i> This field supports contributing subsystems with an option to raise an audible alarm. This an option applies if the parallel file is not in the AVAIL state. Enter one of the following values: • NA (an alarm is present) • MN (minor alarm) • MJ (major alarm) • CR (critical alarm) When field MANDPALM is set to a particular alarm level, you cannot change the field to an alarm level of less severity. This action requires technical support from Northern Telecom.

DIRPSSYS (continued)**Field descriptions (Sheet 7 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
FILEDATE		CLOSED FIRSTACT LASTACT or OPENED	<i>File date</i> This field controls how the system automatically redates the file. This facility applies only to disk, because tape names cannot be named safely again. Enter one of the following values: - The CLOSED value updates the file name if the file is finally closed. - The FIRSTACT value places the date and time stamp on the file the first time the file becomes active. - The LASTACT value updates the file name each time the file becomes active. - The OPENED value places the file name date and time stamp on the file when the file is first opened.
SHEDDAYS		Y or N (character string with seven boolean fields)	<i>Scheduled rotation days.</i> This field tracks the days of the week on which the user schedules rotations. For each day of the week (Monday through Sunday), enter Y if a rotation occurs on that day. Enter N if a rotation does not occur on that day (example: YNYYNN).
SHEDBASE		numeric (0 to 23)	<i>Scheduled rotation base.</i> Specify the hour of the day on which the first rotation occurs. You can schedule more than one rotation for each day. Refer to the next field.
SHEDINCR		X1, X2, X3, X4, X6, X8, X12, X24, or NOROTATE	<i>Scheduled rotation increments.</i> Specify the number of hours between scheduled rotations. Use the first rotation as a base. For example, to schedule rotations at 8:00 a.m and 8:00 p.m, set field SHEDBASE to 8 (8 a.m.). Set field SHEDINCR to X12. If a rotation is not scheduled, enter NOROTATE in this field.
Note: Fields SHEDDAYS, SHEDBASE, and SHEDINCR control the scheduled rotation. The scheduled rotation rotates the recording duty from an active file to the first standby. This scheduled rotation stops recording in one file and starts recording in another file at a particular time. The system interchanges data recording tasks through this process. The earlier active field can be closed, as field ROTACLOS specifies.			

DIRPSSYS (continued)**Field descriptions (Sheet 8 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
ROTACLOS		BOTH MROTATE SROTATE or NONE	<i>Rotate close.</i> Specify one of the following options to close the file after the completion of scheduled or manual rotation. - The BOTH option closes files after both scheduled and manual rotations. - The MROTATE option closes files after completion of manual rotation. - The SROTATE closes files after completion of scheduled rotation. - The NONE option does not close files automatically after rotation.
AUTOXFER		FULL NOKEEP PARTIAL or NONE	<i>Automatic transfer.</i> This field controls the condition of closed DIRP files. The DIRP directory table DIRPHOLD lists closed files that are not processed in that subsystem if AUTOXFER is set to PARTIAL or FULL. Remote data polling and the DIRP (automatic DIRP) utility use this directory of closed files. If field AUTOXFER is set to NOKEEP in a subsystem, DIRP erases the files in that subsystem. This process occurs when a requirement is present for additional file space. If field AUTOXFER is set to NONE for a subsystem, you must manipulate the subsystem files manually.

DIRPSSYS (continued)**Field descriptions (Sheet 9 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
			Enter one of the following: • NONE. If table DIRPHOLD does not contain entries, DIRPAUTO (transfer) functions are not present. When the subsystem records to disk, DIRP must use space in closed files. Use the CLEANUP command at the DIRP level of the MAP terminal to reclaim this space for DIRP. Command CLEANUP renames R files to P files. The DIRP can erase P files as a requirement for recording space occurs. • NOKEEP. If table DIRPHOLD does not contain entries DIRPAUTO or XFER functions are not present. When the subsystem records to disk, DIRP reclaims space in closed files as necessary. The entry in field AUTOXFER must be NOKEEP if the entry in field SSYSNAME is DLOG.

DIRPSSYS (continued)

Field descriptions (Sheet 10 of 11)

Field	Subfield or refinement	Entry	Explanation and action
			The DIRPAUTO and XFER functions can access closed files through the PARTIAL and FULL options. A description of the PARTIAL and FULL options appears in the following list. - The PARTIAL option prevents downstream users that interface to the DMS through remote data polling from closing active and standby files. As a result, table DIRPHOLD does not identify these files. The PARTIAL option indicates that DIRPAUTO and XFER functions are present, but XFER cannot rotate or close files. The system can erase files only after XFER or DIRPAUTO process the files. - The FULL option allows downstream users that interface the DMS through remote data polling to close active and standby files. As a result, table DIRPHOLD identifies these files. This event indicates that DIRPAUTO and XFER functions are present, and XFER can rotate and close files. The system can erase files only after XFER or DIRPAUTO process the files.
SPACROTE		Y or N	<i>Space rotation</i> Enter Y (yes) or N (no) to specify if DIRP must use feature AF1780 (DIRP Space Rotation) if recording space in the ACTIVE file becomes low. If you set field SPACROTE to Y, DIRP does not erase processed files to obtain more space. The DIRP performs a file rotation. Another name for file rotation is a space rotation. If you set field SPACROTE to N, DIRP erases old processed files to obtain additional space. The DIRP can also perform an emergency rotation if the DIRP cannot erase additional processed files.

DIRPSSYS (continued)**Field descriptions (Sheet 11 of 11)**

Field	Subfield or refinement	Entry	Explanation and action
MAXDFSIZ		numeric (5 to 64)	<i>Maximum disk file size</i> This field defines the maximum size for DIRP disk files in megabytes. The field allows operating companies to match the size of DIRP files with the capacity of recording tapes. The system uses the recording tapes to process data. This function can eliminate the requirements for multiple tape files when you copy a disk file. The value that you enter in this field is the maximum size for files in the subsystem that the tuple defines. Select a value that matches the capacity of data tapes the system normally uses to process the data in the corresponding subsystem. If a file reaches the maximum size, DIRP performs a space rotation. This rotation occurs if field SPACROTE is Y or N. If DIRP performs a space rotation and field SPACROTE is set to N, DIRP erases old processed files. This process creates additional space.
PRIORTIO		Y or N	<i>Priority input/output file</i> Enter Y to mark the files associated with a subsystem as high-priority. High priority files cannot be erased. Only DIRP can erase files marked high-priority. If you do not require this feature, enter N.

The following notes apply to data entry.

Note 1: The identification of the subsystem to DIRP (bound-in) must occur before the addition of the subsystem tuple to table DIRPSYSS.

Note 2: The values for field MINFILES can prevent the closure of a recording file. In this event, closure would lower the number of files below the limit. Field MINFILES contains this limit.

DIRPSSYS (continued)

Note 3: The entry in field NUMFILES determines the maximum number of open files.

Note 4: If the system must record to disk, set field NUMFILES to 2. This value maintains one open standby file.

Note 5: The volume assigned as parallel must be correct and properly formatted.

Note 6: The alarm level assignments must designate the 0 FILE level as the most severe. The alarm level assignments must designate the 3 FILE level as the least severe. You can assign similar severities to levels when you adhere to this general design.

Note 7: The addition of a tuple can result in the requirement of a system warm start.

Note 8: The addition of a tuple causes DIRP to attempt to open files. The DIRP attempts to open files to a maximum of the value in field NUMFILES.

Note 9: If the parameter in field NUMFILES changes, DIRP attempts to increase or decrease the number of files open for the subsystem.

Note 10: The system updates alarm displays to correspond to changes to the parameters in fields NUMFILES and ALARM0 to ALARM3.

Note 11: The deletion of tuples requires help from the technical support group.

Note 12: Deletion of a tuple removes the ability of the subsystem to record.

Note 13: Deletion of a tuple can only occur if files are not open for that subsystem.

Note 14: When you delete a tuple or change the POOLNAME, the system deletes all entries for files from that subsystem from table DIRPHOLD. Operating company personnel are responsible for these files for transferring or processing.

Note 15: When you specify another value, the parameter in field MINFILES cannot change to 0 without support from the technical support group.

Note 16: If the entry in field NUMFILES is a minimum of 1, specify a minimum of one alarm level.

Note 17: If open files are present for the subsystem, you cannot change field POOLNAME.

Note 18: Uppercase and lowercase differences are important in file name assignments.

DIRPSSYS (continued)

Note 19: The value in field NUMFILES must be 1, 2, or 4. These values make sure correct file assignments are present across the input/output controller (IOC). Specify the value 3 only if three IOCs are present and each value has a recording device. The recording service is disk or tape.

Note 20: The file name on the tape for TAPE files is assigned in field FILENAME or a name that the system generates. The name that the system generates contains the date, time and subsystem. The system uses the name that the system generates if \$ is in field FILENAME. A name that the system generates identifies DISK files to the DMS office. The file contains the name assigned in field FILENAME in table DIRPSSYS. This name is important for data transferal purposes. If data transfer occurs, field FILENAME in this table must contain the correct file name. The operating company defines this file name. The DIRPCOPY command uses the new name that the user specifies. The DIRPAUTO command uses the name assigned in field FILENAME in table DIRPSSYS. When \$ is in field FILENAME, DIRPAUTO uses the input file name.

Note 21: The severity of an alarm for fields ALARM0 to 3 can be the same in adjacent fields. The alarm cannot increase in severity as additional files open. For example, the user can set fields ALARM1 and ALARM2 to MN. The user cannot set field ALARM2 to MJ while field ALARM1 is at MN.

When an alarm field is associated with a number of files, enter NA in the alarm field. These associated files are equal to or greater than the number of files for which the contributing subsystem is configured. For example, assume that the AMA subsystem configuration includes four files. Field NUMFILES set to 4 identifies this configuration. Data entry for the alarm fields can be as follows:

ALARM0	ALARM1	ALARM2	ALARM3
CR	MJ	MN	MN

If the user sets field ALARM3 to NA, an alarm condition does not appear if only three files are open. This event is not correct.

As another example, assume the configuration of the Station Message Detail Recording (SMDR) subsystem includes two files. Field NUMFILES set to 2 identifies this configuration. Data entry of the alarm fields can be as follows:

ALARM0	ALARM1	ALARM2	ALARM3
MJ	MN	NA	NA

DIRPSSYS (continued)

When the system configuration is for two files, the system does not require an alarm condition to indicate that two files are open. The specification of an alarm indication for three open files is not a requirement.

Note: When the entry of data for a subsystem is complete, a change in field SPACROTE from N to Y results in the following warning message:

WARNING: SPACE ROTATE ENABLED: UNEXPIRED PROCESSED FILES WILL NOT BE ERASED

A change from Y to N results in the following warning message:

WARNING: SPACE ROTATE DISABLED: UNEXPIRED PROCESSED FILES ARE ERASABLE

Note 1: When the entry of data for a subsystem is complete, you can only change field PRIORTIO if you set office parameter DIRPKILL_IN_EFFECT to Y. This office parameter is in table OFCSTD.

Note 2: The recommended field PRIORTIO value for the AMA subsystem is Y.

Note 3: When the entry of data for the system is complete, change field PARCONC from N to Y.

Datafill example

Sample datafill for table DIRPSSYS appears in the following example.

MAP example for table DIRPSSYS

SSYSNAME	READWRITE	NUMFILES	MINFILES	POOLNAME	FILENAME
ALARM0	ALARM1				
ALARM2	ALARM3	RETPD	CRETPD	PARLPOOL	PARCONC
FILDATE	SHEDDAYS				
SHEDBASE	SHEDINCR	ROTACLOS	AUTOXFER	SPACROTE	MAXDFSIZ
PRIORTIO					
	SMDR	Y	2	1 SMDRPOOL	\$
CR	NA				
NA	NA	30	30	\$	N
OPENED	NNNNNNN				
	0 NOROTATE	NONE	NONE	N	64
Y					

DIRPSSYS (continued)**Table history****BCS36**

Reference to the NORESTARTSWACT utility was added in BCS36.

Additional information

This section provides information on how to enter data in table DIRPSSYS for specified applications.

Log retrieval utility for emergency (E1 & E2) incidents (DLOG)

With this utility, the operating company can capture all logs on permanent store. These logs include logs that you can threshold or suppress in the log utility (LOGUTIL). Field support or Northern Telecom personnel can use the utility as a debugging tool. Personnel can turn this utility on or off.

The DLOG is better than a run of logs to disk through the use of LOGUTIL. The DLOG is better because DLOG uses DIRP to record unformatted logs on permanent store. Logs that are not formatted are compact logs that users cannot read. The DLOG is faster and more compact. The use of DLOG decreases the loss of logs during peak activity.

The LOGFORMAT command formats logs. The SCANLOG command scans logs for analysis. Use of the interface in the form of DLOG allows the user to format logs. The DLOG is a Command Interpreter (CI) level. This interface allows the user to set up formatting parameters through the use of DLOG subcommands. Refer to *Recovery Procedures* for additional information about the DLOG Command Level

Datafill for table DIRPSSYS, if the DLOG utility is present in the switch, appears in the following table.

DLOG datafill (Sheet 1 of 2)

Field name	Datafill
SSYSNAME	DLOG
READRITE	N
NUMFILES	2
MINFILES	1
POOLNAME	LOGSPOOL (corresponds to entry in table DIRPOOL)
FILENAME	\$

DIRPSSYS (continued)

DLOG datafill (Sheet 2 of 2)

Field name	Datafill
ALARM0	MN
ALARM1	MN
ALARM2	NA
ALARM3	NA
RETPD	0
CRETPD	0
PARLPOOL	\$
PARCONC	N
MANDPALM	NA
FILEDATE	OPENED
SHEDDAYS	YYYYYYY
SHEDBASE	0
SHEDINCR	X1
ROTACLOS	BOTH
AUTOXFER	NOKEEP
SPACROTE	N
MAXDFSIZ	64
PRIORTIO	Y

Parallel recording

Feature NC0079 (Mandatory DIRP Parallel Recording) allows the operating company to enter an alarm level in table DIRPSSYS.

If the system activates a parallel recording, the system monitors the recording of subsystem data during the hourly subsystem audit. The DIRP raises the

DIRPSSYS (continued)

subsystem (SSYS) mandatory parallel (MP) alarm if the following two conditions occur:

- The parallel file is not available (AVAIL).
- The MP alarm level for the subsystem specified in table DIRPSSYS is greater than the no-alarm level.

The state of the parallel volume does not affect this process. The parallel volume states are mounted, not mounted, or in error. Users can specify if subsystem parallel recording can raise the mandatory parallel alarm SSYS MP under specified conditions.

Field MANDPALM in table DIRPSSYS provides the following four possible alarm values:

- no alarm (NA)
- minor alarm (MN)
- major alarm (MJ)
- critical alarm (CR)

If the user sets field MANDPALM to NA, the system does not activate this feature for the contributing subsystem. If the user sets field MANDPALM to NA, the DIRP follows the current alarm generation standards. The user does not set field MANDPALM to NA and the subsystem parallel file state is not AVAIL. In this event, the system raises a SSYS MP alarm. Field MANDPALM specifies this alarm.

International CAMA (ICAMA)

The datafill for table DIRPSSYS appears in table 4, if the feature package NTX65AA International CAMA (ICAMA) is in the switch.

ICAMA datafill (Sheet 1 of 2)

Field name	Datafill
SSYSNAME	ICMA
NUMFILES	2
MINFILES	1
POOLNAME	ICMAPOOL
FILENAME	\$
ALARM0	CR

DIRPSSYS (end)

ICAMA datafill (Sheet 2 of 2)

Field name	Datafill
ALARM1	MJ
ALARM2	NA
ALARM3	NA
RETPD	30
CRETPD	30
PARLPOOL	ICMAPARL
PARCONC	N
MANDPALM	NA
FILEDATE	OPENED
SHEDDAYS	NNNNNNN
SHEDBASE	0
SHEDINCR	NOROTATE
ROTACLOS	NONE
AUTOXFER	NONE
SPACROTE	N
MAXDFSIZ	64
PRIORTIO	Y

DMODEM

Table name

Digital Modem Table

Functional description

Table DMODEM lists the following information:

- the assignment of the external trunk name to each digital modem
- the location and circuit number for each digital modem

When the system provisions an attendant console, each console requires one circuit of each product engineering code (PEC). One PEC in this occurrence is the NT3X02AA Traffic Operator Position System (TOPS) control processor card. The other PEC is the NT3X03AA TOPS digital signal processor card.

Each two-card-set that contains NT3X02AA and NT3X03AA cards provides a total of four digital modem circuits. These cards are on the maintenance trunk module (MTM). The MTM has NT3X02AA cards in odd slots and NT3X03AA cards in even slots. For example, slots 1 and 2 contain modem pair one.

The first circuit of each card pair requires a list in table DMODEM. The entry in field TMCKTNO must be a multiple of four. An MTM can contain a maximum of six pairs of digital modem cards. The only values that field TMCKTNO can have are 0, 4, 8, 12, 16, and 20.

The entry in field EXTRKNM is the key to identify the digital modem circuit. The entry must be different and must be a multiple of four. Three EXTRKNM numbers that are not in this field follow the EXTRKNM number. These EXTRKNM numbers that are not in this field identify the three circuits of the pair that are not in this field. For example, the system assigns field EXTRKNM 4 to trunk module (TM) no. 1, TM circuit no. 8. The following occurs by default:

- the EXTRKNM 5 refers to TM no. 1, TM circuit no. 9
- the EXTRKNM 6 refers to TM no. 1, TM circuit no. 10
- the EXTRKNM 7 refers to TM no. 1, TM circuit no. 11

Datafill sequence and meaning

Enter data in table TMINV before you enter data in table DMODEM.

DMODEM (continued)

Table size

Memory allocation occurs in accordance with the value in field TRKGRSIZ in table CLLI. This value is for the pseudo common language location identifier (CLLI) code DMODEM. To increase the size of the table, the following occurs:

- deletion occurs of all members of the table DMODEM
- the system increases the value in field TRKGRSIZ, in table CLLI, for pseudo CLLI DMODEM
- an addition occurs of the members of the table DMODEM

Datafill

Datafill for table DMODEM appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
EXTRKNM		0 to 9996 (must be multiple of 4)	<i>External trunk name.</i> This is a fixed but different number. Assignment of this number occurs to each digital modem circuit. Correct entries must be a multiple of four. Entries outside this range are incorrect.
TMTYPE		MTM	<i>Trunk module type.</i> Enter maintenance trunk module (MTM) for the type of trunk module (TM) which contains the digital modem card. Entries outside this range are incorrect.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the number assigned to the TM which contains the digital modem card.

DMODEM (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
TMCKTNO		0, 4, 8, 12, 16 or 20	<i>Trunk module circuit number</i> Enter the TM circuit number. This TM circuit number receives assignment of the digital modem card. The system only assigns the first circuit in the modem card or card pair. The correct entry values are the six MTM circuit numbers that appear. Entries outside this range are incorrect.
CARDCODE		3X02AA	<i>Card code.</i> Specify the digital modem card type. Card 3X02AA is the only correct entry. Entries outside this range are incorrect.

Datafill example

Sample datafill for table DMODEM appears in the following table.

MAP example for table DMODEM

EXTRKNM	TMTYPE	TMNO	TMCKTNO	CARDCODE
0	MTM	5	0	3X02AA
4	MTM	5	4	3X02AA

DNINV

Table name

Directory Number Inventory

Functional description

Table DNINV is a read-only table. This table replaces table DN. Table DNINV contains data for all assigned directory numbers. The data includes DNs from table DNROUTE.

Table DNINV automatically gathers information when the operating company

- assigns DNs
- uses DNs from tables other than table DNINV, such as table LENLINES or table IBNLINES.

There is no input form for this table.

ATTENTION

Operating company personnel: Do not change any of the line data tables through table control because you may corrupt the internal database. Use the Service Order System (SERVORD) to update subscriber line data.

The following table describes different selectors for table DNINV.

DNINV features (Sheet 1 of 2)

DN selector	Use
A	IBN Data Network Address
ACDTK	AUTOMATIC CALL DISTRIBUTION TRUNK DIRECTORY NUMBER
C	no longer used
D	Treatment Selector
FEAT	Virtual DN
H	POTS line that is part of a HUNTGROU
HC	HUNTGROU member with CALL FORWARD option
IHC	HUNTGROU member IBN line with CALL FORWARD option
ILC	IBN line with CALL FORWARD option

DNINV (continued)**DNINV features (Sheet 2 of 2)**

DN selector	Use
IMC	IBN MDN line with CALL FORWARD option
L	simple POTS line
M	Attendant Console
LC	simple POTS line with CALL FORWARD option
MDN	MULTIPLE DIRECTORY NUMBER
MM	MEET-ME conference (datafill table MMCONF)
P	MULTI PARTY POTS line
SC	SERIES COMPLETION
SCM	SERIES COMPLETION for the primary of an MDN group
SDN	SECONDARY DIRECTORY NUMBER

ISDN Shared DNs

Different logical terminal identifiers (LTID) can share DNs on ISDN Basic Rate Interface (BRI) lines. When this relationship occurs, the DNRESULT field of table DNINV of the shared DN shows one LTID only. The following rules determine the LTID that appears:

- The voice band information (VI) can share a DN between either the circuit-mode data (CMD) or packet-mode data (PMD) call types. When this relationship occurs, the VI appearance of the LTID shows in field DNRESULT.
- The CMD can share a DN with the PMD call types. When this relationship occurs, the CMD appearance of the LTID appears in field DNRESULT.
- All three call types (Call VI, CMD, and PMD) can share a DN. When these relationships occur, only the VI appearance of the LTID displays in field DNRESULT.

Datafill sequence and implications

There is no requirement to datafill other tables before table DNINV.

DNINV (continued)

Table size

As determined by the ACTIVE_DN_SYSTEM parameter, computation of the store requirement depends on the use of the DN systems that follow:

- North American
- Universal
- Enhanced North American

For the North American DN system, table DNINV holds up to 1 000 000 DNs.

For the Universal and Enhanced North American DN systems, when many area code and office code combinations are datafilled on the switch, table DNINV holds up to 1 000 000 DNs.

The maximum tuple for table DNINV depends on the criteria that follows:

- the number of area codes and office codes used
- the number of digits used for the station code

North American DN system

The North American DN system is the best system to use when

- a local switch holds all the numbers used in a given office code
- the system uses all thousand groups to near capacity

When local number portability (LNP) and multiple service providers use this system, the system uses a lot of memory.

A TOFCNO (the index for table TOFCNAME or TOFCNAME entry) is a valid area and office code combination from table TOFCNAME. Calculate the store required for each TOFCNO (in bytes) with the formula that follows:

$$100 + 4000 \times (\text{number of thousand groups})$$

The maximum store requirement for each TOFCNAME is 40 100 bytes. The maximum store requirement for a thousand group in a TOFCNAME is 4000 bytes, with a 100-byte overhead for the TOFCNAME.

The North American DN system is the best when the DN structure is tight because it allocates DNs by blocks of 1000.

DNINV (continued)

Universal DN system

The Universal DN system uses more store when the system allocates all the possible station codes. If DNs move across many area codes and office codes, table DNINV uses more memory store.

Note: The Enhanced North American DN system is like the Universal DN system, except that Enhanced North American uses the 3-3-4 format. Only the APC load uses the Enhanced North American system.

Calculate the store required (in bytes) for each TOFCNO with the formula that follows:

$$6 \times ([\text{tuple count of DNINV}] - [\text{tuple count of DNROUTE}]) + 44 \times (1 + [\text{number of 1-digit prefixes}] + [\text{number of 2-digit prefixes}] + [\text{number of 3-digit prefixes}] + [\text{number of 4-digit prefixes}] + [\dots]) + 6$$

Note: In this formula, the tuple count of DNINV is the tuple count of DNINV for the TOFCNAME. The tuple count of DNROUTE is the tuple count of DNROUTE for the TOFCNAME.

This formula applies to more than the North American industry (for example, more than a 3-digit prefix or four-digit station code). Use this formula for station codes of any length.

The maximum store requirement for each TOFCNAME is 108 890 bytes. The maximum store requirement for a thousand group in a TOFCNAME is 10 884 bytes. This requirement includes a 50-byte overhead for the TOFCNAME.

Datafill example

The following table is an example of datafill for DNINV for the Universal DN system. The example datafill is for the TOFCNO 709 333. TOFCNO 709 333 contains all station codes with the 102x, 104x format, and a half of the 171x range. These codes are datafilled against lines.

DNINV (continued)**MAP display example for table DNINV**

AREACODE	OFCCODE	STNCODE	DNRESULT
709	333	1020	L HOST 02 0 05 03
709	333	1021	L HOST 02 0 05 04
709	333	1022	L HOST 02 0 13 06
709	333	1023	L HOST 02 0 13 07
709	333	1024	L REM3 03 0 00 01
709	333	1025	L REM3 03 0 00 10
709	333	1026	L REM3 03 0 01 11
709	333	1027	L REM3 03 0 17 21
709	333	1028	L REM3 03 0 17 16
709	333	1029	L REM3 03 0 16 20
709	333	1040	L REM3 03 0 16 15
709	333	1041	L REM3 03 0 13 26
709	333	1042	L REM3 03 0 13 05
709	333	1043	L REM3 03 0 04 02
709	333	1044	L REM3 03 0 08 00
709	333	1045	L REM3 03 0 12 04

In total, the TOFCNO holds 25 DNs (not any of which are in table DNROUTE). The number of prefixes follows:

- The number of 1-digit prefixes (1xxx) is 1.
- The number of 2-digit prefixes (10xx, 17xx) is 2.
- The number of 3-digit prefixes (102x, 104x, 171x) is 3.

Calculate the memory impact for the TOFCNAME as follows:

$$6 \times 25 + 44 \times (1 + 1 + 2 + 3) + 6 = 464 \text{ bytes}$$

In the North American DN system, these DNs exist in the same thousand group (1xxx). The memory impact for the TOFCNAME is:

$$100 + 4000 \times 1 = 4100 \text{ bytes}$$

The following datafill example for table DNINV shows:

- DNs with Multiple Appearance Directory Number (MADN) Call Appearance Call Handling (CACH)
- the group size
- call appearance (CA) fields

The VI and CMD call types share the VI appearance of a DN.

DNINV (end)**MAP display example for table DNINV**

AREACODE	OFCCODE	STNCODE	DNRESULT
613	621	5962	MDN SCA 2 0
613	621	5963	MDN SCA 3 0
613	621	5964	MDN CACH 55 1
613	621	5965	MDN CACH 10 1
613	621	5966	L EKTS 1
613	621	5966	L EKTS 1
613	621	5966	L EKTS 1
613	621	5966	L EKTS 1
613	621	5967	L ISDN 19

Table history**NA012**

The system may now dynamically allocate a maximum of 1 000 000 tuples for the Universal and Enhanced North American DN systems. This functionality is introduced by feature 59005926.

NA010

Changed table size. Added table of DNINV features.

Added information about DN Sharing with Different Circuit-Mode Call Types feature.

DNROUTE

Table name

Directory Number Route

Functional description

Table DNROUTE lists information for programmable directory numbers (DN) in the switch (such as a DN that identifies a route), rather than line equipment numbers (LEN). Table DNROUTE replaces table WRDN.

Table DNROUTE associates a DN with a specific trunk group member. This DN specifies the lowest numbered DS-0 on the customer premises equipment (CPE) on which a wideband call must terminate. Given the lowest numbered DS-0 and the bandwidth, the incoming wideband call is connected to the CPE.

There are many variations of input for table DNROUTE, as shown in the table that follows. The variations that follow are described in this section, in alphabetical order. Selectors not described in the table that follows are not valid entries for table DNROUTE.

DNROUTE features

DN selector	Usage
D	Treatment
DSVC	Default Service
M	Listed Directory Number
MM	Meet-Me Conference
RSDT	Restricted Dial Tone
SYN	Synonym Directory Number
T	Route List
FEAT	Automatic Call Distribution (ACD)
FEAT	Advanced Intelligent Network (AIN)
FEAT	Automatic Set Relocation (ASR)
Note 1: The selectors C, H, L, P, HC, LC, A, ILC, IHC, MDN, IMC, SDN, SC, ACDTK, and SCM are listed in field DN_SEL. These selectors are not valid entries for table DNROUTE.	
Note 2: Selector MTXDNTRIG only applies to the DMS-100 Wireless switch.	

DNROUTE (continued)

DNROUTE features

DN selector	Usage
FEAT	Call Forward/Interface Busy
FEAT	Direct Inward System Access (DISA)
FEAT	Message Center DN (MCDN)
FEAT	Message Storage and Retrieval (MSR)
FEAT	Meet-Me Conference (MEETME)
FEAT	Meridian Offnet Access (MONA)
FEAT	Mobile Directory Number Trigger (MTXDNTRIG)
FEAT	Simultaneous Ringing (SIMRING) Virtual DN
FEAT	Subscriber Programmable Ringing for CFDA (SPRING) option RCTL (ring control)
FEAT	Suppressed Ringing Access (SRA)
FEAT	Uniform Call Distribution (UCD)
Note 1: The selectors C, H, L, P, HC, LC, A, ILC, IHC, MDN, IMC, SDN, SC, ACDTK, and SCM are listed in field DN_SEL. These selectors are not valid entries for table DNROUTE.	
Note 2: Selector MTXDNTRIG only applies to the DMS-100 Wireless switch.	

Note: Tuples for feature Meet-Me Conference are no longer applicable to table DNROUTE. The Meet-Me Conference data is datafilled in table MMCONF, and the meet-me DN information is stored in table DNINV.

Datafill sequence and implications

The following tables must be datafilled before table DNROUTE.

- TOFCNAME
- ACDSGRP
- AVRTDATA
- BCDEF
- BROADCAST
- CLI
- COSMAP

DNROUTE (continued)

- CUSTHEAD
- HNPACONT
- IBRNTE
- XLAPLAN
- RATEAREA
- MSRTAB
- NARDATA
- NCOS
- OFRT
- PRECONF
- TMTCNTL.TREAT
- TRIGDIG
- TRIGINFO
- TRIGGRP
- KSETFEAT
- UCDGRP

During the One Night Process (ONP), table TABXFR detects DNTRIGGER datafill. The detection does not allow transfer of DNTRIGGER datafill to the inactive side.

The following restrictions apply to the DSVC (Default Service) selector, which identifies a DN in table DNROUTE as a Default Service DN:

- Before you can provision a Default Service DN in table DNROUTE, you must execute the command interpreter (CI) DEFSVCCI tool SETUP command. This command provisions Default Service data on all ISDN interfaces that support Default Service.
- The DEFSVCCI tool REMOVE command removes all provisioning established by the SETUP command. Before using this command, you must remove the Default Service DN from table DNROUTE.

Table size

0 to 640 000 tuples

If office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to North American, the maximum size is 640 000 tuples.

DNROUTE (continued)

If office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to Universal, the maximum size is 500 000 tuples.

Note: Tables DNROUTE and DNINV use the same physical store. The maximum size of table DNROUTE is less than or equal to table DNINV.

The maximum number of advanced intelligent network (AIN) tuples that can be datafilled is 2048.

Datafill

The following table lists datafill for table DNROUTE.

Field descriptions

Field	Subfield	Entry	Explanation and action
AREACODE		0 to 9999999 (1 to 7 digits)	<i>Area code</i> The area code identifies a major geographical area served by the switch. If office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to North American, the area code must be three digits long.
OFCCODE		0 to 9999999 (0 to 7 digits)	<i>Office code digit register</i> The office code is a subregion of the area code. If office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to North American, the area code must be three digits long. The office code must be specified in table TOFCNAME. Tuples can be added if the value of field OFCCODE is \$ as specified in table TOFCNAME. They cannot contain STNCODEs whose leading digits are an OFCCODE in the same area code.

DNROUTE (continued)**Field descriptions**

Field	Subfield	Entry	Explanation and action
STNCODE		0 to 99999999 (up to 8 digits)	<i>Station code</i> The station code identifies a unique station within the terminating office (TOFC). If office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to North American, the STNCODE code must be one or four digits in length. If one digit is entered, it is treated as a D-digit, where the D-digit represents the fourth digit in the format ABC-DEFG. A D-digit is then given the appropriate DN result. For example, if area code 613 and office code 226 are entered, and if 5 is entered as the station code, any calls to a number beginning with 6132265 are automatically routed to the specified treatment. If 5 is the D-digit, and DNROUTE is datafilled as 613 226 5 D OPRT, any numbers for 6132265 are routed to the operator treatment as set in table TMTCNLT. Ambiguity within the STNCODEs of one TOFC is not permitted. For example, 8594 and 859 cannot be specified as STNCODEs within one TOFC. Note: The STNCODE is in DEFG format.
XLAPLAN		alphanumeric (up to 16 characters)	<i>Translation plan index</i> Enter the index into the XLAPLAN table.
RATEAREA		alphanumeric (up to 16 characters)	<i>Area code</i> Enter the index into the RATEAREA table.

DNROUTE (continued)

Error messages

The following table explains error messages that can occur when you attempt to datafill table DNROUTE.

Note: You cannot assign a Public Office Directory Number (PODN) when Software Optionality Control option LNP00200 is IDLE.

Message	Explanation	User action
ERROR: PODN may not be assigned when Software Optionality Control option LNP00200 is IDLE.	SOC option LNP00200 is in the IDLE state.	Activate SOC option LNP00200. Assign the PODN again.

Note: When an Unable To Write New Data error message is displayed at the MAP terminal, an add or change operation to table DNROUTE was unsuccessful. When the add operation fails, no tuple is written to table DNROUTE. When a change operation fails, the existing tuple in table DNROUTE remains unchanged.

Table history**NA017**

Development activity 59030419 added the SIMRING option to the FEAT selector.

NA013

Development activity 59006586 added the CFIB option to the FEAT selector.

NA012

Development activity 59006512 added the MSR option to the FEAT selector.

Development activity 59007050 introduced changes to field LINEATTR for selector AIN. This field now accepts an alphanumeric string instead of an integer string.

Removed information about value DNTRIG.

NA011

Added information about the DNTRIG value. Added error message.

Added the XLAPLAN and RATEAREA fields.

DNROUTE (continued)

NA010

Added an error message.

Feature AU2933 removes option AIN01OPT from the DISA selector.

The RES Simultaneous Ringing feature (AJ4934) added the SIMRING option as a possible DISA option, to access the user interface remotely.

NA009

Added treatment PODN.

Added DSVC (Default Service) DN selector based on Provisioning Support for Default Service feature (AF7346).

Added information on DEFSVCCI tool SETUP and REMOVE commands to "Datafill sequence and implications" section.

Implemented design review changes regarding the Unable To Write New Data error message.

LWW00806

Feature AF7277 added feature selector MTXDNTRIG for the DMS-100 Wireless switch.

NA006

Added option AIN01OPT to feature selector DISA.

EUR006

Added feature MONA to DN selector FEAT.

NA005

Added option RCTL for feature selector SPRING.

APC03

Added option VPNDNOVR to subfield DISAOPT for DISA feature selector.

CSP02

Information about Advanced Services Protocol Call Control (ASPC) was removed from DN selector FEAT.

DNROUTE (end)

BCS36

The following components were added:

- option NARS for DN feature selector DISA
- NARNAME for option NARS
- option AIN for DN selector FEAT

Fields CUSTGRP, SUBGRP, LINEATTR, OPTION, and NCOS were modified.

DNROUTE feature ACD

Automatic Call Distribution

This selector is required if the directory number (DN) is assigned as an Automatic Call Distribution (ACD) DN for an ACD group.

Table DNROUTE is used to enter the public safety answering points (PSAP) DN for the ACD PSAP group. If the DN entered into table DNROUTE is associated with an ACD PSAP, the PSAP name and DN are written into table E911PSAP. An ACD group must exist in table ACDGRP, with the ACDPSAP option, before a DN can be datafilled in table DNROUTE.

Only one primary ACD PSAP DN is allowed in table DNROUTE for each ACD PSAP group. Primary and supplementary DNs are allowed for ACD PSAP groups. When a primary DN is datafilled in table DNROUTE, an entry is also datafilled in table E911PSAP.

Note: If a DNTYPE requires modification, the tuple must be deleted and then re-entered with the new DNTYPE.

Each of the 1024 ACD groups can be assigned one primary ACD DN and 16 ACD supplementary DN. Each supplementary DN has an associated call priority that indicates the priority of all calls terminating on that DN. Call priorities are specified as integers in the range 0 to 3, with 0 (zero) being the highest priority and three being the lowest. High priority calls are answered by agents before lower priority calls.

ACD is the mechanism by which trunk calls can be given priority over line calls or calls to the ACD DN that originate from within the switch. There are two priorities associated with the primary DN in this table: a line priority for calls coming in over lines and those originated within the same switch (field LINE), and a trunk priority for calls coming in over trunks (field TRUNK).

DNROUTE feature ACD (continued)**Datafill**

The following table lists the datafill for table DNROUTE feature ACD.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, ACDGRP, and DNAREA.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	ACD	<i>ACD</i> Enter the feature ACD.
	ACDGRP	alphanumeric (1 to 16 characters)	<i>Automatic call distribution group</i> Enter the name in field ACDNAME of table ACDGRP for this ACD DN.
	DNAREA	see subfield	<i>Directory number area</i> This field consists of subfield DNTYPE.
	DNTYPE	PRIM or SUPP	<i>Directory number type</i> Enter PRIM if the DN is the primary UCD DN for this UCD group. Enter SUPP if the DN is one of the supplementary DNs for this UCD group.

DNROUTE feature ACD (continued)

DNTYPE = PRIM

If the value of subfield DNTYPE is PRIM, datafill refinements TRUNK and LINE as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TRUNK	0 to 3	<i>Trunk priority</i> Enter the priority of trunk calls terminating on this primary ACD DN. The highest priority is 0 (zero).
	LINE	0 to 3	<i>Line priority</i> Enter the priority of line calls or calls originating from the same switch as this primary ACD DN. The highest priority is 0 (zero).

DNTYPE = SUPP

If the value of subfield DNTYPE is SUPP, datafill refinement DNPRI0 as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DNPRI0	0 to 3	<i>Directory number priority</i> Enter the priority number given to calls terminating on this ACD DN. The highest priority is 0 (zero).

Datafill example

The following example shows sample datafill for table DNROUTE feature ACD.

The ACD group name is BNRCAR. The primary ACD DN is 226 4695 and the supplementary ACD DN is 226 4696. All numbers are in SNPA 613.

The priority for trunk calls terminating on the primary DN is 0, and the priority for line calls terminating upon the primary ACD DN is 1.

The priority given for calls terminating on the supplementary DN is 1.

DNROUTE feature ACD (end)

MAP display example for table DNROUTE feature ACD

AREACODE	OFCODE	STNCODE	DNRESULT
613	226	4695	FEAT ACD BNRCAR PRIM 0 1 613
226	4696	FEAT ACD BNRCAR SUPP	1

DNROUTE feature AIN

Advanced Intelligent Network (AIN)

The advanced intelligent network (AIN) enables the rapid creation and modification of services to subscribers. The two components of AIN are the service-switching point (SSP), which is connected to subscriber premises, and the service-control point (SCP), which can be programmed to create or modify services. The SSP can be enabled with triggers to query the SCP for calls that require AIN treatment. A virtual directory number (DN) can be defined specifically for AIN treatment.

Enabling AIN indicates a DN is not recognized by the SSP but is recognized by the SCP. A virtual DN can be defined for both a private Integrated Business Network (IBN) environment or a public environment. Enabling for an IBN environment requires customer group and subgroup information, as well as a network class of service (NCOS) option. Enabling for a public environment requires a line attribute index into table LINEATTR.

To enable an AIN DN to access to AIN triggers, the DN must also be datafilled in table DNFEAT with field DNOPT datafilled as AIN.

The maximum number of AIN DNs that can be datafilled in table DNROUTE is 2048.

Note: If a call is made to a DN datafilled in table DNROUTE without the associated triggers to send control to the SCP, the call is routed to treatment.

Datafill

The following table lists the datafill for table DNROUTE feature AIN.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL and DNTYPE.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
FEATURE		AIN	<i>Feature</i> Enter the feature AIN.

DNROUTE feature AIN (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	DNTYPE(BCS3 6-)	IBN or NONIBN	<i>Directory number type</i> Enter IBN to datafill a directory number (DN) for a private Integrated Business Network (IBN) environment and datafill subfields CUSTGRP and SUBGRP. Subfield OPTION can be datafilled if a network class of service (NCOS) is to be applied to the call. Note: IBN is valid only if package NTX100 (MDC Base Package) is installed in the software load. Enter NONIBN to datafill a DN for a public environment and datafill subfield LINEATTR. Subfield OPTION can be datafilled if a network class of service (NCOS) is to be applied to the call.
CUSTGRP(BCS36-)		alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name assigned to the customer group to which the AIN DN belongs.
SUBGRP(BCS36-)		0 to 7	<i>Customer subgroup</i> Enter the subgroup number within the customer group to which the AIN DN belongs.
LINEATTR(BCS36-)		alphanumeric (1 to 16 characters)	<i>Line attribute index</i> Enter the line attribute index into table LINEATTR for this pseudo DN.
OPTION(BCS36-)		see subfields	<i>AIN options</i> Enter the option or options required.

DNROUTE feature AIN (end)

Field descriptions (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	NCOS (BCS36-)	0 to 511	<i>Network Class of Service</i> Enter the NCOS to be applied to the call. This must be a value datafilled in table NCOS.
	SMDR (BCS36+)	SMDR	<i>Station Message Detail Recording</i> Enter SMDR to generate a SMDR record if a terminating attempt trigger occurs on an AIN IBN virtual DN. Note: This option cannot be assigned using SERVORD. The TRAVER QDN command does not show that the SMDR option is assigned to a virtual DN.

Datafill example

The following example shows sample datafill for table DNROUTE feature AIN.

MAP display example for table DNROUTE feature AIN

AREACODE	OFCD	STNCODE	DNRESULT
514	722	0540	FEAT AIN IBN COMKODAK 0 (NCOS 0)\$
514	621	1321	FEAT AIN NONIBN 55 \$

DNROUTE feature ASR

Automatic Set Relocation (ASR)

This selector is required if the directory number (DN) is assigned the Automatic Set Relocation (ASR) feature. Table DNROUTE can specify up to 160 ASR DNs. Feature ASR allows a user to move integrated voice and data (IVD) telephone sets from one location to another without the assistance of operating company personnel. Table DNROUTE is datafilled to accommodate up to 160 DNs when they are taken out of service by ASR and require an equal number of DNs put back into service.

Datafill

The following table lists the datafill for table DNROUTE feature ASR.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL and FEATURE.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	ASR	<i>Feature</i> Enter the feature ASR.

Datafill example

The following example shows sample datafill for table DNROUTE feature ASR with DN selector FEAT and feature ASR on DN 613 722 5000.

MAP display example for table DNROUTE feature ASR

AREACODE	OF CODE	STN CODE	DNRESULT
613	722	5000	FEAT ASR

DNROUTE feature CFIB

DNROUTE Call Forward/Interface Busy

The CFIB entry is provisioned against a base directory number (base DN) as an option on the FEAT selector in the DNROUTE table. When a call that attempts to route over a base DN's routelist fails due to the trunks being call processing busy, out-of-service, or unavailable and the base DN subscribes to CFIB, the call forwards to a remote DN.

Datafill

The table that follows lists datafill in the DNROUTE table for option CFIB.

Field descriptions

Field	Subfield	Entry	Explanation and action
FEAT		CFIB	CFIB causes the call to be routed to a remote DN based on the incoming call's bearer capability.
TABNAME		OFRT OFR2 OFR3 OFR4 IBNRTE IBNRT2 IBNRT3 IBNRT4	Specify a routelist that is to be used to route the incoming call to the base DN.
INDEX		1–1023	This field indicates the index into the routing table.
CFIBID		A string of up to 16 characters	This field indicates the index of table CFIBDATA to get information of remote DNS.
CFIBBASE		common language location indicator CLLI	The PRI CLLI becomes the originator of the forwarded call to the remote DN, when all of the routes in the routelist are busy.
CFIBSBDN		A 10-digit number	This field indicates the billing DN to be used for the base DN to remote DN portion of the CFIB call.
RPNPP		Y or N Default is Y	This field indicates whether the presentation of the remote party number (remote DN) is allowed.

DNROUTE feature CFIB (continued)

Datafill example

The figure that follows shows sample datafill in the DNROUTE table for option CFIB.

MAP display example for table DNROUTE with CFIB feature

```

AREACODE OFCCODE STNCODE
DNRESULT
-----
613 722 8880
FEAT  CFIB  IBNRTE  20  CFIB1 CFIBBASE  6135551010  Y

```

Error messages for table DNROUTE

The error messages that follow apply to the DNROUTE table.

Error messages for table DNROUTE (Sheet 1 of 2) (Sheet 1 of 2)

Error message	Explanation and action
THE NUMBER OF CFIB TUPLES CANNOT EXCEED 10,000	The switch generates this message when the maximum number (10 000) of DNs provisioned with CFIB has been reached.
THE ENTERED CFIBID MUST BE PROVISIONED IN CFIBDATA	The switch generates this message while attempting to add a CFIB tuple in DNROUTE which has a CFIBID that is not provisioned in table CFIBDATA.
THE ENTERED ROUTE IS INVALID. THE ROUTE IS NOT PROVISIONED IN TABLE <route table>	The switch generates this message while attempting to add a CFIB tuple in DNROUTE that has an invalid route table index.
IRTE IS NOT SUPPORTED FOR CFIB	The switch generates this message while attempting to add a CFIB tuple in DNROUTE with IRTE as the routing table.

DNROUTE feature CFIB (end)

Error messages for table DNROUTE (Sheet 2 of 2) (Sheet 2 of 2)

Error message	Explanation and action
RRTE IS NOT SUPPORTED FOR CFIB	The switch generates this message while attempting to add a CFIB tuple with RRTE as the routing table.
CANNOT FIND CFIBID IN CFIBDATA - DATA CORRUPTED	The switch generates this message while attempting to position on a CFIB tuple in DNROUTE that has a CFIBID that is out of range. The table CFIBDATA may be corrupt.

DNROUTE feature D

Directory Number Selector D

This selector is required when the originator of a call to this directory number (DN) is routed to one of the treatments in the line or trunk treatment tables. See table TMTCNTL for a list of line and trunk treatment tables.

Initially all DNs are automatically routed to the blank DN treatment in the line and trunk treatment tables by the datafill of table TOFCNAME.

Datafill

The following table lists the datafill for table DNROUTE feature D.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL and TRMT.
	DN_SEL	D	<i>Directory number</i> Enter the DN selector D.
	TRMT	alphanumeric (4 characters)	<i>Treatment</i> Enter the treatment in the line treatment table to which calls of the specified DN are routed.

Datafill example

The following example shows sample datafill for table DNROUTE feature D.

MAP display example for table DNROUTE feature D

AREACODE	OF CODE	STN CODE	DNRESULT
613	725	2425	D VPFX

DNROUTE feature DISA

Direct Inward Service Access (DISA)

This selector is required if the directory number (DN) is assigned as a direct inward system access (DISA) DN for an Integrated Business Network (IBN) customer group. The customer group can have one or more DNs assigned to the feature. The maximum number of DISA DNs for each switching unit is 1023.

The intragroup flag is for public or family type customer groups. For a description of customer group types and features allowed if a call is intragroup, see tables CUSTENG and CUSTFAM.

Datafill

The following table lists the datafill for table DNROUTE feature DISA.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, CUSTGRP, SUBGRP, AUTHREQ, SMDRTO, SMDRFROM, and INTRAGRP.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the DN selector FEAT.
	FEATURE	DISA	<i>Feature</i> Enter the feature DISA.
	CUSTGRP	alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name of the customer group of the listed DN.
	SUBGRP	0 to 7	<i>Subgroup</i> Enter the subgroup of the customer group of the listed DN.
	AUTHREQ	Y or N	<i>Authorization required</i> Enter Y to indicate that the authorization code is mandatory for users of this DN. Otherwise, enter N.

DNROUTE feature DISA (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	SMDRTO	Y or N	<i>Originating station message detail recording</i> Enter Y to indicate that station message detail recording (SMDR) is required on the leg of the call where the originator accesses DISA. Otherwise, enter N.
	SMDRFROM	Y or N	<i>Terminating station message detail recording</i> Enter Y to indicate SMDR is required on the leg of the call from DISA to the final IBN destination. Otherwise, enter N.
	INTRAGRP	Y or N	<i>Intragroup</i> Enter Y to indicate intragroup calls. Enter N to indicate non-intragroup calls.
	OPTIONS	see subfield	<i>Options</i> This field consists of subfield DISAOPT.
	DISAOPT	CFRA, CHGIND, ENTRYID, NARS, NCOSOPT, NFRA, PVNOPT, RDISA, RTEOPT, SIMRING, TIMEOPT, TMTOPT, VPNDNOVR, or USAID	<i>DISA options</i> Enter up to seven options. If PVNOPT is specified, private virtual network (PVN) takes precedence. Enter CFRA (call forwarding remote access) to indicate that a call to the DN can access the CFRA feature.

DNROUTE feature DISA (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	DISAOPT (continued)		The CHGIND option is used by a VPN to allow for non-metering indication on dial-up access. Enter ENTRYID to specify whether Automatic Message Accounting (AMA) calling entry identification provided for AMA billable calls originated from this DISA station. Enter NARS to specify the network access registers required for a call. Enter NCOSOPT to permit specification of the network class of service that is applied to the call when no valid authorization code (AUTHCODE) is entered. If an AUTHCODE is entered, then the NCOS associated with the AUTHCODE is applied to the call. Enter NFRA (network facility remote access) to remotely access the network facility access (NFA) feature and to allow a registered subscriber to place an NFA trunk connection on hold or remove it from hold by entering a flash from the telephone set. Enter PVNOPT to allow application of specific values to PVN DISA access. Enter RDISA to allow the DISA DN to support regular DISA calls as well as remote access PVN calls. This option can be used only in conjunction with option PVNOPT. Enter RTEOPT to allow the customer to specify an alternate route on which to terminate on when DISA calls timeout during digit collection.

DNROUTE feature DISA (continued)**Field descriptions (Sheet 4 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	DISAOPT (continued)		Enter SIMRING to allow calls to the DISA DN to access the SimRing user interface remotely. Enter TIMEOPT to allow application of the timeout value to digit collection from trunks. It permits routing to the attendant after dial tone has been applied to the calling party for the specified number of seconds and no digit has been received. The value TIMEOPT is only applicable for DISA if the value of field AUTHREQ is Y. The timer runs only if an AUTHCODE is prompted. If the timer is not used, the four-second timer runs. TIMEOPT has no effect if the value of field AUTHREQ is N. The TIMEOPT option is required if the DISA number is accessed over ISUP trunks. Enter TMTOPT to route the call to a treatment defined in table IBNFEAT when DISA detects an invalid authcode. Enter VPNDNOVR to indicate that the DISA number and not the originating calling number (CGDN) is treated as the calling number. The user has access to the IBN customer group's facilities while billing the DISA DN. The CGDN for billing and outpulsing on an outgoing trunk is the DISA DN. If USAID is entered as an option, subfields AMA_CONNECT, AMA_DIAL, USERID, FORW_ANI, and ANI_FAIL_USE_DISA require datafill.
	AMA_CONNECT	NONE, CALLER, or DISA_DN	AMA connect. This subfield determines if call code 174 with module code 047 appended is generated for USAID access and to which party such a record is billed.
	AMA_DIAL	NONE, CALLER, or DISA_DN	AMA dial. This subfield controls AMA generation and determines if call code 175 with module code 047 is appended when the IP extends a call for the use.

DNROUTE feature DISA (continued)**Field descriptions (Sheet 5 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	USERID	CALLER, or DISA_DN	User identification. This subfield determines whether the CLID or the DISA_DN is sent to the IP as the SAID user identification.
	ANI_FAIL_USE_D ISA	Y or N	ANI failed, use DISA. This subfield determines the behavior of USAID when ANI and CLID are not available. Datafill of Y indicates that if ANI spill fails, DISA DN may be used as ANI spill information.
	FORW_ANI	Y or N	Forward ANI. This subfield determines the SAID user id that is used when CLID is not available.

DISAOPT = CHGIND

If the value of subfield DISAOPT is CHGIND, datafill refinement CHGIND as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CHGIND	CHG or NOCHG	<i>Charge indication</i> Enter CHG to indicate metering, or NOCHG to indicate non-metering. If CHG is specified, then the DISA number supports billing.

DNROUTE feature DISA (continued)

DISAOPT = NARS

If the value of subfield DISAOPT is NARS, datafill refinement NARNAME as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NARNAME	alphanumeric (up to 16 characters) or NILNAR	<i>Network access register name</i> Enter a character string to specify the network access register (NAR) that a call must have access through to continue, or enter NILNAR if no NAR is applicable. The NAR name must be defined in table NARDATA.

DISAOPT = NCOSOPT

If the value of subfield DISAOPT is NCOSOPT, datafill refinement NCOS as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	NCOS	0 to 511	<i>Network class of service</i> Enter the NCOS.

DNROUTE feature DISA (continued)**DISAOPT = PVNOPT**

If the value of subfield DISAOPT is PVNOPT, datafill refinements PINLENTH, NCOS, and LINEATTR as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	PINLENTH	1 to 15	<i>Personal identification number length</i> Enter the personal identification number (PIN) length. The PINLENTH provides the operating company with the capability to specify the number of digits collected as PIN for each DISA (remote access) number. If the value of field SECRECY in table CUSTHEAD is Y, only the number of digits specified for field PINLENTH are collected (digits entered beyond the PINLENTH are ignored). If the value of field SECRECY is N, up to 15 digits are collected as PIN (digits entered beyond 15 digits are ignored).
	NCOS	0 to 511	<i>Network class of service</i> Enter the NCOS.
	LINEATTR	0 to 1023	<i>Line attribute</i> Enter the line attribute to use when the caller has difficulties entering the PIN and called number (no PIN and called number entered). Field LINEATTR provides the operating company with the capability to specify the line attributes number used when the caller has difficulties entering the PIN and called number. If the called number is entered, then the line attribute number associated with GEN selector in table IBNXLA is used for call translation. Field LINEATTR in table DNROUTE and LATTR associated with GEN selector in table IBNXLA must be datafilled with the same line attribute number.

DNROUTE feature DISA (continued)**DISAOPT = RTEOPT**

If the value of subfield DISAOPT is RTEOPT, datafill refinements TBLNAME and IDX as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TBLNAME	OFRT or IBNRTE	<i>Table name</i> Enter the table name to which the call routes.
	IDX	0 to 1023	<i>Index</i> Enter the table index.

DISAOPT = TIMEOPT

If the value of subfield DISAOPT is TIMEOPT, datafill refinement TIMEOUT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TIMEOUT	4 to 40	<i>Time out</i> Enter the length of time that dial tone is applied before the caller is routed to an attendant if there is no digit collection.

DISAOPT = TMTOPT

If the value of subfield DISAOPT is TMTOPT, datafill refinement IDX as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	IDX	0 to 63	<i>Index</i> Enter the treatment index.

Datafill example

The following example shows sample datafill for table DNROUTE feature DISA with options NCOSOPT, PVNOPT, and RDISA.

DNROUTE feature DISA (continued)

The DISA DN is 226 4149 and is in SNPA 613 and subgroup 1 of customer group BNRMC.

Authorization codes are not mandatory by users of this DN and SMDR is not required.

Incoming calls are not intragroup. The DISA option required is NCOSOPT, and the NCOS is 0. The PIN length is 10, NCOS is 2, and LINEATTR is 4 for the PVNOPT. This DISA DN supports regular DISA calls as well as remote access PVN calls.

MAP display example for table DNROUTE feature DISA with options NCOSOPT, PVNOPT, and RDISA

AREACODE	OFCCODE	STNCODE	DNRESULT
613	226	4149 FEAT DISA BNRMC 1 N N N N NCOSOPT 0 PVNOPT 10 2 4 RDISA	

The following example shows sample datafill for table DNROUTE feature DISA with option USAID. This option allows DISA DNs to be used as Universal Speech Activated Intelligent Dialing (USAID) DNs. The datafill of each DISA DN used for USAID access specifies if AMA records should be generated per access or for intelligent peripheral (IP) dialing.

The DISA DN is 621 1000 and is in SNPA 613 and subgroup 2 of customer group IBNTST. Subfield AMA_CONNECT indicates the AMA record is billed to the caller. Subfield USERID indicates the DISA_DN is sent to the IP as the SAID user identification.

MAP display example for table DNROUTE feature DISA with option USAID

AREACODE	OFCCODE	STNCODE	DNRESULT
613	621	1000 FEAT DISA IBNTST 2 N N N Y USAID CALLER CALLER DISA_DN N Y	

DNROUTE feature DISA (end)

The following example shows sample datafill for table DNROUTE feature DISA with option SIMRING. This option assigns Simultaneous Ringing to the DISA number. The DN becomes the SimRing user interface DN.

MAP display example for table DNROUTE feature DISA with option SIMRING

AREACODE	OFCCODE	STNCODE	DNRESULT
613	621	1000	FEAT DISA RESG200 0 Y Y Y Y
(SIMRING)	\$		

DNROUTE feature DNTRIG

Directory Number Trigger (DNTRIG)

The directory number (DN) trigger (DNTRIG) capability allows a caller to dial a designated DN from any station in the public switched network to build and send a query to a service control point (SCP) database to obtain routing instructions for the call.

Datafill

The following table lists the datafill for table DNROUTE feature DNTRIG.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, and DNTRIG.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	DNTRIG	<i>Feature</i> Enter DNTRIG.
	DNTRIG	see subfields	<i>Directory number trigger</i> This field consists of subfields DNTYPE, LINEATTR, CUSTGRP, SUBGRP, and SMDR.
DNTYPE		IBN or NONIBN	<i>Directory number type</i> Enter IBN for Integrated Business Network calls or NONIBN for residential DN types.
LINEATTR		0 to 2047	<i>Line attribute</i> Enter the line attribute associated with the DN trigger.

DNROUTE feature DNTRIG (end)**DNTYPE = IBN**

If the value of subfield DNTYPE is IBN, datafill refinements CUSTGRP, SUBGRP, and SMDR as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
CUSTGRP		alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name of the customer group of the listed DN. Enter an IBN CUSTGRP for an IBN type of DN trigger. Enter the RES customer group for a NONIBN type of DN trigger.
SUBGRP		0 to 7	<i>Subgroup</i> Enter the subgroup number of the originating station.
SMDR		Y or N	<i>Station Message Detailed Recording</i> Enter Y (yes) to indicate that station message detailed recording for the IBN type of DN trigger are required. Otherwise, enter N (no).

DNTYPE = NONIBN

If the value of subfield DNTYPE is NONIBN, datafill refinement CUSTGRP as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
CUSTGRP		alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name of the customer group of the listed DN. Enter an IBN CUSTGRP for an IBN type of DN trigger. Enter the RES customer group for a NONIBN type of DN trigger.

Datafill example

An example of datafill for selector DNTRIG is not provided.

DNROUTE feature DSVSVC

Default Service (DSVC)

The DSVSVC selector in table DNROUTE identifies a directory number (DN) as a Default Service DN. The Default Service tuple also contains the customer group, subgroup, and network class of service (NCOS) of the Default Service DN.

Default Service provides limited voice service for ISDN basic rate interface (BRI) lines in conditions when voice service is not otherwise available. Default Service provides the following capabilities for new and existing ISDN BRI lines using fully initializing terminals (FIT) or non-initializing terminals (NIT):

- origination of voice calls (processing of and reply to a SETUP message sent by the customer premises equipment [CPE])
- access to Basic Rate Interface Verification (BRIV) testing

Note: The BRIV feature provides dial access to allow operating company installation and maintenance personnel to identify the termination of an access line. The BRIV feature is accessible over the BRI access line at the customer premises from a FIT or NIT.

- access to any three-digit (611 or 911), seven-digit, or ten-digit telephone numbers that the local exchange carrier (LEC) provisions for the feature

Each switch can have only one Default Service DN.

Datafill

Only one tuple in table DNROUTE can have the DN_SEL field set to DSVSVC. Attempts to provision more than one Default Service DN are blocked with the following error message:

Only one Default Service DN per switch. The Default Service DN is nnn nnn nnnn.

Before you can provision a Default Service DN in table DNROUTE, you must execute the command interpreter (CI) DEFSVCCI tool SETUP command. This command provisions Default Service data on all ISDN interfaces that support Default Service. The following error message displays if you do not execute the SETUP command before you provision a Default Service DN:

Default Service has not been set up on all eligible ISDN loops. To set up all ISDN loops use the CI command DEFSVCCI and run SETUP. Then you will be able to add the Default Service DN to Table DNROUTE.

DNROUTE feature DSVC (end)

The DEFSVCCI tool REMOVE command removes all provisioning established by the SETUP command. Before using this command, you must remove the Default Service DN from table DNROUTE.

Removal of the Default Service DN and entry of a new Default Service DN in table DNROUTE triggers static data download messages. These messages update the DN information to each XMS-based peripheral module (XPM) that is in service and supports BRI lines.

The following table lists the datafill for table DNROUTE feature DSVC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	Directory number result. This field consists of subfields DN_SEL, CUSTGRP, SUBGRP, and NCOS.
	DN_SEL	DSVC	Directory number selector. Enter the DN selector DSVC.
	CUSTGRP	alphanumeric (1 to 16 characters)	Customer group. Enter the name of the customer group of the Default Service DN.
	SUBGRP	0 to 7	Subgroup. Enter the subgroup of the customer group of the Default Service DN.
	NCOS	0 to 511	Network class of service. Enter the NCOS of the Default Service DN.

Datafill example

The following example shows sample datafill for table DNROUTE feature DSVC.

MAP display example for table DNROUTE feature DSVC

AREACODE	OFCCODE	STNCODE	DNRESULT
919	991	9999	DSVC DEFSVCGRP 0 0

DNROUTE feature M

Directory Number Selector M

This selector is required when the directory number (DN) is assigned as the listed DN for an Integrated Business Network (IBN) customer group. The customer group can be assigned one or more listed DNs.

Datafill

The following table lists the datafill for table DNROUTE feature M.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, CUSTGRP, SUBGRP, ICI, and LDN_OM_REPORT.
	DN_SEL	M	<i>Directory number selector</i> Enter the directory number (DN) selector M.
	CUSTGRP	alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name of the customer group of the listed DN.
	SUBGRP	0 to 7	<i>Subgroup</i> Enter the subgroup of the customer group of the listed DN.
	ICI	0 to 255	<i>Incoming call identification codes</i> Enter the incoming call identification code assigned to the listed DN. Any entry outside the range indicated for this field is invalid.
	LDN_OM_REPORT	Y or N	<i>Listed directory number report</i> Enter Y (yes) to indicate whether the listed DN is monitored by the operational measurement (OM) file. Otherwise, enter N (no).

Datafill example

The following example shows sample datafill for table DNROUTE feature M.

DNROUTE feature M (end)

The listed DN is 226 5400 in SNPA 613 and is in subgroup 1 of customer group BNRMC.

The listed DN is assigned to incoming call identification code 1.

The incoming call identification code 26 is assigned to key and lamp number 3 on the attendant console. The assignment of ICI to key and lamp is specified in table FNMAP.

A station external to the customer group or an incoming or two-way IBN trunk group with pulsing or with seize only, is routed upon dialing 226 5400.

MAP display example for table DNROUTE feature M

AREACODE	OFCODE	STNCODE	DNRESULT					
613	226	5400	M	BNRMC	1	26	Y	

DNROUTE feature MCDN

Message Center Directory Number (MCDN)

This selector is required if the directory number (DN) is assigned as a Message Center DN (MCDN). This is the number dialed by a station to retrieve a message from or to forward a message for storage by the message center attendant.

Datafill

The following table lists the datafill for table DNROUTE feature MCDN.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, DEST, DIDORG, CUSTNAME, and SUBGRP.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	MCDN	<i>Feature</i> Enter the feature MCDN.
	OPTION	see subfield	<i>Option</i> This field consists of subfield DEST.
	DEST	EXTCON or INTCON	<i>Destination</i> If the value of field DIDORG is Y, enter EXTCON so that subscribers can retrieve their messages by calling from a station external to their subgroup. If the value of field DIDORG is N, enter EXTCON so that subscribers can retrieve their messages by calling from a station in their own subgroup. Enter INTCON so that the MCDN can only be used by IBN stations to activate call forwarding to or pick up messages from their own subgroup. Integrated Business Network (IBN) stations can specify a subgroup other than their own to act as a message center.

DNROUTE feature MCDN (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CUSTNAME	alphanumeric (1 to 16 characters)	<i>Customer group name</i> If the entry in field DEST is EXTCON, enter the name of the customer group of the subgroup assigned as a message center.
	SUBGRP	0 to 7	<i>Subgroup</i> If the entry in field DEST is EXTCON, enter the subgroup of the customer group assigned as a message centre.
	DIDORG	Y or N	<i>DID retrieve</i> If the value of field DEST is EXTCON, enter Y (yes) or N (no). If the value of field DEST is INTCON, enter N.

Datafill example

The following example shows sample datafill for table DNROUTE feature MCDN.

The Message Center DN (MCDN) for customer group BNRMC is 726 4152, and each subgroup acts as a message center for the stations in that subgroup. Stations dialing this number can only call forward or pick up messages from their own subgroup and customer group.

The MCDN for customer group BNRCARL is 726 3089, and subgroup 4 acts as a message center for the stations in the customer group. Stations dialing this number can retrieve messages from stations external to their subgroup.

The MCDN for customer group BNRKAN is 726 5060, and subgroup 3 acts as a message center for the stations in that customer group. Stations dialing this number can only call forward or pick up messages from their own subgroup and customer group.

DNROUTE feature MCDN (end)

MAP display example for table DNROUTE feature MCDN

AREACODE	OFCODE	STNCODE	DNRESULT
613	726	4152	FEAT MCDN INTCON N BNRMC
613	726	3089	FEAT MCDN EXTCON Y BNRMCARL 4
613	726	5060	FEAT MCDN EXTCON N BNRKAN 3

DNROUTE feature MM

Directory Number Selector MM

This selector is required when the directory number (DN) is listed in table MMCONF as a Meet Me (MM) conference DN. Datafill for table DNROUTE is automatically produced by table MMCONF table control when the DN is added to table MMCONF.

Datafill

The following table lists the datafill for table DNROUTE feature MM.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number result</i> This field consists of subfields DN_SEL, CUSTGRP, and CONF.
	DN_SEL	MM	<i>Selector</i> Enter the directory number (DN) selector MM.
	CUSTGRP	alphanumeric (1 to 16 characters)	<i>Customer group</i> Enter the name of the customer group of the listed DN.
	CONF	0 to 15	<i>Conference number</i> Enter the conference number assigned to the DN in table MMCONF.

Datafill example

The following example shows sample datafill for table DNROUTE feature MM.

This example shows data produced by datafill of the Meet Me Conference table for the example shown in table MMCONF. DN 226 5400 in SNPA 613 and customer group BNRMC are assigned to conference number 1.

DNROUTE feature MM (end)

MAP display example for table DNROUTE feature MM

AREACODE	OFCODE	STNCODE	DNRESULT		
613	226	5400	MM	BNRMC	1

DNROUTE feature MONA

Meridian OffNet Access (MONA)

Meridian SuperNode Network access

In certain markets, this selector is required for access to the Meridian SuperNode Network (MSN). The MONA directory number (DN) controls the Travel Card authorization code and its length, the authorization code and account code combined, or feature ACR by way of the MONA customer group.

It is recommended that only one customer group be used for the MONA DN as the generic customer group and that one MONA DN be datafilled against the trunk groups so that the network class of service (NCOS) of the authorization codes can be used to determine the different dial plans for different customers. Fields SMDRTO and SMDRFROM (selector DISA) are not used for MSN type calls and are bypassed when option MSN is datafilled in table CUSTSMR for MSN calls.

Meridian OffNet Access billing

Software added in release EUR006 enables customers to migrate from CDR to AMA billing formats. Support for AMA billing for Authcode service is provided by the ENTRYID selector in table DNROUTE, feature MONA. These enhancements allow AMA records to be generated for the leg of the call that was made from MONA.

Billing information for MONA is captured in a module 046 that is appended to the AMA record for the call, using the 00510 structure code. The information captured in the module 046 depends on the type of agent used to access MONA, as explained in the following table. Information is captured in the order shown in the table.

Agent type and module 046 billing information

Originating agent	Information captured in module 046 record
ISUP trunk	ENTRYID (parameter in ISUP IAM), billing number, or CLI
PRI trunk	Billing number or CLI
BTUP trunk	CLI or billing number
Other trunk types	billing number

The ENTRYID information for an ISUP call is either the originator's calling line identification (CLI) or the billing number of the trunk used to access MONA.

DNROUTE feature MONA (continued)

If none of the expected information is available for a call, a module 046 is not generated.

Addition of the module 046 is controlled by datafilling ENTRYID in subfield MONAOPT.

Datafill

The following table lists the datafill for table DNROUTE feature MONA.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, and DIALPLAN.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	MONA	<i>Feature</i> Enter the feature MONA. An 800 universal access number must be datafilled in table DNROUTE as a MONA DN or the call is blocked and the call receives vacant code treatment (VACT).
	DIALPLAN	alphanumeric (16 characters)	<i>Dial plan</i> Enter the dial plan name.
	MONAOPT	ENTRYID	<i>MONA billing options</i> Enter ENTRYID to generate a billing record. If ENTRYID is specified, a module 046 record is appended to the AMA record for the leg of the call that was made from a MONA DN. The module 046 contains the ISUP ENTRYID, the originator's CLI, or the billing number of the trunk used to access MONA.

Datafill example

The following example shows sample datafill for table DNROUTE feature MONA.

DNROUTE feature MONA (end)

In the first example, the MONA DN is 722 4149 and is in SNPA 613. The default dialplan name is used.

In the second example, the MONA DN is 879 8997 and is in SNPA 162. The dialplan name is KINGSBPLAN. MONA billing selector ENTRYID generates billing for the leg of the call that was made using MONA.

MAP display example for table DNROUTE feature MONA

AREACODE	OFCODE	STNCODE	DNRESULT
613	722	4149	FEAT MONA DEFAULT
162	879	8997	FEAT MONA KINGSBPLAN (ENTRYID)

DNROUTE feature MSR

Message Storage and Retrieval

This option provides the DMS-100 switch the ability to display the name associated with the message storage and retrieval (MSR) device. A message services DN or virtual DN routes calls to an MSR during message storage and retrieval. When user A calls user B, user A's display shows user B's name. If user B has redirected the call to the voice mail system (by use of the MSR DN), user A's display shows the MSR name to which the call has been routed. Such a display also occurs when user B calls the voice mail system to retrieve messages.

This feature uses capabilities to perform the following:

- display the MSR name to the calling party when the call is redirected to voice mail
- display the MSR name to the client party when the client calls the voice mail system to retrieve messages
- supports Universal DN Systems for the Base MWI Control Using NI-PRI feature

Datafill

The table that follows lists datafill for table DNROUTE feature MSR.

Field descriptions (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
DNRESULT		see subfields	Directory number results
	MSRID	10 digits (0–9)	This field consists of the subfields MSRID, TABID, and KEY. Message storage and retrieval identifier This identifier is required if the MSR option is datafilled. This MSRID must exist in table MSRTAB before it can be datafilled in table DNROUTE.

DNROUTE feature MSR (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
	TABID	OFRT OFR2 OFR3 OFR4 IBNRTE IBNRT2 IBNRT3 IBNRT4	Table identifier The TABID represents the valid routing table.
	KEY	integer (0–1023)	Table key The DMS-100 switch uses this key for mapping to the valid routing table.

Datafill example

The figure that follows shows sample datafill for table DNROUTE feature MSR.

MAP display example for table DNROUTE feature MSR

```

AREACODE OFCCODE STNCODE      DNRESULT
-----
    909      550      1234  FEAT MSR 1234567890 OFRT 58

```

DNROUTE feature SIMRING

Simultaneous Ringing

This selector is required if a virtual directory number (VDN) is assigned as the Simultaneous Ringing (SimRing) pilot DN (PDN) for a SimRing group. The SimRing option can be added for a DN that does not have a physical line card appearance on the switch (a virtual DN). Normally, the PDN is the SimRing group member DN that first receives a call. For the SimRing VDN pilot, however, the PDN does not actually receive the call; only the non-pilot member DNs (NPMDN) ring when the SimRing PDN is dialed.

The SimRing VDN pilot does not function as a physical line. It cannot ring, cannot be answered, and cannot originate calls. When the SimRing VDN pilot is dialed, only the NPMDNs are alerted, and only the NPMDNs can answer the call. Normally with the SimRing feature, a call to a single DN rings up to 5 different locations at the same time. But because the PDN in this case is not a physical line, this feature supports ringing for only 4 different locations (that is, the 4 NPMDNs).

Datafill

The table that follows lists datafill for table DNROUTE feature SIMRING.

Field descriptions

Field	Subfield	Entry	Explanation and action
DNRESULT		see subfields	Directory number results. This field consists of subfields DN_SEL, FEATURE, ACDGRP, and DNAREA.
	DN_SEL	FEAT	Directory number selector. Enter the directory number (DN) selector FEAT.
	FEATURE	SIMRING	SIMRING. Enter the feature SIMRING.
	SIMR_GRPKEY	integer	SIMRING group key. Enter the index into table PILOTGRP.
	SIMR_CUSTGRP	alphanumeric	Customer group. Enter the name assigned to the customer group to which the SimRing VDN belongs
	SIMR_SUBGRP	0 to 7	Customer subgroup. Enter the subgroup number within the customer group to which the SimRing VDN belongs.

DNROUTE feature SIMRING (end)

Field descriptions

Field	Subfield	Entry	Explanation and action
	SIMR_NCOS	0 to 255	Network Class of Service. Enter the NCOS to be applied to the call. This must be a value datafilled in table NCOS.
	SIMR_STATE	ACT or INACT	SimRing State. Enter the desired state for the SimRing group.
	SIMR_PIN	2 to 10 digits	PIN code for the SimRing group. This is the personal identification number used to make changes to SimRing group data. Note: This field is not shown when the tuple is displayed but is replaced by \$. This field can be changed, however.

Datafill example

The figure that follows shows sample datafill for table DNROUTE feature SIMRING. The customer group name is IBNTST.

MAP display example for table DNROUTE feature SIMRING

AREACODE	OFCCODE	STNCODE	DNRESULT
613	621	2500	FEAT SIMRING 1 IBNTST 0 0 ACT \$

Release history

NA017

Feature (59030419) SIMRING adds as a new refinement for DN_SEL = FEAT.

DNROUTE feature SPRING

Subscriber Programmable Ringing for CFDA (SPRING)

The RCTL (ring control) feature identifier allows a virtual directory number (DN) to be associated with the SPRING feature in table DNROUTE. This virtual DN allows for remote access of the SPRING feature. Remote access allows an end user to change the ring count setting for a DN other than the DN from which the end user is calling. The end user must dial the DN assigned by the operating company for SPRING access. Once accessed, the end user is prompted for the entries required to effect the change.

Datafill

The following table lists the datafill for table DNROUTE feature SPRING.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL and FEATURE.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the DN selector FEAT.
	FEATURE	RCTL	<i>Feature</i> Enter the feature RCTL (ring control).

Datafill example

The following example shows sample datafill for table DNROUTE feature SPRING.

MAP display example for table DNROUTE feature SPRING

AREACODE	OFCODE	STNCODE	DNRESULT
919	555	1234	FEAT RCTL

DNROUTE feature SRA

Suppressed Ringing Access (SRA)

The Suppressed Ringing Access (SRA) capability allows any authorized server to establish a connection to an end user's line without applying audible ringing.

Datafill

The table that follows lists the datafill for table DNROUTE feature SRA.

Field descriptions (Sheet 1 of 5)

Field	Subfield	Entry	Explanation and action
DN_SEL		FEAT	<i>Directory number selector</i> This field specifies the directory number (DN) selector FEAT.
FEATURE		SRA	<i>Feature</i> This field contains SRA as the feature selector.
ACCESS		NORING, OSI, RING	<i>Access</i> This field specifies the access type. NORING indicates suppressed ringing, OSI indicates suppressed ringing with OSI setup, and RING indicates one-cycle-ringing. The default is NORING. If RING is entered, complete fields RPATTERN and DURATION described in the next table. Note: When changing the entry in this field, from RING to one of the other two access types, fields in the tuple will be cleared of inputs. These fields are cleared, due to the ACCESS field being a normal field as opposed to a selector field. This method fulfills the need to maximize the amount of information that SRA requires in the tuple.
BILLMAST		ON or OFF	<i>Master Billing</i> This field is used to turn off all SRA AMA generation. This option disables SRA billing without having to change the settings for the individual billable events. The default is OFF.

DNROUTE feature SRA (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield	Entry	Explanation and action
BILLOPT		Y or N	<i>Line Option Billing</i> This field specifies whether an AMA record is generated. The default is N. An AMA record is generated if BILLMAST is set to ON, this field is set to Y, and an SRA attempt is made to an SRA-compatible line where the SRA option is not enabled.
BILLBUSY		Y or N	<i>Busy Billing Option</i> This field specifies whether an AMA record is generated. The default is N. An AMA record is generated if BILLMAST is set to ON, this field is set to Y, and an SRA call reaches a busy end-user's line.
BILLCTHR		Y or N	<i>Cut-Through Billing</i> This field specifies whether an AMA record is generated. The default is N. An AMA record is generated if BILLMAST is set to ON, this field is set to Y, and an SRA call has successfully reached cut-through.
BILLINTR		Y or N	<i>Incoming Call Interrupt Billing</i> This field specifies whether an AMA record is generated. The default is N. An AMA record is generated if BILLMAST is set to ON, this field is set to Y, BILLCTHR is set to Y, and an incoming call interrupts an ongoing SRA call.
TCALL		1 - 999 (sec) or DISABLED	<i>Maximum Call Interrupt</i> This field specifies the maximum call duration timer from PAM/IINF message until call disconnect. The default is 150 seconds.
CALLINTR		Y or N	<i>Incoming Call Interrupt</i> The incoming call interrupt is used to enable or disable incoming call interruption. The default is Y.

DNROUTE feature SRA (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield	Entry	Explanation and action
OSIDISC		1 - 255 (units of 10 milliseconds) or DISABLED	<i>Open Switch Interval (OSI) upon Disconnect</i> This field indicates the time period before an OSI disconnect is applied. The default is 80. Note: In streams prior to NA006, the duration of OSI disc was fixed at 800 milliseconds and field OSIDISC had two possible values; YES or NO. During an ONP from loads <NA006, field OSIDISC is reformatted. The OSIDISC field will be set to DISABLED if it was set to N in the old load. OSIDISC will be set to 200 if it was set to Y and the patch was active in the old load. OSIDISC will be set to 80 if it was set to Y and the patch was not active in the old load.
LCASCREEN		Y or N	<i>Local Calling Area Screening</i> When LCASCREEN is set to Y, SRA performs standard LCA screening from the SRA routing DN to the terminating DN. LCA screening ensures that the routing DN and the terminating DN are within the same LCA. When the two DNs are in different LCAs, the LCA screening ensures proper billing. There is no default value for this field. Note: In loads prior to NA011, LCA screening was enabled through the LINEATTR field in table DNROUTE. In NA011 LINEATTR is replaced by LCASCREEN and its refinements. During an ONP to NA011, the LINEATTR field is reformatted. LCASCREEN will be set to N when there is no value entered for LINEATTR. Similarly, LCASCREEN will be set to Y and LCANAME and HSTS will be properly initialized when LINEATTR is datafilled on the old side.

DNROUTE feature SRA (continued)

Field descriptions (Sheet 4 of 5)

Field	Subfield	Entry	Explanation and action
SECUMAST	LCANAME	alphanumeric	<i>Local Calling Area Name</i> This refinement only applies for SRA calls that have LCANAME set to Y. The LCA screening between the SRA DNROUTE DN and the terminating DN requires the LCA name.
	HSTS	alphanumeric	<i>Home Service Translation Scheme</i> This refinement only applies for SRA calls that have LCANAME set to Y. The LCA screening between the SRA DNROUTE DN and the terminating DN requires the HSTS. There is no default value for this field.
		OFF or ON	<i>Master Security</i> This field indicates whether the server must pass SRA security to gain access to the suppressed ringing functionality. If this field is set to OFF, SRA security is not performed. The default is ON.

DNROUTE feature SRA (continued)**Field descriptions (Sheet 5 of 5)**

Field	Subfield	Entry	Explanation and action
SCRNTBL		DNROUTE, or SRASCRN	<i>Screen Table</i> This field specifies the name of the table that holds the screening list. If SRASCRN is entered, the screening list is taken from the SCREENING LIST field of table SRASCRN. In this case the SECURITY LIST field of table DNROUTE will contain a list of indices to table SRASCRN. The default is DNROUTE.
SECURITY		DN, BG, or CG	<i>Security Type</i> This field identifies the type of security that is used for a Routing DN. If DN is entered, a list of up to 5 DNs or 10 indices to table SRASCRN are stored in the security list field. If BG is entered, a list of up to 5 BGids or 10 indices to table SRASCRN are stored in the security list field. If CG is entered, a list of up to 5 customer group names or 10 indices are stored in the security list field. The default is DN. Note: The information found in the security list field depends on the values specified in the SCRNTBL and SECURITY fields. If SECUMAST is ON and Security List is empty, no SRA calls will be allowed for this Routing DN.

DNROUTE feature SRA (end)

ACCESS = RING

The table that follows lists the conditional datafill.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
RPATTERN		0 - 15	<i>Ring Pattern</i> If field ACCESS = RING, enter a value to specify a ring pattern. The default is 6.
DURATION		1 - 255 (units:0.1 sec)	<i>Duration</i> If field ACCESS = RING, enter a value to specify the length of time for which ringing is applied. The default is 60 (in units of 0.1 seconds is 6 seconds).

Datafill example

The figure that follows shows sample datafill for table DNROUTE feature SRA

MAP example for table DNROUTE feature SRA

AREACODE	OF CODE	DN_RESULT
6137651234	FEAT SRA NORING OFF Y Y Y Y 999 N 80 N ON	
DNROUTE DN	\$	

DNROUTE feature SYN

Synonym Directory Number (SYN)

This selector is required for a switching unit with ISDN. It allows the use of synonym directory numbers (DN) that make it possible to specify the bearer capability (BC) of a call in order to terminate upon a call appearance (CAP). This is necessary when the originator's default BC does not allow termination on the desired CAP.

Inbound modem pooling (IMP) for ISDN is used if a data call is made to an ISDN terminal using analog facilities at any point in the call.

Datafill

The following table lists the datafill for table DNROUTE feature SYN.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number result</i> This field consists of subfields DN_SEL, NPA, OFC, DEFGDIGS, BCNAME, and FEATLIST.
	DN_SEL	SYN	<i>Selector</i> Enter the directory number (DN) selector SYN.
	SNPA	numeric	<i>Serving number plan area</i> Enter the SNPA of the DN that the user must dial to reach the DN specified in the key.
	OFC	numeric (up to 3 digits)	<i>Office code</i> Enter the three-digit office code of the DN that the user must dial to reach the DN specified in the key.
	DEFGDIGS	numeric (up to 4 digits)	<i>DEFG digits</i> Enter the DEFG digits of the DN that the user must dial to reach the DN specified in the key.
	BCNAME	alphanumeric (1 to 16 characters)	<i>Bearer capability name</i> Enter the BC name that is associated with the synonym DN as assigned in table BCDEF.

DNROUTE feature SYN (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
IMPGLIST	FEATLIST	see subfield	<i>Feature list</i> This field consists of subfield SYNFEAT.
	SYNFEAT	IMP or \$	<i>ISDN synonym directory number</i> Enter IMP to indicate that feature inbound model pooling (IMP) is assigned. Otherwise, enter \$.
		see subfield	<i>Inbound modem pooling group list</i> This field consists of subfield IMPGRP.
	IMPGRP	alphanumeric (up to 16 characters) or \$	<i>Inbound modem pooling group name</i> Enter the IMP group name or enter \$ to designate the use of the default group name assigned in table KSETFEAT.

Datafill example

The following example shows sample datafill for table DNROUTE feature SYN.

In this example, a user must dial to reach DN 613 226 5450 which has the BC name SPEECH.

MAP display example for table DNROUTE feature SYN

AREACODE	OF CODE	STN CODE	DN RESULT
613	226	5244	SYN 613 226 5450 SPEECH IMP B007A

DNROUTE feature T

Directory Number Selector T

This selector is required if calls to a directory number (DN) are routed to one of the route lists in a routing table.

Datafill

The following table lists the datafill for table DNROUTE feature T.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL and TUPLID.
	DN_SEL	T	<i>Directory number</i> Enter the directory number (DN) selector T.
	TUPLID	see subfields	<i>Tuple identifier</i> This field consists of subfields TABID and KEY.
TABID		IBNRT2, IBNRT3, IBNRT4, IBNRTE, OFR2, OFR3, OFR4, or OFRT	<i>Table name</i> Enter the office route or IBN route table name to which the call is routed when the specified DN is dialed. Any entry outside the range indicated for this field is invalid.
KEY		0 to 1023	<i>Key</i> Enter the index to the office or IBN route tables.

Datafill example

The following example shows sample datafill for table DNROUTE feature T.

This example shows input for a short-circuit test line in a local or combined local/toll switching unit. The DN for the short-circuit test line is 725 1192 and is in SNPA 613.

DNROUTE feature T (end)

MAP display example for table DNROUTE feature T

AREACODE	OFCODE	STNCODE		DNRESULT
613	725	1192	T	OFRT 15

DNROUTE feature UCD

Uniform Call Distribution (UCD)

This selector is required if the directory number (DN) is assigned as a uniform call distribution (UCD) DN for a UCD group.

Each of the 256 UCD groups can be assigned one primary DN and four supplementary DNs.

Field TOLLPRIO for a primary DN is only applicable to DMS-100 (not SL-100) switching units, and only if the switching unit is a combined LOCAL-TOLL/IBN installation. The operation of POTS translation determines whether the call is a local or a toll call.

The data for each UCD group is assigned in table UCDGRP.

Datafill

The following table lists the datafill for table DNROUTE feature UCD.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DNRESULT		see subfields	<i>Directory number results</i> This field consists of subfields DN_SEL, FEATURE, UCDGRP, and DNAREA.
	DN_SEL	FEAT	<i>Directory number selector</i> Enter the directory number (DN) selector FEAT.
	FEATURE	UCD	<i>Feature</i> Enter UCD.
	UCDGRP	alphanumeric (1 to 16 characters)	<i>Uniform call distribution group</i> Enter the name in field UCDNAME of table UCDGRP for this UCD DN.

DNROUTE feature UCD (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	DNAREA	see subfields	<i>Directory number area</i> This field consists of subfields DNTYPE, TOLLPRIO, MEMNO, and DNPRIO.
	DNTYPE	PRIM or SUPP	<i>Directory number type</i> Enter PRIM if the DN is the primary UCD DN for this UCD group. Enter SUPP if the DN is one of the supplementary DNs for this UCD group.

DNTYPE = PRIM

If the value of subfield DNTYPE is PRIM, datafill refinement TOLLPRIO as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TOLLPRIO	0 to 3	<i>Toll priority</i> Enter the priority of toll calls terminating on the primary UCD DN. The highest priority is 0 (zero).

DNTYPE = SUPP

If the value of subfield DNTYPE is SUPP, datafill refinements MEMNO and DNPRIO as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	MEMNO	0 to 3	<i>Member number</i> Enter the UCD member number of this DN for this UCD group.
	DNPRIO	0 to 3	<i>Directory number priority</i> Enter the priority of calls terminating on the UCD DN. The highest priority is 0 (zero).

DNROUTE feature UCD (end)**Datafill example**

The following example shows sample datafill for table DNROUTE feature UCD.

The UCD group name is ADMIN. There is one primary UCD DN, 226 4691 and three supplementary UCD DNs, 226 4692, 226 4693 and 226 4694. All numbers are in SNPA 613.

The priority for toll calls terminating on the primary DN is 0. The DN priority for member number 1 is 1, and the DN priority for members 2 and 3 is 2.

MAP display example for table DNROUTE feature UCD

AREACODE	OFCODE	STNCODE	DNRESULT					
613	226	4691	FEAT	UCD	ADMIN	PRIM	0	
613	226	4691	FEAT	UCD	ADMIN	SUPP	1	1
613	226	4691	FEAT	UCD	ADMIN	SUPP	2	2
613	226	4691	FEAT	UCD	ADMIN	SUPP	3	2

DNRTE

Table name

Directory Number Route Table

Functional description

Table DNRTE specifies translation routes. The key to this table consists of fields XLANAME and RTEREF. The route reference index corresponds to the destination number (from the DEST option) used in table CODE for the given XLANAME.

RTELIST is the route list associated with field RTEREF. The list contains a maximum eight routes, each route has a selector and data.

Universal translation stages for directory number codes (tables DNHEAD and DNRTE) are used for translating some segments of the incoming digit string and form an integral part of the universal digit translations scheme.

The universal translation tables translate the incoming digit string in segments. Table DNRTE translates the office code digit segment, together with tables OFCHEAD and OFCRTE.

For a description of the universal translation tables, refer to table ACHEAD and table DNHEAD.

Datafill sequence and implications

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

Table size

As tuples are added, the table size increases to accommodate the largest route reference index.

Memory is allocated dynamically. When the first tuple for a given XLANAME is added, the table accommodates the given route reference.

DNRTE (continued)**Datafill**

The following table lists datafill for table DNRTE.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
XLANAME		alphanumeric (1 to 8 characters)	<i>Translation name</i> Enter the name assigned to the corresponding head table.
RTEREF		1 to 1023	<i>Route reference</i> Enter the route reference index. 0 (zero) is not a valid entry.
RTELIST		see subfields	<i>Route list</i> This field consists of subfields RTESEL and refinements dependent on the value in field RTESEL.
	RTESEL	N, NOT, CDN, RT, S, T, or TMEM	<i>Route selector</i> Enter CND and datafill refinement CONDITION. If the route is conditional depending on the time of day, the call is transferred to the route list or element specified, if one of the times specified in field TIMES matches one of the times specified in table TIMEODAY. If a congestion message is received, the conditional network rerouting selector (CND NRR) of the universal routing tables is executed. The selector supports three types of conditional instructions: step (ST), skip (SK), and table (T). Note: The CND NRR option is not supported in GSM offices. If no conditional reroute selectors are found in the route list on receipt of a congestion message, the call goes to treatment.

DNRTE (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
	RTESEL (continued)		If the route is non-standard, enter N and datafill fields CLLI, MODCHG, DELETE, and PFXDIGS. A trunk is selected from the trunk group and the digits outpulsed according to the DELETE and PFXDIGS fields. The digits to prefix are shown in field PFXDIGS. The digits to prefix are outpulsed first, followed by the received digits, with the exception of the received prefix digits and the number of digits given by field DELETE. The standard charging characteristics can be modified by field MODCHG. If conditional instructions are not to be executed if congestion occurs, enter NOT and datafill subfields CONDITION and CONDRTE. The next route in the route list is attempted. As the NOT NRR selector appears as an entry in the route list, it can be indexed due to normal overflow. In this instance, conditional instructions are executed, since congestion has not occurred. Enter RT and datafill subfields RTDIGITS, XLASYS, and XLANAME, if digits received are replaced entirely by the numbers specified and then retranslated in the specified translation system. If the route is standard, enter S and datafill subfield CLLI. A trunk is selected from the trunk group (given by the CLLI) and digits are outpulsed according to the standard outpulsing algorithm. This algorithm ignores prefix digits, and outpulses the rest of the received digits.

DNRTE (continued)

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
	RTSEL (continued)		If the route is to a route table, enter T and datafill subfields TABNAME, XLASYS, XLANAME, and RTEREF. The control is passed to the route list specified. Further routes in the route list are ignored. The passing of control overcomes the restriction of having only eight routes in a route list by making it possible to chain together any number of route lists, each with up to eight routes. If the route to an individual trunk is tested, in an office with the automatic transmission measurement equipment (ATME 2) for DMS-100I (international end-office switch) multifrequency compelled (MFC) feature, enter TMEM and datafill subfields CLLI and EXTRKNM. The RTSEL entry SO is not valid for table DNRTE.

DNRTE (continued)**RTESEL = CND**

If RTESEL is set to CND, datafill refinement CONDITION as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CONDITION	see subfields	<i>Condition for routing</i> This refinement consists of subfields CNDSEL, TODNAME, and TIMES.
	CNDSEL	CND, TOD, or NRR	<i>Conditional selector</i> Enter the conditional selector CND. Enter TOD for the time of day and datafill subfields TODNAME and TIMES. Enter NRR to execute the CONDRTE instructions if congestion occurs. Note: The CND NRR option is not supported in GSM offices. The CNDSEL values ALWAYS, CALLCHR, COSMAP, EA, INTERLATA, RND, SITE, SNPA, TOPEAALT, and TOPEAXFR are not valid for universal translation RTE tables.
	TODNAME	alphanumeric	<i>Time-of-day name</i> Enter the name of the time-of-day system previously assigned in table TODHEAD.
	TIMES	up to 14 characters (0 to 9, A to F)	<i>Times set</i> Enter the times (maximum of 11 characters with no space between each time) when the transfer to another route list or element can occur. The time ranges are defined in table TIMEODAY, field TOD. If the current time is one of the times in the set, refinement CONDRTE is executed.

DNRTE (continued)**RTESEL = N**

If RTESEL is set to N, datafill the refinements as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CLLI	alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the CLLI of the trunk group to which the call is routed.
	MODCHG	NOMOD CANCHG CANTOLL ADDCHG	<i>Modify charging</i> If no charge modification is required, enter NOMOD. The zone is calculated by translations is used for billing. If a route is normally chargeable and the charge is canceled, enter CANCHG. If a route is normally chargeable and the charge is reduced to a local charge, enter CANTOLL. If the route is normally free of charge and the charge is added based on the zone calculated by translation, enter ADDCHG. At present, this can only be implemented for terminations to announcements, which allows billing of announcements as required.
	DELETE	0 to 18	<i>Delete digits</i> Enter the number of digits deleted before outpulsing.
	PFXDIGS	numeric (1 to 11 digits) or N	<i>Prefix digits</i> Enter the digits prefixed before outpulsing. If no digits are prefixed, enter N.
	PFXAFTER	0 to 15	<i>Number of digits after which to insert prefix digits</i> Enter a number from 0 to 15, which specifies the number of digits after which to insert the prefix digits in the digit stream before outpulsing.

DNRTE (continued)**RTESEL = NOT**

If RTESEL is set to NOT, datafill the subfields CONDITION and CONDRTE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CONDITION	see subfield	<i>Condition for routing</i> This subfield consists of subfield CNDSEL.
	CNDSEL	NRR	<i>Conditional selector</i> Enter NRR to not execute the CONDRTE instructions if congestion occurs. Instead, the next route in the route list is attempted. If selector NOT NRR is indexed due to normal overflow, the CONDRTE instructions are executed, since congestion has not occurred. Note: The CND NRR option is not supported in GSM offices.
	CONDRTE	see subfields	<i>Conditional route</i> This field consists of subfields RTETYPE, RTEREF, SKIPNUM, TABNAME, XLASYS, XLANAME, RTEREF, and INDEX.
	RTETYPE	SK, ST, or T	<i>Route type</i> Enter SK and datafill subfield SKIPNUM if the call is to skip to another route element in the same route list. Enter ST and datafill subfield RTEREF if the call is to transfer to another route list in the same table. Enter T and datafill subfields TABNAME, XLASYS, XLANAME, and RTEREF. Enter T and datafill subfields TABNAME, and INDEX, if the call is to transfer to a route list in one of the universal translation route tables.

DNRTE (continued)**Field descriptions for conditional datafill**

Field	Subfield or refinement	Entry	Explanation and action
	RTEREF	0 to 1023	<i>Route reference number</i> Enter the route reference number in the same table, to which the call is transferred when the condition is met, if the entry in field RTETYPE is ST. The route reference number to which the call is transferred must be a higher number than the route reference number from which it was transferred. Leave the field blank, if entry in field RTETYPE is other than ST.
	SKIPNUM	0 to 7	<i>Skip number</i> If the entry in field RTETYPE is SK, enter the number of elements within the same route list to skip in order for the call to transfer to the proper route when the condition is met. Leave this field blank if the entry in field RTETYPE is other than SK.
	TABNAME	IRTE	<i>Table name</i> Enter IRTE, and datafill subfields XLASYS, XLANAME, and RTEREF, if entry in field RTETYPE is T.

DNRTE (continued)**Field descriptions for conditional datafill**

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, DN, FA, FT, NIL, NSC, OFC, or PX	<i>Translation system</i> Enter the translation system to which the call transfers if the entry in field RTETYPE = T and the entry in field TABNAME = IRTE. The choice of translation systems are: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NIL (nil) Note: The XLASYS value NIL must not be datafilled by the operating company. • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric	<i>Translation name</i> Enter the translation name of the table instance within the XLASYS that the call is to transfer, if the entry in field RTETYPE is T and the entry in field TABNAME is equal to IRTE.
	RTEREF	0 to 1023	<i>Route reference index</i> Enter the index of the route table specified to which the call is to transfer, if entry in field RTETYPE is T and entry in field TABNAME is equal to IRTE.
Note: If RTETYPE = T and TABNAME = OFRT, OFR2, OFR3, or OFR4, datafill fields TABNAME and INDEX.			

DNRTE (continued)

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TABNAME	OFRTOFR2OFR3orOFR4	<i>Table name</i> Enter the office route table name and datafill field INDEX. Entries IBNRTE, IBNRT2, IBNRT3, IBNRT4, and SERVICE are not valid for table DNRTE.
	INDEX	0 to 1023	<i>Route reference index</i> If entry in field RTETYPE = T and entry in field TABNAME = OFRT, OFR2, OFR3, or OFR4, enter the index of the route table specified to which the call is to transfer.

DNRTE (continued)**RTESEL = RT**

If RTESEL is set to RT, datafill the refinements as described in the following table.

xx Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RTDIGITS	numeric (1 to 11 digits)	<i>Digits to retranslate</i> Enter the digits that are retranslated in the translation system table and that replace the digits dialed.
	XLASYS	AC, AM, CT, DN, FA, FT, NIL, NSC, OFC, or PX	<i>Translation system</i> Enter the translation system where the digits that are retranslated are transferred. The choice of translation systems are: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NIL (nil) Note: The XLASYS value NIL must not be datafilled by the operating company. • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric (1 to 8 characters)	<i>Translation name</i> Enter the translation name of the table instance within the XLASYS field to which the retranslated digits are transferred.

DNRTE (continued)**RTESEL = S**

If RTESEL is set to S, datafill the refinement CLLI as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CLLI	alphanumeric	<i>Common language location identifier</i> Enter the CLLI of the trunk group to which the call is routed.

RTESEL = T

If RTESEL is set to T, datafill the refinements as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TABNAME	OFRT OFR2 OFR3 OFR4, IBNRTE or IRTE	<i>Table name</i> If the call is to route to an office route table, enter OFRT, OFR2, OFR3, or OFR4 and datafill subfield INDEX. The entries for TABNAME = SERVICE and TOPS are not valid for table DNRTE. If the call is to route to the IBN route table, enter IBNRTE and datafill field INDEX. If the call is to route to a route table in the universal translation system, enter IRTE and datafill fields XLASYS, XLANAME, and RTEREF.
	INDEX	0 to 1023	<i>Route index</i> If TABNAME is OFRT, OFR2, OFR3, OFR4, or IBNRTE, enter the route index of the specified table to which the call proceeds.

DNRTE (continued)**Field descriptions for conditional datafill**

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, DN, FA, FT, NIL, NSC, OFC, or PX	<i>Translation system</i> If TABNAME = IRTE, enter the next translation system to use, followed by a space, then datafill subfield XLANAME (the instance of the translation system). The choice of translation systems are: • AC (access) • AM (ambiguous) • CT (country) • DN (directory number) • FA (foreign area) • FT (utility) • NIL (nil) Note: The XLASYS value NIL must not be datafilled by the operating company. • NSC (number service code) • OFC (office) • PX (prefix)
	XLANAME	alphanumeric (1 to 8 characters)	<i>Translation name</i> If TABNAME is IRTE, enter the translation name of the table instance within the XLASYS that the call is routed to and datafill subfield RTEREF.
	RTEREF	0 to 1023	<i>Route reference index</i> If TABNAME is IRTE, enter the index of the specified route table to which the call routes.

DNRTE (continued)**RTESEL = TMEM**

If RTESEL is set to TMEM, datafill the refinements as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CLLI	alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the CLLI of the outgoing trunk group to which the call is routed.
	EXTRKNM	0 to 9999	<i>External trunk number</i> Enter the external trunk number assigned to the trunk to which the call is routed.

Note: When an Unable To Write New Data error message is displayed at the MAP terminal, an add or change operation to table DNRTE was unsuccessful. When the add operation fails, no tuple is written to table DNRTE. When the change operation fails, the existing tuple in table DNRTE remains unchanged.

Datafill example

The following example shows sample datafill for table DNRTE.

MAP display example for table DNRTE

XLANAME	RTREF	RTELIST
XLA1	555 (NOT NRR ST 7) (THEM OGC1NONEAB 0)\$	

For additional examples refer to table DNHEAD.

Table history**NA009**

Added an error message that is the result of design review comments.

DNRTE (continued)

BCS35

Added selector NRR to field CNDSEL and selector NOT to field RTESEL.

DNRTE (end)

DNSCRN

Table name

Directory Number Screening (DNSCRN)

Functional description

Table DNSCRN provides information for call processing. Call processing uses the information to perform call screening and call validation. Call screening and call validation occurs on specified directory numbers (DN) for the DMS-100 MMP switch. The system routes blocked calls to treatment CNAD.

Datafill sequence and meaning

For notification of time and charge (NTC) in several languages, you must enter data in table NTCLANGS before you enter data in table DNSCRN.

Table size

0 to 8 000 000 tuples

Datafill

The datafill for table DNSCRN appears in the following table.

Field descriptions (Sheet 1 of 6)

Field	Subfield	Entry	Explanation and action
DN		see subfield	<i>Directory number</i> This field contains subfield DNDIGS.
	DNDIGS	vector (a maximum of 24 digits)	<i>Directory number digits</i> Enter the directory number (DN) for the calling line number or the called line number.

DNSCRN (continued)**Field descriptions (Sheet 2 of 6)**

Field	Subfield	Entry	Explanation and action
ATTROPTS		NIL	<i>Screening attribute options</i>
		ADDCODE1	Enter the screening attributes.
		ADDCODE2	
		ADDCODE3	
		ACCTREQ	Note: For the U.S., only NIL and TOPSDB attributes apply. For Japan, only the BLCKCALL attribute applies.
		BCSUBS	
		BLCKCALL	
		CARRSNAM	The entry of data in NIL against a DN does not affect screening for the DN. This entry is the default.
		CCR	
		CLILTID1	
		CLILTID2	
		CLISERV	
		CLISI	
		CLIVD	
		CS	
		CUSTINFO	
		NETAOC	
		NTCLANG	
		PRESEL	
		RSA	
		THIRDPTY	
		TONEBURST	
		TOPSCIC	
		TOPSDB	
		UNPAID	
			ADDCODE1, ADDCODE2, and ADDCODE3 are type attributes that are the same. These attributes specify the correct destination for third-party-billed calls. You can specify a maximum of three destinations.
			ACCTREQ is account code request. This field specifies that a CLI must collect cost center code (CCC) digits. Enter data in subfields ACCTLEN and ACCTTONE.
			BCSUBS is bearer capability subscribed. This attribute indicates if the subscriber subscribed to the entered bearer capabilities.
			BLCKCALL indicates that the DN cannot make or receive calls.

DNSCRN (continued)**Field descriptions (Sheet 3 of 6)**

Field	Subfield	Entry	Explanation and action
ATTROPTS (continued)			CARRSNAM indicates the carrier or carrier reseller name associated with the DN, as entered in either table CARNAME or table RESNAME. Enter data in CCR to provide screening against customers that exceed the cumulative charge limit. Call processing uses CLILTID1 and CLILTID2 attributes for screening. Each of these attributes can accommodate a maximum of six logical terminal identifiers (LTID) for each DN. For Japan INS datafill, you must enter the LTID in table LTDEF with the variant INSPRI. You must enter the LTID before you can enter the LTID in table DNSCRN. For North American PRI datafill, you must enter the LTID. You must enter the LTID in table LTDEF with the variant NIPRI or NTNAPRI. You must enter the LTID in table LTDEF before you can enter the LTID in table DNSCRN. CLISERV allows the use of CLI service screening and CLI based routing. CLISI indicates that you can use the DN to identify the origin of the call. CLIVD specifies a numeric index that matches option CLIVD in table LTDATA. The correct range is from 0 to 2047. CS specifies the DN used for Carrier Selection CLI screening. Optionally, use subfield CARRID to specify a maximum of eight carrier identifications.

DNSCRN (continued)**Field descriptions (Sheet 4 of 6)**

Field	Subfield	Entry	Explanation and action
ATTROPTS (continued)			CUSTINFO indicates that the calling line identifier (CLI) takes on the customer group and network class of service (NCOS) appearance. The CLI takes on the customer group and network class of service (NCOS) appearance before retranslation of the destination DN. NETAOCD indicates whether an ITX message is sent to the originator. This message is required for the backward charging facility on French telephony user part (FTUP) trunks. This facility sends billing information to the (calling subscriber's) switch that performs the billing. The facility allows the service provider to control the billing of the call. The system can use NTCLANG to assign a maximum of three languages for the NTC callback announcement. The calling party number determines the assignment of languages. The system uses PRESEL to assign a preselected carrier identification code for each CLI. This attribute supersedes any preselected carrier the system assigns through table TRKGRP. Registered site access (RSA) overwrites the direct inward systems access (DISA) directory number (DN) customer group from table DNROUTE. RSA overwrites the DISA DN with the customer group and network class of service (NCOS) recorded for the calling line identifier (CLI) in table DNSCRN. Note: You must enter data in CUSTINFO if you use the RSA option. SPID indicates a service provider identifier. Enter data for subfield SPID.

DNSCRN (continued)**Field descriptions (Sheet 5 of 6)**

Field	Subfield	Entry	Explanation and action
ATTROPTS (continued)			The system uses THIRDPTY for automatic third party billing. TONEBURST indicates that an audible toneburst applies to call answer. Note: When you enter data for a UK switch, enter data in subfields TONEBURST, CUSTGRP, and NCOS for field ATTROPTS. TOPSCIC indicates a carrier ID code for global TOPS calls. This option provides support when table TOPCATRK field DNSCRN = Y for a TOPS GCA call without a CIC. Enter data in subfield CARRID. TOPSDB allows DNs in table DNSCRN to index into tables TOPSDB and AUTHGRP. Enter data in subfields TOPSDB and AUTHGRP. UNPAID indicates that the subscriber did not pay the DN account.
	TONEBURST (UK002-)	Y or N	<i>Toneburst</i> Enter Y (yes) to apply audible toneburst on answer. Enter N (no) to have no toneburst on answer.
	CUSTGRP (UK002-)	alphanumeric (1 to 16 characters)	<i>IBN customer group</i> Enter any correct IBN customer group number.
	NCOS (UK002-)	1-511	<i>IBN network class of service</i> Enter the NCOS associated with the IBN customer group in CUSTGRP.

DNSCRN (continued)**Field descriptions (Sheet 6 of 6)**

Field	Subfield	Entry	Explanation and action
	ACCTLEN	0 to 14	<i>Account code length</i> Enter the count of the CCC digits. For two-stage interconnect CLI service calls with CCC, set the ACCTLEN field to a value of 2 or 3. For two-stage interconnect CLI service calls that do not have CCC, set the ACCTLEN field to zero (0).
	ACCTTONE	CDT, SDT, or DT	<i>Account code tone</i> Enter the tone to apply before digit collection. The range is carrier dial tone (CDT), special dial tone (SDT), and dial tone (DT).

ATTROPTS = ACCTREQ

If the entry in field ATTROPTS is ACCTREQ, enter data in ACCTLEN and ACCTTONE. A description of these actions appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ACCTLEN	0 to 14	<i>Account code length</i> Enter the correct account code length for the two-stage interconnect CLI service call, with or without CCC.
	ACCTTONE	CDT, SDT, or DT	<i>Account code tone</i> Enter the tone to apply before digit collection.

DNSCRN (continued)

ATTROPTS = ADDCODE1

If the entry in field ATTROPTS is ADDCODE1, enter data in ADDCD1DN.
A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ADDCD1DN	vector (a maximum of 15 digits)	<i>Add code one directory number</i> Enter the destination digits for the third-party-billed calls. This entry allows blocking of the third party call to occur. Blocking can occur if the address digits of the called party do not appear in the ADDCODE attribute. Calls proceed if the start of the destination digits match a minimum of one of the ADDCODEs entered.

ATTROPTS = ADDCODE2

If the entry in field ATTROPTS is ADDCODE2, enter data in ADDCD2DN.
A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ADDCD2DN	vector (a maximum of 15 digits)	<i>Add code two directory number</i> Enter the destination digits for the third-party-billed calls. This entry allows blocking of the third party call to occur. Blocking can occur if the address digits of the called party do not appear in the ADDCODE attribute. Calls can continue if the start of the destination digits matches a minimum of one of the ADDCODEs entered.

DNSCRN (continued)**ATTROPTS = ADDCODE3**

If the entry in field ATTROPTS is ADDCODE3, enter data in ADDCD3DN.
A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ADDCD3DN	vector (a maximum of 15 digits)	<i>Add code three directory number</i> Enter the destination digits of a valid destination for third-party-billed calls. Calls proceed if the initial dialed digits match at least one of the entered ADDCODEs. If the dialed digits do not match one of the ADDCODEs, the call fails.

ATTROPTS = BCSUBS

If the entry in field ATTROPTS is BCSUBS, enter data in BCOPTS. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	BCOPTS	alphanumeric (a maximum of four names)	<i>Bearer capability options</i> Enter the bearer capability names from table BCDEF. If you enter the bearer capability names against a DN, these names indicate the subscriber subscribes to the bearer capabilities you entered.

DNSCRN (continued)

ATTROPTS= CARRSNAM

If the entry in field ATTROPTS is CARRSNAM, enter data in CARRSNAM.
A description of this action appears in the following table.

field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and Action
	CARRSNAM	8 character vector	<i>Carrier or Reseller name</i> Enter the Carrier or carrier reseller name associated with the DN, as entered in either table CARNAME or table RESNAME. The carrier reseller that is assigned using the CARRSNAM option in table DNSCRN must already be entered in either table CARNAME or table RESNAME.

ATTROPTS = CLILTID1 or CLIDTID2

If the entry in field ATTROPTS is CLILTID1 or CLILTID2, enter attributes LTGRP and LTNUM. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	LTGRP	a maximum of eight characters	<i>Logical terminal group</i> Enter the logical terminal group of the user. Correct group names appear in field GROUP of table LTGRP. For ISDN terminals, the name of the group is ISDN. For ISDN DN screening, LTGRP and LTNUM are the key in table LTDEF.
	LTNUM	numeric (1 to 1022)	<i>Logical terminal number</i> Enter the logical terminal number in the group.

DNSCRN (continued)**ATTROPTS = CLISERV**

This option allows the use of CLI service screening and CLI based routing. It has one subfield, PROFIDX, that indicates the service profile to be used in service screening.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	PROFIDX	numeric, 0 to 1023	<i>Service profile identifier</i> Enter the service profile to be used for CLI screening. PROFIDX must be a valid profile, as defined in table CLISRVPF. The PROFIDX value must be defined in table CLISRVPF before you can use it in this option.

ATTROPTS = CS

If the entry in field ATTROPTS is CS, datafill the subfield CARRID appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CARRID	00 to 9999 (a maximum of eight entries is allowed)	<i>Carrier Identification</i> If using whitelist CLI screening, enter a list of up to eight carrier identifications that the directory number (field DN) can access. If using blacklist CLI screening, enter a list of up to eight carrier identification that the directory number (field DN) is not allowed to access. Refer to the <i>ETSI ISUP V2 Carrier Selection Parameter</i> section of the <i>European Translations Guide</i> for further details on whitelist and blacklist CLI screening.

DNSCRN (continued)**ATTROPTS = NETAOCD**

If the entry in field ATTROPTS is NETAOCD, enter the subfield ORIG. DISCOUNT INDEX as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ORIG. DISCOUNT INDEX	0 to 115, or None	<i>Originating discount index</i> Enter the discount class applicable to the customer. This defines a discount, applicable to the call charge rate, obtained from the metering database. Enter NONE when no discount is applicable.

ATTROPTS = NTCLANG

If the entry in field ATTROPTS is NTCLANG, datafill subfield NTCLANG as it appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	NTCLANG	vector (a maximum of three identifiers)	<i>Notification of Time and Charge language option</i> Enter a maximum of three NTC language identifiers entered in field LANGNAME in table NTCLANGS. You can enter NTC language identifiers against a DN. If you perform this action, the NTC language identifiers indicate the languages in which the subscriber receives the NTC callback announcement.

ATTROPTS = PRESEL

If the entry in field ATTROPTS is PRESEL, enter data in CARRID. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CARRID	6-digits from 0 to FFFFFF	<i>Carrier identification</i> Enter the 6-digit carrier identification code. The default value is 9999.

DNSCRN (continued)**ATTROPTS = SPID**

If the entry in field ATTROPTS is SPID, enter data in SPID. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SPID	value from table SPID	<i>Service provider identifier</i> Enter a value that table SPID defines. If a default SPID is not a requirement, you must not enter the SPID in this field. Enter the default in table TOPSPARM parameter DEFAULT_SPID. Set the TOPSPARM parameter BRAND_USING_DEFAULT_SPID to Y.

ATTROPTS = THIRDPY

If the entry in field ATTROPTS is THIRDPY, enter data in THDPTYDN. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	THDPTYDN	vector (a maximum of 15 digits)	<i>Third party directory number</i> Enter the third party billing number. The absence of the THIRDPY attribute indicates that automatic third party billing cannot occur for the DN.

ATTROPTS = TOPSCIC

If the entry in field ATTROPTS is TOPSCIC, enter data in CARRID. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
CARRID		value from TOPCACAR	Preselect carrier ID. Enter the carrier identification code (CIC) for the carrier assigned to the subscriber's number. The value must be present in table TOPCACAR.

DNSCRN (continued)

ATTROPTS = TOPSDB

If the entry in field ATTROPTS is TOPSDB, enter data in TOPSDB and AUTHGRP. A description of this action appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	TOPSDB	0 to 32 766	<i>TOPS data base</i> Enter an index in table TOPSDB.
	AUTHGRP	0 to 32 766	<i>Authorization group</i> Enter an index in table AUTHGRP.

Datafill example

Sample datafill for table DNSCRN appears in the following example.

MAP example for table DNSCRN

DN	ATTROPTS
628794321	(CLISI)\$

Table history**MMP13**

Added option RSA for field ATTROPTS.

PRESEL option increased to 6 digits.

MMP12

Option CARRSNAM added to field ATTROPTS in table DNSCRN.

GTOP11

Option TOPSCIC added by feature AF7576.

EUR010

Added option NETAOCD for activity AU3283.

Added option CLISERV for activity AJ5351.

DNSCRN (continued)

EUR009

Added the CS attribute and CARRID subfield for the ETSI ISUP V2 Carrier Selection Parameter feature.

EUR008

These notes detail changes in applicability of existing table options in this software release.

The attributes UNPAID and BLCKCALL, only, are used by the new feature, CLI Screening via Translations.

APC009

Attribute CLIVD was added to field ATTROPTS to support feature PBX CLI Management (AU2580) in APC009.

APC008.1

Option CCR was added to field ATTROPTS in APC008.1.

NA008

A description of datafill for values CLILTID1 and CLILTID2 in field ATTROPTS was added in NA008. This addition allows the support of feature PRI Call Screening (AF6863). This feature is for NIPRI and NTNAPRI.

APC008

Option PRESEL and subfield CARRID were added to field ATTROPTS in APC008.

TOPS07

Feature AF6711 in functionality Branding via SPID, ENSV0017 added value SPID to field ATTRPTS in TOPS07.

APC006

Values CLILTID1, CLILTID2, and NTCLANG were added to field ATTROPTS in APC006.

NA005

Subfields TOPSDB and AUTHGRP were added in NA005.

CSP02

References to Intelligent Services Node (ISN) were removed in CSP02.

DNSCRN (end)

BCS36

The following information was added in BCS36:

- value TOPSDB to field ATTROPTS
- maximum table size of 500 000 tuples for ISN
- blocked calls routed to treatment CNAD

BCS35

The following information was added in BCS35:

- options BCSUBS and ISNDATA to field ATTROPTS
- subfields BCOPTS, SPMNUM, MBXATTRS, and ISATRKEY

BCS34

Table DNSCRN was introduced in BCS34.

DPACDEV-Canada only

Table name

Datapac Device Table

Functional description

Table DPACDEV lists assignments for each data packet controller (DPC) circuit card the system configures. The circuit card configuration occurs in the input/output controller (IOC).

Refer to table MTD for additional information.

The minimum number of logical channels must be three for complete diagnostics.

Datafill sequence and meaning

You must enter data in table IOC before you enter data in table DPACDEV.

Table size

The system allocates memory for 16 DPC devices.

Datafill

Datafill for table DPACDEV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DPACNUM		0 to 15	<i>Data packet controller device number</i> Enter the number the system assigned to the data packet controller (DPC) circuit card.
IOCNO		0 to 19	<i>Input/ output controller number</i> Enter the number of the input/output controller (IOC) that the system assigns the DPC.
IOCKTNO		0, 4, 8, 12, 16, 20, 24, 28, or 32	<i>Input/output controller circuit number</i> Enter the number of the IOC circuit to which the system assigns the DPC. The entry must be a multiple of four. Entries outside this range are incorrect.

DPACDEV-Canada only (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
NODENUM		numeric (a maximum of eight digits)	<i>Node number</i> Enter the node number of the DPC circuit card. The Datapac network vendor provides the node number. Entries outside this range are incorrect.
MAXLCHAN		1 to 15	<i>Maximum number of logical channels (calls)</i> Enter the number of logical channels the system requests from the Datapac network vendor at time of subscription. Entries outside this range are incorrect.
PKWINDOW		2 to 7	<i>Packet window width</i> Enter the number of packages that you can send before you receive an acknowledgement. The Datapac network vendor provides the packet window width.
EQPEC		1X67BB or 1X67DB	<i>Product engineering code</i> Enter the product engineering code (PEC) of the DPC circuit card.
PROTOCOL		DATAPAC or DATAPACB	<i>Protocol</i> Enter the identifier for the X.25-modeled protocol the DPC uses. Entry DATAPAC corresponds to the link access procedure (LAP). Entry DATAPACB corresponds to the link access procedure balanced (LAPB) mode. Entries outside this range are not correct.
DMSMODE		DTE or DCE	<i>Data switching mode</i> The DPC can operate as data terminal equipment (DTE) or data circuit terminating equipment (DCE). Specify which equipment type the DPC operates as in a point-to-point connection. The system only supports the DTE.

Datafill example

Sample datafill for table DPACDEV appears in the following example.

DPACDEV-Canada only (end)

In the example, the switching unit has two DPC circuit cards.

MAP example for table DPACDEV-Canada only

DPACNUM	IOCNO	IOCCKTNO	NODENUM	MAXLCHAN	PKWINDOW	EQPEC	PROTOCOL

DMSMODE							

0	0	4	12345678	1	2	1X67BB	DATAPAC
DTE							

DRAMPHRS

Table name

DRAM Phrases

Functional description

Table DRAMPHRS provides a standard table control interface. This interface allows for the transfer of digital recorded announcement machine (DRAM) phrase information during a software upgrade. The DRAM phrase information that table DRAMPHRS stores contains the following:

- the DRAM number
- the phrase name
- the internal phrase number
- the block number
- the phrase length
- if the system records or assigns the phrase
- if the system uses a pad with the phrase (recorded phrases only)
- the start location of the phrase (recorded phrases only)

Table DRAMPHRS stores a definition of the information by the use of the ASSIGN, ERASE, POSITION, and RECORD commands. The DRAMPHRS stores this information in the DRAM record (DRAMREC) utility. Use the command ASSIGNDUMP COMMANDS to display DRAM phrase information.

If table DRAMPHRS contains data, you can transfer the DRAM phrase information during the one-night process (ONP). The operating company defines the DRAM phase information. To transfer this information, use the standard table transfer tool (TABXFR).

Datafill sequence and meanings

You must enter data in table DRAMS before you enter data in table DRAMPHRS.

You must enter data in the following tables after table DRAMPHRS.

- DRAMTRK
- DRMUSERS

Table size

0 to 131 072 tuples

DRAMPHRS (continued)**Datafill**

Datafill for table DRAMPHRS appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DRAM		0 to 63	<i>DRAM number</i> This field is the first part of the two-part key to the table. Enter the DRAM number that contains the phrase. Enter the DRAM in table DRAMS before you enter data in this field.
PHRSNAME		a maximum of 16 alphanumeric characters	<i>Phrase name</i> This field is the second part of the two-part key to the table. Enter the phrase name for the phrase.
PHRASENO		0 to 63	<i>Phrase number</i> Enter the internal phrase number for the phrase.
BLOCK		0 to 7 for North America, 0 to 31 outside of North America	<i>Block number</i> Enter the block number for the phrase. The block number identifies the block of the DRAM where the system stores phrase.
LENGTH		0 to 31	<i>Phrase length</i> Enter the phrase length in seconds.
RECORDED		Y or N	<i>Phrase recorded boolean</i> Enter Y to indicate that the system records the phrase. If the entry is Y, enter data in refinements PADINUSE and START Enter N to indicate that the system assigns the phrase. When the system loads special information tones (SIT) data, the system can assign SIT to a random access memory (RAM) card. The system records a recorded phrase live or from a pre-recorded tape. An assigned phrase is already present on a programmable read-only memory (PROM) card.

DRAMPHRS (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PADINUSE	Y or N	<i>Pad in use boolean</i> Enter Y to indicate the use of a pad with the phrase. Enter N to indicate that the system does not use a pad with the phrase.
	START	0 to 31	<i>Start location</i> Enter the start location for the phrase in seconds.

Datafill example

Sample datafill for table DRAMPHRS appears in the following example.

MAP example for table DRAMPHRS

DRAM	PHRSNAME	PHRASENO	BLOCK	LENGTH	RECORDED
0	ENG1	48	0	1	N
0	ENG2	49	0	1	N
0	ENG3	50	0	1	N
0	ENG4	51	0	1	N
0	ENG5	52	0	1	N
0	ENG6	53	0	1	N
0	ENG7	54	0	1	N
0	ENG8	55	0	1	N
0	ENG9	56	0	1	N
0	ENG0	47	0	1	N
2	SILENCE	9	1	1	Y N 1
2	AINNORMAL	14	0	5	Y N 6
2	AINNORMALPRO	19	0	5	Y N 11
2	AINFIXED5DIGS	29	0	5	Y N 21
2	AINFIXEDNODIGS	34	0	5	Y N 26
2	AINVARIABLE	24	0	5	Y N 16

Table history**TL08**

Table DRAMPHRS was introduced in TL08.

DRAMS

Table name

Digital Recorded Announcement Machine

Functional description

Table DRAMS can contain information on the trunk cards that constitute a digital recorded announcement machine (DRAM). Table DRAMS can contain information on the trunk cards that constitute an enhanced digital recorded announcement machine (EDRAM).

The code assigned to the controller and a card number identify each card assigned to a DRAM. This action occurs at the trunk test position (TTP) of the MAP display.

The digital recorded announcements (DRA) in the DMS switch use table DRAMS.

DRAM

Each DRAM contains one DRA controller card that is an NT1X75AA or an NT1X75BA. Each DRAM can contain one or more of the following on a maintenance trunk module: one or more programmable read-only memory (PROM), random access memory (RAM), or electrically erasable programmable read-only memory (EEPROM) memory cards on a maintenance trunk module.

Each DRAM is assigned a number from 0 to 63 in field DRAM.

Each DRAM cards is assigned a card number from 0 to 8. A maximum of nine DRAM cards can be present. The DRAM controller (CTLR) card must be assigned card number 0 and trunk module circuit number 0.

The location of the trunk module type and number of the card must be specified for each card.

The card type must be specified for each card. The following are the options:

- CTLR
- EEPROM
- PROM
- RAM

If the card is a CTLR card, enter the code that represents the DRAM in table CLLI.

DRAMS (continued)

If the card type is an EEPROM, PROM or RAM card, specify the speech block or blocks (0 to 7) on the card. Specify the block or blocks. The single-density cards, NT1X76AA, NT1X76AB, NT1X76BA, NT1X77AA, and NT1X79AA contain one speech block. The double-density cards contain two speech blocks.

EDRAM

An (EDRAM) is a second generation DRAM card with the following features:

- one card for all announcements, NT1X80
- announcements download to the EDRAM from a disk or tape
- announcements download as voice files
- One 4 min EDRAM NT1X80AA can hold a maximum of eight single-density voice files or four double-density voice files. One 16 min EDRAM NT1X80BA can hold a maximum of 32 single-density voice files or 16 double-density voice files. See table EDRAMINV for additional information.

Each EDRAM is assigned a number from 0 to 63 in field DRAM.

Each virtual card in an EDRAM can be assigned a card number from 0 to 8 for NT1X80AA. Each virtual card in an EDRAM can be assigned a card number from 0 to 32 for NT1X80BA. Each virtual card must be assigned a card type of CTLR, PROM, or RAM.

The EDRAMs do not have a separate controller card. Each EDRAM has one assigned virtual controller card. To enter data in table DRAMS for EDRAMs, enter a virtual controller tuple. The controller card must be assigned card number 0. The virtual controller tuple must be assigned trunk module circuit number 0.

In field CLLI for the controller tuple, the code that represents the EDRAM in table CLLI must be assigned.

Each EDRAM has virtual memory cards specified as PROM or RAM in CARDTYPE field. You can enter a maximum of eight virtual memory cards with data for the NT1X80AA. You can enter a maximum of 32 virtual memory cards with data for the NT1X80BA.

The BLKLIST vector is specified for PROM and RAM cards. Each BLKLIST vector contains one or two virtual speech block numbers that map to the EDRAM card. Each BLKLIST contains speech block number from 0 to 7 for the NT1X80AA. Each BLKLIST contains speech block numbers from 0 to 31 for the NT1X80BA. Tuples specified as RAM card types are single-density

DRAMS (continued)

virtual cards. You can enter these tuples with one speech block number. Two speech block numbers normally are the entries for PROM card types. The PROM card type represents the recorded announcement voice file entered in table EDAMINV. If the announcement voice file equals a double-density card, enter the tuple DRAMS. Enter the tuple as a double-density card with two block numbers. If the announcement voice file is a single-density card, enter the data in the tuple in table DRAMS. Enter the tuple as a single-density card with one block number.

Use card type PROM to load phrases to the NT1X80 card when a prerecorded announcement (ANN) voice file received data in table EDAMINV. The voice file can contain speech phrases or special information tones (SIT) data phrases. For custom recorded phrases, use card type RAM. The SIT data phrases can be assigned to block numbers 0 and 1 when you enter the EDAM as card type RAM.

To change current datafill for a DRAM requires the following actions. To convert the datafill for a 4 min EDAM to enter data for a 16 min EDAM requires the following actions.

- erase all current phrases
- remove datafill from the following tables:
 - the DRAMS
 - the EDAMINV
 - the TMINV
 - the CLLI
- add datafill for the 16 min EDAM

Datafill sequence and meaning

Enter data in tables TMINV and CLLI before you enter data in table DRAMS for a DRAMS.

Enter data in tables TMINV, EDAMINV, PMLOADS, and CLLI before you enter table DRAMS for an EDAM.

Enter data in table DRAMS before you enter data in table DRAMPHRS.

Verify field TRKGRPSIZ for the EDAM CLLI in table CLLI before you enter data in table DRAMS.

DRAMS (continued)

Note: Enter the following in a track list field TRCKLIST in table ANNMEMS.

- trunk module (TM) type, field TMTYPE
- the TM number, field TMNO
- the TM circuit, field TMCKT

Enter data in the trunk modules before the DRAM trunks can become busy or put in service.

Enter field TMTYPE as DTM. Enter field CARDCODE as 1X80AA or 1X80BA for Audiogram Delivery Services (ADS). The EDRAM only supports ADS announcements. Refer to the Audiogram Delivery Services-Offer of Services Prompt functionality (ENSV0013) for additional information.

Table size

Table size increases for each new DRAM number that you enter in table DRAMS. You can enter a maximum of 64 DRAM numbers.

The maximum memory configuration for a single DRAM number is dynamically allocated by default for table DRAMS. The allocation occurs when you enter the first speech block for the DRAM or EDRAM. You can enter speech blocks 0 through 31 for an NT1X80BA EDRAM or a non-North American DRAM. You can enter speech blocks 0 through 7 for a DRAM or an NT1X80AA EDRAM.

Datafill

Datafill for EDRAM in table DRAMS appears in the first table. Datafill for DRAM in table DRAMS appears in the next four tables.

DRAMS (continued)**Enhanced DRAM (EDRAM)**

Datafill for EDRAM appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DRAMCARD		see subfields	<i>Digital recorded announcement machine key.</i> This field contains subfields DRAM and CARD.
	DRAM	0 to 63	<i>Digital recorded announcement machine.</i> Enter the number assigned to DRAM.
	CARD	0 to 8 for NT1X80AA, 0 to 32 for NT1X80BA	<i>Card.</i> Enter 0 for the virtual CTLR card. Enter 1 to 32 for the virtual memory cards. Entries out of the range of indicated values for this field are not correct. Note: Card numbers cannot repeat for the same DRAM or EDRAM.
TMTYPE		DTM	<i>Trunk module type.</i> Enter DRAM trunk module type DTM.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the trunk module number to which the trunk card is assigned.
TMCKT		0 to 29	<i>Trunk module circuit.</i> Enter the trunk module circuit number to which the trunk card is assigned for the NT1X80AA. Enter 0 for the NT1X80BA. Enter 0 for the EDRAM CTLR tuple. Two DRAMs or EDRAMs cannot have the same TMTYPE, TMNO, and TMCKT group. One 16 min EDRAM (NT1X80BA) has the same TMTYPE, TMNO, and TMCKT values for each tuple. Entries out of the range of indicated values for this field are not correct.

DRAMS (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE		1X80AA or 1X80BA	<i>Card codes.</i> Enter 1X80AA for the 4 min ED RAM. or 1X80BA for the 16 min ED RAM. Entries out if the range of indicated values for this field are not correct.
CARDINFO		see subfields	<i>Card information.</i> This field contains subfields CARDTYPE, CLLI, and BLKLIST.
	CARDTYPE	CTLR, PROM, or RAM	<i>Card type.</i> Enter CTLR for the virtual CTLR tuple and enter data in refinement CLLI. Enter PROM for prerecorded messages, or RAM for recordable memory. Enter data in refinement BLKLIST. Entries out of the range of indicated values for this field are not correct.

DRAMS (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
CARDINFO (continued)	CLLI	alphanumeric (1 to 16 characters)	<i>Common language location identifier.</i> Enter the code that represents the EDRAM in table CLLI.
	BLKLIST	vector of one character (0 to 31) or vector of two characters (0 to 31)	<i>Block list.</i> Enter the number of the speech block or blocks assigned to the voice file. The entry occurs if the entry in field CARDTYPE is PROM or RAM. Entries out if the range of indicated values for this field are not correct. Single-density voice files have one speech block. Double-density cards have two speech blocks. An example of a single voice file is a voice file equivalent to an NT1X76AA. An example of a double density card is the voice file equivalent to an NT1X76BA. If you enter the speech block numbers for double-density voice files, the numbers must be next to each other. The numbers must begin with an even-numbered speech block. The use of two speech block numbers for RAM card types for EDRAM does not provide an advantage. A correlatetion of DRAMREC display command results and the PM MAP level UPLOAD command results is easier to perform. The correlation occurs when the RAM card types as single speech block numbers. Enter 0 to 7 for NT1X80AA or 0 to 31 for NT1X80BA. Note: Block numbers cannot repeat for the same DRAM or EDRAM. Separate each speech block number, vector by a minimum of one blank.

DRAM

Datafill for DRAM cards appears in the following four tables.

DRAMS (continued)**DRAM controller (CTLR) cards****Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
DRAMCARD		see subfields	<i>Digital recorded announcement machine key.</i> This field contains subfields DRAM and CARD.
	DRAM	0 to 63	<i>Digital recorded announcement machine.</i> Enter the number assigned to the DRAM.
	CARD	0	<i>Card.</i> Enter 0 for the DRAM CTLR card.
TMTYPE		MTM or STM	<i>Trunk module type.</i> Enter the trunk module (TM) type, maintenance trunk module (MTM) or service trunk module (STM) of the card.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the trunk module number assigned to the MTM or STM.
TMCKT		0	<i>Trunk module circuit.</i> Enter 0 for the DRAM CTLR card.
CARDCODE		1X75AA or 1X75BA	<i>Card code.</i> Enter the peripheral module (PM) equipment code of the digital recorded announcement controller card. Entries out of the range of indicated values for this field are not correct.
CARDINFO		see subfields	<i>Card information.</i> This field contains subfields CARDTYPE and CLLI.
	CLLI	alphanumeric 1 to 16 characters	<i>Common language location identifier.</i> Enter the code that represents DRAM in table CLLI.

DRAMS (continued)**DRAM recordable memory (RAM) cards****Field descriptions (Sheet 1 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
DRAMCARD		see subfields	<i>Digital recorded announcement machine key.</i> This field contains subfields DRAM and CARD.
	DRAM	0 to 63	<i>Digital recorded announcement machine.</i> Enter the number assigned to DRAM.
	CARD	1 to 8	<i>Card.</i> Enter the number assigned to the card.
TMTYPE		MTM or STM	<i>Trunk module type.</i> Enter the trunk module type, maintenance trunk module MTM of the card.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the trunk module number to which the trunk card is assigned.
TMCKT		0 to 29	<i>Trunk module circuit.</i> Enter the trunk module circuit number to which the trunk card is assigned.
CARDCODE		1X77AA	<i>Card code.</i> Enter 1X77AA for the single-density DRAM RAM speech memory card.
CARDINFO		see subfields	<i>Card information.</i> This field contains subfields CARDTYPE and BLKLIST.

DRAMS (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CARDTYPE	RAM	<i>Card type.</i> Enter RAM for the recordable memory card.
	BLKLIST	vector of one character 0 to 7 or vector of 16 characters 0 to 31	<i>Block list.</i> Enter the number of the speech block assigned on the card. A maximum of 16 speech blocks can be present with the range of block number 0 to 31. The speech blocks are for non-North American DRAM. Block numbers cannot repeat in the same DRAM. Telephone operating companies in Australia must enter one speech block. Separate each speech block number, vector, by a minimum of one blank.

DRAM electrically erasable (EEPROM) cards**Field descriptions (Sheet 1 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
DRAMCARD		see subfields	<i>Digital recorded announcement machine key.</i> This field contains subfields DRAM and CARD.
	DRAM	0 to 63	<i>Digital recorded announcement machine.</i> Enter the number assigned to DRAM.
	CARD	1 to 8	<i>Card.</i> Enter the number assigned to the card.
TMTYPE		MTM or STM	<i>Trunk module type.</i> Enter the trunk module type, maintenance trunk module MTM, of the card.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the trunk module number to which the trunk card is assigned.
TMCKT		0 to 29	<i>Trunk module circuit.</i> Enter the trunk module circuit number to which the trunk card is assigned.

DRAMS (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CARDINFO (continued)		1X79AA	<i>Card codes.</i> Enter 1X79AA for the single-density DRAM EEPROM speech memory card. Entries out of the range of indicated values for this field are not correct.
		see subfields	<i>Card information.</i> This field contains subfields CARDTYPE and BLKLIST.
	CARDTYPE	EEPROM	<i>Card type.</i> Enter EEPROM for the electrically erasable card. Entries out of the range of indicated values for this field are not correct.
CARDINFO (continued)	BLKLIST	vector of one character (0 to 7)	<i>Block list.</i> Enter the number of the speech block assigned on the card.
		or vector of 16 characters (0 to 31)	For non-North American DRAM, a maximum of 16 speech blocks can be present with a block number range of 0 to 31. Block numbers cannot repeat in the same DRAM. Operating companies in Australia must enter one speech block.
			Separate each speech block number, vector, by a minimum of one blank. Entries out of the range of indicated values for this field are not correct.

DRAM prerecorded message (PROM) cards**Field descriptions (Sheet 1 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
DRAMCARD		see subfields	<i>Digital recorded announcement machine key.</i> This field contains subfields DRAM and CARD.
	DRAM	0 to 63	<i>Digital recorded announcement machine.</i> Enter the number assigned to the DRAM.

DRAMS (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	CARD	1 to 8	<i>Card.</i> Enter the number assigned to the card.
TMTYPE		MTM or STM	<i>Trunk module type.</i> Enter the trunk module type MTM of the card.
TMNO		0 to 2047	<i>Trunk module number.</i> Enter the trunk module number to which the trunk card is assigned.
TMCKT		0 to 29	<i>Trunk module circuit.</i> Enter the trunk module circuit number to which the trunk card is assigned. Entries outside the range of indicated values for this field are not correct.
CARDCODE			<i>Card code.</i> Enter the product engineering code (PEC) for the card:
		1X76AA	1X76AA for DRA standard announcements—English
		1X76AB	1X76AB for US Bell standard announcements—English
		1X76AE	1X76AE for automated coin toll service (ACTS) English announcements
		1X76AF 1X76AG	1X76AF, 1X76AG for auxiliary operator services system voice response (AOSSVR) English PROM speech cards
		1X76AH	1X76AH for automatic coin calling services (ACCS)—English announcements
		1X76AJ 1X76AK	1X76AJ, 1X76AK for CLASS phase I English announcements (ACB/AR/COT)
		1X76AM	1X76AM for call forwarding remote access (CRFA)—English announcements

DRAMS (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE(continued)		1X76AP	1X76AP, 1X76AQ, 1X76AR, 1X76AS, 1X76AT, 1X76AU, 1X76AV, 1X76AW for screening list editing (SLE) English announcements
		1X76AQ	
		1X76AR	
		1X76AS	
		1X76AT	
		1X76AU	
		1X76AV	
		1X76AW	
		1X76BA	1X76BA for DRA standard announcements—French
		1X76BF	1X76BF, 1X76BG for AOSSVR French announcements PROM speech cards
		1X76BG	
		1X76BH	1X76BH for ACCS French announcements
		1X76BJ	1X76BJ, 1X76BK for CLASS phase I French announcements (ACB/AR/COT)
		1X76BK	
		1X76BM	1X76BM for CFRA French announcements
		1X76BP	1X76BP, 1X76BQ, 1X76BR, 1X76BS, 1X76BT, 1X76BU, 1X76BV, 1X76BW for SLE French announcements
		1X76BQ	
		1X76BR	
		1X76BS	
		1X76BT	
		1X76BU	
		1X76BV	
		1X76BW	
		1X76CA	1X76CA for mechanized credit card service (MCCS) English announcements
		1X76GA	1X76GA, 1X76GB, 1X76GC for SLE for list sizes from 13 to 31 entries
		1X76GB	
		1X76GC	
		1X76GE	1X76GE for SLE custom phrases for Bell South
		1X76GF	1X76GF for SLE custom phrases for Bell Atlantic

DRAMS (continued)**Field descriptions (Sheet 4 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE(continued)		1X76GG	1X76GG for SLE custom phrases for United Telephone
		1X76GH	1X76GH for SLE custom phrases for GTE
		1X76GJ	1X76GJ for SLE custom phrases for Pacific Bell
		1X76GK	1X76GK for SLE custom phrases for Ameritech
		1X76GL 1X76GM 1X76JA 1X76JB	
CARDINFO		see subfields	<i>Card information.</i> This field contains subfields CARDTYPE and BLKLIST.
	CARDTYPE	PROM	<i>Card type.</i> Enter PROM. Entries out of the range of indicated values for this field are not correct.
	BLKLIST	vector of one character 0 to 7, vector of two characters 0 to 7, or vector of 16 characters 0 to 31	<i>Block list.</i> Enter the number of the speech block or blocks that are assigned on the card. Single density cards (like, 1X76AA) have one speech block. The double density cards (like, 1X76BA) have two speech blocks. If you enter the speech block numbers for double density cards, the numbers must be next to each other. The speech block number must begin with an even numbered speech block. Block numbers cannot repeat in the same DRAM.

DRAMS (continued)

Field descriptions (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
CARDINFO (continued)	BLKLIST (continued)		A maximum of two speech blocks can be present with the range of block number 0 to 7. This entry occurs for North American DRAM and telephone companies in Australia. For non-North American DRAM, a maximum of 16 speech blocks cannot be present with the range of block number 0 to 31. Separate each speech block number, vector, by a minimum of one blank. Entries out of the range of indicated values for this field are not correct.

Datafill example

Datafill for table DRAMS for BCS35 and later versions appear in the following example.

DRAMS (end)**Datafill example for table DRAMS**

DRAMCARD	TMTYPE	TMNO	TMCKT	CARDCODE	CARDINFO		
0 0	MTM	4	0	1X75AA	CTLR	DRAM0	
0 1	MTM	1	2	1X76AA	PROM	(0)	\$
0 2	MTM	4	4	1X76BA	PROM	(2) (3)	\$
0 5	MTM	4	6	1X77AA	RAM	(4)	\$
0 4	MTM	4	8	1X77AA	RAM	(5)	\$
0 5	MTM	4	10	1X77AA	RAM	(6)	\$
0 6	MTM	4	12	1X77AA	RAM	(7)	\$
1 0	DTM	1	0	1X80AA	CTLR	EDRAM1	
1 1	DTM	1	2	1X80AA	PROM	(0)	\$
1 2	DTM	1	4	1X80AA	PROM	(2) (3)	\$
2 0	DTM	2	0	1X80AA	CTLR	EDRAM2	
2 1	DTM	2	2	1X80AA	PROM	(0) (1)	\$
2 3	DTM	2	6	1X80AA	RAM	(4)	\$

Table history**TL08**

Information on table DRAMPHRS was added in TL08.

APC06

Information for the 16 min EDRAM (NT1X80BA) was added in APC06.

NA005

Feature AN1542 in the functionality Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013) introduces announcements that only EDRAM supports.

DRAMTRK

Table name

Digital Recorded Announcement Machine Track (DRAMTRK) Table

Functional description

Table DRAMTRK lists the names assigned to the phrases (up to a maximum of 16) that are assigned to each track of an announcement. Phrases are defined using DRAMREC, the digital recorded announcement machine (DRAM) recording utility, and are combined in table DRAMTRK to create language tracks.

Custom announcements are datafilled in table DRMUSERS. A custom announcement is any announcement common language location identifier (CLLI) that is datafilled in table ANNS with field ANTYPE of the ANNS tuple datafilled to anything other than STND (standard announcement).

Note: Announcements recorded by the operating company that are datafilled as STND in table ANNS and are also datafilled in table DRAMTRK are not custom announcements. These announcements can still be datafilled in table DRAMTRK.

Datafill sequence and implications

Table ANNMEMS must be datafilled before table DRAMTRK.

In order to use Variable Phrase Standard Announcement (VPSA) phrases CGAENG, DNAENG, or CHAENG in an announcement, the announcement type ANTYPE in table ANNS must be defined as VPSA. Also, phrases ENGx, where x = 0-9, and SILENCE must be prerecorded.

Table size

Table DRAMTRK contains 0 to 2040 tuples.

Memory is dynamically allocated for table DRAMTRK.

If either package XN26AA (Announcements Enhancements) or X983AB (Service Switching Point Private Virtual Networking) is present in the switch, the maximum table size is 16 384.

DRAMTRK (continued)**Datafill**

The following table lists datafill for table DRAMTRK.

Field	Subfield or refinement	Entry	Explanation and action
ANNTRACK		See subfields	ANNOUNCEMENT TRACK KEY. This field consists of subfields ANN and TRACK.
	ANN	Alphanumeric or blank	ANNOUNCEMENT. For the first entry for the announcement track, enter the code that represents the announcement in table CLLI. Otherwise, leave this field blank.
	TRACK	0 to 31 or blank	TRACK. For the first entry for the announcement track, enter the track number assigned to the announcement. Otherwise, leave this field blank. The track numbers given in table ANNMEMS are used to index into table DRAMTRK for DRAM announcements. If a track number is used in table ANNMEMS, but there is no corresponding entry in table DRAMTRK, then an entire track is missing from the playback of the announcement.
PHSLIST		Alphanumeric (up to 16 names)	PHRASE LIST. Enter the name or names assigned to the phrase or phrases. Separate each phrase from the next by a blank space. If less than 16 names are required, end the list with a \$ (dollar sign). The phrase NIL is no longer supported. If an announcement is unused or is in the process of being re-recorded, field PHSLIST must be set to SILENCE.

Datafill example

The following example shows sample datafill for table DRAMTRK.

The example shows input for tracks 0 and 1 for the No Circuit Announcement (CLLI is NCA) and for tracks 0, 1, and 2 for the Vacant Code Announcement (CLLI is VCA) that consists of three languages (English, French, and Spanish).

DRAMTRK (continued)

For No Circuit Announcement (NCA), track 0 is assigned the phrase name NCAENG (English version) and track 1 is assigned the phrase name NCAFRE (French version).

On the primary language track, special information tones (SIT) phrase SIT32 is played first, followed by the English version of the NCA. On the next track, SILENCE is played first followed by the French version of the NCA.

For VCA, track 0 is assigned the phrase name VCAENG, track 1 is assigned the phrase name VCAFRE and track 2 consists of two phrase names, VCASPA and ANNSPA. Phrases VCAENG and VCAFRE are prerecorded announcements while VCASPA and ANNSPA are recordable announcements. Phrase ANNSPA can be "This is a recording" in Spanish and can be used after other Spanish announcements, while VCASPA is the Spanish version of the VCA "I am sorry, but the number you have dialed...".

On the primary language track, SIT phrase SIT26 is played first, followed by the primary language announcement.

Each of the announcements on tracks 2 and 3 are preceded by the SILENCE phrase.

For Calling Number Announcement, CNALINE, (for specific licensee use only), track 1 is assigned the phrase list CNAGER (German version). This announcement is preceded and followed by the SILENCE phrase.

For the Variable Phrase Standard Announcement (VPSA) capability, use CGAENG for Calling Number Digits, DNAENG for Dialed Number Digits, and CHAENG for Charged Number Digits. CNAENG for called number digits phrase can also be provisioned in a VPSA announcement phrase list.

MAP display example for table DRAMTRK**ANNTRACK PHSLIST**

NCA	0	(SIT32)	(NCAENG)	\$
NCA	1	(SILENCE)	(NCARFR)	S
VCA	0	(SIT26)	(VCAENG)	S
VCA	1	(SILENCE)	(VCAFRE)	S
VCA	2	(SILENCE)	(VCASPA)	(SILENCE) (ANNSPA)\$
CNALINE	1	(SILENCE)	(CNAGER)	(SILENCE) \$
VP_ANNC1	0	(VNPRED1)	(DNAENG)	\$
VP_ANNC1	1	(VNPRED2)	(CGAENG)	\$

DRAMTRK (continued)

Supplementary information

This section provides information on assigning special information tones (SIT) in table DRAMTRK using commands SITLOAD and ASSIGN for switches with PROM and RAM cards.

Machine detectable encodings

Telephone calls terminating to an announcement are treated as completed calls with live voice answers by automated analysis of call disposition equipment. A machine detectable encoding, if placed just before the commencement of each recorded announcement, can facilitate a more accurate analysis of call disposition. Such machine detectable encodings are called SIT (special information tones). There can be a maximum of 32 SITs in number, each composed of three different frequencies and durations, as specified by the CCITT.

Such tones can also alert customers that a machine-generated announcement is forthcoming.

The above feature is optional.

SITs in PROM or RAM speech cards

In the DRAM, provision exists to store the SITs in PROM or RAM speech cards.

All data regarding the 32 SITs can safely be stored in PROM speech cards because of the non-volatile nature of the memory.

Some switching units, mainly in the United States, can only use RAM speech cards. Such switching units have no need of standard Bell Canada format announcements residing in the PROM cards. Provision is made to store SIT data in the central control (CC) data store, so that data can be downloaded into the RAM speech cards when a switching unit, equipped with RAM cards only, goes in service. Further downloading is required if RAM cards lose their memory. The total download time is approximately 3 min.

On a call terminating to an announcement, the CC instructs DRAM to play the SIT first followed by the announcement.

Commands ASSIGN and RECORD in the DRAMREC supply the CC with relevant information regarding each announcement phrase resident in DRAM. Command ASSIGN provides relevant information to the CC regarding a phrase resident in a PROM card. Command RECORD carries parameters that provide information regarding a phrase to be recorded on a RAM card. These commands do not identify the phrases with particular SITs.

DRAMTRK (continued)

SIT can be downloaded from the data store into the RAM cards. Such a download can only take place in switching units having no PROM cards.

Each RAM card consists of a 128-kbyte block including 4 kbyte of menu and SIT data. The remaining 124 kbyte store speech data. In the downloading process, two RAM cards are required to accommodate the SIT tones. The menu data regarding the SITs can be split in half, so that one half resides in the first RAM card and the other half resides in the second RAM card. But because SIT data is compressed to save recording space, the same SIT data must be repeated in both cards. If only one RAM card is used to store the SIT data, store for 8 s of speech tones on that particular card is lost in order to accommodate all the SIT phrase identifications (ID).

The module DRAMSIT downloads SIT data from the CC store to RAM speech store of DRAM. The command interpreter (CI) command SITLOAD initiates the downloading procedure of the SITs. SIT tone data, in the form of a data string, resides in the CC data store. Such data is downloaded onto the first 2 available RAM cards in table DRAMS, so that the first 16 SITs reside on the first RAM card and the next 16 SITs reside on the second RAM card.

At the end of the downloading process, a message is displayed on the terminal informing the user of the completion.

Command ASSIGN is used, as before, to assign phrases to the PROM cards. Additionally, it is used to assign SIT phrase identifications (ID) to both PROM and RAM cards.

In order to preserve synchronism between tracks, the DRAM announcement phrases in each track of a multitrack announcement are the same length. The duration of SIT is 1 s and resides on the prime language track only. This makes the secondary language track 1 s shorter in length than the prime language track. This makes the two adjacent tracks go out of synchronism. To overcome this, a 1-s SILENCE phrase is assigned on a PROM card or a RAM card and played at the beginning of each of the adjacent tracks to the prime language track.

SITLOAD command

SITLOAD is a command entered from the DRAMREC CI increment that downloads SIT data from data store to the first two RAM cards. In the example below, the SITs are loaded in DRAM number 0.

>SITLOAD 0

If a PROM card exists in table DRAMS, do not use command SITLOAD as SITs already reside in PROM cards. In switching units with PROM cards, only

DRAMTRK (end)

command ASSIGN can be used to make the system aware of the existence of SITs.

Before using command SITLOAD, make sure that there are at least two physical RAM cards present in the maintenance trunk module (MTM) shelf corresponding to the DRAM being used. Also ensure that appropriate data exists for these RAM cards in table DRAMS.

Once command SITLOAD has executed successfully, the phrase names corresponding to each SIT need assignment.

ASSIGN command

If using command ASSIGN to assign SIT phrases and the SILENCE phrase, adhere to the following guidelines.

Switching units with PROM cards

To assign a SIT phrase name in a switching unit with PROM cards, use the following command:

>ASSIGN <DRAM no> <SIT phrase name> <length> <block> <phrase no>

For example, assign the SILENCE phrase to the DRAM number (in table DRAMS) where the PROM card resides, in this case DRAM 0, for 1 s, to the block number corresponding to the first PROM card (in table DRAMS) to phrase 0, as follows:

DRMAPPL

Table name

Distributed Recording Manager Applications Table

Functional description

Table DRMAPPL associates an application with a pool of volumes. Table DRMAPPL specifies operational parameters. When an application registers with the distributed recording manager (DRM), the system enters tables DRMPOOL and DRMAPPL. You cannot add tuples to table from the command interpreter (CI). You cannot delete tuples from table DRMAPPL from the CI. You can change values in table DRMAPPL from the CI.

Datafill sequence and meaning

Enter data in table DRMPOOL before you enter data in table DRMAPPL.

Define a pool in table DRMPOOL before you enter the pool in field POOLNAME of table DRMAPPL. When an application registers with DRM, the system enters tables DRMPOOL and DRMAPPL in that order.

Table size

The system defines table size.

Datafill

Datafill for table DRMAPPL appears in the following table.

Field descriptions (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
APPLNAME		alphanumeric (one to four characters)	<i>Application name.</i> This field specifies the application name. The application name is the key to table DRMAPPL.
POOLNAME		alphanumeric (a maximum of eight characters)	<i>Pool name.</i> Enter a pool name to associate a pool of volumes with the application. This entry must be the same as the entry that corresponds in table DRMPOOL. This field is the key to table DRMPOOL. Only one application can use a specified pool name. The applications cannot share pools.

DRMAPPL (continued)**Field descriptions (Sheet 2 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
ALARMMN		0 to 32 767	<i>Alarm minor.</i> Enter the minor alarm threshold value, in megabytes. If the amount of total free volume space falls below the threshold value, the system generates a minor alarm. The recommended and default minor alarm value is 50.
ALARMMJ		0 to 32 767	<i>Alarm major.</i> Enter the major alarm threshold value, in megabytes. If the amount of total free volume space falls below the threshold value, the system generates a major alarm. The recommended and default major alarm value is 20.
ALARMCR		0 to 32 767	<i>Alarm critical.</i> Enter the critical alarm threshold value, in megabytes. If the amount of total free volume space falls below the threshold value, the system generates a critical alarm. The recommended and default critical alarm value is 1.
RETPD		0 to 365	<i>Retention period in days.</i> Enter a value to specify the file retention period, in days. A file expires when the file is on the disk for longer than the retention period, since the filedate. The filedate is the date in the filename. After this period the system erases processed files. Refer to field FORCBKUP.
FILEDATE		OPENED or CLOSED	<i>File date.</i> Enter OPENED to date the file when the file is opened. Enter CLOSED to date the file when the file is not the active file.

DRMAPPL (continued)**Field descriptions (Sheet 3 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
SHEDDAYS		vector of 7 values (Y or N)	<i>Scheduled rotation days.</i> Enter Y (yes) for each day of the week, Monday through Sunday, that a rotation must occur. Enter N (no) for each day of the week, Monday through Sunday, that a rotation must not occur. Fields SHEDDAYS, SHEDBASE, and SHEDINCR define a scheduled rotation for the application.
SHEDBASE		0 to 23	<i>Schedule rotation base.</i> Enter a value from 0 to 23 to indicate the hour of the day when the first rotation occurs. You can schedule more than one rotation each day. Refer to field SHEDINCR.
SHEDINCR		X1, X2, X3, X4, X6, X8, X12, X24, or NOROTATE	<i>Scheduled rotation increments.</i> Enter a value that represents the number of hours between scheduled rotations. Use the first rotation as a base. Enter NOROTATE if you do not schedule a rotation.
CLOSTATE		P, R, or U	<i>File state when closed.</i> This field specifies the state that the closed file changes to. Enter P for processed state, R for removed state, or U for unprocessed state.
MAXFSIZE		0 to 600	<i>Maximum file size.</i> Enter a value to define the maximum size for distributed recording manager (DRM) files. Enter the value in megabytes. This value is the maximum size for files in the application that this tuple defines. The DRAM allows this value. If you enter 0 (zero), only the volume size limits the file size.

DRMAPPL (continued)**Field descriptions (Sheet 4 of 4)**

Field	Subfield or refinement	Entry	Explanation and action
FORCBKUP		Y or N	<i>Force backup onto DAT tapes.</i> Enter Y (yes) to instruct the DRM system audit to erase processed files (P-files) that expire. Only erase the files that back up to digital audio tape (DAT). Enter N (no) to instruct the DRM system audit to erase P-files that expire.
MINSPACE		0 to 32 767	<i>Minimum space</i> Enter a free pool space value in megabytes. The recommended and default value is 100. The value in field MINSPACE must be greater than the alarm level values in fields ALARMMN, ALARMMJ, and ALARMCR. The application must not be in an alarm condition when the system sends the ready_to_record message. When an application receives the ready_to_record message, the application starts to record. The system sends the ready_to_record message to the application when the amount of free pool space is in service. Field MINSPACE specifies the amount of free pool space. The in-service free space is the total amount free pool space that is not in use.

Datafill example

Sample datafill for table DRMAPPL appears in the following example.

MAP display example for table DRMAPPL

```

APPLNAME POOLNAME ALARMMN ALARMMJ ALARMCR RETPD FILEDATE
SHEDDAYS  SCHEDBASE SHEDINCR CLOSTATE MAXFSIZE
FORCBKUP  MINSPACE

```

```

_____|_____|_____|_____|_____|_____|_____|
AMA      AMAPOOL  50      20      1      30      OPENED
YYYYYYY  3              X24      U      100
Y        100

```


Table history**BCS34**

Table was DRMAPPL introduced in BCS34.

DRMPOOL

Table name

Distributed Recording Manager Pool Table

Functional description

Table DRMPOOL defines pools of recording volumes for assignment to registered applications. When an application registers with the distributed recording manager (DRM), the system enters default tuples for the application in tables DRMPOOL and DRMAPPL. Table DRMPOOL assigns recording volumes to a pool name. Table DRMAPPL assigns the pool name to the application. You cannot use the table editor to add recording volumes in table DRMPOOL. You cannot use the table editor to delete recording volumes in table DRMPOOL. Use the DRM commands MOUNT or DEMOUNT to add or delete recording volumes in table DRMPOOL.

Datafill sequence and meaning

Enter data in table DRMAPPL before you enter data in table DRMPOOL.

Table size

The system defines table size.

Datafill

Datafill for table DRMPOOL appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
POOLNAME		alphanumeric (a maximum of eight characters)	<i>Pool name.</i> This field is the key field of the table. This field contains the volume pool name.
VOLUME0-17		alphanumeric (a maximum of 20 characters) or \$	<i>Volumes 0 to 17.</i> Fields VOLUME0 to VOLUME17 specify the volumes assigned to the pool. Each field contains a volume name. The \$ indicates that the position does not have a volume assigned.

Datafill example

Sample datafill for table DRMPOOL appears in the following example.

DRMPOOL (end)

MAP example for table DRMPOOL

FIELD	ENTRY
P00LNAME	AMAP00L
VOLUME0	FP00DK00VOLUME01
VOLUME1	\$

Table history
BCS34

Table DRMPOOL was introduced in BCS34.

DRMTRANS

Table name

The DIRP to DRM Translation Table

Functional description

Table DRMTRANS activates a generic translation layer for current device-independent recording package (DIRP) subsystems. This table activates the translation layer to allow DIRP requests to translate to distributed recording manager (DRM) requests. This process allows the system to write compute module (CM) data to file processor (FP) storage devices.

Table DRMTRANS contains one tuple for each subsystem identified, bound in, to DIRP. Table DRMTRANS contains these tuples if entry of the subsystem occurs in table DIRPSSYS. Table DRMTRANS contains one tuple for each subsystem identified to DIRP if the subsystem does not occur in table DIRPSSYS.

To use the DIRP-to-DRM translation layer for a DIRP subsystem, set field **ENABLED** in table DRMTRANS to Y (yes). Set this field to Y for the tuple that corresponds to that subsystem. If the translation layer can register the subsystem with DRM, the response **OPERATION SUCCESSFUL** appears. A default tuple for that subsystem, application, appears in each of the DRM tables **DRMAPPL** and **DRMPOOL**.

An attempt to activate the translation layer can result in one of three possible failure responses. The response:

OPERATION FAILED. TOO MANY APPLICATIONS REGISTERED WITH DRM

indicates that DRM has the maximum number of users. The response:

OPERATION FAILED. TRY AGAIN

indicates that DRM cannot process the request at this time. The response:

OPERATION FAILED. DRM APPLICATION NAME ALREADY IN USE

indicates that the DIRP subsystem name is the same as another application that uses DRM. The other application is not a DIRP application. In each of these three events, the system rejects the change.

Activation of changes to table DRMTRANS requires a warm restart. When you activate the translation layer for a subsystem, make sure that table **DRMAPPL** contains the correct configuration values. Make sure that the volumes assigned to the application appear in table **DRMPOOL**. The amount

DRMTRANS (continued)

of volume space that field MINSPACE of table DRMAPPL allocates to the subsystem must allow recording to begin. To activate the translation layer, the DRM state of the application must be IDLE or ACTIVE before the restart. The state of the application must not be WAIT RTR. The application can begin to record when the restart completes.

To deactivate the translation layer for a specified subsystem, set field ENABLED of table DRMTRANS to N (no). Set this field to N for the tuple that corresponds to that subsystem. When the next restart occurs, the system automatically deletes the associated tuples in the DRM tables DRMAPPL and DRMPPOOL. To reactivate DIRP perform a warm restart.

Datafill sequence and meaning

A tuple can appear in table DRMTRANS for a specified subsystem, when the subsystem is bound in to DIRP minimum one time. You must meet the requirements when you enter the subsystem in table DIRPSSYS. You must meet these requirements for the default tuple for the subsystem to appear in table DRMTRANS. For example, for billing streams, table CRSFMT requires an applicable tuple.

If the data in the table does not meet the above requirements the system deactivates the translation layer. For example, if deletion of the billing stream tuple in table CRSFMT occurs, the system deactivates the translation layer. The system deletes tuples associated with the subsystem from tables DRMTRANS, DRMAPPL, and DRMPPOOL.

Table DIRPSSYS does not require an associated tuple for a tuple to appear in table DRMTRANS.

Table size

This table contains 1 to 24 tuples

DRMTRANS (end)**Datafill**

Datafill for table DRMTRANS appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
SSYSNAME		see subfield	<i>Subsystem name</i> This field contains subfield SSYSCHARS.
	SSYSCHARS	alphabetic (a maximum of four characters)	<i>Subsystem characters.</i> This field is the key to the table. The subsystem name determines this field. The subsystem name is bound in to DIRP. The system enters this field.
ENABLED		Y or N	<i>Enable translation layer.</i> Enter Y (yes) to enable or N (no) to disable the DIRP-to-DRM translation layer for the named DIRP subsystem. Note: The system can allow only the Call Recording System streams. These streams are in table CRSFMT. The system cannot allow other streams, like journal file (JF) and operational measurement (OM). These tuples must be present.

Datafill example

Sample datafill for table DRMTRANS appears in the following example.

MAP display example for table DRMTRANS

SSYSNAME	ENABLED
AMA	Y
JF	N
OM	N

Table history**BCS35**

Table DRMTRANS was introduced in BCS35.

DANIID

Table name

Double ANI Identification Table

Functional description

Table DANIID contains two-digit Automatic Number Identification (ANI) information digits for non-equal access central offices.

The two-digit codes conform to BELLCORE automatic message accounting (BCAMA) format. If a two-digit code exists in table DANIID, module code 306 information is added to the BCAMA record. This occurs in local, or non-TOPS (Traffic Operator Position System) toll offices.

If a two-digit code does not exist in table DANIID, the BCAMA record is not modified.

Datafill sequence and implications

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

Table size

0 to 99 tuples

Datafill

The following table lists datafill for table DANIID.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DANI		01 to 99 (2 digits)	<i>Double Automatic Number Identification digit identifier</i> Enter the Automatic Number Identification (ANI) digit identifier. Entry 00 is not a valid entry.

Datafill example

The following example shows sample datafill for table DANIID.

DANIID (end)

MAP display example for table DANIID

DANI

01

10

95

DSLIMIT

Table name

Data Store Limit (DSLIMIT) Table

Functional description

Table DSLIMIT limits the amount of data store a module can use. The recommendation is that Nortel personnel perform modifications to this table.

Table DSLIMIT contains three fields:

- DSOWNR (Data Store Owner)
- DSMAX (Data Store Maximum)
- DSUSED (Data Store Used)

Field DSOWNR stores the module names STOREFS, NPOFIMP, and NTDEVS. These three modules have the following functions:

- STOREFS contains data store for store file device (SFDEV)
- NPOFIMP contains data store for pending order file (POF)
- NTDEVS contain data store for files that Nortel personnel use

Field DSMAX defines the maximum data store for each module. The default value is 45 000 bytes for STOREFS, 45 000 words for NPOFIMP, and 3 000 000 bytes for NTDEVS.

Field DSUSED defines the amount of data store in use for the specified module. For modules STOREFS and NTDEVS, allocate the size of the data store as the modules require. For module NPOFIMP, the size of the data store increases to reflect the increase in the number of entries in table NPENDING. The value of field DSUSED does not decrease when you delete tuples from table NPENDING. The POF system reserves the data storage area that is not in use for later use.

Use the following calculation to determine the amount of protected data store (DSPROT) that NPOFIMP uses. Multiply the number of tuples in table NPENDING by 29 words. Addition of protected storage to NPOFIMP occurs in blocks of 1856 words (64×29 words). The addition of one block occurs for every 65th POF.

Datafill sequence and meaning

You do not have to enter data in other tables before you enter data in table DSLIMIT.

DSLIMIT (continued)**Table size**

This table size is 0 to 255 tuples.

Datafill**WARNING**

Do not use field DSMAX to allocate data store.

Do not allocate data store in field DSMAX. A verification of resources does not occur when you change this field. Refer to the *DMS-100 Family Commands Reference Manual*.

The datafill for table DSLIMIT appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
DSOWNR		STOREFS, NPOFIMP, NTDEVS	<i>Data Store Owner.</i> Enter the module name.
DSMAX		0 to 1073741824	<i>Data Store Maximum.</i> Enter the maximum data store for the module. The default value for this field for module STOREFS is 45 000 bytes. For module NPOFIMP it is 45 000 words. The default value for module NTDEVS is 3 000 000 bytes. The system does not accept entries out of the range for this field.
DSUSED		No entry, display only	<i>Data Store Used.</i> This field indicates the amount of data store the module uses.

DSLIMIT (end)

Datafill example

Sample datafill for table DSLIMIT appears in the following example.

MAP example for table DSLIMIT

DSOWNER	DSMAX	DSUSED
STOREFS	230076	65602
NPOFIMP	45000	2528
NTDEVS	3000000	4112

Table history**CSP17**

Corrected the data type the DSMAX value for module STOREFS. The type was changed from words to bytes.

CSP09

Module NTDEVS was added to the table DSLIMIT in CSP09.

BCS36

Table DSLIMIT was documented in BCS36.

DTUPRO

Table name

Data Terminal Unit Protocol Name Definition Table

Functional description

Table DTUPRO defines the data terminal unit (DTU) protocol names used in table BCDEF.

Datafill sequence and implications

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

Table BCDEF must be datafilled after table DTUPRO.

Table size

3 to 64 tuples

Table size is set by the maximum number of DTU protocols available. This table is automatically extended if the number of protocols increases.

Datafill

The following table lists datafill for table DTUPRO.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
VALUE		see subfield	<i>Value</i> This field consists of subfield UNINT.
	UNINT	0 to 63	<i>Integer value</i> Enter an integer value associated with the string. Any entry outside the range indicated for this field is invalid.
SYMBOL		alphanumeric (up to 32 characters)	<i>Symbol</i> Enter the name of the data terminal unit (DTU) protocol.

Datafill example

The following example shows sample datafill for table DTUPRO.

DTUPRO (end)

MAP display example for table DTUPRO

VALUE	SYMBOL
0	NONE
1	TLINK
2	X25

Table history**BCS36**

Subfield UNINT was added.

Supplementary information

This section provides information on load-build defaults when datafilling table DTUPRO.

Load-build defaults

The following default tuples must be entered at load-build time along with the symbolic range command (SRCOM). Use of an EXT (external) file is the preferred method of data entry.

```
>SRCOM 'DTUPRO' ON 'DTU_PROTOCOL_NAME'  
>TAB DTUPRO  
>INP  
>0 NONE  
>1 TLINK  
>2 X25  
QUI
```

DSTTABLE

Table name

Automated Time-of-day Change table

Functional description

Table DSTTABLE automates the time change required for the change from standard time to daylight saving time and the reverse operation. To perform this action, this table stores the associated time change requests.

The datafill in this table controls the following:

- when time changes to and from daylight savings occur
- how time changes to and from daylight savings occur

The system activates Automated Time-of-day Change feature when you enter one or more tuples in table DSTTABLE.

Datafill sequence and meaning

You do not have to enter data in other tables before you enter data in table DSTTABLE.

Table size

The table contains a maximum of ten entries. Each entry represents one automated change to daylight savings time or from daylight savings time.

Datafill

The datafill for table DSTTABLE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
REQNUM		0 to 9	<i>Request number.</i> Enter the request number.
DATE		yyyymmdd	<i>Date.</i> Enter the date (year, month, and day) to change the clock. Note: Enter the year as a four-digit number. Enter the month and day as two-digit numbers. For example, you can enter 1996 10 30.
TIME		hh:mm	<i>Time.</i> Enter the time (hours and minutes) to change the clock. For example, 01:00.

DSTTABLE (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
AMOUNT		hh:mm	<i>Time change magnitude.</i> Enter the magnitude of the time change (hours and minutes). For example, 01:00.
FWDBCK		F or B	<i>Time change direction.</i> Enter F for forward or B for backward. The value you enter indicates the direction of the time change.
NEWTZ		a maximum of five characters	<i>New time zone name.</i> Enter the new time zone name to use after the change. For example, EDST (Eastern Daylight Saving Time).
EXPIRED		Y or N	<i>Status.</i> The system changes this field from N (no) to Y (yes) when an automated time change completes.

Datafill example

Sample datafill for table DSTTABLE appears in the following example.

MAP example for table DSTTABLE

REQNUM	DATE	TIME	AMOUNT	FWDBCK	NEWTZ	EXPIRED
0	1995 10 30	01:00	01:00	B	EST	Y
1	1996 04 30	00:01	01:00	F	EDST	N
2	1996 10 30	01:00	01:00	B	EST	N

Table history**CSP06**

Table DSTTABLE was introduced in CSP06.

EADAS

Table name

Engineering and Administrative Data Acquisition System Table

Functional description

Table EADAS stores site-unique Engineering and Administrative Data Acquisition System (EADAS) data to allow this data to be preserved over a one-night process (ONP). During the ONP, table EADAS transfers the operating company defined EADAS collection definitions from the old software load to the new software load. The collection definitions include all EADAS class, section, register, and key/info information.

The primary function of table EADAS is to transfer EADAS collection definitions from the old load to the new load during an ONP. Operating companies can also use this table to provide the same functionality as the EADSECTS, EADASKEY, and EADASFMT commands.

Note: Table EADAS is datafilled automatically during an ONP; however, initial jobs and sites that receive EADAS software for the first time must add their EADAS collection definitions manually.

Datafill sequence and implications

There is no requirement to datafill other tables prior to table EADAS. During an ONP, table EADAS is restored as the last CNA table.

Table size

The three EADAS OM classes are sized by the following office parameters in table OFCENG:

- EADAS24H_BUFFER_SIZE (EADAS24H class)
- EADAS30M_BUFFER_SIZE (EADAS30M class)
- EADAS60M_BUFFER_SIZE (EADAS60M class)

Table EADAS can range from 0 to 192,000 tuples. The size is calculated as follows. Note that 192,000 tuples is the theoretical size, but this table is expected to have only up to 8,000 tuples.

$3 \text{ (number of buffers)} \times 2 \text{ (could be double precision)} \times 32,000 \text{ (maximum per buffer size)} = 192,000$

Note: If the office uses SOC OAM0007, the maximum per buffer size can be as high as 256000.

EADAS (continued)**Datafill**

The following table lists datafill for table EADAS.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
EADASKEY	CLASS	EADAS30M, EADAS60M, EADAS24H	OM Class. This subfield specifies the OM class. Enter EADAS30M (30-minute OM class), EADAS60M (60-minute OM class), or EADAS24H (24-hour OM class).
	SECTION	0-254	Section Number. This subfield specifies the EADAS section number.
	ITEM	PRECISION, REG, KEY	Item. This subfield specifies the OM tuple type. Enter one of the following: - PRECISION (in this case, no further datafill is required for subfield ITEM) - REG followed by one space and the register number (a value from 0 to 127) - KEY followed by one space and the OM tuple
EADASDATA			EADAS Data. This field contains the EADAS data. Enter one of the following: - If subfield ITEM of field EADASKEY is set to PRECISION, enter the following: - either SINGLE (single precision, specifying a count of up to 32,768) or DOUBLE (double precision, specifying a count of up to 65,536) - the OM group name and OM field (register) name, separated by spaces - If subfield ITEM of field EADASKEY is set to REG, enter the OM group name and OM field (register) name, separated by spaces. - If subfield ITEM of field EADASKEY is set to KEY, enter either PRESENT or DELETED.

EADAS (end)

Datafill example

The following example shows sample datafill for table EADAS. In this example, all three types of EADAS data are shown.

MAP display example for table EADAS

EADASKEY			EADASDATA		
EADAS30M	250	REG 12	BLDNANNC	250	
EADAS60M	166	PRECISION	SINGLE	SLEENG1	166
EADAS24H	253	KEY DRCW	PRESENT		

Table history

NA008

The upper bound of buffer size range was increased to 256 000 words. The need for a new start when EADAS/DC buffer sizes are changed was eliminated. Clarification for SOC option OAM00007 was added.

NA005

This table was introduced.

EADNMPK

Table name

EADAS/NM Interface Packet Schedule Table

Functional description

Table EADNMPK identifies which DMS operational measurements (OM) data are transmitted to the network management portion of the Engineering and Administrative Data Acquisition System (EADAS/NM) in response to a poll or request. OM data is updated by the stored program control switch (SPCS) every 5 min. The data is arranged into packets of related registers, numbered 1 to 25.

EADAS/NM packets are defined in the following table. Those not supported by EADAS/NM interface phase 1 are indicated.

EADAS/NMpackets

Pack et	Contents
1	delayed readiness
2	overload not supported
3	call direction
4	fail match / no circuits
5	critical service circuits
6	additional inefficient machine attempts
7	network management center (NMC) not supported
8	Common Channel Interoffice Signaling (CCIS) and 800 Service not supported
9	30-s discretes not supported
	reserved
11-15	unused

Each EADNMPK tuple contains a packet index number (field PKNUM) and the maximum number of register data allowed in the packet (field MAXLEN).

Twenty-five default tuples, one for each possible data packet, are prefilled for table EADNMPK in field PKNUM.

EADNMPK (continued)

The size of a packet sent to EADAS/NM is not necessarily equal to that specified in field MAXLEN. If the packet is larger than that specified in field MAXLEN, the packet is truncated before transmission to EADAS/NM. If the packet is smaller than that specified in field MAXLEN, the packet is sent as it is, without padding, to EADAS/NM.

Packets beyond number 25 cannot be added to table EADNMPK. Likewise, no packet can be deleted from table EADNMPK.

To schedule a packet for transmission, field MAXLEN for the packet must be set to an integer greater than 0 (zero).

To prevent the transmission of a packet to EADNM/NM, set the value of field MAXLEN for the packet to 0 (zero). Each default tuple in table EADNMPK has value 0 (zero) in field MAXLEN.

The command interpreter (CI) command EADASHOW EADNM5M displays current values for each of the 25 packets.

For more information on Engineering and Administrative Data Acquisition System (EADAS) network management (NM) interface support tables, see table EADNMTG.

Table support

Table EADNMPK can be either queried or changed.

Table EADNMPK is engineering-protected and is datafilled by default at loadbuild.

Requests to query or change table EADNMPK is made by EADAS/NM through the EADAS data link. DMS operating personnel do not need to modify this table. In exceptional cases, operating personnel or NT field support need to query or change the table if it is not possible to do so through the EADAS data link.

As no engineering is required for this table, no data schema form is associated with this section.

Trunk group names can be added or deleted in table EADNMTGP whose contents are copied into table EADNMTG.

Datafill sequence and implications

Table EADNMPK is an engineering-protected table that is datafilled by default during loadbuild.

EADNMPK (continued)**Table size**

See table EADNMTG.

Datafill

The following table lists datafill for table EADNMPK.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
PKNUM		1 to 25	<i>Packet number</i> Enter a number, from 1 to 25, to represent the OM data packet that activates or deactivates transmission or adjusts truncation size.
MAXLEN		0 to 32767	<i>Maximum length</i> Enter the maximum number of 5-min register data blocks collected before truncation occurs. Enter 0 (zero) to disable or prevent transmission of the packet. The default value for this field is 0 (zero).

Datafill example

An example of datafill for table EADNMPK is shown below.

In this example the user enables transmission and assigns maximum packet sizes to the EADAS/NM data packets three through six. Activation is accomplished through the following command sequence:

```
>TABLE EADNMPK
```

```
>CHANGE 3 6
```

```
>CHANGE 4 4
```

```
>CHANGE 5 8
```

```
>CHANGE 6 4
```

```
>QUIT
```

EADNMPK (end)

The default value of 0 (zero) applies to the remaining packets. Those supported by EADAS/NM interface cannot be transmitted to EADAS/NM until their value in field MAXLEN is changed to a nonzero value.

EADNMTG

Table name

EADAS/NM Interface Current Trunk Group Schedule Table

Overview of related tables

The following table lists the Engineering and Administrative Data Acquisition System (EADAS) network management (NM) interface support tables.

EADAS network management interface tables

Title of table	Table name
EADAS/NM Interface Current Trunk Group Schedule	EADNMTG
EADAS/NM Interface Packet Schedule	EADNMPK
EADAS/NM Interface Pending Trunk Group Schedule	EADNMTGP

These tables are provided in feature package NTX455AA (EADAS Network Management Interface, Phase 1). They are not vital to the function of the EADAS/NM interface.

In addition to NTX455AA, EADAS/NM interface requires the feature packages listed in the following table.

Feature packages required by EADAS/NM interface

Number	Table name
NTX056AA	Enhanced Administration
NTX218AA	1A/1B EADAS Interface
NTX273AA	Multiprotocol Controller 3X.25

Feature package NTX455AA implements phase 1 of the DMS-100 interface to the Engineering and Administrative Data Acquisition System (EADAS) network management (NM) computer. EADAS/NM is an operation support system (OSS) that provides an operating company with traffic measurement

EADNMTG (continued)

and management information for the company's telephone switch or network of switches.

Operational measurements (OM) data collected every five minutes assist the EADAS/NM system with the following tasks:

- keeping the telephone switch or network of switches operating near maximum efficiency
- maintaining switch or network performance during overloads or facility failures

For more information on OMs, refer to the *Operational Measurements Reference Manual*.

Table support

The EADAS/NM interface is supported by tables EADNMPK, EADNMTG, and EADNMTGP. Tables EADNMPK and EADNMTGP can be either queried or changed. Table EADNMTG contains current data and can only be queried.

Tables EADNMPK, EADNMTG, and EADNMTGP are engineering-protected and are datafilled by default at loadbuild.

Requests to query or change tables EADNMPK or EADNMTGP are made by EADAS/NM through the EADAS data link. DMS operating personnel do not need to modify these tables. In exceptional cases, operating personnel or NT field support need to query or change these tables if it is not possible to do so through the EADAS data link.

Functional description

Table EADNMTG is a list that determines which trunk groups in the DMS report their OM data to EADAS/NM in packet 17 of the 5-min data.

It contains current data and cannot be changed; it can only be viewed. Trunk group names can be added or deleted in table EADNMTGP whose contents are copied into table EADNMTG each time the pending schedule is updated.

As no engineering is required for this table, no data schema form is associated with this section.

For related information, refer to table EADNMPK and table EADNMTGP.

EADNMTG (end)

Datafill sequence and implications

The following tables must be datafilled before table EADNMTG:

- CLLI
- TRKGRP

Table size

The maximum number of entries for table EADNMTG is 250 (250 trunk or group names. One tuple is required for each trunk group name.

Datafill

The following table lists datafill for table EADNMTG.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Table EADNMTG is a read-only list of trunk groups being reported to table EADNMTG by their common language location identifier (CLLI) codes. See table EADNMTGP for information on updating the trunk group schedule.

Datafill example

Refer to the example for table EADNMTGP.

Datafill of table EADNMTG is not required. Values from identical but dynamic table EADNMTGP are transferred to table EADNMTG at each update.

See the *Basic Translations Tools Guide*, 297-1001-360, for information on locating and viewing tuple entries for table EADNMTG or any other table.

EADNMTGP

Table name

EADAS/NM Interface Pending Trunk Group Schedule Table

Functional description

Table EADNMTGP contains a schedule of trunk groups that report operational measurement (OM) data to EADAS/NM. This schedule, unlike table EADNMTG, can be modified without interfering with EADAS/NM reporting in process.

If a trunk group name is added or deleted in table EADNMTGP, a signal is sent to alert EADAS/NM. EADAS/NM responds with a trunk group reference data audit. When DMS table control receives this audit, the contents of table EADNMTGP are copied into table EADNMTG, replacing the old list.

Table EADNMTGP can be either queried or changed. The table is engineering-protected and is datafilled by default at loadbuild.

Requests to query or change tables EADNMTGP are made by EADAS/NM through the EADAS data link. DMS operating personnel do not need to modify the table. In exceptional cases, operating personnel or NT field support need to query or change the table if it is not possible to do so through the EADAS data link.

For more information on the Engineering and Administrative Data Acquisition System (EADAS) network management (NM) interface support tables, refer to table EADNMTG.

Datafill sequence and implications

Table EADNMTGP is engineering-protected and is datafilled by default at loadbuild.

Table size

0 to 250 tuples

Table EADNMTGP stores a maximum of 250 trunk group names. These names can be added, deleted, or changed. New names are added at the end of the table. A maximum of 250 trunk group names can be in table EADNMTG and table EADNMTGP at any one time.

Note: All trunk groups in the office must have exactly one subgroup.

EADNMTGP (end)**Datafill**

The following table lists datafill for table EADNMTGP.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the 16-character CLLI name for the trunk group added to, deleted from, or changed in the trunk group schedule. The CLLI must be a valid trunk group name.

Datafill example

An example of datafill for table EADNMTGP is shown below.

This example shows four trunk groups. After these trunk groups have been added to table EADNMTGP, the OM data for these trunk groups is reported to the EADAS/NM facility when the next 5-min audit is performed. If the trunk group names identified are not duplicates of those already in current schedule in table EADNMTG, the trunk groups are added at the end of table EADNMTGP and subsequently copied into table EADNMTG.

MAP display example for table EADNMTGP

CLLI

DRHMNC01IT00
RALHNC12ITI2
RALHNC10IT22
CHHLNC02IT00

EASAC

Table name

Equal Access Service Access Codes Table

Functional description

Table EASAC allows the operating company to specify the NXX code that is to be treated as a service access code (SAC) in field SAC. Every code that is designated as a SAC must be entered. Codes can be added to or deleted from table EASAC, but no tuples can be changed in table EASAC.

Datafill sequence and implications

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

Table size

0 to 1000 tuples

Datafill

The following table lists datafill for table EASAC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
SAC		see subfield	<i>Service access code</i> This field consists of subfield CODE.
	CODE	numeric (3 digits)	<i>Service access code</i> Enter the NXX code, where N has the range 2 through 9, and X has the range 0 through 9.

Datafill example

The following example shows sample datafill for table EASAC.

MAP display example for table EASAC

SAC
212
800
888

Table history**NA005**

Verification rules changed to allow SACs with NXX values.

BCS36

Added table size and note explaining codes N0X and N1X.

ECHCONF

Table name

Echo Canceler (EC) Module Configuration Table

Functional description

Table ECHCONF contains information about the setup of EC modules and their maintenance configurations. The table contains the following information:

- EC module configuration key
- EC module manufacturer
- type of EC
- presence of high level compensation unit
- end path delay
- nonlinear processor operational mode
- manual operation

A maximum of thirty-two different EC module configurations can be datafilled in table ECHCONF. Various types of EC modules and optional cards can be used within the DMS switch. When fields EPD and HLC are datafilled in table ECHCONF, the information is verified against the type of EC module and optional card datafilled. The end path delay entered must not exceed the maximum allowed by the EC module.

Datafill sequence and implications

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

Table ECHCONF is used by table ECHINV.

Table size

The maximum size of table ECHCONF 32 tuples.

ECHCONF (continued)**Datafill**

The following table lists datafill for table ECHCONF.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ECHCONF		string of 1 to 8 alphanumeric characters	EC MODULE CONFIGURATION KEY. ECHCONF provides the key for the different EC module configuration. A maximum of 32 different EC module configurations can be datafilled.
CONTROL		RS232, TS16	CONTROL.
	ECMANUF	TELLAB or COHERENT	EC MODULE MANUFACTURER. Enter the name of the EC module manufacturer.
	MANOP	ON or OFF	MANUAL OPERATION. In the event of an error when the PDTC is unable to communicate with the EC modules, the user has the option to setup the configuration of the EC module manually through its front panel. If the setup option is not allowed, then the external switches on the EC module are forced inactive. Enter ON to allow manual operation of the EC module. Enter OFF to disallow manual operation of the EC module.

ECHCONF (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	NLP	OFF, DDS, DDH, CCS, CCH	NON-LINEAR PROCESSOR OPERATIONAL MODE. The non-linear processor (NLP) attenuates low-level echoes that remain after an imperfect cancellation has been performed. Enter one of the following: OFF, DDS, DDH, CCS, CCH. Enter OFF to disable the NLP. Enter DDS to enable the NLP during double-talk-soft-mode operation. Enter DDH to enable the NLP during double-talk-hard-mode operation. Enter CCS to enable the NLP during CCITT-recommendation-soft-mode operation. Enter CCH to enable the NLP during CCITT-recommendation-hard-mode operation. MINIMUM FAULTY CHANNEL NUMBER. Enter the minimum faulty channel number of the echo canceler module. The default value for this field is 8.
	ECHMAJ		MAJOR FAULTY CHANNEL NUMBER. Enter the major faulty channel number of the echo canceler module. The default value for this field is 16.

ECHCONF (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	ECHCRIT	3 to 31	CRITICAL FAULTY CHANNEL NUMBER. Enter the critical faulty channel number of the echo canceler module. The default value for this field is 24.
	MODEL	T2541, T2541A, T2542, T2542A, T2551E, T2561, T2561A C6000	EC MODEL. Enter the name of the EC module model. If ECMANUF=TELLAB, enter one of the following EC models: T2541, T2541A, T2542, T2542A, T2551E, T2561, or T2561A. Refer to sections MODEL=T2541, T2541A, T2542, T2542A MODEL=T2551E or MODEL=T2561, T2561A for refinement datafill. If ECMANUF=COHERENT, enter C6000. Refer to the MODEL=C6000 section for refinement datafill.

MODEL=T2541, T2541A, T2542, T2542A

The following table describes valid refinement datafill when MODEL= T2541, T2541A, T2542, or T2542A.

MODEL=T2541, T2541A, T2542, T2542A refinement descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD		NONE, HIGH_LEVEL_ COMPENSATION _UNIT	EC MODULE OPTIONAL CARD. Enter NONE if no optional card is present. Enter HIGH_LEVEL_COMPENSATION_UNIT to specify that an optional, high-level compensation unit card is present, then enter data for the HCL refinement.
	HCL	ON, OFF	HCL. Enter ON if high-level compensation is required. Enter OFF if high-level compensation is not required.
EPD254		8MS, 16MS, 32MS, 48MS,64MS, 96MS, 128MS	END PATH DELAY. Enter the maximum end path delay time. The selected end path delay must not exceed the maximum allowed by the EC module.

ECHCONF (continued)

MODEL=T2551E

The following table describes valid refinement datafill when
MODEL=T2551E.

MODEL=T2551E refinement descriptions

Field	Subfield or refinement	Entry	Explanation and action
EPD255		8MS, 16MS, 32MS, 48MS,64MS, 96MS, 128MS	END PATH DELAY. Enter the maximum end path delay time. The selected end path delay must not exceed the maximum allowed by the EC module.

MODEL=T2561, T2561A

The following table describes valid refinement datafill when MODEL=T2561,
T2561A.

MODEL=T2561, T2561A refinement descriptions

Field	Subfield or refinement	Entry	Explanation and action
EPD256		8MS, 16MS, 32MS, 48MS,64MS, 96MS, 128MS	END PATH DELAY. Enter the maximum end path delay time. The selected end path delay must not exceed the maximum allowed by the EC module.

MODEL=C6000

The following table describes valid refinement datafill when MODEL=C6000.

MODEL=C6000 refinement descriptions

Field	Subfield or refinement	Entry	Explanation and action
EPD6000		8MS, 16MS, 32MS, 48MS,64MS, 96MS, 128MS	END PATH DELAY. Enter the maximum end path delay time. The selected end path delay must not exceed the maximum allowed by the EC module.

Datafill example

The following example shows sample datafill for table ECHCONF.

ECHCONF (end)

MAP display example for table ECHCONF

ECHCONF	ECDATA
ECH1	RS232 TELLAB ON DDS 8 16 24 T2541 HIGH_LEVEL_COMPENSATION ON 32MS
ECH2	RS232 TELLAB ON CCS 1 2 3 T2551E 32MS
ECH3	RS232 COHERENT OFF CCH 8 16 24 C6000 64MS

Table history
UCS08

This table was introduced to support Gateway functionality.

ECHINV

Table name

Echo Canceler (EC) Module Inventory table

Functional description

ECHINV contains an inventory of all the echo canceler (EC) modules present on the DMS switch. Each EC module is assigned an EC module configuration in the field ECHCONF. This field is used to index table ECHCONF, which contains the setup conditions and maintenance configuration of the EC modules.

Datafill sequence and implications

Tables LTCINV and ECHCONF must be datafilled before table ECHINV.

Entering datafill of table ECHINV for an EC module on a PDTC's carrier is denied if:

- the PDTC has no ECC card data filled in LTCINV
- the EC module configuration key cannot be found in table ECHCONF

Table size

The maximum size of table ECHINV is 32,768 tuples.

Datafill

The following table lists datafill for table ECHINV.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
ECNUM		0 to 32767	EC MODULE NUMBER. This key field specifies a unique number assigned to each EC module on the DMS switch.
ECLOC			EC LOCATION. This field is a three part multiple, containing XPMTYPE, XPMNO, and PSLINK.
	XPMTYPE	PDTC	PERIPHERAL TYPE. This feature only supports PDTC peripheral modules.
	XPMNO	0 to 255	PERIPHERAL NUMBER. Enter the number of the PDTC that controls the EC module specified by ECNUM.

ECHINV (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	PSLINK	0 to19	PORT NUMBER. Enter the PDTC port or carrier number that is connected to the EC module specified by ECNUM.
MODADR		1 to 32	MODULE ADDRESS. Enter the address within the Tellab EC module rack for the EC module specified by ECNUM.
FRTYP		valid frame name	FRAME TYPE. Enter the name of the frame where the EC module is located.
FRNO		0 to 511	FRAME NUMBER. Enter the frame number where the EC module is located.
SHFPOS		0 to 77	SHELF POSITION. Enter the shelf position where the EC module is located.
FLOOR		0 TO 99	FLOOR. Enter the floor number where the EC module is located.
ROW		A to Z,AA to ZZ	ROW. Enter the row of the frame where the EC module is located.
FRPOS		0 TO 99	FRAME POSITION. Enter the frame position where the EC module is located.
ECHCONF		string of 1 to 8 alphanumeric characters	EC MODULE CONFIGURATION KEY. Enter the EC key configuration. This key configuration is used to index table ECHCONF.

Datafill example

The following example shows sample datafill for table ECHINV.

ECHINV (end)

MAP display example for table ECHINV

ECNUM	ECLOC	MODADR	FRTYP	FRNO	SHFPOS	FLOOR	ROW
FRPOS	ECHCONF						
102	PDTC 4 8	2	IDTE	1	5	1	A
0	ECH1						

Table history
UCS08

This table was introduced to support Gateway functionality.

ECHOSUP

Table name

Digital Echo Suppressor Member List Table

Functional description

The maximum number of circuits is 5120 or 10 420 ports. The system assigns each 1024 circuits or 2048 ports a different fixed pseudo code in table common language location identifier (CLLI). The five fixed pseudo codes are ESUP1, ESUP2, ESUP3, ESUP4, and ESUP5.

If two or more pseudo codes are available, the system must assign echo suppressors equally to all the pseudo codes. For example, if 2000 circuits and 2 pseudo codes are present, the system assigns 1000 circuits to each pseudo code.

The system assigns member numbers in the range 0 to 2047, to the 1024 circuits assigned to a fixed pseudo code. Gaps can appear in the number sequence.

Table ECHOSUP lists the following information for each echo suppressor:

- the fixed pseudo code ESUP1, ESUP2, ESUP3, ESUP4, or ESUP5, to which the system assigns the echo suppressor
- echo suppressor number
- incoming and outgoing external trunk number
- echo suppression type
- location

Complete echo suppression does not occur on the NT3X65, echo suppression card.

Datfill sequence and meaning

You do not need to enter data in other tables before you enter data in table ECHOSUP.

Table size

The system allocates memory for table ECHOSUP in table CLLI, field TRKGRSIZ, for CLLI codes ESUP1 to ESUP5.

ECHOSUP (continued)**Datafill**

Datafill for table ECHOSUP appears in the following table:

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DESGRP		ESUP1 ESUP2 ESUP3 ESUP4 or ESUP5	Indicates <i>Digital echo suppressor group</i> . Enter the code that the group of echo suppressors receives in table CLLI.
DESMEM		0 to 2047	Indicates <i>Digital echo suppressor number</i> . Enter the number assigned to the echo suppressor.
INPORT		0 to 9998 even numbers only	Indicates <i>Incoming external trunk number</i> . Enter the incoming external trunk number that the operating company assigns to the digital echo suppressor.
OUTPORT		1 to 9999 odd numbers only	Indicates <i>Outgoing external trunk number</i> . Enter the outgoing external trunk number that the operating company assigns to the digital echo suppressor. The value must be equal to the value in field INPORT + 1.
ESUPTYP		H or N	Indicates <i>Echo suppressor type</i> . Enter H (half). H is the correct entry. Note: Complete echo suppression, entry F, does not occur on the NT3X65 card. You can enter N for No echo suppression. The digital multiplex system (DMS) call processing software ignores this command. When you enter N the system enables only half or entry H, echo suppression by default.

ECHOSUP (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
MODULENO		0 to 511	Indicates <i>Module number</i> . Enter the number that the system assigns to the digital carrier module (DCM) on which the digital echo suppressor mounts.
CKTNO		0 to 63 does not include 15, 31, 47, and 63	Indicates <i>Circuit number</i> . Enter the circuit number that the system assigned to which the echo suppressor.

Datafill example

Sample datafill for table ECHOSUP appears in the following example.

MAP display example for table ECHOSUP

DESGRP	DESMEM	INPORT	OUTPORT	ESUPTYP	MODULENO	CKTNO
ESUP1	0	5	6	N	500	60

EDRAMINV

Table name

Enhanced Digital Recorded Announcement Machine Inventory

Functional description

Table Enhanced Digital Recorded Announcement Machine Inventory (EDRAMINV) includes voice file information for each enhanced digital recording announcement machine (EDRAM). Each 4-minute EDRAM can have a maximum of eight voice files. Each 16-minute EDRAM can have a maximum of 32 voice files. Each voice file represents a different set of announcements.

The EDRAM is on the maintenance trunk module (MTM) or integrated services module (ISM) shelf. The EDRAM has a direct connection to the network through a DS30 link. The EDRAM appears on the MAP display as both a peripheral module (PM) and a trunk.

For BCS34 and earlier releases, when you enter data for an EDRAM add the control (CTRL) tuple first. You can add a maximum of eight announcement (ANN) tuples in any order for each EDRAM. When you delete tuples, first delete the ANN tuples. Delete the CTRL tuple last.

For BCS35 and later releases, table EDRAMINV only holds ANN file information for DRAM trunk modules (DTM). Table Digital Recorded Announcement Machines (DRAMS) stores the CTRL information.

Each ANN tuple in table EDRAMINV that has a related voice file is equal to the NT1X76 programmable read-only memory function (PROM) card function. For each tuple there must be related datafill in table DRAMS. For a single-density voice file, the value in field EDRAMNO - 1 corresponds to a single block number in the BLKLIST vector. For double-density voice files, the system requires two block numbers in the same BLKLIST vector. The first block number is the same number as EDRAMNO - 1. The second block number is the same number as EDRAMNO. For both single- and double-density prerecorded voice files, the corresponding entry in table DRAMS must be PROM CARDTYPE. A mismatch between table DRAMS and table EDRAMINV can result in a diagnostic test failure for the EDRAM at the trunk test position (TTP) MAP level.

See the description of table DRAMS for additional information.

EDRAMINV (continued)**Datafill sequence and meaning**

You must enter data for the related DTMs in table TMINV before you enter data in table EDRAMINV. Delete DTM data from table EDRAMINV before you delete the DTM data from table TMINV.

Enter the PMLOAD file name in table PMLOADS before you enter data in the EDRAM in table TMINV.

Check field TRKGRPSIZ for the EDRAM CLLI in table CLLI before you enter data in table EDRAMINV.

Enter data in table EDRAMINV before you enter data in table DRAMS.

If you change the EDRAM card type from PROM to RAM after you load the EDRAM with voice files, do the following:

- Remove from table EDRAMINV the datafill that assigns voice files to the related DTM.
- Reload the EDRAM firmware load for the related DTM.

Note: A reload of the EDRAM firmware for the related DTM removes the loaded voice files from the EDRAM. The reload replaces the loaded voice files with the voice files entered in table EDRAMINV.

Table size

The table size is 0 to 2048 tuples. This table size represents a maximum of 64 EDRAMs. Each EDRAM has a maximum of 32 ANN tuples.

Datafill

Datafill for table EDRAMINV appears in the following table.

Field descriptions (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
EDRAMNM		see subfields	Indicates <i>EDRAM number key</i> . This field contains subfields TMNAME and EDRAMNO.
	TMNAME	see subfields	Indicates <i>Trunk module name</i> . This field contains subfields DTMTYPE and DTMNO.
	DTMTYPE	DTM	Indicates <i>DRAM trunk module type</i> . Enter DTM.
	DTMNO	0 to 63	Indicates <i>DRAM trunk module number</i> . Enter the DTM number.

EDRAMINV (continued)**Field descriptions (Sheet 2 of 4)**

Field	Subfield	Entry	Explanation and action
	EDRAMNO	0 to 8, 1 to 8, or 1 to 32	Indicates <i>EDRAM number</i>. Enter the EDRAM number. For BCS34 and earlier releases, enter 0 for the CTRL tuple. For BCS35 and later releases, do not enter 0. For NT1X80AA, enter a value from 1 to 8 for ANN tuples. For NT1X80BA, enter a value from 1 to 32. Note: You cannot repeat EDRAM numbers for the same EDRAM. Two types of voice files are present: • single density — Single density voice files occupy one EDRAM number. Single-density voice files must correspond to a single block number in a BLKLIST vector in table DRAMS. • double density — Double density voice files occupy two EDRAM numbers. Double-density voice files must correspond to two block numbers in a single BLKLIST vector in table DRAMS. For prerecorded announcement files, enter the related tuples in table DRAMS as CARDTYPE PROM.

EDRAMINV (continued)**Field descriptions (Sheet 3 of 4)**

Field	Subfield	Entry	Explanation and action
TUPINFO			For custom recorded announcement files, enter related tuples in table DRAMS as CARDTYPE RAM For custom recorded announcements, use the UPLOAD command at the PM MAP level to create single density voice files. Enter the data for the uploaded voice file in table EDRAMINV after the file is ready to reload to the EDRAM.
			Note: Refer to the <i>Digital Recorded Announcement Machine DRAM and EDRAM Guide</i> , 297-1001-527 for additional information on voice files.
		see subfield	Indicates <i>Tuple information</i> . This field contains subfield EDRAMSEL.
	EDRAMSEL	ANN or CTRL	Indicates <i>EDRAM selector</i> For BCS35 and later releases, enter ANN. For BCS34 and earlier releases, enter ANN to indicate that the tuple is the ANN tuple. Enter data in subfield FILENAME. Enter CTRL to indicate that the tuple is the control tuple. Enter data in subfields TM, TMNO, and TMCKT.
	FILENAME	alphanumeric a maximum of eight characters	Indicates <i>File name</i> . If the entry in subfield EDRAMSEL is ANN, datafill this subfield. Enter the announcement voice file name. Datafill is complete for this table.
	TM (up to BCS35)	a maximum of eight characters	Indicates <i>Trunk module type</i> . If the entry in subfield EDRAMSEL is CTRL, datafill this subfield. Enter the trunk module (TM) type, for example, MTM or STM to indicate the location of the DTM.

EDRAMINV (continued)**Field descriptions (Sheet 4 of 4)**

Field	Subfield	Entry	Explanation and action
	TMNO (up to BCS35)	0 to 2047	Indicates <i>Trunk module number</i> . If the entry in subfield EDRAMSEL is CTRL, datafill this subfield. Enter the TM number of the TM type.
	TMCKT (up to BCS35)	0 to 29	Indicates <i>Trunk module circuit number</i> . If the entry in subfield EDRAMSEL is CTRL, datafill this subfield. Enter the circuit number of the TM that the DTM occupies.

Table history
APC06

Information on the 16 min EDRAM (NT1X80BA) was added.

Datafill example

An example of datafill in table EDRAMINV for BCS35 and later releases appears in the following example.

The first and third tuples contain data for EDRAM voice file ESTD0AA. The second tuple contains data for EDRAM voice file FSTD0AA. The next two tuples contain data for EDRAM voice files for CLASS/CMS Phase I announcements in English. The last two tuples contain data for EDRAM voice files for CLASS/CMS Phase 2 announcements in English. Refer to *DRAM and EDRAM Guide*, 297-1001-527 for additional information.

MAP example for table EDRAMINV

EDRAMNM			TUPINFO	
DTM	1	1	ANN	ESTD0AA
DTM	1	3	ANN	FSTD0AA
DTM	2	1	ANN	ESTD0AA
DTM	4	1	ANN	ECLS10AJ
DTM	4	5	ANN	ECLS10AK
DTM	5	1	ANN	ECLS20AP
DTM	5	3	ANN	ECLS20AQ

EDRAMINV (end)

The examples that follow contain normal datafill for 16-minute EDRAM in tables EDRAMINV and DRAMS. The examples show the correlation between datafill in the two tables.

Example of datafill for 16-min EDRAM in table EDRAMINV

EDRAMNM			TUPINFO	
DTM	5	1	ANN	ECLS20AJ
DTM	5	3	ANN	ECLS20AK
DTM	5	5	ANN	ECLS20AL
DTM	5	7	ANN	ECLS20AM
DTM	5	9	ANN	ECLS10AN
DTM	5	11	ANN	ECLS20A0
DTM	5	13	ANN	ECLS20AP

Example of datafill for 16-min EDRAM in table DRAMS

DRAMCARD	TMTYPE	TMNO	TMCKT	CARDCODE	CARDINFO		
5	0	DTM	5	0	1X80BA	CTLR	EDRAM5
5	1	DTM	5	0	1X80BA	PROM (0)	(1) \$
5	3	DTM	5	0	1X80BA	PROM (2)	(3) \$
5	5	DTM	5	0	1X80BA	PROM (4)	(5) \$
5	7	DTM	5	0	1X80BA	PROM (6)	(7) \$
5	9	DTM	5	0	1X80BA	PROM (8)	(9) \$
5	11	DTM	5	0	1X80BA	PROM (10)	(11) \$
5	13	DTM	5	0	1X80BA	PROM (12)	(13) \$

ENCDINV

Table name

Enhanced Network Card Inventory Table

Functional description

Table ENCDINV contains the data tuples for each card the system provisions on each enhanced network (ENET) in the office. The table provides the location, the equipment type, and design change document information.

Table ENCDINV is modified to accomodate datafill for an ENET paddleboard required for Spectrum Peripheral Module (SPM) nodes. The SPM paddleboard is the same type of paddleboard as the existing ENET paddleboards, but it has a different product engineering code (PEC).

When you add tuples in one plane, the system automatically generates a duplicate tuple for the opposite plane. For example, the addition of tuple 0 1 14 automatically generates one for 1 1 14. This process occurs for the deletion of tuples.

Datafill sequence and meaning

You must enter data in table ENINV before you enter data in table ENCDINV.

See table ENINV for datafill sequence.

Table size

0 to 592 tuples

A tuple requires 48 words of protected store. The allocation of the protected store occurs when an additional tuple is in the table.

The SPM paddleboard PEC is added to the end of the existing symbolic range and does not increase the bit size of the field. A special dump and restore reformat is not required.

ENCDINV (continued)**Datafill**

Datafill for table ENCDINV appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ENCDKEY		see subfields	<i>Enhanced network card key.</i> This field contains subfields PLANE, SHELF and SLOT. These fields are the keys to the table.
	PLANE	0 or 1	<i>Enhanced network plane.</i> Enter the enhanced network (ENET) plane number. An addition of a card tuple for plane 0 or 1 causes an automatic addition of a tuple. The system adds a tuple which is for the same card on the other plane.
	SHELF	0 to 3	<i>ENET shelf.</i> Enter the ENET shelf number. On the first ENET shelf (ENET 0), you must enter the crosspoints in pairs. Enter the crosspoints in the following increments: (9, 10), (31, 32), (29, 30), (11, 12), (27, 28), (13, 14), (25, 26), and (15, 16). For example, if data entries are for card 27, enter cards 9, 10, 31, 32, 29, 30, 11, and 12 first. For all other ENET shelf, enter slots 9, 11, 13, 15, 25, 27, 29, 31 first. After these data entries, enter slots 10, 12, 14, 16, 26, 28, 30, 32. Only FA crosspoints can be present on a PRI16K shelf. Only CA and BA crosspoints can be present on a PRI or EXT shelf. Shelf numbers greater than 0 cannot be present for ENCLASS equal to PRI16K.
	SLOT	1 to 36	<i>Slot.</i> Enter the slot number.

ENCDINV (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
CPTYPE		CROSSPOINT PROCESSOR CLOCK_ MESSAGE POS_PWR_ CONVERTER NEG_PWR_ CONVERTER or NIL_CP	<i>Circuit pack (card) type.</i> Enter the circuit pack (card) type. Note: You can add card type CROSSPOINT. The other card types are system card types. The system adds the card types to table ENINV when you add a tuple to table ENINV.
CPPEC		NT9X35BA NT9X35CA NT9X35FA NT9X13CA NT9X13KA NT9X36BA NT9X30AA NT9X31AA or NIL_PEC	<i>Circuit pack (card) product engineering code.</i> Enter the circuit pack (card) product engineering code (PEC). Note that only you can add NT9X35BA and NT9X35CA. The system adds other PECs to ENCDINV when you add a tuple to table ENINV. An entry outside the range for this field is not correct. A combination of the FA version crosspoint with BAs and CAs cannot occur for an ENCLASS.
CPDCD		0 to 99	<i>Circuit pack (card) design change document number.</i> Enter a number between 0 and 99 to represent the circuit card DCD number.
PBTYPE		DS_512 - INTERFACE DS_30_ INTERFACE DS_30_DS_5 12_ INTERFACE REMOTE_ TERMINAL MESSAGE_ LINK or NIL_PB	<i>Paddleboard type.</i> Enter the paddleboard (PB) type. Note: Only you can add DS_512 and DS_30 interfaces and NIL_PB. The other interfaces are system paddleboards. The system adds these interfaces to table ENCDINV.

ENCDINV (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
PBPEC		NT9X40BA NT9X40BB NT9X40DA NT9X41BA NT9X41BB NT9X45BA NT9X26AA NT9X26AB or NIL_PEC	<i>Paddleboard product engineering code.</i> Enter the paddleboard PEC. Only you can add the NT9X40, NT9X41, and NT9X45 PECs. The other PECs are system PBs. The system adds these PECs to ENCDINV when you add a tuple to ENIN receives an additional tuple. Enter NT9X40DA for SPM. An entry outside the range for this field is not correct.
PBDCD		0 to 99	<i>Paddleboard design change document.</i> Enter a number between 0 and 99 to represent the paddleboard design change document number.

Datafill example

Sample datafill for table ENCDINV appears in the following example.

ENCDINV (continued)**MAP display example for table ENCDINV**

ENCDKEY PBDCD	CPTYPE	CPPEC	CPDCD	PBTYPE	PBPEC
0 0 1	NEG_PWR_CONVERTER	NT9X31AA	0	NIL_PB	NIL_PEC
0					
0 0 4	POS_PWR_CONVERTER	NT9X30AA	0	NIL_PB	NIL_PEC
0					
1 0 7	PROCESSOR	NT9X13KA	0	REMOTE TERMINAL	NT9X26AA
0					
0 0 8	CLOCK_MESSAGE	NT9X36BA	0	MESSAGE LINK	NT9X40BA
0					
0 0 9	CROSSPOINT	NT9X35CA	0	NIL_PB	NIL_PEC
0					
0 0 10	CROSSPOINT	NT9X35CA	0	DS30_INTERFACE	NT9X41BA
0					
0 0 11	CROSSPOINT	NT9X35BA	0	DS30_DS_512_INTERFACE	NT9X45BA
0					
0 0 12	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 13	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 14	CROSSPOINT	NT9X35BA	0	DS_30_INTERFACE	NT9X41BA
0					
0 0 15	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 16	CROSSPOINT	NT9X35BA	0	DS_30_INTERFACE	NT9X41BA
0					
0 0 25	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 26	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 27	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 28	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 29	CROSSPOINT	NT9X35BA	0	DS_30_INTERFACE	NT9X41BA
0					
0 0 30	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 31	CROSSPOINT	NT9X35BA	0	DS_512_INTERFACE	NT9X40BA
0					
0 0 32	CROSSPOINT	NT9X35CA	0	DS_512_INTERFACE	NT9X40DA
0					

Table history
CSP08

The SPM system was introduced. Table ENCDINV was modified to add datafill for ENET paddleboard NT9X40DA for SPM systems.

Additional information

Quantity, order and location limits for the crosspoint cards apply. The crosspoint cards are in predefined logical groups called increments. Members of the particular increments of that card must have data entries before a crosspoint card can go in service. The ENET shelf number determines the limits and increment groups.

The system enters the associated system cards in table ENCDINV when you enter a tuple in table ENINV.

For ENET in a SuperNode switch, changes do not occur to the system card tuples that you add to table ENCDINV.

The system card tuple list is different on each plane for ENET in a SuperNode SE switch 16K ENET.

The 16K ENET card datafill increments and order appear in table 2.

SNSE card datafill

Increment	ENET16K slot numbers	
1st	12, 13	(22, 23)
2nd	14, 15	(24, 25)
3rd	16, 17	(26, 27)
4th	18, 19	(28, 29)
Note: Plane 1 increments are in brackets.		

ENIMLAST

Table name

Enhanced Network Inter Message-switch Link Assignment Table

Functional description

Table ENIMLAST handles NORESTART WARMSWACT when the BCSn+ side channels must be allocated identically to the BCSn side. Table ENIMLAST, a read only table, is for dump and restore use only. It cannot be accessed through table control and has hooks to prevent writing by casual users.

Datafill sequence and implications

Datafill tables in the following order:

- MSINV
- MSCDINV
- MSPTINV
- ENINV
- ENCDINV
- ENIMLAST

Table size

The size of the table is determined by the number of peripheral units assigned to the enhanced network (ENET) nodes. For each integrated link maintenance (ILM) maintained peripheral module that is added, store is allocated for all possible P-side messaging links (384) for the ENET. They are all internally marked as unassigned so that only provisioned links are seen by table control.

ENIMLAST (continued)**Field descriptions**

The following table describes field names, subfield names, and valid data ranges for table ENIMLAST.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
ENIMLKEY		See subfields	ENET MESSAGE LINK KEY. This field consists of subfields enpair, enxpt_link, and mchidx. This is the key field to table ENIMLAST.
	ENPAIR	0 to 3	ENET SHELF NUMBER. Enter the ENET shelf number.
	ENXPT_LINK	0-95	ENET CROSSPOINT LINK NUMBER
	MCHIDX	0-3	MESSAGE CHANNEL INDEX
PCHNLS		See subfields	P-SIDE CHANNELS. Field PCHNLS contains the group of P-side messaging channels and consists of subfields START, BANDWIDTH, and DISTANCE.
	START	1-511	STARTING CHANNEL. This field indicates the P-side starting messaging channel.
	BANDWIDTH	1-511	BANDWIDTH. This field indicates the total number of P-side messaging channels.
	DISTANCE	1-511	DISTANCE. This field indicates the distance between two consecutive channels within the channel group.
ENCMLS		See subfields	ENET C-SIDE MESSAGE LINKS. Field ENCMLS contains a group of assigned C-side message link (CML) numbers. The subfields are START, BANDWIDTH, and DISTANCE.
	START	2-1023	STARTING CML. This field indicates the starting CML number. Any entry outside the range indicated for this field is invalid.

ENIMLAST (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CCHNLS	BANDWIDTH	1-511	BANDWIDTH. This field indicates the total number of assigned CML numbers. Any entry outside the range indicated for this field is invalid.
	DISTANCE	1-511	DISTANCE. This field indicates the distance between 2 consecutive CML numbers in the CML number group. Any entry outside the range indicated for this field is invalid.
		See subfields	C-SIDE CHANNELS. Field CCHNLS contains the group of assigned C-side messaging channels and consists of subfields are START, BANDWIDTH, and DISTANCE.
	start	1-511	START. This field indicates the C-side starting messaging channel.
	bandwidth	1-511	START. This field indicates the total number of C-side messaging channels.
	distance	1-511	DISTANCE. This field indicates the distance between 2 consecutive channels within the channel group.

Datafill example

The following shows sample datafill for table ENIMLAST.

ENIMLKEY	PCHNLS	ENCMLS	CCHNLS
0 4 0	1 7 1	2 7 1	2 7 1

Table history**SPM01 (CSP09)**

Table ENIMLAST was created.

ENINV

Table name

Enhanced Network Node Inventory Table

Functional description

Table ENINV gives a location, equipment type information and C-side connection information for the equipped enhanced network (ENET). The ENET is different from the present networks. The ENET adds both planes in a single tuple. The first seven fields are common to both planes. The other fields indicate the different locations and the message switch (MS) card of the two planes.

Datafill sequence and meaning

Enter data in table ENINV after tables MSINV and MSCDINV and before you enter data in table ENCDINV.

You must use the following sequence when you enter an ENET pair and optional cards:

- Use table ENINV to enter data in the ENET pair. Enter pairs in numeric order from lower number pairs to higher number pairs. The entry of an ENET pair means the entry of the system cards and paddleboards associated with an ENET pair occurs.
- The system can add or delete ENET system card tuples from table ENCDINV. The addition or deletion of these tuples occurs when the user adds or deletes an EDET node tuple in table ENINV. The user can add or delete the optional cards from table ENCDINV.
- When an NT9X40 paddleboard is in slot 8 for the 128K ENET, the system considers the NT9X40 to be a paddleboard. The system considers the NT9X40 paddleboard as a paddleboard because the NT9X40 handles the ENET-to-MS messaging. When the NT9X40 is a paddleboard on crosspoint cards, the system considers the NT9X40 to be an optional card.
- The slots for crosspoint cards are in the range 9 to 32. Slots 17 to 24 are expansion slots. The 128K-sized ENET does not require these slots.
- Use table ENCDINV to enter the optional cards. There are quantity, order and location restrictions for the crosspoint cards. The crosspoint cards are in different set logical groups. The groups are increments. Before a crosspoint card can be in service, data entries for all members of the increments of that card must occur. The ENET pair number determines the restrictions and increment groups. The datafill order and increments for each ENET pair are in the following tables.

ENINV (continued)

ENET pair 0

Slots	Increment
9, 10, 31, 32	1
29, 30	2
11, 12	3
27, 28	4
13, 14	5
25, 26	6
15, 16	7

ENET pair 1

Slots	Increment
9, 11, 13, 15, 25, 27, 29, 31	1
10, 12, 14, 16, 26, 28, 30, 32	2

For example, when you enter crosspoint cards on ENET pair 0, enter card at slot 9 first. The slots appear in the preceding tables in correct entry order. Before the crosspoint at slot 9, pair 0 can go in service, you must enter the crosspoints. Enter the crosspoints at slots 10, 31 and 32. You must perform this action because the slots belong to the same increment.

Interaction with office parameters

The ENET software must be active to allow the user to add data entries to table ENINV. Set parameter ENET_AVAILABLE parameter in table OFCOPT to Y (yes) to activate Enet software.

Table size

The table size is 0 to 8 tuples

Each tuple requires 32 words of protected store. The system allocates the protected store when a tuple appears in the table for the first time.

ENINV (continued)**Datafill**

Datafill for table ENINV appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ENKEY		see subfield	<i>Enhanced network shelf number.</i> This field contains subfield SHELF.
	SHELF	0 to 3	<i>Shelf.</i> Enter the ENET shelf number. This number is the key for table ENINV. An entry outside of this range is not correct.
ENCLASS		PRI, PRI16K or PRI64K	<i>Enhanced network class.</i> Enter PRI for a 128K ENET shelf, PRI16K for a 16K ENET shelf or PRI64K for a 64K ENET shelf.
FRTYPE		ENC, DPCC, NWDC, NWSC or SCC	<i>Frame type.</i> Enter the frame type that contains the ENET. The correct entries are ENC, DPCC, NWDC, NWSC and SCC.
FRNO		0 to 511	<i>Frame number.</i> Enter the frame number.
FRPEC		NT9X05AB, NT9X0101 NT9X01MB or NT9X05AA	<i>Frame product engineering code.</i> Enter the frame product engineering code (PEC). The correct entries are NT9X05AA, NT9X05BA, NT9X0101 and NT9X01MB.
SHPEC		NT9X0801 NT9X0810	<i>Shelf product engineering code.</i> Enter the PEC for the shelf. The correct entries are NT9X0801 and NT9X0810.
MSCARD0		1 to 26	<i>Message switch card number.</i> Enter the message switch card number for plane 0.
MSLINK0		0 to 3	<i>Message switch interface paddleboard link number 0.</i> Enter a number between 0 and 3 to indicate the interface paddleboard on MSCARD0 that serves network plane 0. The MS interface paddleboard that serves ENET16K supports from 0 to 3 physical fiber links. The MS interface paddleboard that serves ENET supports 1 link. The default value is 0.

ENINV (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
MSPORT0		0 to 127	<i>Message switch port number.</i> Enter a number between 0 and 127 to indicate the port on MSLINK0 dedicated to network plane 0. In ENET, the same MS port number serves both network planes. In ENET16K each plane has a different MS port number. The default value is MSPORT.
FLOOR0		0 to 99	<i>Frame floor.</i> Enter the floor location of the frame.
ROW0		A to Z, AA to ZZ (does not include I, O, II and OO)	<i>Frame row.</i> Enter the row on the floor where the frame is present. The correct entries are A-Z and AA-ZZ. The correct entries do not include I, O, II and OO.
FRPOS0		0 to 99	<i>Frame position.</i> Enter the frame position for plane 0.
SHELF0		0, 00, 13, 26 or 39	<i>Shelf position.</i> Enter the shelf position for plane 0. The correct entries are 0, 00, 13, 26 or 39.
LOAD0		alphanumeric (one to eight characters)	<i>Load file name.</i> Enter the loadfile name for plane 0. This name must appear in table PMLOADS and must be 1 to 8 characters long.
MSCARD1		1 to 26	<i>Message switch card number.</i> Enter the MS card number for plane 1.
MSLINK1		0 to 3	<i>Message switch interface paddleboard link number 1.</i> Enter a number between 0 and 3 to indicate the interface paddleboard on MSCARD1 that serves network plane 1. The MS interface paddleboard that serves ENET16K supports from 0 to 3 physical fiber links. The MS interface paddleboard that serves ENET supports 1 link. The default value is 0.

ENINV (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
MSPORT1		0 to 127	<i>Message switch port number.</i> Enter a number between 0 and 127 to indicate the port on MSLINK1 dedicated to network plane 1. In ENET the same MS port number serves both network planes. In ENET16K each plane has a different MS port number. The default value is MSPORT.
FLOOR1		0 to 99	<i>Frame floor.</i> Enter the floor number of the frame.
ROW1		A to Z, AA to ZZ (does not include I, O, II and OO)	<i>Frame row.</i> Enter the location of the row on the floor of the frame. The correct entries are A-Z and AA-ZZ. The correct entries do not include I, O, II and OO.
FRPOS1		0 to 99	<i>Frame position.</i> Enter the frame position for plane 1.
SHELF1		0, 00, 13, 26, or 39	<i>Shelf position.</i> Enter the shelf position for plane 1. The correct entries are 0, 00, 13, 26 or 39.
LOAD1		alphanumeric (one to eight characters)	<i>Load name.</i> Enter the loadfile name for plane 1. This name must appear in table PMLOADS and must be 1 to 8 characters.

Datafill example

Sample datafill for table ENINV appears in the following example.

ENINV (end)

MAP example for table ENINV

ENKEY	ENCLASS	FRTYPE	FRNO	FRPEC	SHPEC	MSCARD0
MSLINK0						
MSPORT0	FLOOR0	ROW0	FRPOS0	SHELF0		
LOAD0	MSCARD1	MSLINK1	MSPORT1	FLOOR1	ROW1	FRPOS1
SHELF1						
LOAD1						
0	PRI	ENC	0	NT9X05AB	NT9X0801	6
0	1	F	4	39		0
ENX37A0	10	0	0	1	F	6
ENX37A0						39

ENSITES

Table name

External Node Sites Table

Functional description

Table ENSITES contains a complete list of all sites referenced in table EXNDINV.

Datafill sequence and meaning

You must enter data in table ENSITES before you enter data in table EXNDINV.

Table size

0 to 64 tuples

The system statically allocates store for table ENSITES.

Datafill

Datafill for table ENSITES appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
ENSITE		alphanumeric (1 to 12 characters)	<i>External node site.</i> Enter the name of the node site.

Datafill example

Sample datafill for table ENSITES appears in the following example.

MAP display example for table ENSITES

ENSITE

MER_5

ENSITES (end)

Table history

BCS36

Table ENSITE was renamed to table ENSITES in BCS36. The size of the table was increased to a maximum of 96 tuples in BCS36.

ENTYPES

Table name

External Node Types Table

Functional description

Table ENTYPES contains a complete list of all external node types that table EXNDINV refers.

Datafill sequence and meaning

You do not have to enter data in other tables before you enter data in table ENTYPES.

You must enter data in table EXNDINV after you enter data in table ENTYPES.

Table size

0 to 64 tuples

The system statically allocates store for table ENTYPES.

Datafill

Datafill for table ENTYPES appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
ENTYPE		alphanumeric (1 to 12 characters)	<i>External node type.</i> Enter the type of external node. For example, SUN or HP.

Datafill example

Sample datafill for table ENTYPES appears in the following example

MAP display example for table ENTYPES

ENTYPE

SUN_3_60

ENTYPES (end)

Table history

BCS36

The table size maximum was increased to 96 tuples in BCS36.

EXDGTRTE

Table name

Extended Digit Routing (EXDGTRTE)

Functional description

Table EXDGTRTE provides the route list for extended digit screening. This table is referenced when there is a match in the datafill in table EXDGTSCR. Table EXDGTSCR screens the dialed digits to determine the index into table EXDGTRTE. Table EXDGTRTE provides a route list at that index for call routing.

The translation process derives an index into table EXDGTRTE from the information in table EXDGTSCR and uses the corresponding route list for call termination. If the termination is not successful over the first route list entry, the call processing route advances to the next route list entry. If none of the routes are successful, the call receives generalized no circuit treatment.

Memory requirements

When this table is created, four words of store are allocated for each of the 1024 indexes. Thus, initialization of this table requires 4096 words. Extra data is allocated for each route list element entered in the route list of any index, up to a maximum of nine route list elements per index. The route list elements require 4, 8, or 12 words of data store, depending on the route selector used. The following list shows the selectors and their store requirements:

(Sheet 1 of 2)

Selectors	Store requirements
S, SQ, FEAT, T, TC, DN, QH, ST, RX, NOT, NODE, DCRT	These selectors require 4 words of memory each.
N, NQ, NPOS	These selectors require 4 words of data store if there are no digits to be prefixed. If prefix digits are stored, these selectors use 8 words of data store.
ISA	This selector requires 4 words of data store for all call types other than TX or TIE, that do not have a digit manipulation index (DMI) or transit network in setup (TNS). All others require 8 words of data store.

EXDGTRTE (continued)

(Sheet 2 of 2)

Selectors	Store requirements
CND	This selector requires 4 words of data store if the conditional route that is datafilled is not implemented. If the conditional route is implemented, this selector requires 8 words of data store.
MN or RT	These selectors require 4, 8, or 12 words of data store.
TPBX or MEM	These selectors require 8 words of data store.
TS	This selector requires 8 or 12 words of data store.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table EXDGTRTE.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
RTE		0 to 1023	ROUTE INDEX. Enter a route index. Translation table index this routing table through the RTE field.
RTELIST			ROUTE LIST. Datafill the RTESEL subfield and its refinements. Enter up to 9 RTELISTs.
	RTESEL		ROUTE SELECTOR. Enter one of the following and datafill the appropriate refinements: S, T, N, MN, ISA, TS, RT, TC, DN, SQ, NQ, QH, ST, CND, NOT, RX, SX, NIL, INS, NODE, DCRT, TPBX, NPOS, MEM, FEAT, NPOSDN, EXDS, TRMT, GW_S_ROUTE, GW_N_ROUTE, GW_MN_ROUTE, AFR_ROUTE, QSCP_ROUTE, QFLEXSTC_ROUTE

EXDGTRTE (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		S	Enter S for toll switching unit routing. The S selector is available for the following trunks: • outgoing ONAL • two-way ONAL • intermachine trunk (IMT) • intertoll • standard digit manipulation (digit deletion or prefixing) when the ABC digits dialed are represented in table HNPACODE by code types FNPA and FRTE: — Delete the ABC digits from the outputted digits when the dialed ABC digits equal the connecting NPA (CONNGNPA) specified in the trunk group data. The system deletes NPA and outputs seven digits when DNPA equals CONNPA (ONAL). — Prefix 1 and output 1 + 10 digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) specified in the trunk group data. The system prefixes 1 and outputs 1 + 10 digits when the DNPA does not equal CONNPA (ONAL). — Use standard 10-digit outputting when the call terminates on an IMT. Refer to the RTESEL=S section for refinement datafill.
		T	Enter T to index another routing table for the appropriate routing list. Refer to the RTESEL=T section for refinement datafill.

EXDGTRTE (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		N	Enter N when standard digit manipulation cannot be performed for the following trunks: • outgoing ONAL • two-way trunk group ONAL • IMT • intertoll Route selector N cancels standard digit manipulation automatically and requires that digit deleting and prefixing be specified. • Delete three digits and prefix 1 to outputpulse 1 + 7 digits when the dialed ABC digits are equal to the connecting NPA (CONNGNPA). Prefix 1 and outputpulse 1 + 7 digits when DNPA = CONNPA (ONAL). • Do not delete digits and prefix of N to outputpulse ten digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) and prefix is not required. Outputpulse ten digits when DNPA=CONNPA (ONAL) and prefix is not required. • Do not delete digits and prefix 1 to outputpulse 1 + 10 digits when CONNPA=DNPA for those areas of the country requiring 1 + 10 digit outputpulsing. Refer to the RTESEL=N or NPOS section for refinement datafill.
		ISA	Enter ISA for primary rate access interface routing. Refer to the RTESEL=ISA section for refinement datafill.
		SQ	Enter SQ for queuing with standard digit manipulation. Refer to the RTESEL=SQ section for refinement datafill.
		NQ	Enter NQ for queuing with nonstandard digit manipulation. Refer to the RTESEL=NQ section for refinement datafill.

EXDGTRTE (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		QH	Enter QH to specify the time, in seconds, that a call queues for trunk groups. QH is considered a queue point, and is placed after a trunk group or several trunk groups in the route list. Trunk groups with queuing capabilities are queued upon for the time period specified in field QTIME. Refer to the RTESEL=QH section for refinement datafill.
		ST	Enter ST for same table routing. If all routes in a specified route list are busy, the ST selector allows additional route choices by pointing to another route reference index number with associated route choices. This is a means of <i>chaining</i> route lists. Refer to the RTESEL=ST section for refinement datafill.
		CND or NOT	Enter CND for Time of Day routing, Satellite Screening routing, and Long Distance Sensitive routing. The CND selector can be replaced by the NOT selector if a route list should not be used during a specific time range or under specific conditions (Satellite Screening or Long Distance Sensitive routing). The Not Condition (NOT) selector uses the same data fields as the CND selector. Refer to the RTESEL=CND or NOT section for refinement datafill.
		RX	Enter RX if the Adaptive Routing Package NTX340AA, containing the Retranslation capability is purchased. The fields associated with selector RX contain information that point the system to the DIGMAN table. Table DIGMAN performs digit substitution and digit replacement for more efficient adaptive routing. Adaptive route is the method of delivering ONNET calls over OFFNET facilities when the ONNET facilities are busy or unavailable. Refer to the RTESEL=RX section for refinement datafill.

EXDGTRTE (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		SX	Enter SX to use the RTEATTR table index to allow attributes for the call to be applied based on the route destination chosen. See section RTESEL=SX section for refinement datafill.
		NIL	Enter NIL to remove a RTESEL.
		AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE	There is no refinement datafill for RTESEL=AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE
		TPBX	Enter TPBX for tandem public branch exchange routing. Refer to the RTESEL=TPBX section for refinement datafill.
		MEM	Enter MEM for member number routing. Refer to the RTESEL=MEM section for refinement datafill.
		FEAT	Enter FEAT to find a USS7 IMT identified as GVPN in the FEATYPE field. Call processing sends the correct facility code digits, STS, and 6- or 7-digit address code. Refer to the RTESEL=FEAT section for refinement datafill.
		EXDS	Enter EXDS for extended digit screening. Refer to the RTESEL=EXDS section for refinement datafill.
		TRMT	Enter TRMT to route to treatment. Refer to the RTESEL=TRMT section for refinement datafill.
		MN, TS, RT, TC, DN, NPOSDN, INS, NODE, DCRT, GW_S_ROUTE, GW_N_ROUTE, GW_MN_ROUTE, NPOS	The PRODUCT NAME switch does not support these selectors.

EXDGTRTE (continued)**RTESEL=S**

When RTESEL=S, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=T

When RTESEL=T, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
EXTRTEID			EXTERNAL ROUTE IDENTIFIER. Datafill the 2-part field consisting of TABID and KEY.
	TABID		TABLE IDENTIFIER. Enter one of the following tables: OFRT, OFR2, OFR3, OFR4, EXDGTRTE, RRTE, TOPSAMA, TOPS, or TTL4.
		OFRTOFR2OFR3OFR4EXDGTRTERTE	When EXTRTEID=OFR2, OFR3, OFR4, EXDGTRTE, or RRTE, datafill the KEY refinement.
	KEY	0 to 1023	KEY. Enter the number of the routing list in the datafilled table (field TABID).
		TOPSAMA or TOPS	When EXTRTEID=TOPSAMA or TOPS, datafill the KEY refinement.

EXDGTRTE (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE	KEY	Valid call origination	KEY. Enter the call origination from the datafilled table (field TABID).
		TTL4	When EXTRTEID=TTL4, datafill the KEY refinement.
	KEY	0 to 7	KEY. Enter the number of the routing list in the datafilled table (field TABID).
		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=N

When RTESEL=N, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.

EXDGTRTE (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.

RTESEL=ISA

When RTESEL=ISA, datafill the following refinements:

(Sheet 1 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.
CBQ		Y or N	CALL BACK QUEUE. Enter Y if call back queuing is allowed on this route; otherwise, enter N.
EXP		Y or N	EXPENSIVE. Enter Y if this route choice is considered expensive; otherwise, enter N.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
CALLTYPE			Enter one of the following and datafill the appropriate refinement: PUB, PVT, INWATS, WATS, FX, or TIE.

EXDGTRTE (continued)

(Sheet 2 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
		PUB	Enter PUB for public call type. When CALLTYPE=PUB, datafill the OATYPE, TNS, NPOS, and DMI refinements.
	OATYPE	NONE, OM, OP	OPERATOR ACCESS TYPE. Enter the type of operator access required on this call.
	TNS	0 to 999NC	TRANSIT NETWORK IN SETUP. Enter the transit network number to request in the SETUP message. If no TNS is required, enter N. If the TNS should be determined from the call's originator, enter C.
	NPOS	Y or N	NO CALLING NUMBER IDENTIFICATION REQUIRED. Enter Y to indicate that calling number identification is not required. Otherwise, enter N.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.
		PVTINWATS FXTIE	When CALLTYPE=PVT, INWATS, FX, or TIE, datafill the FACNUM, NPI, and DMI refinements.
	FACNUM	0 to 1023	FACILITY NUMBER. Enter the facility number to include in the network specific facility (NSF) selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.

EXDGTRTE (continued)

(Sheet 3 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.
		WATS	When CALLTYPE=WATS, datafill the ZONE, NPI, and DMI refinements.
	ZONE	0 to 9, A, B, C, AUTO	ZONE. Enter the OUTWATS zone number to include in the NSF selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.

RTESEL=SQ

When RTESEL=SQ, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.

EXDGTRTE (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=NQ

When RTESEL=NQ, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.

EXDGTRTE (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=QH

When RTESEL=QH, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
QTIME		0 to 255	QUEUE TIME. Enter the time in seconds that the call is in queue for the trunk group.

RTESEL=ST

When RTESEL=ST, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTREF		0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.

EXDGTRTE (continued)**RTESEL=CND or NOT**

When RTESEL=CND or NOT, datafill the following refinements:

(Sheet 1 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
CNDSEL			CONDITIONAL SELECTOR. Enter one of the following and datafill the appropriate refinement: ALWAYS, RND, SNPA, EA, TOD, CALLCHR, and STS.
		ALWAYS	Enter ALWAYS to specify that a specific route or route list always applies regardless of time-of-day. There is no refinement datafill for ALWAYS.
		RND	When CNDSEL=RND, datafill the PERCENT refinement.
	PERCENT	0 to 100	PERCENTAGE. Enter a percentage.
		SNPA	SERVING NUMBERING PLAN AREA. When CNDSEL=SNPA, datafill the SNPA_CND_RTE refinement.
	SNPA_CND_RTE	000-999	SNPA CONDITIONAL ROUTE. Enter an SNPA.
		EA	EQUAL ACCESS. When CNDSEL=EA, datafill the EA_CND_RTE refinement.
	EA_CND_RTE	INTNL, PIC, CAC	EQUAL ACCESS CONDITIONAL ROUTE. Enter INTNL, PIC, or CAC.
		TOD	TIME OF DAY. When CNDSEL=TOD, datafill the TODNAME and TIMES refinements.

EXDGTRTE (continued)

(Sheet 2 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
	TODNAME	NILTODNMT OD250	TIME OF DAY NAME.
	TIMES	0 to 9, A to F	TIMES. Enter the time range or group of ranges for which a predetermined route or route list is not applied.
		CALLCHR	When CNDSEL=CALLCHR, datafill the CALLCHR refinement.
	CALLCHR	DIGDATA or SAT	CALL CHARACTERISTICS. Enter DIGDATA (digit data) or SAT (satellite routing).
		STS	SERVING TRANSLATION SCHEME. When CNDSEL=STS, datafill the STS_CND_RTE refinement. The ability to conditionally route based on STS or OPART is performed only for treated calls.
	STS_CND_RTE	STS or OPART	STS CONDITIONAL ROUTING. Enter STS or OPART (originating partition). When STS_CND_RTE=STS, datafill the STS refinement. When STS_CND_RTE=OPART, datafill the OPART refinement.
	STS	000 to 999	SERVING TRANSLATION SCHEME. Enter a valid STS datafilled in table HNPACONT.
	OPART	000 to 999	ORIGINATING PARTITION.

EXDGTRTE (continued)

(Sheet 3 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
RTETYPE		ST	ROUTE TYPE. Enter one of the following and datafill the appropriate refinement: ST, T, or SK. Enter ST for same table routing. When RTETYPE=ST, datafill the RTEREF refinement.
	RTEREF	0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.
		T	Enter T for other table routing. When RTETYPE= T, datafill the TABNAME refinement.
	TABNAME		TABLE NAME. Enter one of the following and datafill the appropriate refinement: OFRT, OFR2, OFR3, OFR4, IRTE, RTE, OPERRTE, or EXDGTRTE.
		SK	Enter SK for skip route. When RTETYPE= SK, datafill the SKIPNUM refinement.
	SKIPNUM	0 to 7	SKIP NUMBER. Enter the number of elements to skip within the same route list, to which translation routes when the condition is met.

EXDGTRTE (continued)**RTESEL= SX**

When RTESEL= SX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
ATTR_INDEX		Valid range datafilled in table RTEATTR	ROUTE ATTRIBUTE. Enter an index into the RTEATTR table.

TABNAME= OFRT, OFR2, OFR3, OFR4, RTE, or EXDGTRTE

When TABNAME= OFRT, OFR2, OFR3, OFR4, RTE, or EXDGTRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
INDEX		0 to 1023	INDEX. Enter the number of the routing list in the datafilled table.

TABNAME= OPERRTE

When TABNAME= OPERRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
RRTNO		0 to 999	ROUTE NUMBER. Enter the carrier number of the routing list in the datafilled table.

EXDGTRTE (continued)**TABNAME=RRTE**

When TABNAME=RRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
XLASYS			Enter one of the following and datafill the appropriate refinement: NIL, AC, PX, CT, FA, OFC, AM, FT, NSC
		NIL	Enter NIL.
		AC, PX, CT, FA, OFC, AM, FT, NSC	When XLASYS=AC, PX, CT, FA, OFC, AM, FT, or NSC, datafill the XLANAME refinement.
	XLANAME	NIL	Enter NIL.
RTEREF		0 to 1023	ROUTE REFERENCE. Enter the number of the routing list in the datafilled table.

RTESEL=RX

When RTESEL=RX, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
STS		000 to 999	SERVING TRANSLATION SCHEME. Enter the STS that requires retranslation.
TYPECALL		DD, OA, NP, NL	CALL TYPE. Enter the type of call: DD (direct dial), OA (operator assisted), NP (nonpulsing), or NL (new line)
DMI		0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN used to build the OFFNET number.

EXDGTRTE (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
BILLDMI		0 to 32767	BILL DIGIT MANIPULATION INDEX. Enter 0. The PRODUCT NAME switch does not support this field.
OPTION		RC	This is an optional field. When OPTION=RC, datafill the RCNAME refinement.
	RCNAME	NILNAME	

RTESEL=TPBX

When RTESEL=TPBX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DMI		0 to 32767	DIGIT MANIPULATION. This field indexes table DIGMAN.
DISA		Y or N	This field marks the call as DISA or tandem PBX dialing.

EXDGTRTE (continued)

RTESEL=MEM

When RTESEL=MEM, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
MEMNUM		0 to 9999	MEMBER NUMBER. Enter the member number associated with the member number in table TRKMEM.
UPPERMEM		0 to 9999	UPPER MEMBER. enter the upper limit for the range.

RTESEL=FEAT

When RTESEL=FEAT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
FEATTYPE		IVPN, I800, IDDD, GVPN	FEATURE TYPE. This field indicates that the international feature is activated on a specific ISUP IMT. GVPN indicates that a global virtual private network (GVPN) call is being routed over the USS7 Gateway IMT trunk.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

EXDGTRTE (end)**RTESEL=EXDS**

When RTESEL=EXDS, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CUST_NAME		Up to 8 alphanumeric characters	CUSTOMER NAME. This field indicates call processing translations are to continue in table EXDGTSCR.

RTESEL=TRMT

When RTESEL=TRMT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTETRMT		Valid treatment datafilled in table TMTCNTL	ROUTE TREATMENT. Enter a valid treatment.

Datafill example

The following example shows datafill for table EXDGTRTE.

RTE	RTELIST
23	(S D UDAL2WDTLS91) \$
25 (CND STS STS 611 ST 220)	(CND STS OPART 111 ST 222) \$

Table history**UCS08**

The STS refinement was added for RTESEL=CND or NOT.

UCS06

Added SX route selector.

EXDGTSCR

Table name

Extended Digit Screening (EXDGTSCR) table

Functional description

Table EXDGTSCR is used to translate the XXXX digits to a route reference index into table EXDGTRTE. This table provides the ability to screen beyond six-digit screening and is referenced when there is datafill for the T route selector in the RTEREF table.

This table has a three-part key: the index from the T-selector, the XXXX FROMDIGS, and the XXXX TODIGS. This key is translated into a route reference index into table EXDGTRTE.

Table size

Table EXDGTSCR contains up to 65,536 tuples.

Memory requirements

The table size allocates dynamically by the number of tuples added. Initially 6,656 words of data store are allocated. This is enough for 512 tuples. Thereafter, 40 words of data store are allocated for every 8 tuples datafilled.

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table EXDGTSCR:

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
EXDSKEY		See refinements	EXTENDED DIGIT SCREENING KEY. This field consists of a 3-part key: CUSTREF, FROMDIGS, and TODIGS.
	CUSTREF	Up to 8 alphanumeric characters	CUSTOMER REFERENCE INDEX. Enter the customer reference index. This alphanumeric string identifies the customer.
	FROMDIGS	Up to 4 digits (0 to 9)	FROM DIGITS. Enter up to 4 digits to use as the start of digit screening.

EXDGTSCR (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
RTTABIDX	TODIGS	Up to 4 digits (0 to 9)	TO DIGITS. Enter up to 4 digits to use as the end of digit screening.
		0 to 1023	EXTENDED ROUTE REFERENCE INDEX. Enter the number that indexes into table EXDGTRTE.

Datafill example

The following example shows data fill for table EXDGTSCR:

EXDSKEY		RTTABIDX	
CUST1	7564	7577	23
CUST2	4210	4400	30

EXNDINV

Table name

External Node Inventory Table

Functional description

Table External Node Inventory Table (EXNDINV) provides the MAP operator with the ability to monitor and control nodes. These nodes connect to SuperNode switches that have Ethernet interface units (EIU), or connect to SuperNode or NT40 switches with an input/output controller (IOC) X.25 card.

Refer to each node as an external node (EXND). An EXND is a piece of hardware that has an address and responds to a standard communications protocol. For example, an Ethernet node has an internet protocol (IP) address and responds to internet control message protocol (ICMP). Other examples of EXNDs are UNIX workstations like SUN and HP, communication servers, and mainframes. Another example of a standard communications protocol that this system supports is X.25.

Table EXNDINV contains information on EXNDs. These nodes connect to the DMS SuperNode switch with an EIU. The nodes connect to the DMS SuperNode or NT40 switch with an IOC X.25 card. Each tuple in the table contains the node name, address, protocol, and other information on the EXND. The SuperNode Data Manager (SDM) simplex platform is one of the EXNDs that table EXNDINV describes. The fault-tolerant SDM is not an EXND. Table EXNDINV does not describe the SDM.

Datafill sequence and meaning

For EXNDs that communicate with ICMP, enter data in the following tables before you enter data in table EXNDINV:

- LIUINV. This table indicates EIU hardware.
- IPNETWRK. This table indicates SuperNode network addresses.
- IPROUTER. This table indicates EIUs as Ethernet routers.
- ENSITES. This table indicates EXND and service peripheral module (SPM) sites.
- ENTYPES. This table indicates EXND types.
- PMLOADS. This table indicates the load files for EXNDs and SPMs.

EXNDINV (continued)

For EXNDs that use the X.25 communication protocol to communicate, enter data in the following tables before you enter data in table EXNDINV:

- ENSITES
- ENTYPES
- PMLOADS

This condition does not apply to SDM nodes.

Note: In the assignment of IP addresses, the LAN side and the workstation must be on different subnets from the digital multiplex system (DMS) peripheral.

Table size

This table can include 0 to 33 tuples.

Datafill

Datafill for table EXNDINV appears in the following table:

Field descriptions (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
EXNDKEY		see subfields	<i>External node key.</i> This key field contains subfields ENPMTYPE and ENNODENO.
	ENPMTYPE	EXND or SDM	<i>External node peripheral module type.</i> Enter the peripheral module (PM) type as follows: • EXND • SDM, simplex platform only Note: These nodes are defined for all products. A product can define additional types of nodes that are correct only for that product.
	ENNODENO	0 to 31	<i>External node number.</i> Enter a number to identify the EXND number of the EXND PM type. If the entry in subfield ENPMTYPE is SDM, enter 0.

EXNDINV (continued)**Field descriptions (Sheet 2 of 6)**

Field	Subfield or refinement	Entry	Explanation and action
ENNAME		alphanumeric vector of a maximum of 12 characters	<i>External node name.</i> Enter an EXDN name. If the EXDN runs the UNIX operating system, a correct value for the field is the UNIX host name of the node. Use of this value is not a requirement.
ENADDR		vector of a maximum of two elements	<i>External node address.</i> This field is a vector of addresses for the EXND. Each element of the vector contains an address type and an address. The address is IPADDRESS or X25ADDRESS. The entry in field ADDRTYPE determines the address.
	ADDRTYPE	ENIP ENX25 or ENMAC	<i>Address type.</i> If one of the following conditions occurs, enter ENIP and enter refinement IPADDRESS: - the EXND can be an Ethernet node that has an IP address that responds to ICMP - the entry in subfield ENPMTYPE can be SDM If the EXND uses the X.25 communication protocol to communicate, enter ENX25 and refinement X25ADDRESS.
	IPADDRESS	0 to 255 table of 4	<i>Internet protocol address.</i> If the entry in field ADDRTYPE equals ENIP, enter the IP address of the node. An IP address contains 4 bytes. Each byte has a value in the range 0 to 255. The normal form for the IP address is 255.255.255.255.
	X25ADDRESS	0 to 9 to 15 digits 4	<i>X.25 protocol address.</i> If the entry in field ADDRTYPE equals ENX25, enter the X25 protocol address of the node. Any entry outside the range for this field is not correct.

EXNDINV (continued)**Field descriptions (Sheet 3 of 6)**

Field	Subfield or refinement	Entry	Explanation and action
	MACADDRESS	table of 12 hex digits	<i>Machine address.</i> If the entry in the field ADDRTYPE equals ENMAC, enter the MAC address that associates with the Ethernet interface. This subfield contains a machine address. This subfield indicates if the DMS switch provides, boot protocol (BOOTP) capability to the node. The MAC address contains 12 bytes. Each byte has a hex digit value in the range of {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, a, b, c, d, e, f}.
	DMSBOOTP	no (N), yes (Y)	<i>DMS boot protocol.</i> The DMSBOOTP supports only provides an IP address to the EXND. The DMSBOOTP does not provide complete BOOTP protocol support. This condition causes the EXND to boot from the DMS.
ENFNAME		alphanumeric vector of a maximum of eight characters	<i>External node load file name.</i> Enter the default load file name in use for the command LOADPM. Refer to table PMLOADS. Enter \$ for a nil file name. If ENPMTYPE is SDM, enter \$.
ENSITE		alphanumeric vector of a maximum of 12 characters	<i>External node site.</i> Enter the name of the site that includes the node. This site is normally a building. The entry of this value must first be in table ENSITES.
ENLOCN		see subfields	<i>External node location.</i> This field defines the location of the node in a building. This field contains subfields FLOOR, ROW, and POSITION.
	FLOOR	0 to 99	<i>Floor number.</i> Enter the location number of the floor that the node on.
	ROW	A to Z or AA to ZZ does not include I, O, II and OO	<i>Row.</i> Enter the location of the row on the floor that the node in.
	POSITION	0 to 99	<i>Bay position.</i> Enter the position of the bay in the row. The row is the location of the node.

EXNDINV (continued)**Field descriptions (Sheet 4 of 6)**

Field	Subfield or refinement	Entry	Explanation and action
ENTYPE		alphanumeric vector of a maximum of 12 characters	<i>External node type.</i> Enter the type of the node. Examples of node types are SUN or HP, or SDM for the SDM. Enter this value in table ENTYPES first.
ENINFO		alphanumeric table of a maximum of 20 characters	<i>External node information.</i> Enter a string that contains any additional information on the node. You can enter character strings that contain blank characters. For strings that contain blank characters you must enter: - three single quotation marks at the start of the string - three single quotation marks at the end of the string
ENPROCSR		ALL CORE EIU NONE	<i>External node processor class.</i> Enter the set of SuperNode processor types that the EXND can communicate with. Table control allows you to enter ALL or NONE. If you enter ALL, table control enters values CORE and EIU. If the ENPMTYPE is SDM, enter ALL.
ENPROTCL		ALL ICMP TCP UDP NONE	<i>External node protocol.</i> Enter the set of protocols that the EXND uses to communicate with the SuperNode. Table control allows you to enter ALL or NONE. If you enter ALL, table control enters values ICMP, UDP, and TCP. If the ENPMTYPE is SDM, enter ALL.
ENOLKALM		CR MJ MN NA	<i>External node no-link alarm.</i> Enter the type of alarm to raise if links are not available to the EXND: - critical alarm (CR) - major alarm (MJ) - minor alarm (MN) - no alarm (NA)

EXNDINV (continued)**Field descriptions (Sheet 5 of 6)**

Field	Subfield or refinement	Entry	Explanation and action
EN1LKALM		CR MJ MN NA	<i>External node one-link alarm.</i> Enter the type of alarm to raise if only one link is available to the external node. For the SDM, enter NA.
ENALMSPT		Y or N	<i>External node alarm scan points.</i> This field is a vector of a maximum of two multiples. Enter Y to assign scan points to the node for alarm purposes. Enter refinements: • SCTMTYPE • SCTMNO • SCTMCTNO • CRITSCPT • MAJSCPT • MINSCTP • SCCARDCD. For any other condition, enter N. Additional entries are not required.
	SCTMTYPE	MTM or OAU	<i>Scan circuit trunk module type.</i> Enter MTM if the scan circuit is on the maintenance trunk module (MTM). Enter OAU if the scan circuit resides on the office alarm unit (OAU).
	SCTMNO	0 to 2047	<i>Scan circuit trunk module number.</i> Enter the trunk module (TM) of the MTM that the scan circuit is on.
	SCTMCTNO	0 to 29	<i>Scan circuit trunk module circuit number.</i> Enter the circuit number on the MTM of the scan circuit.
	CRITSCPT	0 to 6	<i>Critical alarm scan point.</i> Enter the scan point associated with the critical alarm for the node.
	MAJSCPT	0 to 6	<i>Major alarm scan point.</i> Enter the scan point associated with the major alarm for the node.

EXNDINV (continued)**Field descriptions (Sheet 6 of 6)**

Field	Subfield or refinement	Entry	Explanation and action
	MINSCPT	0 to 6	<i>Minor alarm scan point.</i> Enter the scan point associated with the minor alarm for the node.
	SCCARD CD	0X10XX	<i>Scan circuit card code.</i> Enter the card code of the scan circuit, 0X10XX. The XX is the latest version of the 0X10 card.

Datafill example

Sample datafill for table EXNDINV appears in the following example.

EXNDKEY	ENNAME	ENLOCN	ENTYPE	ENADDR
ENFNAME	ENSITE	ENPROCSR	ENINFO	ENPROTCL
EN0LKALM	EN1LKALM		ENALMSPT	
SDM 0	COSDM		(ENIP 47 35 2 21) \$	
\$	MER 1 A 1		SDM 'FCC1'	
		ALL		TCP ICMP
UDP \$				
NA	NA		N	

Table history**Telecom09**

Information on the datafill for the SDM in fields EN0LKALM and EN1LKALM changed in Telecom09.

Telecom08

The explanation was added to enter CR in Telecom08. This explanation raises a PM SDM critical alarm. The alarm was raised when the SDM node state is system busy (SysB) for field EN0KALM is added in Telecom08.

Telecom07

Value OSNM was removed from subfield ENPMTYPE in Telecom07. The requirement that entries to table EXNDINV occur before table OANODINV was removed in Telecom07.

Telecom06

Added Information on how to enter data in table EXNDINV for the simplex platform SDM as added in Telecom06.

Telecom05

Field EXNDKEY was modified in Telecom05 to allow ENPMTYPE of SPX.

Note on the requirement to assign different subnets for the LAN and the workstation was added in Telecom05.

Value OSNM was added to subfield ENPMTYPE in Telecom05.

NA002

Information to fields EN0LKALM and EN1LKALM were added in NA002. The information specified the datafill required to generate PM SDM alarms for the SDM.

Telecom02

The following changes were made to table EXNDINV in Telecom02:

- changed entry value SOPC in subfield ENPMTYPE to SDM
- revised subfield ENNODENO to identify the node number associated with entry value SDM in subfield ENPMTYPE
- added phrase to field ADDRTYPE, to state that an entry of SDM in subfield ENPMTYPE requires an entry of ENIP
- changed datafill example to reflect new option SDM

BCS36

The following changes were made to table EXNDINV in BCS36:

- added table ENTYPES to datafill sequence
- changed maximum table size
- added SOPC to subfield ENPMTYPE
- clarified field ENALMSPT for two multiples
- corrected the entry range for field X25ADDRESS
- clarified correct entry range for field SCCARDCD

FACODE

Table name

Foreign Area Code Table

Functional description

Table FACODE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FACODE translates the foreign area code digit segment, together with tables FAHEAD and FACRTE.

For related information, refer to table ACCODE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and implications

Table FAHEAD must be datafilled before tables FACODE and FARTE.

Table size

Refer to table ACCODE.

Datafill

Refer to table ACCODE.

Datafill example

Refer to table ACCODE.

Table history

Refer to table ACCODE.

FAHEAD

Table name

Foreign Area Code Head Table

Functional description

Table FAHEAD is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FAHEAD translates the foreign area code digit segment, together with tables FACODE and FARTE.

For related information, refer to tables ACCODE and ACRTE. For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and implications

Refer to table ACHEAD.

Table size

Memory is automatically allocated to a maximum of 2047 tuples. The size is initially set to 64 and the table extends itself automatically.

Datafill

Field names, subfield names, and valid data ranges for table FAHEAD are described in table ACHEAD.

Datafill example

The following example shows sample datafill for table FAHEAD.

MAP display example for table FAHEAD

XLANAME		DFLT
		DFOP
CON	MAXIDX	
OFCBCNTL		
		SDFLT
		DFOP (MM 4 13) (CLASS CNTL) \$
NOCON	STD	

Refer to table ACHEAD.

FAHEAD (end)

Table history

Refer to table ACHEAD.

FAILMSG

Table name

Mapping Fail Messages Between Protocols Table

Functional description

Table FAILMSG defines the failure message mapping between various protocols. The valid keys within the table are predefined. New tuples cannot be added and existing tuples cannot be deleted. Tuples can only be updated.

For global trunks (GTRK), datafill table FAILMAP instead of table FAILMSG.

Software packaging determines which protocols can be datafilled in table FAILMSG.

Table FAILMSG applies only to calls that are interworked (the incoming trunk does not use the same signaling as the outgoing trunk).

The table key consists of:

- the protocol reporting the failure message
- the failure message and if applicable, a cause value
- the protocol the failure is mapped to

No tuples have identical values in the first and third parts of the key. Because table FAILMSG controls only interworkings between protocols, none of the tuples can have the map-from protocol equal to the map-to protocol.

The two fields following the key fields are LOG and RESULT.

Field LOG, when set to Y (yes), generates a C7UP118 log report each time call processing handles the interworked message datafilled in the key. If the key is BTUP CNA 18 TUPPLUS, the LOG field in that tuple generates a C7UP118 report only if a telephone user part plus (TUPPLUS) to interconnect user part (IUP) call receives the IUP message and the connection not admitted (CNA) reason parameter is 18.

The RESULT field can have two formats:

- TREAT—A treatment is flagged and the subsequent progress of the call depends on how the incoming trunk processes the treatment. If the incoming call uses a Common Channel Signaling 7 (CCS7) or PRI

FAILMSG (continued)

protocol, it accesses table TMTMAP first and then table TMTCNTL. Otherwise, only table TMTCNTL is accessed.

- **SEND**—If field RESULT gives a message to be sent, the format of the message must match the map-to protocol in the key. The message form of RESULT cannot be used if the map-to protocol is non-CCS7 (for example, call configurations such as R1-to-CCS7).

Map-to protocols include non-CCS7 protocols for TS14-PRI and ETSI-PRI calls.

Message to Treatment Mapping feature

In DMS-300 offices with the Message to Treatment Mapping feature, table FAILMSG provides a mapping of IUP failure messages to TUPPLUS failure messages or DMS treatment, a mapping of TUPPLUS failure messages to IUP failure messages, or to treatment.

Table FAILMSG applies only to calls on the DMS-300 switch for which the trunk group in table TRKGRP is outgoing Gateway (GW) and field SIGDATA in table TRKSGRP is equal to C7UP, and field PROTOCOL is equal to BTUP or TUPPLUS.

In offices with the Message to Treatment Mapping feature, the scope is limited to the following:

- BTUP (as incoming trunk) to TUPPLUS (as outgoing trunk)
- TUPPLUS (as incoming trunk) to BTUP (as outgoing trunk)

TUP(E) for DMS-300 ISSU feature

In DMS-300 offices with the telephone user part enhanced (TUPE) for DMS-300 Integrated Services Switching Unit (ISSU) feature, TUPE is a valid protocol in table FAILMSG. Because table FAILMSG applies only to interworked calls in offices with the Message to Treatment Mapping feature and the TUP(E) for DMS-300 ISSU feature, the table includes the following call types:

- BTUP (as incoming trunk) to TUPPLUS (as outgoing trunk)
- TUPPLUS (as incoming trunk) to BTUP (as outgoing trunk)
- TUPE (as incoming trunk) to TUPPLUS (as outgoing trunk)
- TUPPLUS (as incoming trunk) to TUPE (as outgoing trunk)

FAILMSG (continued)

- TUPE (as incoming trunk) to BTUP (as outgoing trunk)
- BTUP (as incoming trunk) to TUPE (as outgoing trunk)
 - If the RESULT field is datafilled for tuples mapping to the TUPE protocol, a treatment or a message to be sent can apply.
 - If a treatment is to be sent, the incoming TUPE trunk accesses table TMTMAP, then table TMTCTL to determine the progress of the call.
 - If a message is to be sent, this message is generated at the incoming TUPE trunk.

BTUP, ETSI PRI flexible release cause mapping

In DMS-100MMP offices (from MMP14) the existing BTUP to ETSI PRI and ETSI PRI to BTUP release cause mappings are enhanced. The DMS-100MMP previously provided a default release cause mapping for these interworkings. The mapping is now datafillable using table FAILMSG.

BTUP to DPNSS Basic Call Interworking feature

In DMS-100 offices with the BTUP to Digital Private Network Signaling System (DPNSS) Basic Call Interworking feature, table FAILMSG provides a datafillable mapping between DMS-100 trunks using CCS7 BTUP signaling and trunks using DPNSS signaling.

AISUP, ATUP, and Q764 call interworking

In DMS-100 switching offices, the following interworkings are also available:

- AISUP (as incoming trunk) to ATUP (as outgoing trunk)
- ATUP (as incoming trunk) to AISUP (as outgoing trunk)
- ATUP (as incoming trunk) to ANSI-ISUP (as outgoing trunk)
- ANSI-ISUP (as incoming trunk) to ATUP (as outgoing trunk)

TS14-PRI and ETSI-PRI to AISUP and Q764 call interworking

In APC DMS-100 switching offices, the following interworkings are available:

- TS14-PRI (as incoming trunk) to ANSI-ISUP (as outgoing trunk)
- TS14-PRI (as incoming trunk) to AISUP and I-ISUP (as outgoing trunk)
- ETSI-PRI (as incoming trunk) to ANSI-ISUP (as outgoing trunk)
- ETSI-PRI (as incoming trunk) to AISUP and I-ISUP (as outgoing trunk)
- AISUP and I-ISUP (as incoming trunk) to TS14-PRI (as outgoing trunk)
- ANSI-ISUP (as incoming trunk) to TS14-PRI (as outgoing trunk)

FAILMSG (continued)

- AISUP and I-ISUP (as incoming trunk) to ETSI-PRI (as outgoing trunk)
- ANSI-ISUP (as incoming trunk) to ETSI-PRI (as outgoing trunk)

Note: I-ISUP calls use AISUP protocol tuples for this interworking.

DPNSS-ANSI ISUP Interworking (Basic Call CLID) feature

The ANSI number 7 ISDN user part (ISUP) protocol allows flexible mapping of failure reasons. This takes place between ISUP and other protocols supported in table FAILMSG in DMS-100 offices.

Datafill sequence and implications

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

Table size

13 to 5656 tuples

Table size depends on the feature package codes present in the software load.

- If TUPE is present in the load, the table size must be a minimum of 13 tuples (MAPTO OTHERWISE).
- TUPPLUS requires 264 tuples and BTUP (IUP) requires 515 tuples. The maximum table size of the various protocols are present in the load as follows:
 - If only ISDN user part (ISUP) is included in the load, the table size is 128 tuples.
 - If Digital Private Network Signaling System (DPNSS) and ISUP are present, the table size is 768 tuples.
 - If BTUP and ISUP are present, the table size is 1286 tuples.
 - If DPNSS, BTUP, and ISUP are present, the table size is 2697 tuples.
 - If Q767 protocol is present, the table size is increased by the number of ISUP causes available on the DMS-100 switch, (currently 127), multiplied by the number of other FAILMSG clients, which is two, (because the entries are bi-directional.)
 - If TS14-PRI and ETSI-PRI have AISUP and Q764 protocols, the table size is increased by 1024 tuples.
 - As a new subscriber is added, 808 tuples are automatically added to the table (in the CEU load only). This is because all the existing protocols are potentially mapped to FDCP.

FAILMSG (continued)**Datafill**

The following table lists datafill for table FAILMSG.

Field descriptions (Sheet 1 of 3)

Field	Subfield	Entry	Explanation and action
INPUTMSG		see subfields	<i>Key to table FAILMSG</i> This field consists of subfield MSGFROM and refinements CAUSE, MSGCODE, ATUPMSG, CNACAUSE, RELCAUSE, and EUMCAUSE. This field and field MAPTO form the key to table FAILMSG.
	MSGFROM	AISUP, ANY, ATUP, BTUP, DPNSS, ISUP, Q764, Q767, TUPE, TUPPLUS, TS14PRI, ETSIPRI, or FDCP	<i>Outgoing trunk protocol selector</i> Enter the first part of the key with one of the following outgoing trunk protocol selectors. AISUP In a DMS-100 office with the ATUP to AISUP or Q764 to AISUP Basic Call Interworking feature, enter AISUP and datafill subfield CAUSE. In a DMS-100 office with PRI to AISUP or Q764 interworking, enter AISUP and datafill subfield CAUSE. ANY In a DMS-100 office, enter ANY in this field and datafill field MAPTO with ETSIPRI to generate cause-to-treatment mappings for any ETSI PRI to Agent interworkings. ATUP In a DMS-100 office with the AISUP to ATUP or Q764 to ATUP Basic Call Interworking feature, enter ATUP and datafill refinement ATUPMSG.

FAILMSG (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield	Entry	Explanation and action
			BTUP In a DMS-300 office with the Message to Treatment Mapping feature, enter BTUP and datafill field BTUPMSG, to indicate that the tuple applies to calls with outgoing gateway (GW) trunk group type and table TRKSGRP fields SIGDATA = C7UP and PROTOCOL = BTUP. In a DMS-100 office with the BTUP to DPNSS Basic Call Interworking feature, enter BTUP and datafill field BTUPMSG. FDCP This entry allows incoming failure messages on the outgoing interworked agents to be mapped to a treatment for the FDCP to 'other agent' interworkings. In EUR009, the only supported other agent is ETSI ISUP (Q767). DPNSS In a DMS-100 office with the BTUP to DPNSS Basic Call Interworking feature, enter DPNSS and datafill subfield CAUSE. ISUP In a DMS-100 office with the DPNSS-ANSI ISUP Interworking (basic call CLID) feature, enter ISUP and datafill subfield CAUSE. Q764 In a DMS-100 office with the ATUP to Q764 or AISUP to Q764 Basic Call Interworking feature, enter Q764 and datafill subfield CAUSE. In a DMS-100 office with PRI to AISUP or Q764 interworking, enter Q764 and datafill subfield PRI_CAUSE. Q767

FAILMSG (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield	Entry	Explanation and action
			In a DMS-100 office with the Q767 protocol, enter Q767 for ETSI ISUP V1, ETSI ISUP V2, or World Trade. TUPE In a DMS-300 office with the TUP(E) for DMS-300 ISSU feature, enter TUPE and datafill field MSGCODE, to indicate that the tuple applies to calls with outgoing gateway (GW) trunk group type and table TRKSGRP fields SIGDATA = C7UP and PROTOCOL = TUPE. TUPPLUS In a DMS-300 office with the Message to Treatment Mapping feature, enter TUPPLUS and datafill field TUPPMMSG, to indicate that the tuple applies to calls with outgoing gateway (GW) trunk group type and table TRKSGRP fields SIGDATA = C7UP and PROTOCOL = TUPPLUS. TS14PRI In a DMS-100 office with TS14 PRI to Q764 or AISUP interworking, enter TS14PRI and datafill subfield CAUSE. ETSIPRI In a DMS-100 office with ETSI PRI to Q764 or AISUP interworking, enter ETSIPRI and datafill subfield CAUSE.

MSGFROM = AISUP

If the entry in subfield MSGFROM is AISUP, datafill subfield CAUSE as explained in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

FAILMSG (continued)**MSGFROM = ANY**

If the entry in subfield MSGFROM is ANY, datafill field CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	CSE_n (refer to following table for possible values of n)	<i>Cause value</i> Enter the ETSI PRI Q.931 cause value of the cause-to-treatment mapping.

Refer to the following table for a list of cause values.

ETSI PRI Q.931 cause values (Sheet 1 of 3)

Q.931 Cause number and name	ETSI PRI Cause Name
1 Unassigned Number	CSE_1
2 No Route to Specified Transit Network	CSE_2
3 No Route to Destination	CSE_3
6 Channel Unacceptable	CSE_6
7 Call Awarded and Being Delivered in an Established State	CSE_7
17 User Busy	CSE_17
18 No User Responding	CSE_18
19 User Alerting, No Answer	CSE_19
21 Call Rejected	CSE_21
22 Number Changed	CSE_22
26 Non-Selected User Clearing	CSE_26
27 Destination Out of Order	CSE_27
28 Invalid Number Format (incomplete number)	CSE_28
29 Facility Rejected	CSE_29
30 Response to STATUS ENQUIRY	CSE_30
31 Normal, Unspecified	CSE_31

FAILMSG (continued)**ETSI PRI Q.931 cause values (Sheet 2 of 3)**

Q.931 Cause number and name	ETSI PRI Cause Name
34 No circuit / Channel Available	CSE_34
38 Network Out of Order	CSE_38
41 Temporary Failure	CSE_41
42 Switching Equipment Congestion	CSE_42
43 Access Information Discarded	CSE_43
44 Requested Circuit / Channel Not Available	CSE_44
47 Resource Unavailable, Unspecified	CSE_47
49 Quality of Service Unavailable	CSE_49
50 Requested Facility Not Subscribed	CSE_50
57 Bearer Capability Not Authorized	CSE_57
58 Bearer Capability Not Presently Available	CSE_58
63 Service or Option Not Available, Unspecified	CSE_63
65 Bearer Capability Not Implemented	CSE_65
66 Channel Type Not Implemented	CSE_66
69 Requested Facility Not Implemented	CSE_69
70 Only Restricted Digital Information Bearer Capability is Available	CSE_70
79 Service or Option Not Implemented, Unspecified	CSE_79
81 Invalid Call Reference Value	CSE_81
82 Identified Channel Does Not Exist	CSE_82
83 Suspended Call Exists	CSE_83
84 Call Identity in Use	CSE_84
85 No Call Suspended	CSE_85
86 Call Having the Requested Call Identity Cleared	CSE_86
88 Incomplete Destination	CSE_88

FAILMSG (continued)

ETSI PRI Q.931 cause values (Sheet 3 of 3)

Q.931 Cause number and name	ETSI PRI Cause Name
91 Invalid Transit Network Selection	CSE_91
95 Invalid Message, Unspecified	CSE_95
96 Mandatory Information Element is Missing	CSE_96
97 Message Type Non-Existent or Not Implemented	CSE_97
98 Message Not Compatible with Call State or Message Type Non-existent or not implemented	CSE_98
99 Information Element Non-Existent or Not Implemented	CSE_99
100 Invalid Information Element Contents	CSE_100
101 Message not Compatible with Call State	CSE_101
102 Recovery on Timer Expiry	CSE_102
111 Protocol Error, Unspecified	CSE_111
127 Interworking, Unspecified	CSE_127

MSGFROM = ATUP

If the entry in subfield MSGFROM is ATUP, enter datafill for field ATUPMSG as explained in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ATUPMSG	alphanumeric character string	<i>ATUP failure message</i> Enter one of the ATUP failure messages.

FAILMSG (continued)**MSGFROM = BTUP**

If the entry in subfield MSGFROM is BTUP, enter datafill for fields BTUPMSG, MSGCODE and subfields CNACAUSE and RELCAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	BTUPMSG	see subfield	<i>BTUP outgoing trunk message</i> This field consists of subfield MSGCODE and refinements CNACAUSE and RELCAUSE.
	MSGCODE	CNA, CONG, REA, REL, SEN, SOOO, STR, or TCON	<i>BTUP outgoing trunk message selector</i> Enter the outgoing message selector. Enter CNA for connection not admitted message and datafill refinement CNACAUSE. CONG Enter CONG to indicate congestion. This message is datafilled by default. Upon receipt, the DMS-100 attempts to select an alternate route for the call. Enter REA for a repeat attempt message. This message is datafilled by default. Upon receipt, the DMS-100 selects a different circuit on the same route or, if none is available, selects the call on an alternate route. Enter REL for release message and datafill refinement RELCAUSE. Enter SEN for subscriber engaged message. Enter SOOO for subscriber out of order message. Enter STR for subscriber transferred message. Enter TCON for terminal congestion message.

FAILMSG (continued)

MSGCODE = CNA

If the entry in subfield MSGCODE is CNA, enter datafill for field CNACAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CNACAUSE	0 to 255	<i>BTUP outgoing trunk CNA reason</i> Enter the outgoing trunk connection not admitted (CNA) reason parameter. Note: Apart from checking the range, the DMS-100 switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).

MSGCODE = REL

If the entry in subfield MSGCODE is REL, enter datafill for field RECAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	RELCAUSE	0 to 47 or 49 to 255	<i>BTUP outgoing trunk release reason</i> Enter the outgoing trunk release reason parameter. Note: The value 48 (indicating subscriber call termination), is not a valid entry because it is predefined within the DMS-100 switch.

FAILMSG (continued)**MSGFROM = DPNSS**

If the entry in subfield MSGFROM is DPNSS, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	CAUSE	AB, ACK, AI, BY, CHOS, CNR, CONG, CT, FNR, ICB, INC, MNU, NT, NU, PFR, REJ, ROS, SI, SNU, SOS, SNV, SSI, STU, SU, TRFD, or UNR	<i>DPNSS cause</i> Enter the DPNSS CAUSE. Enter AB for access barred. Enter ACK for acknowledgement. Enter AI for address incomplete. Enter BY for busy. Enter CHOS for channel out of service. Enter CT for call termination. Enter CNR for DTE controlled not ready. Enter CONG for congestion. Enter FNR for facility not registered. Enter ICB for incoming calls barred. Enter INC for service incompatible. Enter MNU for message not understood. Enter NT for network termination. Enter NU for number unobtainable. Enter PFR for priority forced release. Enter REJ for reject. Enter ROS for route out of service. Enter SI for subscriber incompatible. Enter SNU for signal not understood.

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
			Enter SOS for subscriber out of service. Enter SNV for signal not valid. Enter SSI for signaling system incompatible. Enter STU for service temporarily unavailable. Enter SU for service unavailable. Enter TRFD for transferred. Enter UNR for DTE uncontrolled not ready.

MSGFROM = ISUP

If the entry in subfield MSGFROM is ISUP, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

MSGFROM = Q764

If the entry for subfield MSGFROM is Q764, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

FAILMSG (continued)**MSGFROM = Q767**

If the entry for subfield MSGFROM is Q767, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

MSGFROM = SSUTR2

If the entry in subfield MSGFROM is SSUTR2, datafill subfield CAUSE as explained in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

MSGFROM = TUPE

If the entry for subfield MSGFROM is TUPE, enter datafill for field MSGCODE as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	MSGCODE	AB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, or UNN	<i>TUPE message code</i> Enter the TUPE message code, as follows: Enter AB for access barred (heading code H1 1010). Enter ADI for address incomplete (heading code H1 0100). Enter CFL for call failure (heading code H1 0101). Enter CGC for circuit group congestion (heading code H1 0010).

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
			Enter EUM for extended unsuccessful backward set-up information message (heading code H1 1111). This defines a unique message in which the octet indicator is coded as 1 (one) to indicate subscriber busy failure reason. Enter LOS for line out of service (heading code H1 1000). Enter NNC for national network congestion (heading code H1 0011). Enter NRU for network resource unavailable (heading code H1 1101). Enter SEC for switching equipment congestion (heading code H1 0001). Enter SSB for subscriber busy (heading code H1 0110). Enter SST for send special information tone (heading code H1 1001). Enter UNN for unallocated number (heading code H1 0111).

MSGFROM = TUPPLUS

If the entry in subfield MSGFROM is TUPPLUS, enter datafill for fields TUPPMMSG and MSGCODE as shown below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	TUPPMMSG	see subfield	<i>TUPPLUS outgoing trunk message</i> This field consists of subfield MSGCODE and refinement field EUMCAUSE.
	MSGCODE	AB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, or UNN	<i>TUPPLUS outgoing trunk message selector</i> Enter one of the TUPPLUS outgoing message selectors. Enter AB for access barred (heading code H1 1010).

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
			Enter ADI for address incomplete (heading code H1 0100).
			Enter CFL for call failure (heading code H1 0101).
			Enter CGC for circuit group congestion (heading code H1 0010).
			Enter EUM for extended unsuccessful backward set-up information message (heading code H1 1111) and datafill refinement field EUMCAUSE.
			Enter LOS for line out of service (heading code H1 1000).
			Enter NNC for national network congestion (heading code H1 0011).
			Enter NRU for network resource unavailable (heading code H1 1101).
			Enter SEC for switching equipment congestion (heading code H1 0001).
			Enter SSB for subscriber busy (heading code H1 0110).
			Enter SST for send special information tone (heading code H1 1001).
			Enter UNN for unallocated number (heading code H1 0111).

FAILMSG (continued)

MSGCODE = EUM

If the entry in subfield MSGCODE is EUM, enter datafill for field EUMACAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	EUMCAUSE	0 to 41 or 43 to 255	<i>TUPPLUS outgoing trunk EUM reason</i> Enter the reason parameter. Note: The value 42 (indicating switching congestion) is not a valid entry because the handling of EUM(42) within the DMS-100 switch is predefined. Apart from the check for value 42, the DMS-100 switch does not validate the integer against the values defined in the TUPPLUS specification (T/SPS-43-02 Q723+).

MSGFROM = TS14PRI or ETSIPRI

If the entry in subfield MSGFROM is TS14PRI or ETSIPRI, enter datafill for subfield CAUSE as shown below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>PRI cause</i> Enter one of the PRI causes.

FAILMSG (continued)**MSGFROM = all entries**

For all entries in subfield MSGFROM, continue to enter datafill as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield	Entry	Explanation and action
MAPTO		AISUP, BTUP, DPNSS, ISUP, TUPPLUS, Q764, Q767, TS14PRI, ETSIPRI, or FDCP	<i>Incoming trunk protocol</i> This field, together with field INPUTMSG, forms the key into table FAILMSG. This field identifies the protocol that the failure message is to be converted into. AISUP The tuple applies to incoming calls on trunk groups in which the protocol in field MSGFROM = TS14PRI or ETSIPRI. BTUP The tuple applies to calls incoming on GW trunk groups that are datafilled in table TRKSGRP with fields SIGDATA = C7UP and PROTOCOL = BTUP. DPNSS The tuple applies to calls incoming on trunk groups that are datafilled in table TRKSGRP with field SIGDATA = DPNSS. ISUP The tuple applies to calls incoming on trunk groups that are datafilled in table TRKSGRP with fields SIGDATA = C7UP and PROTOCOL = ISUP. TUPPLUS The tuple applies to calls incoming on GW trunk groups that are datafilled in table TRKSGRP with fields SIGDATA = C7UP and PROTOCOL = TUPPLUS.

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 3)**

Field	Subfield	Entry	Explanation and action
			Q767 The tuple applies to calls incoming on a DMS-100 switch and trunk groups that are datafilled in table TRKSGRP with fields SIGDATA = C7UP and PROTOCOL = Q767. TS14PRI The tuple applies to calls incoming on a DMS-100 switch and trunk groups mapping to a PRI line. ETSIPRI The tuple applies to calls incoming on a DMS-100 switch and trunk groups mapping to a PRI line. If ANY was entered in the MSGFROM field, enter ETSIPRI in the MAPTO field to generate cause-to-treatment mappings for any ETSI PRI to agent interworkings. FDCP FDCP allows incoming failure messages on the outgoing interworked agents to be mapped to a treatment for the FDCP to 'other agent' interworkings. In EUR009, the only supported other agent is ETSI ISUP (Q767). Q764 The tuple applies to incoming calls on trunk groups, in which the protocol in field MSGFROM = TS14PRI or ETSIPRI. OTHERWISE The tuple applies to calls incoming on trunks other than the call types listed previously, for example, R1 trunks and test line trunks.

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 3 of 3)**

Field	Subfield	Entry	Explanation and action
LOG		Y or N	<i>Generate C7UP118 report</i> Enter Y (yes) to generate a C7UP118 report if the tuple is referenced during the processing of a call. Otherwise, enter N (no). Note: Enter N in this field if ANY is entered in the MSGFROM field. Log generation is not possible for cause-to-treatment mappings.
RESULT		see subfield	<i>Incoming trunk message</i> This field consists of subfield ACTION.
	ACTION	SEND or TREAT	<i>Incoming trunk message selector</i> Enter the incoming trunk message selector. Enter SEND and datafill subfield FORMAT. The received message is handled by sending an equivalent message (as datafilled) to the preceding exchange. Enter TREAT and datafill refinement TRTMT to indicate that treatment TRMT is applied to the incoming trunk. Note: For cause-to-treatment mappings (ANY entered in the MSGFROM field), TREAT is the only action possible. An error message is given if SEND is entered in the ACTION field.

FAILMSG (continued)

ACTION = SEND

If the entry in subfield ACTION is SEND, enter datafill for field FORMAT as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	FORMAT	AISUP, ATUP, BTUP, DPNSS, ISUP, Q764, TUPE, TUPPLUS, TS14PRI, or ETSI-PRI	<i>Incoming trunk protocol selector</i> Enter the last part of the key with one of the following incoming trunk protocol selectors. AISUP In a DMS-100 office with the ATUP to AISUP or Q764 to AISUP Basic Call Interworking feature, enter AISUP and datafill subfield CAUSE. In a DMS-100 office with TS14-PRI or ETSI-PRI to AISUP interworking, enter AISUP and datafill subfield CAUSE. ATUP In a DMS-100 office with the AISUP to ATUP or Q764 to ATUP Basic Call Interworking feature, enter ATUP, and datafill refinement ATUPMSG. BTUP Enter BTUP and datafill refinements BTUPMSG and AFTERACM.

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
			DPNSS In a DMS-100 office with the BTUP to DPNSS Basic Call Interworking feature, enter DPNSS, and datafill subfield CAUSE. ISUP In a DMS-100 office with the DPNSS-ANSI ISUP Interworking (basic call CLID) feature, enter ISUP, and datafill subfield CAUSE. Q764 In a DMS-100 office with the ATUP to Q764 or AISUP to Q764 Basic Call Interworking feature, enter Q764, and datafill subfield CAUSE. In a DMS-100 office with TS14-PRI or ETSI-PRI to Q764 interworking, enter Q764 and datafill subfield CAUSE. TUPE In a DMS-300 office with the TUP(E) for DMS-300 ISSU feature, enter TUPE and datafill field MSGCODE. TUPPLUS Enter TUPPLUS and datafill refinements MSG and Q931. TS14PRI In a DMS-100 office with AISUP or Q764 to TS14-PRI interworking, enter TS14PRI and datafill subfield CAUSE. ETSIPRI In a DMS-100 office with AISUP or Q764 to ETSI-PRI interworking, enter ETSIPRI and datafill subfield CAUSE.

FAILMSG (continued)

FORMAT = AISUP

If the entry in subfield FORMAT is AISUP, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

FORMAT = ATUP

If the entry in subfield FORMAT is ATUP, enter datafill for field ATUPMSG as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ATUPMSG	alphanumeric character string	<i>ATUP failure message</i> Enter one of the ATUP cause indicators.

FAILMSG (continued)**FORMAT = BTUP**

If the entry in subfield FORMAT is BTUP, enter datafill for field BTUPMSG as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	BTUPMSG	see subfields	<i>BTUP PREACM incoming trunk message</i> This field consists of refinements PREACM, CNACAUSE, and RELCAUSE. This field specifies which BTUP failure message is sent, before the DMS-100 switch generates a BTUP address complete message (ACM). If ACM has already been sent, field AFTERACM is used instead.
	PREACM	CNA, CONG, REL, SEN, SOOO, STR, or TCON	<i>BTUP PREACM incoming trunk message selector</i> Enter the incoming trunk message selector. Enter CNA for connection not admitted message and datafill refinement CNACAUSE. Enter CONG for congestion message. Enter REL for release message and datafill refinement RELCAUSE. Enter SEN for subscriber engaged message. Enter SOOO for subscriber out of order message. Enter STR for subscriber transferred message. Enter TCON for terminal congestion message.
	CNACAUSE	0 to 255	<i>BTUP incoming trunk CNA reason</i> Enter the incoming trunk connection not admitted (CNA) reason parameter. Apart from checking the range, the DMS-100 switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).

FAILMSG (continued)

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	RELCAUSE	0 to 255	<i>BTUP incoming trunk release reason</i> Enter the incoming trunk release reason parameter. Apart from the check for value 48, the DMS-100 switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).
	AFTERACM	see subfield	<i>BTUP AFTERACM incoming trunk message</i> This field consists of subfields AFTERACM and RELCAUSE. This field specifies which BTUP failure message is sent, if the sending of a BTUP failure message occurs after the DMS-100 switch has generated a BTUP address complete message (ACM). If ACM has already been sent, the AFTERACM field is used instead.
	AFTERACM	REL	<i>BTUP AFTERACM incoming trunk message selector</i> Enter REL and datafill the release reason field RELCAUSE.
	RELCAUSE	0 to 255	<i>BTUP AFTERACM Incoming Trunk Release Reason</i> Enter the outgoing trunk release reason parameter. Note: The DMS-100 switch does not validate the integer against the values defined in the BTUP specification (BNTR 167, Section 3, Issue 2).

FAILMSG (continued)**FORMAT = DPNSS**

If the entry subfield FORMAT is DPNSS, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	AB, ACK, AI, BY, CHOS, CNR, CONG, CT, FNR, ICB, INC, MNU, NT, NU, PFR, REJ, ROS, SI, SNU, SOS, SNV, SSI, STU, SU, TRFD, or UNR	<i>DPNSS cause</i> Enter the DPNSS cause. Refer to section field MSGFROM = DPNSS for a description of the values.

FORMAT = ISUP

If the entry in subfield FORMAT is ISUP, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

FORMAT = Q764

If the entry in subfield FORMAT is Q764, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>ISUP cause</i> Enter one of the ISUP cause indicators.

FAILMSG (continued)

FORMAT = TUPE

If the entry in subfield FORMAT is TUPE, enter datafill for subfield MSGCODE as shown below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	MSGCODE	ACB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, or UNN	<i>TUPE message code</i> Enter the TUPE message code. Refer to subfield MSGFROM = TUPE for a description of the values.

FAILMSG (continued)**FORMAT = TUPPLUS**

If the entry in subfield FORMAT is TUPPLUS, enter datafill for subfields MSG, MSGCODE, EUMCAUSE, and Q931 as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	MSG	see refinements	<i>TUPPLUS incoming trunk message</i> This field consists of refinements MSGCODE and EUMCAUSE. This field specifies which TUPPLUS failure message is sent. Note: Optionally, the Q931 field can be datafilled to define a different failure message for calls originated from ISDN Q931 access. The distinction, if needed, operates from information in the initial address message (IAM) with additional information (IAI).
	MSGCODE	AB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, or UNN	<i>TUPPLUS incoming trunk message selector</i> Enter the TUPPLUS incoming trunk message selector. Enter AB for access barred (heading code H1 1010). Enter ADI for address incomplete (heading code H1 0100). Enter CFL for call failure (heading code H1 0101). Enter CGC for circuit group congestion (heading code H1 0010). Enter EUM for extended unsuccessful backward set-up information message (heading code H1 1111) and datafill refinement field EUMCAUSE. Enter LOS for line out of service (heading code H1 1000).

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
			Enter NNC for national network congestion (heading code H1 0011). Enter NRU for network resource unavailable (heading code H1 1101). Enter SEC for switching equipment congestion (heading code H1 0001). Enter SSB for subscriber busy (heading code H1 0110). Enter SST for send special information tone (heading code H1 1001). Enter UNN for unallocated number (heading code H1 0111).

MSGCODE = EUM

If the entry in subfield MSGCODE is EUM, enter datafill for subfield EUMCAUSE as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	EUMCAUSE	0 to 41 or 43 to 255	<i>TUPPLUS</i> outgoing trunk EUM reason Enter the reason parameter. Note: The DMS-100 switch does not validate the integer against the values defined in the TUPPLUS specification (T/SPS-43-02 Q723+).
	Q931	see subfields	<i>Optional TUPPLUS incoming trunk message</i> This field consists of refinements Q931 and EUMCAUSE. This field allows, optionally, a different TUPPLUS failure message to be specified for use with calls identified as Q931 access from information in the IAI.

FAILMSG (continued)**Field descriptions for conditional datafill (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
		AB, ADI, CFL, CGC, EUM, LOS, NNC, NRU, SEC, SSB, SST, UNN, or \$	<i>Optional TUPPLUS incoming trunk message selector</i> Enter the TUPPLUS incoming trunk message selector. Enter AB for access barred (heading code H1 1010). Enter ADI for address incomplete (heading code H1 0100). Enter CFL for call failure (heading code H1 0101). Enter CGC for circuit group congestion (heading code H1 0010). Enter EUM for extended unsuccessful backward set-up information message (heading code H1 1111) and datafill refinement field EUMCAUSE. Enter LOS for line out of service (heading code H1 1000). Enter NNC for national network congestion (heading code H1 0011). Enter NRU for network resource unavailable (heading code H1 1101). Enter SEC for switching equipment congestion (heading code H1 0001). Enter SSB for subscriber busy (heading code H1 0110). Enter SST for send special information tone (heading code H1 1001). Enter UNN for unallocated number (heading code H1 0111). Enter \$ to indicate that no Q931 distinction is necessary.

FAILMSG (continued)

Q931 = EUM

If the entry in subfield Q931 is EUM, enter datafill for subfield EUMCAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	EUMCAUSE	0 to 41 or 43 to 255	<i>TUPPLUS outgoing trunk EUM reason</i> Enter the reason parameter. Note: The DMS-100 switch does not validate the integer against the values defined in the TUPPLUS specification (T/SPS-43-02 Q723+).

FORMAT = TS14PRI or ETSIPRI

If the entry in subfield FORMAT is TS14PRI or ETSIPRI, enter datafill for subfield CAUSE as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CAUSE	alphanumeric character string	<i>PRI incoming trunk message</i> This subfield consists of subfield CAUSE. This subfield specifies which PRI failure message is sent.

Datafill examples

The following example shows sample datafill for table FAILMSG.

Example datafill for BTUP to TUPPLUS

The example shows the default datafill for BTUP to TUPPLUS. BTUP failure messages not shown, default to

protocol message N TREAT SYFL

FAILMSG (continued)**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG RESULT	
BTUP	TCON	TUPPLUS N	SEND TUPPLUS	NNC \$
BTUP	CNA 0	TUPPLUS N	SEND TUPPLUS	UNN \$
BTUP	CNA 1	TUPPLUS N	SEND TUPPLUS	ADI \$
BTUP	CNA 2	TUPPLUS N	SEND TUPPLUS	SST \$
BTUP	CNA 3	TUPPLUS N	SEND TUPPLUS	EUM 63 \$
BTUP	CNA 4	TUPPLUS N	SEND TUPPLUS	EUM 88 \$
BTUP	CNA 5	TUPPLUS N	SEND TUPPLUS	EUM 22 S
BTUP	CNA 7	TUPPLUS N	SEND TUPPLUS	NNC \$
BTUP	CNA 8	TUPPLUS N	SEND TUPPLUS	SSB \$
BTUP	CNA 9	TUPPLUS N	SEND TUPPLUS	LOS \$
BTUP	CNA 10	TUPPLUS N	SEND TUPPLUS	LOS \$
BTUP	CNA 18	TUPPLUS N	SEND TUPPLUS	EUM 111 \$
BTUP	CNA 19	TUPPLUS N	SEND TUPPLUS	EUM 88 \$
BTUP	CNA 30	TUPPLUS N	SEND TUPPLUS	EUM 21 \$
BTUP	CNA 41	TUPPLUS N	SEND TUPPLUS	ACB \$
BTUP	CNA 45	TUPPLUS N	SEND TUPPLUS	EUM 21 \$
BTUP	CNA 46	TUPPLUS N	SEND TUPPLUS	EUM 21 \$
BTUP	SEN	TUPPLUS N	SEND TUPPLUS	SSB \$
BTUP	S000	TUPPLUS N	SEND TUPPLUS	LOS \$
BTUP	STR	TUPPLUS N	SEND TUPPLUS	SST \$
BTUP	REL 2	TUPPLUS N	SEND TUPPLUS	CFL \$
BTUP	REL 31	TUPPLUS N	SEND TUPPLUS	EUM 18 \$
BTUP	REL 32	TUPPLUS N	SEND TUPPLUS	CFL \$
BTUP	REL 34	TUPPLUS N	SEND TUPPLUS	EUM 95 \$
BTUP	REL 47	TUPPLUS N	SEND TUPPLUS	CFL \$

Default datafill for TUPPLUS

TUPPLUS failure messages not shown default to

```
protocol message N TREAT SYFL
```

The following example shows sample datafill for table FAILMSG.

Example datafill for TUPPLUS to BTUP

FAILMSG (continued)**MAP display example for table FAILMSG**

INPUTMSG	MAPTO	LOG	RESULT
TUPPLUS ACB	BTUP	N	SEND BTUP CNA 41 REL 47 \$
TUPPLUS ADI	BTUP	N	SEND BTUP CNA 1 REL 47 \$
TUPPLUS CFL	BTUP	N	SEND BTUP CNA 1 REL 47 \$
TUPPLUS LOS	BTUP	N	SEND BTUP CNA 9 REL 47 \$
TUPPLUS NNC	BTUP	N	SEND BTUP CNA 7 REL 47 \$
TUPPLUS NRU	BTUP	N	SEND BTUP CNA 3 REL 47 \$
TUPPLUS SST	BTUP	N	SEND BTUP CNA 0 REL 47 \$
TUPPLUS UNN	BTUP	N	SEND BTUP CNA 0 REL 47 \$
TUPPLUS SSB	BTUP	N	SEND BTUP CNA 8 REL 47 \$
TUPPLUS EUM 0	BTUP	N	SEND BTUP CNA 2 REL 47 \$
TUPPLUS EUM 1	BTUP	N	SEND BTUP CNA 0 REL 47 \$
TUPPLUS EUM 2	BTUP	N	SEND BTUP CNA 2 REL 47 \$
TUPPLUS EUM 3	BTUP	N	SEND BTUP CNA 2 REL 47 \$
TUPPLUS EUM 4	BTUP	N	SEND BTUP CNA 2 REL 47 \$
TUPPLUS EUM 5	BTUP	N	SEND BTUP CNA 2 REL 47 \$
TUPPLUS EUM 6	BTUP	N	SEND BTUP CNA 2 REL 47 \$

Example datafill for TUPE, BTUP, and TUPPLUS**MAP display example for table FAILMSG**

INPUTMSG	MAPTO	LOG	RESULT	
TUPE	LOS	BTUP	N	SEND BTUP CNA 9 REL 47 \$
TUPE	CFL	BTUP	Y	SEND BTUP CNA 1 REL 47 \$
BTUP	CNA 0	TUPE	N	SEND TUPE UNN \$
BTUP	SEN	TUPE	N	SEND TUPE SSB \$
TUPPLUS	CFL	TUPE	Y	SEND TUPE CFL \$

FAILMSG (continued)**Example datafill for DPNSS and ISUP****MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
DPNSS	BY	ISUP	N	SEND ISUP USERBUSY \$
ISUP	USERBUSY	DPNSS	Y	SEND DPNSS BY \$

Example datafill for ETSI PRI and BTUP**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
ETSI PRI	USERBUSY	BTUP	N	TREAT BUSY \$
BTUP	SEN	ETSI PRI	N	TREAT BUSY \$

Example datafill for DPNSS and BTUP**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	ACTION TREATMENT OR MESSAGE DETAILS	
DPNSS	BY	BTUP	N	SEND	BTUP CNA 2 REL 47
BTUP	SEND	DPNSS	Y	SEND	DPNSS BY \$

Example datafill for AISUP, ATUP, and Q764**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
AISUP	UNALLOC	ATUP	N	SEND UNN \$
ATUP	CGC	Q764	Y	SEND NOCIRCAV \$
Q764	INTWUNSP	ATUP	Y	SEND CFL \$

FAILMSG (continued)

Example datafill for Q767**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
Q767	USERNCUG	Q767	N	TREAT UNMC
Q767	FACREJ	Q767	N	TREAT FACJ

Example datafill for TS14PRI or ETSIPRI**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
Q764	CSE_0	OTHERWISE	N	TREAT R0DR
Q764	CSE_0	ATUP	N	TREAT SYFL
Q764	CSE_0	AISUP	N	TREAT SYFL

Example datafill for FDCP**MAP display example for table FAILMSG**

INPUTMSG		MAPTO	LOG	RESULT
Q767	USERBUSY	FDCP	N	TREAT R0DR

Table history**MMP14**

Added entries to support ETSI PRI to BTUP interworking.

EUR009

The following changes were made to support the ETSI PRI Cause Value enhancements feature AU2791:

- Added ANY option to MSGFROM field
- Added CAUSE subfield for use with MSGFROM=ANY

FAILMSG (end)

- Added MAPTO option ETSIPRI
- Added FDCP index (currently not used) to the MSGFROM field
- Added FDCP index to the MAPTO field

APC010

Added entries to support activity ETSI ISUP V2, AU2928.

APC009

Added entries to support TS14 PRI and ETSI PRI to AISUP/I-ISUP/ANSI ISUP interworking.

EUR006

Added cause values UNMC and FACJ for Q767 (ETSI ISDN ISUP V2).

EUR004

Added entries to support ETSI ISUP V1.

SHR05

Cause value string CSE_25 replaced with XLAFAIL to map the cause value of exchange routing error to relevant treatment in accordance with ISUP Hop Counter.

UK002

These changes were made:

- corrected all access barred messages to read as AB and all congestion messages to read as CONG
- added DPNSS and ISUP entries and explanations to field MAPTO
- added DPNSS and BTUP MAP display example

FARTE

Table name

Foreign Area Code Route Table

Functional description

Table FARTE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FARTE translates the foreign area code digit segment, together with tables FAHEAD and FACODE.

For related information, refer to table ACRTE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and implications

Table FAHEAD must be datafilled before tables FARTE and FACODE.

Table size

Refer to table ACRTE.

Datafill

Field names, subfield names, and valid data ranges for table FARTE are described in table ACRTE.

Datafill example

Refer to table ACRTE.

Table history

NA017

Feature 59035336 introduces the Supergroup (SG) option.

FEATBYTE

Table name

Feature Byte (FEATBYTE) table

Functional description

Table FEATBYTE is only used with the FlexDial framework feature. The table is used to identify (by a set of options) certain call types and interaction requirements directly related to information contained in a Transactions Capabilities Application Part (TCAP) response message. When a Feature Bytes parameter is received in the TCAP response message, the parameter data is used to index the FEATBYTE table to identify data for call processing or specify additional interactions with the originating agent that need to be processed. Eight feature bytes are contained within the Feature Byte parameter.

The FEATBYTE table is indexed by a numeric index, the feature byte number, and individual feature byte values to identify the required processing options for that feature byte. Available options within the FEATBYTE table are:

- DPIDX—provides an index into the FLEXDIAL table to specify additional interactions with the originating agent that need to be processed
- FEATB—provides an index into the FEATBYTE table to allow processing of multiple feature byte values
- PROCESS—identifies the feature byte value specific call processing data

The key to the FEATBYTE table consists of a three-part index:

- NUM_IDX—allows a particular feature byte and feature byte value to be provisioned multiple times with different data.
- FEATB_NUM—identifies which feature byte value to use as the third part of the key.
- FEATB_VAL—the actual value of the identified feature byte received in the TCAP response message.

This three-part key is used to index the FEATBYTE table. Because the initial lookup in the table consists of two unknowns (the unique index and which feature byte to use first), values for the numeric index and feature byte number are initially identified by the office parameters FEATBYTE_FIRST_INDEX and FEATBYTE_FIRST_BYTE. The office parameter FEATBYTE_FIRST_MASK is used to mask the feature byte value in the initial lookup.

Note: For more information on the Feature Byte feature for TCAP, see the *UCS DMS-250 Transaction Capabilities Application Part (TCAP)*

FEATBYTE (continued)

Application Guide. For more information on the FlexDial framework feature and AXXESS agencies, see the *UCS DMS-250 FlexDial Framework Application Guide*.

Datafill sequence and implications

For the DPIDX option, datafill the index field in table FLEXDIAL before datafilling table FEATBYTE.

Table size

The FEATBYTE table is limited to 1,048,576 (220) tuples. The table is also limited to the amount of memory available on the switch.

There are two physical tuple sizes, 8 bytes and 14 bytes, used to store the tuples in the FEATBYTE table. A tuple with only one option datafilled will use 8 bytes of store, all other tuples will use 14 bytes of physical store. On the average, a tuple will take 25 bytes of store (14 bytes for indexing/accessing the tuple, and 11 bytes to physically store the data). This “average” is assuming an even distribution between 8-byte and 14-byte tuples.

The FEATBYTE table has an overhead of 5K of memory. No other memory is allocated until the first tuple is added into the table. When the first tuple is added to the FEATBYTE table, 96K-120K of memory is allocated for the addition of that tuple, and future additions to the table.

The MIN/MAX memory usage for the table (provided at least one 8-byte tuple has been added to the table) is:

- $\text{MIN} = 96\text{K} + 5\text{K} = 101\text{K}$
- $\text{MAX} = (1,048,576 * 25) + 5\text{K} = 26\text{M}$

A formula to calculate the approximate amount of memory used for a given number of tuples, where

1. X = number of 8-byte tuples,
2. Y = number of 14-byte tuples, and
3. $N = X + Y$

FEATBYTE (continued)

would be:

- $5K + [\text{INT}((N + 4570) / 4571) * 64K] + [\text{INT}((X + 4095) / 4096) * 32K] + [\text{INT}((Y + 4095) / 4096) * 56K]$

The INT function implies take the integer portion of the value. Thus, the expression $[\text{INT}((N + 4570) / 4571) * 64K]$ evaluates to:

- 0, when $N = 0$ $[(0+4570)/4571 = 0.99978; \text{therefore, integer portion} = 0]$
- 64K, when N is in the range of (1-4571)

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table FEATBYTE.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY			KEY. This field consists of a three-part key: NUM_IDX, FEATB_NUM, and FEATB_VAL.
	NUM_IDX	0 to 8191	NUMBER INDEX. Enter a unique numeric index value used to key the FEATBYTE table. (This unique numeric value allows a particular feature byte and feature byte value to be provisioned multiple times with different data.)
	FEATB_NUM	1 to 8	FEATURE BYTE NUMBER. Enter the feature byte number that next needs to be screened. (This index identifies which feature byte value to use as the third part of the key.)
	FEATB_VAL	0 to 255	FEATURE BYTE VALUE. Enter the resulting value after the mask value has been applied to the feature byte value being used.
OPTION			OPTIONS. Enter an options vector that identifies the call type or dialplan interaction required for the call.
		DPIDX	DIALPLAN INDEX. This option identifies an index into the FLEXDIAL table. The index contains provisioned collectables that are processed for the call. See OPTION=DPIDX section for refinement datafill.

FEATBYTE (continued)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
		FEATB	FEATBYTE INDEX. This option identifies that the identified feature byte must be screened next. The option provides concatenation of the feature bytes. See OPTION=FEATB section for refinement datafill.
		PROCESS	CALL PROCESSING DATA. This option identifies that the feature byte value is to be used as a specific call processing data value. See OPTION=PROCESS section for refinement datafill.
		NIL	NIL. This option allows the operating company personnel to easily delete an option from a given tuple.

OPTION=DPIDX

When OPTION=DPIDX, datafill the FLEXDIAL_INDX and ACTION refinements.

Refinement	Subfield or refinement	Entry	Explanation and action
FLEXDIAL_INDX		Valid range of FLEXDIAL table indexes	FLEXDIAL INDEX. Enter a FLEXDIAL table index that has been previously provisioned within the FLEXDIAL table.
ACTION			ACTION. This field identifies the action that is to occur with the addition of the collectable identified by the FLEXDIAL index to the setup information. Enter INSERT, APPEND, or REPLACE.
		INSERT	INSERT adds the new list into the current processing list before the next collectable.
		APPEND	APPEND adds the new list to the end of the current processing list.
		REPLACE	REPLACE modifies the remainder of the unprocessed collectables with those identified by the FLEXDIAL index.

FEATBYTE (continued)

OPTION=FEATB

When OPTION=FEATB, datafill the NUM_INDEX, FEATB_NUM, and FEATB_MASK refinements.

Refinement	Subfield or refinement	Entry	Explanation and action
NUM_INDEX		0 to 8191	NUMERIC INDEX. Enter the unique numeric index value used to key the FEATBYTE table.
FEATB_NUM		1 to 8	FEATBYTE INDEX. Enter the feature byte number that needs to be screened next (which of the 8 feature bytes to use).
FEATB_MASK		0 to 255	FEATBYTE MASK VALUE. Enter the mask value that is applied to the feature byte value being used. The resulting value after the masking operation is right shifted to the least significant mask bit set.

FEATBYTE (continued)**OPTION=PROCESS**

When OPTION=PROCESS, datafill the PROC_DATA and PROC_MASK refinements.

Refinement	Subfield or refinement	Entry	Explanation and action
PROC_DATA		NOANSTMR	CALL PROCESSING DATA VALUE. Enter the call processing data that the feature byte value is used for.
PROC_MASK		0 to 255	PROCESSING MASK. Enter the mask that is applied to the feature byte value. The resulting value after the masking operation is right shifted to the least significant mask bit set.
Note: Currently the only defined call processing specific data value contained in the feature bytes is the no answer duration timer value. The calculation of the no answer duration timer value is based on two office parameters and the feature byte value (after the mask has been applied). The following equation shows how the no answer duration timer value is derived. $\text{Offset} + (\text{Featbyte\_value} * \text{multiplier})$, where Offset = Office parameter FEATBYTE_NOANSDUR_OFFSET and multiplier = Office parameter FEATBYTE_NOANSDUR_MULT			

Datafill example

The following example shows datafill for table FEATBYTE:

FEATBYTE (end)

KEY OPTION

```
0 1 113 (FEATB 164 3 8) $
0 1 128 (DPIDX I_800TRVL_FGD REPLACE) $
0 4 0 (DPIDX NIL APPEND) $
0 4 1 (DPIDX FB_NOANS APPEND) (PROCESS NOANSTMR 7) $
0 4 2 (DPIDX FB_NOANS APPEND) (PROCESS NOANSTMR 7) $
```

Table history
UCS06

Table FEATBYTE is created.

FLEXDIAL

Table name

FlexDial Agent Interaction Definition (FLEXDIAL) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXDIAL datafill information.

Table name

FlexDial Digits Modification (FLEXMOD) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXMOD datafill information.

FLEXFEAT

Table name

FlexDial Subscriber Number and Call Type Features (FLEXFEAT) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXFEAT datafill information.

FLEXRES

Flexible restoral

The Flexible Restoral feature enables a quick retrieval of translations data modification history and allows restoration of tables to a previous working state. The FLEXRES table stores this history. Table FLEXRES has a maximum of 10 000 tuples. The FLEXRES table stores information about the time, date, user, and data changes made to the supported tables.

Note: The FLEXRES table cannot be datafilled by operating company personnel.

The FLEXRES table stores the data change history of the following supported tables:

- STDPRTCT and its subtables STDPRT and AMAPRT
- HNPACONT and its subtables HNPACODE, RTEREF, RTEMAP, and ATTRIB
- LCASCRCN and its subtable LCASCR
- CLSVSCRC and its subtable CLSVSCR

The DMS switch uses this table to create a DMOPRO file. The entries in the FLERES table are written to a DMOPRO file when the CI command FLEXTAB is issued. When the operating company personnel runs the DMOPRO file, this action removes the data modifications and returns the supported tables to the state prior to the modifications.

The FLEXRES table cannot be edited using table editor commands. All changes to the FLEXRES table are internal and dependent on changes made to the supported tables.

Datafill

The table that follows lists datafill for table FLEXRES.

Field descriptions (Sheet 1 of 2) (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
Key		1–10 000	Maximum number of tuples.
Userid		1–16 alphanumeric characters	User identification of the operating company personnel making the change.

FLEXRES (end)**Field descriptions (Sheet 2 of 2) (Sheet 2 of 2)**

Field	Subfield	Entry	Explanation and action
Date		DDMMMYYYY	Date of data modification DD = day MMM = month YYYY = year
Time		HH:MM:SS	Time of data modification HH = hour MM = minutes SS = seconds
Record		Table name and changes made	Name of the table followed by the tuple operation. For subtables, the entries are the name of the head table key and subtable followed by the tuple operation.

Datafill example

The figure that follows shows sample datafill for table FLEXRES.

MAP display example for table FLEXRES

KEY	USERID	DATE	TIME	RECORD
1	USERID1	10JAN2000	13:00:00	LCASCRCN DEL 518 HULL OPTL N N
2	USERID2	08JAN2000	08:49:00	HNPACONT 613\$RTEREF ADD 1 S D OCA
3	USERID3	08JAN2000	08:48:20	HNPACONT REP 010 Y 128 10
4	USERID4	08JAN2000	08:47:46	HNPA DEL Y 127 1
5	USERID5	08JAN2000	08:47:06	HNPACONT ADD 919 Y 128 10

Table name

FlexDial Simulator (FLEXSIMT) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXSIMT datafill information.

FLEXVAL

Table name

FlexDial Subscriber Number Validation (FLEXVAL) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXVAL datafill information.

FLEXTYPE

Table name

FlexDial Subscriber and Call Type Definitions (FLEXTYPE) table

Functional Description

See *UCS DMS-250 FlexDial Framework Application Guide* for table FLEXTYPE datafill information.

FLXCMAP

Table name

Flexible ISDN User Part Cause to Treatment Mapping (ISUP CAUSEMAP)

Functional description

The Flexible CAUSEMAP (FLXCMAP) table provides a table editor interface for ISUP cause values passed from an address complete message (ACM) or release message (REL) to DMS-100 extended treatments. The FLXCMAP table contains 128 cause values that relate to four different coding standards for a total of 512 tuples. The International Telecommunication Union (ITU) Q.850 document references the cause values. The FLXCMAP table supports the following four coding standards:

- Comite consultatif Internationale de Telegraphique et Telephonique (CCITT)
- national (NATL)
- international (INTL)
- reserved for later use (RSVD)

When enabled through software optionality control (SOC) ISP70008, the FLXCMAP table allows a service provider to change ISUP extended treatment values to other available treatments based on cause value and coding standards used by the office. The FLXCMAP table supports the following table editor functions:

- change (CHA)
- replace (REP)
- put

The FLXCMAP table cause value framework contains spare values for future expansion in the Q.850 specification. The table editor does not allow additions or deletions to the FLXCMAP table. An attempt to make a table addition or deletion produces an error message.

Datafill sequence and meaning

Enter data into the TMTCNTL table before entering data into the FLXCMAP table.

Table size

Memory is allocated for 512 tuples.

FLXCMAP (end)**Datafill**

The table that follows lists datafill for the FLXCMAP table.

Field descriptions

Field	Subfield	Entry	Explanation and action
CSEMAPKEY			Causemap key. The key consists of two subfields. The service provider cannot change this field.
	cause value	alphanumeric (1 to 8 characters)	A valid ISUP cause value from table TMTMAP.
	standard	CCITT, INTL, NATL, RSVD	The coding standard used by the office.
TREAT		alphanumeric (1 to 4 characters)	Treatment name. Assign a valid DMS-100 treatment from the TMTCNTL table.

Datafill example

The figure that follows shows sample datafill for the FLXCMAP table.

MAP display example for table FLXCMAP

TOP			
CSEMPKEY		TREAT	
UNALLOC	CCITT_STANDARD	RODR	
CSE_6	INTERNATIONAL_STANDARD	NOSR	
CSE_7	NATIONAL_STANDARD	NACK	
CSE_8	RESERVED	FNAL	

Table history**NA014**

The NA014 release introduced the FLXCMAP table into the DMS-100 software.

Additional information

The local number portability (LNP) misrouted call to a ported number (LNPM) cause value has not been registered with the ITU and appears as cause value CSE_26 NATL.

FMRESINV

Table name

Facility Maintenance Resource Inventory Table

Overview

The Facility Maintenance Resource tables provide resource management for Integrated Bit Error Rate Tests (IBERT). The IBERTs include the digital test unit (DTU) and the NT6X99AA IBERT line card (ILC). The tables provide the ability to reserve an IBERT that a specified application uses. These tables also provide the ability for many applications to share the use of an IBERT.

The following applications use IBERTs:

- bit error rate performance (BERP)
- line test position (LTP)
- trunk test position (TTP)
- automatic trunk testing (ATT)

Note 1: The LTP uses the BERT command at the LTPDATA sublevel of the line maintenance subsystem (LNS) at a MAP terminal.

Note 2: The TTP uses the BERT command at the DATA sublevel of the TRKS subsystem at a MAP terminal.

Some conditions allow a foreground IBERT user to seize an IBERT from a background user. A foreground IBERT user can be an LTP or TTP user. A background user can be a BERP user.

Many applications can compete for a limited number of IBERTs. Specified applications are not always able to obtain an IBERT because a limited number of IBERTs are available. Table FMRESINV and table FMRESUSE (Facility Maintenance Users) can reserve an IBERT for specified applications to use. These tables can share an IBERT for a subset of all applications.

An application can use a specified IBERT. This event occurs if the intersection of the class sets of the application and the IBERT is not zero. The class set of the application is in table FMRESUSE. The class set of the IBERT is in table FMRESINV.

BERP interruption

The BERP application normally uses large numbers of IBERTs for long periods of time. Without a resource allocation plan, an application like BERP can occupy all the IBERTs in an office. In this condition, other applications like the LTP or TTP do not have IBERTs. When you reserve IBERTs for

FMRESINV (continued)

specified applications you prevent this condition. For example, when you reserve IBERTs for the LTP and TTP, BERP cannot use the IBERTs.

The operating company can desire to have all IBERTs available for BERP test. For example, a specified office can have a number of line concentrating modules (LCM), each equipped with two ILCs. This configuration is normal when an office uses BERP. The operating company wants to use all of these ILCs for BERP tests.

The operating company can require the ability to perform BERTs from the LTPDATA sublevel. To reserve ILCs for the LTP BERTs requires installation of additional ILCs in the LCMs. This installation is often not possible because of lack of line card space in the LCMs. This installation can not be possible because of other reasons. In these conditions, the BERP and the LTP must share the use of the same IBERTs.

If BERP uses and retains all available IBERTs for long periods of time, the LTP cannot obtain required IBERTs. The LTP can seize an IBERT that the BERP uses. This action prevents the use of all the IBERTs by the BERP when other applications require the IBERTs. This action only occurs if the LTP cannot obtain another IBERT from the LTP-reserved IBERTs. The BERP and LTP reserve the IBERT that the LTP uses. The user cannot control which IBERT the LTP seizes from BERP.

An optional interrupt parameter (I) for the command BERT START provides control of this interrupt ability. A description of the command BERT START appears in *Trunks Maintenance Guide* 297-1001-595. If you enter this optional parameter, LTP BERT can interrupt BERP. The LTP BERT first uses normal means to attempt to obtain a BERT. If this action fails, LTP BERT determines if the LTP BERT can obtain a BERT through an interruption of BERP. If you enter parameter I, LTP BERT attempts the interruption. If you do not enter parameter I, an interruption does not occur. In this event the system informs the operating company personnel that requests the BERT that a BERT is available for interruption.

When an interruption occurs, the system aborts the call that involves the IBERT through BERP. This action does not affect other BERP calls. The system does not include this call in the BERP statistics. The BERP records the number of interrupted calls. The methods that BERP uses to record the numbers of interrupted calls is like the method used to record call failures.

When BERP finishes the current BERP call cycle, BERP attempts to set up a new set of calls. The BERP attempts to seize the IBERT that the LTP seized. If BERP is successful, BERP uses the seized IBERT to continue testing. If the LTP continues to use the IBERT, this action does not affect the LTP BERT.

FMRESINV (continued)

When the user at the LTP sublevel finishes the run of the BERT, the LTP releases the IBERT. Any application that reserves this IBERT can seize the IBERT. If the user performs another BERT immediately, the IBERT used can be a different one.

The affect of this interrupt capability on BERP can be small. The impact is small if BERP makes a large number of calls, and interruptions do not occur often. If the BERP conditions are different, enter data for a number of IBERTS for the LTP to use.

Digital test unit for LTP BERT

The ILC and the DTU can use BERTs on the LTP datapath. The ILC and the DTU support the same functions.

Note: Enter data for the DTUs in table FMRESINV. Use command sets that allow DTU use at the LTP sublevel.

Limits

The ILCs must be in an idle (IDL) state before a test can use the ILCs. Before this version, BERT could use installation busy (INB) ILCs.

You cannot enter data for the ILCs in table KSETINV.

You can enter a maximum of 128 IBERTs in table FMRESINV. The maximum number must include the ILCs and the DTUs.

Functional description

Enter data in table FMRESINV to enter ILCs or DTUs for use as IBERTs. Use table FMRESINV to assign a class set to each IBERT for resource management. Use table FMRESUSE with table FMRESINV to complete this action.

Table FMRESINV contains the following fields:

- **IBERT key:** This field is the key to the table. The IBERT key contains the character string IBERT. A number in the range 0 to 127 follows the character string IBERT. This key identifies each IBERT.
- **IBERT circuit:** This field identifies the IBERT that receives data. This field can contain the letter L followed by the line equipment number (LEN)

FMRESINV (continued)

of an ILC. This field also can contain the letter G followed by the common language location identifier (CLLI) of a DTU.

- **Class set:** The class set is a set of numbers that relate the IBERT to an application. The class set entry contains the letter C. A set of numbers in the range of 0 to 15 follows the C. If an IBERT must include all classes from 0 to 15, enter ALL. Entry ALL indicates that any application can use the IBERT. Enter NONE to indicate that none of the applications can use the empty class set. The empty class set is the IBERT.

Enter all IBERTs, DTUs and ILCs, in table FMRESINV for use as an IBERT by any application. Enter data for the IBERTs in all other required tables. For example, you must enter data for the ILCs in table LNINV, and for the DTUs in table TRKMEM.

You can delete an IBERT from table FMRESINV only if the IBERT is in the INB state. You cannot delete an IBERT from tables LNINV or TRKMEM if table FMRESINV contains the IBERT.

Datafill sequence and meaning

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

- TRKMEM
- LNINV

Enter data in table FMRESINV before you enter data in table KSETINV.

Table size

The size of this table is fixed at 128 tuples.

Datafilling table FMRESINV

Datafill for table FMRESINV appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
RESOURCE		IBERT	<i>Resource</i> Enter IBERT as the type of resource. This field is the first part of the key to this table.
NUMBER		0 to 127	<i>Resource number</i> Enter a number to identify the number of the resource. This field is the second part of the key to this table.

FMRESINV (continued)**Field descriptions (Sheet 2 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
CKT		see subfields	<i>IBERT circuit</i> This field contains subfields CKTTYPE, LEN, CLLI and EXTRKNM.
	CCKTTYPE	L or G	<i>Circuit type</i> Enter L to indicate that the added circuit is a line. Enter data in subfield LEN for the ILC. Enter G to indicate that the added circuit is a trunk. Enter data in subfields CLLI and EXTRKNM for the DTU.
	LEN	see the reference for subfields	<i>Line equipment number</i> This field defines the location of the equipment that connects to a specific telephone line. Field LEN is common to more than 60 tables. A description of field LEN appears in a single section to avoid a copy of information that is not required. Refer to the "Common entry field LEN" section in this document for a complete description of field LEN and associated subfields. Field LEN contains subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT and CIRCUIT.
	CLLI	DTU	<i>Common language location identifier</i> Enter DTU for the CLLI of the DTU, if the entry in CKTTYPE is G.
	EXTRKNM	0 to 9999	<i>External trunk number</i> Enter the external trunk number of the DTU if the entry in CKTTYPE is G.
CLASS		see subfields	<i>Class</i> This field contains subfields OPTION and CLASSV.

FMRESINV (continued)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	ALL, C or NONE	<i>Class set option</i> Enter ALL if the class set includes all classes. You do not need to enter data in additional subfields. Enter C if the class set is not ALL and not NONE. Enter data in field CLASSV. Enter none if the class set does not include any classes. If this entry is none, the field does not require additional subfields.
	CLASSV	0 to 15 (vector with a maximum of 16 numeric values)	<i>Class set vector</i> Enter a vector with a maximum of 16 numeric values if the entry in field OPTION is C. Each value must be in the range 0 to 15. End the vector with \$.

Datafill example

Sample datafill for table FMRESINV appears in the following example.

FMRESINV (end)**MAP display example for table FMRESINV**

RESOURCE	NUMBER	CKT	CLASS
IBERT	0	L REM1 00 0 00 00	C (0)\$
IBERT	1	L REM1 00 0 00 01	C (0)\$
IBERT	2	L HOST 00 0 00 00	C (1)\$
IBERT	3	L HOST 00 0 01 00	C (1)\$
IBERT	4	L HOST 00 1 00 00	C (2)\$
IBERT	5	L HOST 0 1 01 00	C (2)\$
IBERT	6	G DTU 0	C (3)\$
IBERT	7	L DTU 1	C (3)\$

FMRESUSE

Table name

Facility Maintenance Resource Users Table

Functional description

Table FMRESUSE provides the ability to assign a class set to different facility maintenance users. Table FMRESUSE and table FMRESINV work together to define the relationship between users and resources. These tables determine the users that can access specified resources.

Note: Each possible application with a default class set of ALL has an entry. You cannot delete or add entries in table FMRESUSE.

An application can use a specified integrated bit error rate test (IBERT). An application can use a specified IBERT if the intersection between the class set of the application and the IBERT is not nil. The class set of the application is in table FMRESUSE. The class set of the application is in table FMRESINV.

See table FMRESINV for related information.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data for table FMRESUSE.

Table size

6 tuples

This table contains one tuple for each of the five possible users. The system automatically adds these tuples to the table. You cannot delete these tuples.

FMRESUSE (continued)**Datafilling table FMRESUSE**

Datafill for table FMRESUSE appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
USER		ATT, BERP, DCT, LTP, TTP, and ITSTL1	<i>User key</i> Enter one of the following applications that use facility maintenance resources: • automatic trunk testing (ATT) • bit error rate performance (BERP) • data call tester (DCT) • line test position (LTP) • trunk test position (TTP) • integrated testing system translation language one (ITSTLI)
CLASS		see subfield	<i>Class set</i> This field provides information for the class set. This field is like field CLASS in table FMRESINV. This field contains subfield OPTION.
	OPTION	ALL, C or NONE	<i>Class set option</i> Enter ALL if the class set must include all classes. You do not need to enter data for additional subfields. An ALL entry indicates that the application can use all IBERTs. Enter NONE, if the class set must not include any classes. enter NONE. You do not need to enter data for additional subfields. A NONE entry indicates that the application cannot use any IBERTs. Enter C if the class set is not ALL and not NONE. Enter data for subfield CLASSV.
	CLASSV	vector with a maximum of 16 numeric values (0 to 15)	<i>Class set vector</i> Enter a sequence of 1 to 16 numeric values if the entry in subfield OPTION is C. If less than 16 values are required, end the list with \$.

FMRESUSE (end)

Datafill example

Sample datafill for table FMRESUSE appears in the following example.

MAP display example for table FMRESUSE

USER	CLASS
BERP	c (0)\$
LTP	C (1)\$
ATT	C (2)\$
TTP	C (3)\$
ITSTL1	C (4)\$

MAP display example for table FMRESUSE

USER	CLASS
BERP	C (0 2)\$
LTP	C (1)\$
ATT	C (3)\$
TTP	C (3)\$

Table history
BCS36

Entry value DCT to field USER was added in version BCS36. Table size increased from five to six tuples in BCS36.

FNPACONT

Table name

List of Foreign Numbering Plan Area Codes Subtables Table

Overview

Foreign numbering plan area table and subtables

Table name	Table title
FNPACONT	List of FNPA Codes Subtables Table
FNPACONT.FNPACODE	FNPA Codes Subtable
FNPACONT.RTEMAP	FNPA Route Map Subtable
FNPACONT.FNPASTS	List of FNPA STS Codes Subtables Subtable
FNPACONT.FNPASTS.STSCODE	FNPA STS Codes Subtable
FNPACONT.FNPASTS.RTEREF	Foreign NPA STS Route Reference Subtable

The system uses foreign numbering plan area (FNPA) translation table and subtables to route calls that require six-digit translations by office or operator. The system routes three-digit codes with an FNPA as a different option to six-digit translations in subtables STDPRTCT.STDPRT or HNPACONT.HNPACODE. The three-digit codes do not include inward wide area telephone service (INWATS) serving codes.

Six-digit translation refers to the translation of the first six post-prefix digits from the standard pretranslator table STDPRTCT. Refer to the first three digits as FNPA. Refer to the last three digits as the called XXX.

Six-digit translations that use the FNPA translation tables can require a specified FNPA. When this condition occurs, subtable HNPACONT.HNPACODE must have the called FNPA code listed with a code type of FNPA.

Table FNPACONT

The system access table FNPACONT when translations of post-prefix digits in subtable HNPACONT.HNPACODE encounter a code type of FNPA (CD = FNPA). This translating flow appears in the following Figures.

The called FNPAs, that are associated in subtable HNPACONT.HNPACODE, appear in table FNPACONT with a code type of FNPA (CD = FNPA). Table

FNPACONT (continued)

FNPACONT can indicate further translations for each called FNPA. These translations can allow different routing for each specified called FNPA and called XXX combination in subtables FNPACONT.FNPACODE or FNPACONT.FNPASTS.STSCODE. These translations can allow common routing for all correct called XXXs. This translation flow appears in the following figures.

A correct called XXX is a code that appears in subtable FNPACONT.FNPACODE.

Another name for the index in table FNPACONT field NPA is FNPA.

Subtable FNPACONT.FNPASTS

Subtable FNPACONT.FNPASTS applies to the called FNPA. The system accesses subtable FNPACONT.FNPASTS when table FNPACONT requires six-digit translations for that called FNPA. This condition appears in the flow diagram in the following figures.

Subtable FNPACONT.FNPASTS displays the calling serving NPA (SNPA) and the serving translation scheme (STS) for the applicable called FNPA. The SNPA and STS can require different six-digit translations from other NPAs or STSs in the subtable FNPACONT.FNPACODE.FNPASTS. Subtable FNPACONT.FNPACODE.FNPASTS applies to the called FNPA and calling SNPA or STS.

If the calling SNPA or STS is not in subtable FNPACONT.FNPASTS, or is present but with field COMMON_FNPA = Y, six-digit translation occurs. The six-digit translation is common to other SNPAs or STSs. This translation occurs in subtable FNPACONT.FNPACODE that applies to the called FNPA.

The index to subtable FNPACONT.FNPASTS field STS is the calling SNPA or STS. Subtable FNPACONT.FNPASTS field STS is at table FNPACONT position NPA = called FNPA.

Subtable FNPACONT.FNPACODE

The system uses subtable FNPACONT.FNPACODE, that applies to the called FNPA, as follows:

- If table FNPACONT selector field FRTSEL - (dash) for the called FNPA, subtable FNPACONT.FNPACODE displays the correct called XXXs the RTEREF in subtable FNPACONT.RTEREF.
- If table FNPACONT selector field FRTSEL S, SX, T, or N for the called FNPA, subtable FNPACONT.FNPACODE displays the correct called

FNPACONT (continued)

XXXs. The routing prescriptions associated in table FNPACONT apply to the correct called XXXs.

The system accesses subtable FNPACONT.FNPACODE when table FNPACONT requires six-digit translations for that called FNPA and one of the following conditions occurs:

- the calling SNPA or STS is not in subtable FNPACONT.FNPASTS.
- the calling SNPA or STS is in subtable FNPACONT.FNPASTS with field COMMON_FNPA Y. This translation flow appears in the following Figures.

Subtable FNPACONT.FNPACODE displays the called office, the operator and other three-digit codes for the correct called FNPA. The three-digit codes do not include INWATS serving codes. The three-digit codes correspond to the last three digits of the six post-prefix digits that translates. This subtable associates, with each code, a route reference index in subtable FNPACONT.RTEREF.

If the called last three digits of the six post-prefix digits that translates are not in subtable FNPACONT.FNPACODE, the system sends the call to vacant code treatment (VCT). The VCT occurs in the correct TMTCNTL.TREAT subtable.

The index to subtable FNPACONT.FNPACODE fields FROMDIGS and TODIGS is the last three digits of the first six post-prefix digits. Subtable FNPACONT.FNPACODE is at table FNPACONT position NPA = called FNPA.

Subtable FNPACONT.RTEMAP

The system accesses subtable FNPACONT.RTEMAP each time code type (CD) FNPA is in subtable HNPACONT.HNPACODE, and the route reference index in subtable FNPACONT.RTEREF matches the RCNAME in table RTECHAR. Based on the RCNAME associated with the call and the RTEREF index obtained, a new RTEREF index is possible.

If a matching entry is found in subtable FNPACONT.RTEMAP, then the call is routed further using the new RTEREF index. If the new index is not valid, the call is routed to DFIL treatment, and a corresponding log DFIL102 is generated.

If no entry is found, then the call is routed using the existing RTEREF index datafilled in subtable FNPACONT.FNPACODE. In this case, the foreign NPA call is routed using tables OFRx/IBNRTx and OFRTMAx/IBNMAx.

FNPACONT (continued)

Subtable FNPACONT.FNPASTS.STSCODE

Subtable FNPACONT.FNPASTS.STSCODE applies to the called FNPA and calling SNPA or STS. The system accesses subtable FNPACONT.FNPASTS.STSCODE when the following conditions occur:

- table FNPACONT requires six-digit translations for that called FNPA
- calling SNPA or STS is in subtable FNPACONT.FNPASTS with field COMMON_FNPA N. This translation flow appears in the following Figures.

Subtable FNPACONT.FNPASTS.STSCODE displays the called office, the operator and other three-digit codes. Subtable FNPACONT.FNPASTS.STSCODE displays this information for the correct called FNPA and calling SNPA or STS. The three-digit codes do not include INWATS serving codes. The three-digit codes correspond to the last three digits of the six post-prefix digits that translate. This subtable associates each code with a route reference index in subtable FNPACONT.FNPASTS.RTEREF.

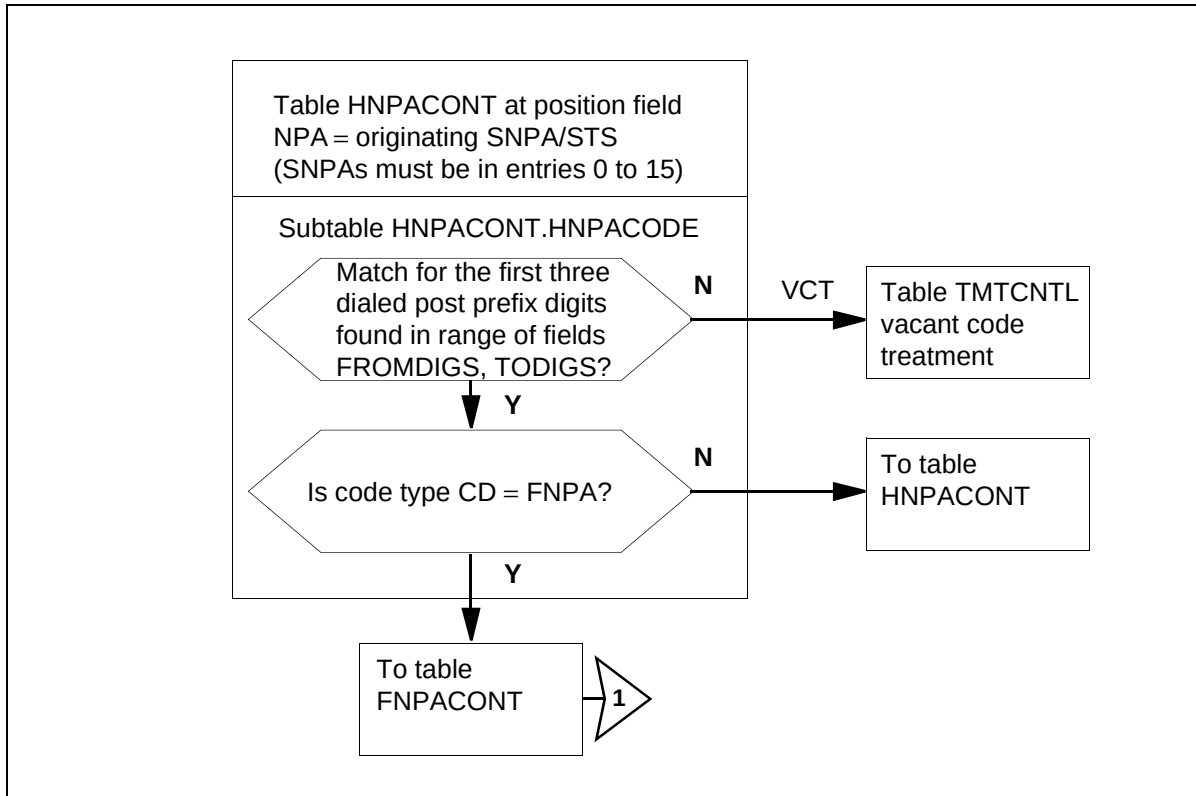
If the called last three digits of the six post-prefix digits translated are not in subtable FNPACONT.FNPASTS.STSCODE, the system sends the call to VCT. The VCT occurs in the TMTCNTL.TREAT subtable that applies.

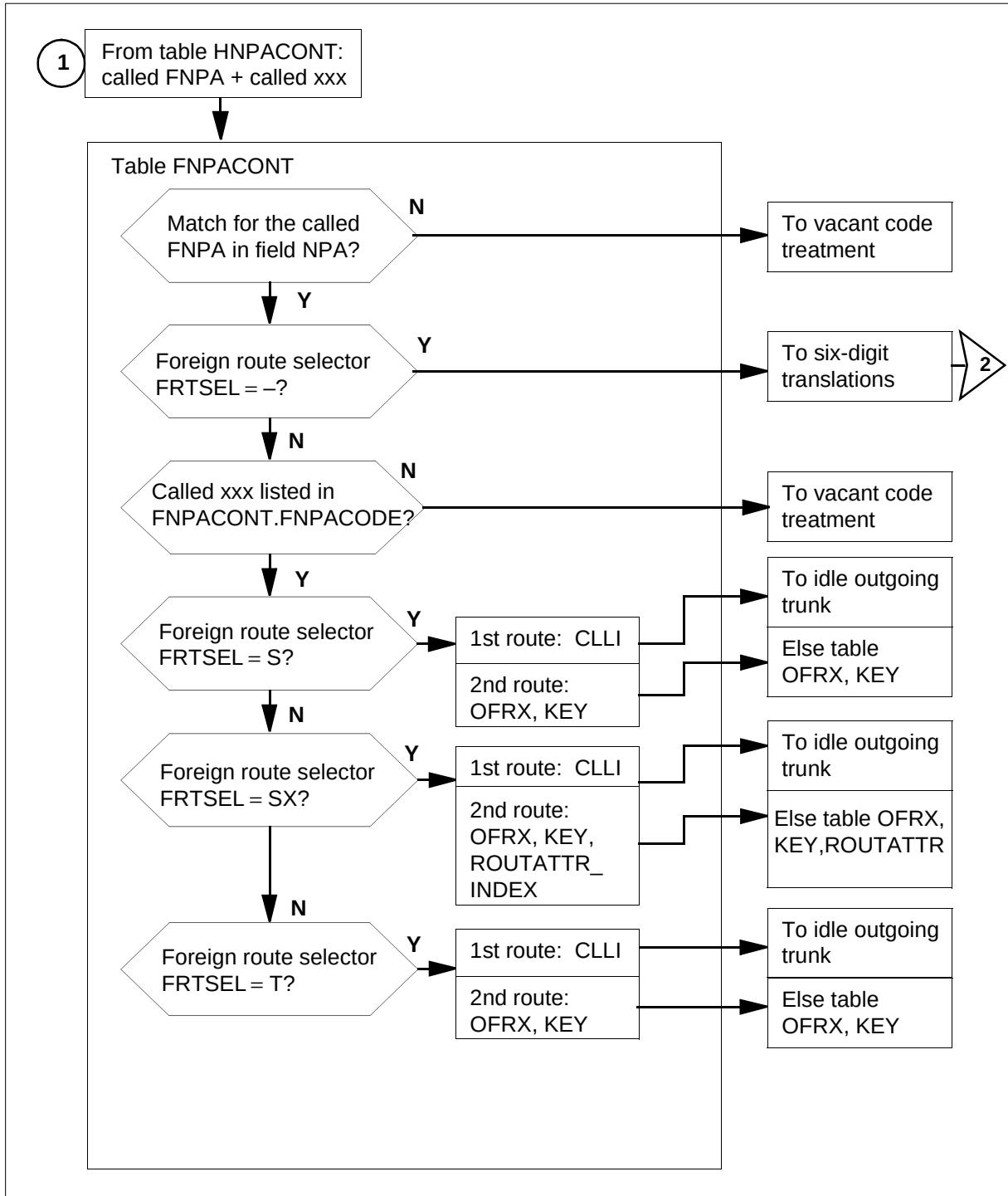
The index to subtable FNPACONT.FNPASTS.STSCODE fields FROMDIGS and TODIGS is the last three digits of the first six post-prefix digits. Subtable FNPACONT.FNPASTS.STSCODE is at table FNPACONT position NPA = called FNPA and subtable FNPACONT.FNPASTS position STS = calling SNPA or STS.

Set table OFCENG parameter MAXSTS larger than 0 for partitioned translations.

FNPACONT (continued)

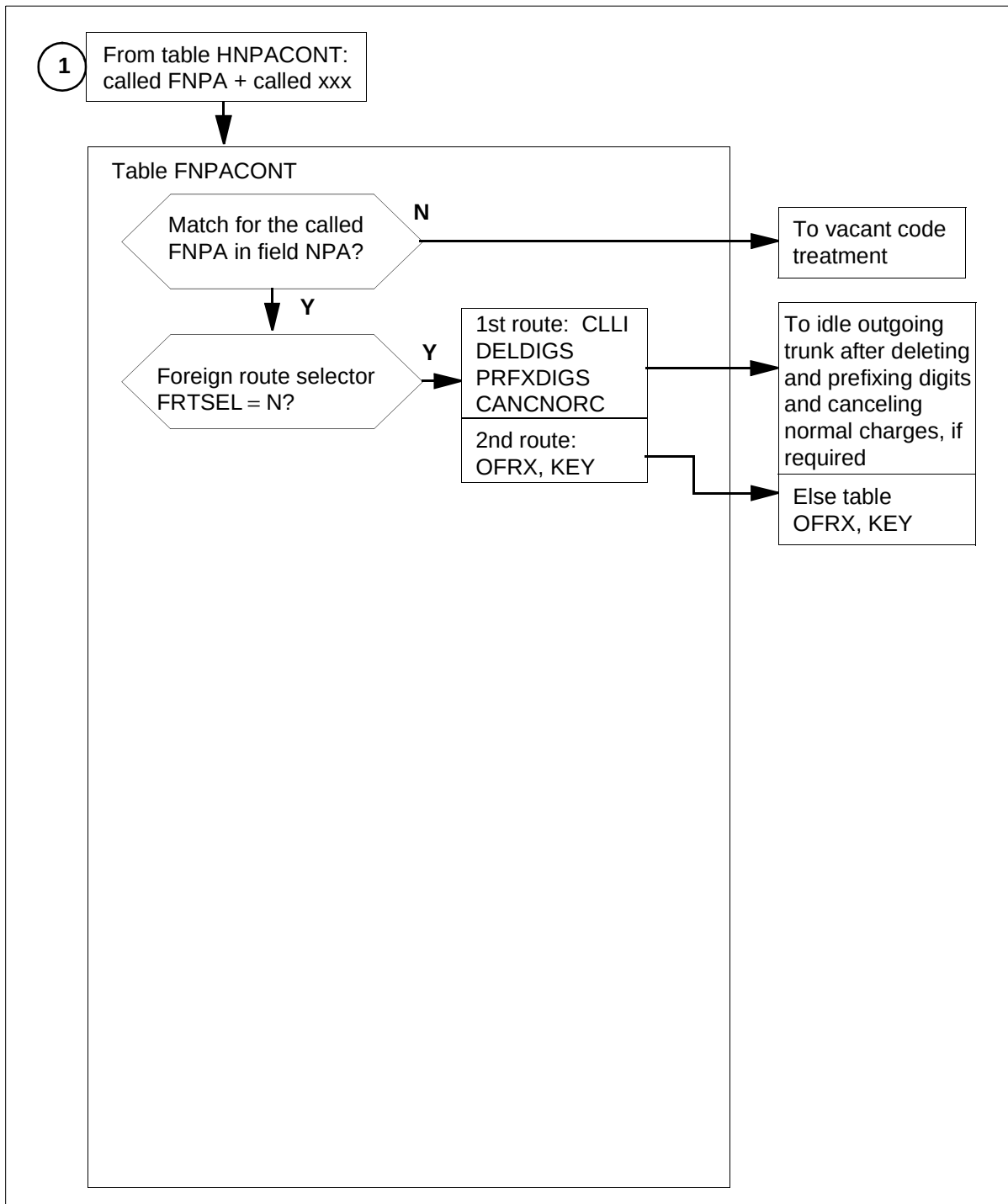
Six-digit translation flow diagram

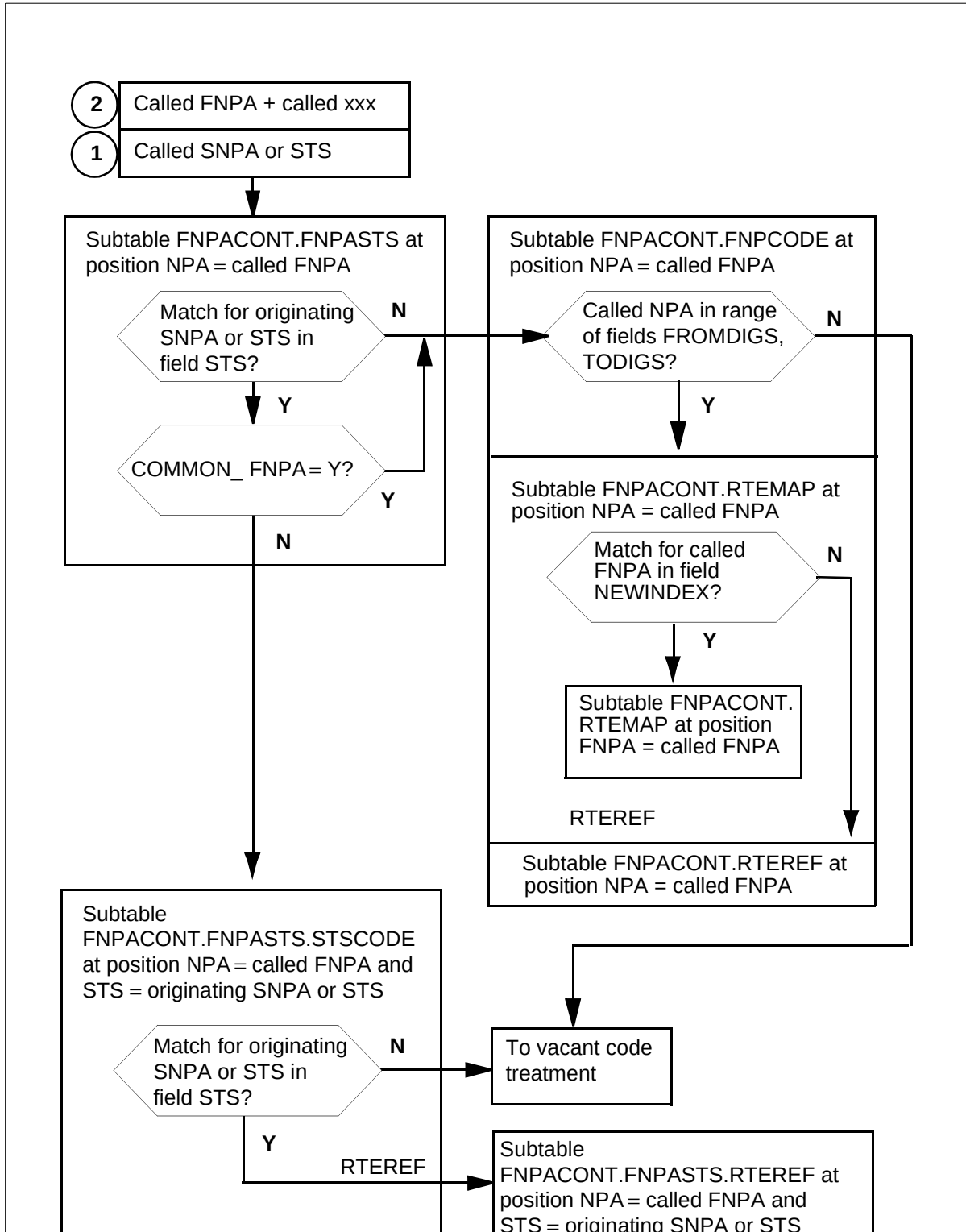


FNPACONT (continued)**Six-digit translation flow diagram: table FNPACONT**

FNPACONT (continued)

2Six-digit translation flow diagram: table FNPACONT (continued)



FNPACONT (continued)**Six-digit translation flow diagram: table FNPACONT and subtables for six-digitxx**

FNPACONT (continued)

Partitioned Table Editor

In DMS offices with feature BC1459, Partitioned Table Editor (PTE), non-operating company users can use PTE. The users can use PTE to edit the tuples of table FNPACONT. The PTE allows the non-operating company user to edit the tuples of the subtables FNPACONT.FNPACODE and subtable FNPACONT.RTEREF. The users can edit authorized tuples in subtable FNPACONT.FNPASTS.

The non-operating company users have access to the tuples of subtables FNPACONT.FNPASTS.STSCODE. Non-operating users have access to the tuples of subtable FNPACONT.FNPASTS.RTEREF at the authorized positions of subtables FNPACONT.FNPASTS.

The user must own the STS to access a tuple in subtable FNPACONT.FNPASTS.

For example, datafill for table DATAOWNER is the non-operating company user CARLING that can access tuples with a key 001. User CARLING cannot view other FNPACONT.FNPASTS subtable tuples. User CARLING can view other FNPACONT.FNPASTS subtable tuples only when table OWNER classifies these tuples as public. Other users own these tuples.

MAP display example for table FNPACONT

KEY	OWNER
STS 001	CARLING

The PTE allows the operating company to limit edit access to a table for a specified user. The operating company can apply the following limits to a table:

- denied
- read-only
- change-only
- add and delete tuples

FNPACONT (continued)

Northern Telecom (Nortel) recommends that you set the PTE access for non-operating company users as follows:

- table FNPACONT: read only access
- subtable FNPACONT.FNPACODE: denied access
- subtable FNPACONT.RTEREF: denied access
- subtable FNPACONT.FNPASTS: read only access
- subtable FNPACONT.FNPASTS.STSCODE: add and delete tuples access
- subtable FNPACONT.FNPASTS.RTEREF: add and delete tuples access.

Set field COMMON_FNPA in subtable FNPACONT.FNPASTS to N. This value makes sure the creation of a separate subtable FNPACONT.FNPASTS.RTEREF occurs for each STS.

Refer to the description of table OWNER for information on the Customer Data Change feature tables.

Functional description

The system accesses table FNPACONT when translations of post-prefix digits in subtable HNPACONT.HNPACODE encounter a code type of FNPA (CD = FNPA). This condition appears in Figure 1.

- Table FNPACONT lists the three-digit codes. The three-digit codes are called FNPAs. The called FNPAs associate in subtable HNPACONT.HNPACODE with a code type of FNPA (CD = FNPA). The called FNPAs prescribe for each called FNPA the following:
- additional translations to allow different routing for each specified three-digit code in subtables FNPACONT.FNPACODE or FNPACONT.FNPASTS.STSCODE
- common routing prescription for correct three-digit codes. This use appears in Figure 2.

A correct three-digit code is a code in subtable FNPACONT.FNPACODE.

The index to table FNPACONT field NPA is the three-digit called FNPA.

Datafill sequence and meaning

Table FNPACONT depends on table HNPACONT and the subtables of HNPACONT.

FNPACONT (continued)

Table size

0 to 1000 tuples

Datafill

Datafill for table FNPACONT appears in the following table.

Foreign NPA route selector = N**Local/Toll**

The system uses table FNPACONT selector N when the system routes all correct office, operator or other three-digit codes within the FNPA. The system routes the codes to the same preferred trunk group common language location identifier (CLLI). The system also routes the codes to the same alternate route. The system uses table OFRT to route the codes. Table OFRT specifies the following actions:

- the number of digits to delete
- the digits to prefix
- if the system must cancel normal charges

Correct three-digit code is are three-digit codes in subtable FNPACONT.FNPACODE.

If the dialed three-digit code is not present in subtable FNPACONT.FNPACODE, the system routes the call. The system routes the call to the TMTCNTL subtable, that applies, at TREATMT = vacant code (VACT).

If the FNPA route selector is N, enter data in the fields that appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NPA		numeric	<i>Numbering plan area</i> Enter the three-digit FNPA code that requires six-digit translation.
MAXRTE		2 to 1023	<i>Number of route references</i> Enter 2 for the amount route reference numbers if selector field FRTSEL = N. Entries out of this range are not correct.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS (Option list of SG selector.)		see subfield	
	DMI	1 to 32,766	Digit Manipulation Index (DMI). The DMI option enables the called number characteristics to be manipulated by use of table DIGMAN. This is an index into table DIGMAN.
ROUTES		see subfields	<i>Routes</i> This field contains subfields FRTSEL, FIRST_ROUTE, and SECOND_ROUTE.
	FRTSEL	N	<i>Foreign NPA route selector</i> Enter N.
	FIRST_ROUTE	see subfields	<i>First route</i> This field contains subfields CONNTYPE, CLLI, DELDIGS, PRFXDIGS, and CANCNORC.
	CONNTYPE	D, A, T, CROUTING	<i>Connection type</i> Enter D to satisfy the table editor. Entries out of this range are not correct.
	CLLI	alphanumeric (a maximum of 16 characters)	<i>Common language location identifier</i> Enter the CLLI of the trunk group the call goes out on.
	DELDIGS	0 to 15	<i>Delete digits</i> Enter the number of digits to delete before outpulsing.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
	PRFXDIGS	0 to 9, B, C, D, E F or N (a maximum of 11 digits)	<i>Prefix digits</i> If digits or control signals have prefixes, enter the digits or equivalent digits that have prefixes. The following are control signals and the digit equivalents: • C11 B • C12 C • KP D • KP2 E • ST3P B • STP C • STKP D • ST2P E • ST F If digits do not have prefixes, enter N.
	CANCNORC	Y or N	<i>Cancel normal charge</i> Enter Y when one of the following conditions occur: • the type of call is direct dial (DD) and the call does not require a charge • the type of call is no prefix (NP) and coin returns to Prepay or Coin Dial Tone First line If these conditions do not occur, enter N. If the system routes the call to an announcement and the system bills the call, enter Y. If this condition does not occur, enter N. Billing includes coins collected, offhook returned, message rate pegged.
	SECOND_ROUTE	see refinement	<i>Second route</i> This subfield contains refinement EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This refinement contains subfields TABID and KEY.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2, OFR3, OFR4 TOPS, AOSS, IBNRTE, RRTE, IBNRT2, IBNRT3, IBNRT4, TOPSAMA	<i>Table identifier</i> Enter the name of the table where the call routes. Entries out of this range are not correct.
	KEY	0 to 1023	<i>Key</i> Enter the route reference index of the route list in the office route table where the translation routes. Entries out of this range are not correct.

Foreign NPA route selector = S**Local/Toll**

The system uses FNPACONT selector S when the system routes correct three-digit codes in the FNPA to the same trunk group CLLI. The system also routes FNPA to the alternate route with table OFRT.

Correct three-digit code are three-digit code in subtable FNPACONT.FNPACODE.

If the dialed three-digit code is not present in subtable FNPACONT.FNPACODE, the system routes the call. The system routes the call to the TMTCNTL subtable, that applies, at TREATMT = VACT.

FNPACONT (continued)

If the FNPA route selector is equal to S, enter data in the fields that appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NPA		numeric (three digits)	<i>Numbering plan area</i> Enter the three-digit FNPA code that requires six-digit translation.
MAXRTE		2 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers if selector field FRTSEL = N. Entries out of this range are not correct.
ROUTES		see subfields	<i>Routes</i> This field contains subfields FRTSEL, FIRST_RTE, and SECOND_ROUTE.
	FRTSEL	S	<i>Foreign NPA route selector</i> Enter S.
	FIRST_RTE	see refinements	<i>First route</i> This subfield contains refinements CONNTYPE and CLLI.
	CONNTYPE	D, A, T, CROUTING	<i>Connection type</i> Enter D. Entries out of this range are not correct.
	CLLI	alphanumeric (a maximum of 16 characters)	<i>Common language location identifier</i> Enter the CLLI of the trunk group the call goes out on.
	SECOND_ROUTE	see refinement	<i>Second routes</i> This subfield contains refinement EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This refinement contains subfields TABID and KEY.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2 OFR3, OFR4 TOPS, AOSS, TOPSAMA, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, RTE	<i>Table identifier</i> Enter the name of the table where the call routes.
	KEY	0 to 1023	<i>Key</i> Enter the route reference index of the route list in the office route table where translation routes.

Foreign NPA route selector = SX**Local/Toll**

The system uses FNPACONT selector SX when the system routes correct three-digit codes in FNPA to the same trunk group CLLI. The system also routes FNPA to the alternate route with table OFRT.

Correct three-digit codes are three-digit code in subtable FNPACONT.FNPACODE.

If the dialed three-digit code is not present in subtable FNPACONT.FNPACODE, the system routes the call. The system routes the call to the TMTCNTL subtable, that applies, at TREATMT = VACT.

If the FNPA route selector is equal to SX, enter data in the fields that appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NPA		numeric (three digits)	<i>Numbering plan area</i> Enter the three-digit FNPA code that requires six-digit translation.
MAXRTE		2 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers if selector field FRTSEL = N. Entries out of this range are not correct.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
ROUTES		see subfields	<i>Routes</i> This field contains subfields FRTSEL, FIRST_RTE, and SECOND_ROUTE.
	FRTSEL	SX	<i>Foreign NPA extended route selector</i> Enter SX.
	FIRST_RTE	see refinements	<i>First route</i> This subfield contains refinement CLLI.
	CLLI	alphanumeric (a maximum of 16 characters)	<i>Common language location identifier</i> Enter the CLLI of the trunk group the call goes out on.
	SECOND_ROUTE	see refinement	<i>Second routes</i> This subfield contains refinement EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This refinement contains subfields TABID, KEY and INDEX.
	TABID	OFRT, OFR2, OFR3, OFR4, TOPS, AOSS, TOPSAMA, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, RRTE	<i>Table identifier</i> Enter the name of the table where the call routes.
	KEY	0 to 1023	<i>Key</i> Enter the route reference index of the route list in the office route table where the translation routes.
	ROUTATTR_INDEX	alphanumeric (a maximum of 16 characters)	<i>Routeattribute index</i> Enter the index in table ROUTATTR that contains the expanded routing information to apply to the call.

Foreign NPA route selector = T
Local/Toll

The TOPS13 activity Operator Services Network Capability expands the use of the T-selector in the RTEREF subtable to point to an entry in the OSNCCAP table. This use of the T-selector does not cause a call to leave the route list in

FNPACONT (continued)

the RTEREF subtable as the T-selector does when it points to a route list in a routing table.

When the T-selector points to an entry in the OSNCCAP table, signaling of OSNC capabilities is controlled on outgoing IT/ATC ISUP trunks for calls with OSNC capabilities routed to TOPS or service nodes. Refer to the description of the OSNCCAP table in the North America DMS-100 Customer Data Schema, 297-8021-351, for more information on particular OSNC capabilities and about control of them.

For example, when a call with OSNC capabilities advances through a route list to establish an outgoing connection, and if the call encounters a T-selector pointing to an entry in the OSNCCAP table and if the entry is set to ON, OSNC capabilities are signalled on the any subsequent IT or ATC ISUP trunk.

However, if the call encounters a T-selector pointing to an entry in the OSNCCAP table, and if this entry is set to OFF, OSNC capabilities are not signalled on the any subsequent IT or ATC ISUP trunk.

The entry in the OSNCCAP table is not disabled when a call changes from one route list to another.

Calls which have not been to TOPS or service nodes are not be affected by the T-selector when it points to an entry in the OSNCCAP table.

The system also uses table FNPACONT selector T when the system routes correct three-digit codes in the FNPA to the same preferred route. The system also routes FNPA to the alternate route with table OFRT.

Correct three-digit codes are three-digit code in subtable FNPACONT.FNPACODE.

If the dialed three-digit code is not present in subtable FNPACONT.FNPACODE, the system routes the call routes to the TMTCNTL subtable, that applies, at TREATMT = VACT.

FNPACONT (continued)

If the FNPA route selector is equal to T, enter data in the fields that appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NPA		numeric (three digits)	<i>Numbering plan area</i> Enter the three-digit FNPA code that requires six-digit translation.
MAXRTE		1 to 1023	<i>Number of route reference</i> Enter 2 for the quantity of route reference numbers if selector field FRTSEL = T. Entries out of this range are not correct.
ROUTES		see subfields	<i>Routes</i> This field contains subfields FRTSEL, FIRST_RTE, and SECOND_ROUTE.
	FRTSEL	T	<i>Foreign NPA route selector</i> Enter T.
	FIRST_RTE	see refinement	<i>First route</i> This subfield contains refinement EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This refinement contains subfields TABID and KEY.
	TABID	OFRT, OFR2 OFR3, OFR4 TOPS, AOSS, TOPSAMA, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, RTE	<i>Table identifier</i> Enter the office route table name where the call routes.
	KEY	0 to 1023	<i>Key</i> Enter the route reference index in the office route table where the translation routes.
	SECOND_ROUTE	see refinement	<i>Second route</i> This subfield contains refinement EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This refinement contains subfields TABID and KEY.

FNPACONT (continued)**Field descriptions**

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2 OFR3, OFR4 TOPS,AOSS, TOPSAMA, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, RRTE, OSNCCAP	<i>Table identifier</i> Enter the office route table name where the call routes.
	KEY	0 to 1023	<i>Key</i> Enter the route reference index in the office route table where the translation routes.

Foreign NPA route selector = - (dash)**Local/Toll**

The system uses table FNPACONT selector - (dash) when you specify the route for each correct office, operator, or other three-digit code. This specification occurs in the FNPA in subtables FNPACONT.FNPACODE and FNPACONT.FNPASTS.STSCODE. In these subtables, you specify the route as a route reference to subtable FNPACONT.RTEREF or FNPACONT.FNPASTS.RTEREF. A correct three-digit code is a three-digit code that appears in subtables FNPACONT.FNPACODE and FNPACONT.FNPASTS.STSCODE.

If the dialed office code is not present in subtables FNPACONT.FNPACODE and FNPACONT.FNPASTS.STSCODE, the system routes the call. The system routes the call to the TMTCNTL subtable, that applies, at TREATMT = VACT.

FNPACONT (continued)

If the FNPA route selector is equal to - (dash), enter data into the fields that appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NPA		numeric (three digits)	<i>Numbering plan area</i> Enter the three-digit FNPA code that requires six-digit translation.
MAXRTE		1 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers when selector field FRTSEL = - (dash). The system extends field MAXRTE to the highest route index subtable FNPACONT.RTEREF uses.
ROUTES		see subfield	<i>Routes</i> This field contains subfield FRTSEL.
	FRTSEL	- (dash)	<i>Foreign NPA route selector</i> Enter - (dash).

Datafill example

The datafill for table FNPACONT when the call originates in a serving NPA appears in the following example. The following are the first 16 entries of table HNPACONT.

Refer to the description of subtable FNPACONT.FNPASTS.STCODE an example of datafill for table FNPACONT when the call originates from a true STS. Entries 17 and higher of table HNPACONT appears below.

The following example contains the following:

- Three FNPAs (412, 413, 414) that have subtables FNPACONT.FNPACODE. Nortel generates these subtables from the master vacant code file. Entry of the FNPAs occurs in table FNPACONT with selector field FRTSEL S. Field FRTSEL = S indicates that calls to correct office, operator, or other three-digit codes in these FNPAs route as specified. The associated fields CLLI and TABID, KEY of table FNPACONT specify the route. Correct three-digit codes are the codes in the subtables FNPACONT.FNPACODE.
- The FNPA 416 that requires datafill from the operating company for the associated subtables FNPACONT.FNPACODE and FNPACONT.RTEREF.

FNPACONT (end)

MAP display example for table FNPACONT

NPA MAXRTE			ROUTES		FNPACODE	
FNPASTS	RTREF					
412	2	S	D	MTRLPQ0201T0	OFRT	2 (0)
(0)	(0)					
413	2	S	D	OTWAON1002T0	OFRT	1 (0)
(0)	(0)					
414	2	S	D	MTRLPQ0201T0	OFR4	1 (0)
(0)	(0)					
416	2					- (0)
(0)	(0)					

Release history
NA016

Feature 59029017 introduces a new subtable RTEMAP in table FNPACONT.

FNPACONT.FNPACODE

Table name

Foreign NPA codes subtable

Functional description

The system accesses subtable FNPACONT.FNPACODE each time code type (CD) FNPA is in subtable HNPACONT.HNPACODE. The system accesses the subtable during translation of a call that originates from within a serving numbering plan area (NPA) (table HNPACONT entries 0 to 15). The system also accesses subtable FNPACONT.FNPACODE each time code type (CD) FNPA is in subtable HNPACONT.HNPACODE. The system accesses the subtable during the translation of a call that originates from within a serving translation scheme (STS) (table HNPACONT entries 16 and higher). This occurs if the field COMMON-FNPA in subfield FNPACONT.FNPASTS is Y (yes).

Subtable FNPACONT.FNPACODE lists the valid office, operator, or other three-digit codes within the foreign NPA. If table FNPACONT selector field FRTSEL is - (dash), this subtable lists the RTEREF index into subtable FNPACONT.RTEREF. Table FNPACONT selector field FRTSEL can be N, S, SX, or T. The field can contain any of these entries, or valid office, operator, or other three-digit codes. In this event, the system routes to a trunk group common language location identifier (CLLI). The system also routes the said items to table OFRT. Table FNPACONT determines the CLLI. Subtable FNPACONT.FNPACODE lists the valid office, operator or other three-digit codes.

For FNPA selectors N, S, SX, or T, Northern Telecom generates subtable FNPACONT.FNPACODE from the master vacant code file. Northern Telecom generates this subtable when the operating company requests the subtable. The operating company did not provide the initial input. The operating company was responsible for keeping the data up-to-date after initial input. Northern Telecom does not generate the initial input for subtable FNPACONT.FNPACODE.

The operating company must provide input for each assigned three-digit code. The vacant three-digit codes do not require any input.

Refer to table FNPACONT for related information.

Datafill sequence and meaning

Enter data in table HNPACONT before you enter data in subtable FNPACONT.FNPACODE.

FNPACONT.FNPACODE (continued)**Table size**

0 to (see note)

Note: This subtable uses digilators. The maximum number of tuples depends on the datafill in the table. The datafill varies with each application.

Datafill

Datafill for table FNPACONT.FNPACODE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		000 to 999	<i>From digits</i> Enter a single three-digit code, or the first number of a block of sequential three-digit code, that has the same route reference number. The codes must also have authorized centralized automatic message accounting (CAMA) indicator.
TODIGS		numeric	<i>To digits</i> If field FROMDIGS represents a single code, the entry is equal to the number in field FROMDIGS. If field FROMDIGS represents the first number of a block of sequential numbers, the entry is equal to the last number in the block.

FNPACONT.FNPACODE (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
RTEREF		0 to 1023	<i>Route reference</i> Enter the route reference index for the route list in subtable FNPACONT.RTEREF where translation routes. Entries outside of this range are not correct.
CAMAAUTH		Y or N	<i>Authorized CAMA route</i> Enter N (No) if the three-digit codes are not accessible from a local originating source. Enter Y (Yes) if the three-digit codes are accessible from a local originating source. Note 1: A line, incoming CAMA/AMR5 trunk or other trunk, with a local definition (that is, non-operator) originating source can dial a three-digit code. The code must have the authorized CAMA set to N. If this condition occurs, the originator routes to a vacant code treatment in the correct treatment table. Note 2: For all vacant codes from 000 to 199, the system initializes the authorized CAMA field to N. Note 3: For all vacant codes from 200 to 999, the system initializes the authorized CAMA field to Y.

Datafill example

Sample datafill for table FNPACONT.FNPACODE appears in the following example.

Input for subtable FNPACONT.FNPACODE at position FNPA = 416 if the call originates from within a serving NPA. The first 16 entries of table HNPACONT appear in the example.

See the example for subtable FNPACONT.FNPASTS.STSCODE for an example of input for subtable FNPACONT.FNPACODE. See the example if the call originates from a true STS (entries 17 and higher in table HNPACONT).

FNPACONT.FNPACODE (end)

The following entries appear in this example:

- Codes 000 to 021 and 274 route to RTEREF = 1 in subtable FNPACONT.RTEREF at position FNPA = 416. Calls to codes 000 to 021 that originate from a local source. Some local sources are incoming CAMA trunk group. These local sources route to the correct TMTCNTL subtable at TREATMENT = VACT which means vacant code treatment. This condition occurs because field CAMAAUTH is N.
- Code 035 routes to RTEREF = 2 in subtable FNPACONT.RTEREF at position FNPA = 416. Calls to code 035 that originate from a local source such as an incoming CAMA trunk group, route to the correct TMTCNTL subtable at TREATMENT = VACT. This condition occurs because field CAMAAUTH is N.
- All the remaining codes, 000 to 020, 022 to 034, 036 to 273, and 275 to 999, route to vacant code treatment.

MAP example for table FNPACONT.FNPACODE

FROMDIGS	TODIGS	RTEREF	CAMAAUTH

000	021	1	N
035	035	2	N
274	274	1	Y

FNPACONT.FNPASTS

Table name

List of Foreign NPA STS Codes Subtables Subtable

Functional description

Refer to table FNPACONT for related information.

Local/toll

The system accesses subtable FNPACONT.FNPASTS every time the code type (CD) foreign numbering area plan (FNPA) is in subtable HNPACONT.HNPACODE during translation of a call. The call originates from a serving translation scheme (STS). The STS is in table HNPACONT, entries 16 and higher.

Subtable FNPACONT.FNPASTS defines if the translation of office, operator, or other three-digit codes for the given FNPA is special to the STS. These features can be the same as other serving NPAs (SNPA) or STSs. Subtable FNPACONT.FNPASTS defines this condition for a specified combination of called FNPA and calling STS.

If translation of three-digit codes is special to the STS, field COMMON_FNPA in subtable FNPACONT.FNPASTS is N (no). Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE. Translation that is special to the STS is a partitioned six-digit translation.

If translation of three-digit codes is the same as other SNPAs or STSs, field COMMON_FNPA is Y (yes). Field COMMON_FNPA is in subtable FNPACONT.FNPASTS. Translation proceeds to subtable FNPACONT.FNPACODE.



CAUTION

If the COMMON_FNPA bool is changed to N, entries in FNPACONT.FNPASTS.RTEREF will be deleted. RTEREF entries must be present in FNPACONT.FNPACODE or calls can fail to complete.

Office parameter MAXSTS in table OFCENG must be larger than zero before extension of subtable FNPACONT.FNPASTS.

Datafill sequence and meaning

Enter data in table HNPACONT before you enter data in subtable FNPACONT.FNPASTS.

Table size

The table contains 0 to 1000 tuples

Datafill

Foreign NPA route selector: N

Local/toll

Use table FNPACONT selector N when the system must route all correct office, operator or other three-digit codes. The system routes these codes to the same preferred trunk group common language location identifier (CLLI) and alternate route. The system uses table OFRT. Table OFRT can specify the following:

- the number of digits to delete
- the digits to prefix
- if the system must cancel normal charges

A correct three-digit code is any three-digit code that appears in subtable FNPACONT.FNPACODE.

When the dialed three-digit code is not in subtable FNPACONT.FNPACODE, the call routes to the correct TMTCNTL subtable. The TMTCNTL subtable is at TREATMT = VACT (vacant code). This subtable applies to this condition. Complete input as follows when selector is equal to N.

Field names, subfield names and correct data ranges for table FNPACONT.FNPASTS appear in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
STS		000 to 999	<i>Serving translation scheme</i> Enter the three-digit STS code from where calls that require six-digit translation originate.
COMMON_ FNPA		Y or N	<i>Common foreign numbering plan area</i> Enter Y (yes) if partitioned six-digit translation is not required. Translation proceeds to subtable FNPACONT.FNPACODE. This subtable is common to other SNPAs or STSs.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
MAXRTE		1 to 1023	Enter N (no) to indicate that partitioned six-digit translation is required. Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE. <i>Number of route references</i> Enter 2 for the quantity of route reference numbers IF selector field FRTSEL = N. Field MAXRTE extends to the highest route index in subtable FNPACONT.FNPASTS.RTEREF.
ROUTES		see subfields	<i>Route selector</i> This field contains subfield FRTSEL.
	FRTSEL	N	<i>Foreign NPA route selector</i> Enter N.
FIRST_ROUTE		see subfields	<i>First route</i> This field contains subfields CONNTYPE, CLLI, DELDIGS, PRFXDIGS and CANCNORC. Refer to the appropriate subfield for the definition of the field.
	CONNTYPE	D	<i>Connection type</i> Enter D to meet the requirements of the table editor.
	CLLI	alphanumeric	<i>Common language location identifier</i> Enter the CLLI of the trunk group the call goes out on.
	DELDIGS	0 to 15	<i>Delete digits</i> Enter the number of digits to delete before transmission.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
SECOND_ ROUTE	PRFXDIGS	0 to 9, B, C, D, E F or N	<i>Prefix digits</i> If digits and/or control signals have a prefix, enter the digits or equivalents that have a prefix. Control signals and the digit equivalents appear in the following list: • C11 = B • C12 = C • KP = D • KP2 = E • ST3P = B • STP = C • STKP = D • ST2P = E • ST= F If digits do not have a prefix, enter N.
	CANCNORC	Y or N	<i>Cancel normal charge</i> Enter Y if the following conditions apply: • the type of call is direct dial (DD) and a charge is not necessary for the call • he type of call is no prefix (NP) and coin returns to Prepay or Coin Dial Tone First line If these conditions do not apply, enter N. If the call routes to an announcement and the system bills the call, enter Y. Examples of calls the system bills are coins collected, off-hook returned and message note pegged. If this condition does not occur, enter N.
		see subfield	<i>Second route</i> This field contains subfield EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This field contains subfields TABID, and KEY.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2, OFR3, OFR4, TOPS, RRTE, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, AOSS, AOSSAMA or TOPSAMA	<i>Table identifier</i> Enter the name of the table to which the call routes.
	KEY	1 to 1023	<i>Key</i> Enter the route reference index of the route list in the office route table in which translation routes.

Foreign NPA route selector: S**Local/toll**

Use table FNPACONT selector S when the system must route correct three-digit codes in the FNPA. The system routes the codes to the same preferred trunk group CLLI and alternate route through table OFRT.

A correct three-digit code appears in subtable FNPACONT.FNPACODE.

If the dialed three-digit code is not in subtable FNPACONT.FNPACODE, the system routes the call to the subtable TMTCNTL at treatment = VACT (vacant code).

Complete input as follows when selector is equal to S.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	STS	000 to 999	<i>Serving translation scheme</i> Enter the three-digit STS code where calls that require six-digit translation originate.
	COMMON_FNPA	Y or N	<i>Common foreign numbering plan area</i> Enter Y if partitioned six-digit translation is not required. Translation proceeds to subtable FNPACONT.FNPACODE. This subtable is common to other SNPAs or STSs. If this condition does not occur, enter N to indicate that partitioned six-digit translation is required. Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE. Note: If the COMMON_FNPA bool is changed to N, entries in FNPACONT.FNPASTS.RTEREF will be deleted. RTEREF entries must be present in FNPACONT.FNPACODE or calls can fail to complete.
	MAXRTE	1 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers when selector field FRTSEL = S.
	ROUTES	see subfields	<i>Routes</i> This field contains subfield FRTSEL.
	FRTSEL	S	<i>Foreign NPA route selector</i> Enter S.
	FIRST_RTE	see subfields	<i>First rte</i> This field contains subfields CONNTYPE and CLLI.
	CONNTYPE	D	<i>Connection type</i> Enter D to meet the requirements of the table editor.
	CLLI	alphanumeric	<i>Common language location identifier</i> Enter the CLLI of the trunk group the call goes out on.
	SECOND_ROUTE	see subfield	<i>Second route</i> This field contains subfield EXTRTEID.
	EXTRTEID	see subfields	<i>External route identifier</i> This field contains subfields TABID, and KEY.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TABID	OFRT, OFR2, OFR3, OFR4, TOPS, RRTE, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, AOSS, AOSSAMA or TOPSAMA	<i>Table identifier</i> Enter the office route table name to which the call routes.
	KEY	1 to 1023	<i>Key</i> Enter the route reference index of the route list in the office route table to which translation routes.

Foreign NPA route selector: T**Local/toll**

Use table FNPACONT selector T when the system route correct three-digit codes in the foreign NPA. The system routes these codes to the same preferred route and alternate route through table OFRT.

A correct three-digit code is any three-digit code in subtable FNPACONT.FNPACODE.

When the dialed three-digit code is not in subtable FNPACONT.FNPACODE, the system routes the call. The system routes the call to the TMTCNTL subtable at TREATMT = VACT (vacant code).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	STS	000 to 999	<i>Serving translation scheme</i> Enter the three-digit STS code where calls that require six-digit translation originate.
	COMMON_ FNPA	Y or N	<i>Common foreign numbering plan area</i> Enter Y if partitioned six-digit translation is not required. Translation proceeds to subtable FNPACONT.FNPACODE. This subtable is common to other SNPAs or STSs. Enter N (no) to indicate that partitioned six-digit translation is required. Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE.
	MAXRTE	1 to 1023	<i>Field/Subfield long name</i> Enter 2 for the quantity of route reference numbers when selector field FRTSEL = T.
	ROUTES	refer to the subfields	<i>Routes</i> This field contains subfields FRTSEL, FIRST_RTE and SECOND_ROUTE.
	FRTSEL	T	<i>Foreign NPA route selector</i> Enter T.
	FIRST_RTE	refer to the subfield	<i>First route</i> This field contains subfield EXTRTEID.
	EXTRTEID	refer to the subfields	<i>External route identifier</i> This field contains subfields TABID and KEY.
	TABID	OFRT, OFR2, OFR3, OFR4, TOPS, RRTE, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, AOSS, AOSSAMA, or TOPSAMA	<i>Table identifier</i> Enter the office route table name to which the call routes.
	KEY	1 to 1023	<i>Key</i> Enter the route reference index in the office route table to which translation routes.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SECOND_ROUTE	refer to the subfield	<i>Second route</i> This field contains subfield EXTRTEID.
	EXTRTEID	refer to the subfields	<i>External route identifier</i> This field contains subfields TABID and KEY.
	TABID	OFRT, OFR2, OFR3, OFR4 TOPS, RRTE, IBNRTE, IBNRT2, IBNRT3, IBNRT4, TTL4, AOSS AOSSAMA or TOPSAMA	<i>Table identifier</i> Enter the office route table name to which the call routes.
	KEY	1 to 1023	<i>Key</i> Enter the route reference index in the office route table to which translation routes.

Foreign NPA route selector: - (dash)**Local/toll**

Use table FNPACONT selector - (dash) when the FNPACONT.FNPACODE or subtable FNPACONT.FNPASTS.STSCODE specifies a route. This route is for each correct office, operator or other three-digit code in the FNPA. These subtables specify the route as a route reference to subtable FNPACONT.RTEREF or FNPACONT.FNPASTS.RTEREF. A correct three-digit code is any three-digit code in subtable FNPACONT.FNPACODE or subtable FNPACONT.FNPASTS.STSCODE.

When the dialed office code is not in subtable FNPACONT.FNPACODE or subtable FNPACONT.FNPASTS.STSCODE, the system routes the call. The system routes the call to the TMTCNTL subtable at TREATMT = VACT (vacant code) that applies to this condition.

Complete input as follows when selector is equal to - (dash).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	STS	000 to 999	<i>Serving translation scheme</i> Enter the three-digit STS code where calls that require six-digit translation originate.
	COMMON_ FNPA	Y or N	<i>Common foreign numbering plan area</i> Enter Y (yes) if partitioned six-digit translation is not required. Translation proceeds to subtable FNPACONT.FNPACODE. This subtable is common to other SNPAs or STSs. Enter N (no) to indicate that partitioned six-digit translation is not required. Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE.
	MAXRTE	1 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers IF selector field FRTSEL = N. The system extends field MAXRTE is extends to the highest route index in subtable FNPACONT.FNPASTS.RTEREF.
	ROUTES	refer to the subfield	<i>Routes</i> This field contains subfield FRTSEL.
	FRTSEL	- (dash)	<i>Foreign NPA route selector</i> Enter - (dash).

Datafill example

See the example in subtable FNPACONT.FNPASTS.STSCODE.

FNPACONT.FNPASTS.RTEREF

Table name

Foreign NPA STS Route Reference Subtable

Functional description

One route reference subtable FNPACONT.FNPASTS.RTEREF is required for each combination of FNPA serving translation scheme (STS) that requires special six-digit translations, (that is for each combination of FNPA for which subtable FNPACONT.FNPASTS exists and of STS in subtable FNPACONT.FNPASTS at position FNPA with field COMMON_FNPA = N).

No subtable FNPACONT.FNPASTS.RTEREF is required for any combination of FNPA and STS with field COMMON_FNPA = Y in subtable FNPACONT.FNPASTS.

Field MAXRTE of subtable FNPACONT.FNPASTS is automatically extended to the highest route index used in field RTE of subtable FNPACONT.FNPASTS.RTEREF.

For related information, refer to table FNPACONT.FNPASTS.

Datafill sequence and implications

The following tables must be datafilled before table FNPACONT.FNPASTS.RTEREF.

- FNPACONT
- FNPACONT.FNPASTS

Table size

0 to 1024 tuples

FNPACONT.FNPASTS.RTEREF (continued)**Field descriptions**

The following table describes field names, subfield names, and valid data ranges for table FNPACONT.FNPASTS.RTEREF.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
RTE		0 to 1023	ROUTE INDEX. Enter a route index. Translation table index this routing table through the RTE field.
RTELIST			ROUTE LIST. Datafill the RTESEL subfield and its refinements. Enter up to 9 RTELISTs.
	RTESEL		ROUTE SELECTOR. Enter one of the following and datafill the appropriate refinements: S, T, N, MN, ISA, TS, RT, TC, DN, SQ, NQ, QH, ST, CND, NOT, RX, SX, NIL, INS, NODE, DCRT, TPBX, NPOS, MEM, FEAT, NPOSDN, EXDS, TRMT, GW_S_ROUTE, GW_N_ROUTE, GW_MN_ROUTE, AFR_ROUTE, QSCP_ROUTE, QFLEXSTC_ROUTE

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		S	Enter S for toll switching unit routing. The S selector is available for the following trunks: • outgoing ONAL • two-way ONAL • intermachine trunk (IMT) • intertoll • standard digit manipulation (digit deletion or prefixing) when the ABC digits dialed are represented in table HNPACODE by code types FNPA and FRTE: — Delete the ABC digits from the outpulsed digits when the dialed ABC digits equal the connecting NPA (CONNGNPA) specified in the trunk group data. The system deletes NPA and outpulses seven digits when DNPA equals CONNPA (ONAL). — Prefix 1 and outpulse 1 + 10 digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) specified in the trunk group data. The system prefixes 1 and outpulses 1 + 10 digits when the DNPA does not equal CONNPA (ONAL). — Use standard 10-digit outpulsing when the call terminates on an IMT. Refer to the RTESEL=S section for refinement datafill.
		T	Enter T to index another routing table for the appropriate routing list. Refer to the RTESEL=T section for refinement datafill.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		N	Enter N when standard digit manipulation cannot be performed for the following trunks: • outgoing ONAL • two-way trunk group ONAL • IMT • intertoll Route selector N cancels standard digit manipulation automatically and requires that digit deleting and prefixing be specified. • Delete three digits and prefix 1 to outpulse 1 + 7 digits when the dialed ABC digits are equal to the connecting NPA (CONNGNPA). Prefix 1 and outpulse 1 + 7 digits when DNPA = CONNPA (ONAL). • Do not delete digits and prefix of N to outpulse ten digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) and prefix is not required. Outpulse ten digits when DNPA=CONNPA (ONAL) and prefix is not required. • Do not delete digits and prefix 1 to outpulse 1 + 10 digits when CONNPA=DNPA for those areas of the country requiring 1 + 10 digit outpulsing. Refer to the RTESEL=N or NPOS section for refinement datafill.
		ISA	Enter ISA for primary rate access interface routing. Refer to the RTESEL=ISA section for refinement datafill.
		SQ	Enter SQ for queuing with standard digit manipulation. Refer to the RTESEL=SQ section for refinement datafill.
		NQ	Enter NQ for queuing with nonstandard digit manipulation. Refer to the RTESEL=NQ section for refinement datafill.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		QH	Enter QH to specify the time, in seconds, that a call queues for trunk groups. QH is considered a queue point, and is placed after a trunk group or several trunk groups in the route list. Trunk groups with queuing capabilities are queued upon for the time period specified in field QTIME. Refer to the RTESEL=QH section for refinement datafill.
		ST	Enter ST for same table routing. If all routes in a specified route list are busy, the ST selector allows additional route choices by pointing to another route reference index number with associated route choices. This is a means of <i>chaining</i> route lists. Refer to the RTESEL=ST section for refinement datafill.
		CND or NOT	Enter CND for Time of Day routing, Satellite Screening routing, and Long Distance Sensitive routing. The CND selector can be replaced by the NOT selector if a route list should not be used during a specific time range or under specific conditions (Satellite Screening or Long Distance Sensitive routing). The Not Condition (NOT) selector uses the same data fields as the CND selector. Refer to the RTESEL=CND or NOT section for refinement datafill.
		RX	Enter RX if the Adaptive Routing Package NTX340AA, containing the Retranslation capability is purchased. The fields associated with selector RX contain information that point the system to the DIGMAN table. Table DIGMAN performs digit substitution and digit replacement for more efficient adaptive routing. Adaptive route is the method of delivering ONNET calls over OFFNET facilities when the ONNET facilities are busy or unavailable. Refer to the RTESEL=RX section for refinement datafill.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		SX	Enter SX to use the RTEATTR table index to allow attributes for the call to be applied based on the route destination chosen. See section RTESEL=SX section for refinement datafill.
		NIL	Enter NIL to remove a RTESEL.
		AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE	There is no refinement datafill for RTESEL=AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE
		TPBX	Enter TPBX for tandem public branch exchange routing. Refer to the RTESEL=TPBX section for refinement datafill.
		MEM	Enter MEM for member number routing. Refer to the RTESEL=MEM section for refinement datafill.
		FEAT	Enter FEAT to find a USS7 IMT identified as GVPN in the FEATTYPE field. Call processing sends the correct facility code digits, STS, and 6- or 7-digit address code. Refer to the RTESEL=FEAT section for refinement datafill.
		EXDS	Enter EXDS for extended digit screening. Refer to the RTESEL=EXDS section for refinement datafill.
		TRMT	Enter TRMT to route to treatment. Refer to the RTESEL=TRMT section for refinement datafill.
		MN, TS, RT, TC, DN, NPOSDN, INS, NODE, DCRT, GW_S_ROUTE, GW_N_ROUTE, GW_MN_ROUTE, NPOS	The PRODUCT NAME switch does not support these selectors.

FNPACONT.FNPASTS.RTEREF (continued)**RTESEL=S**

When RTESEL=S, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=T

When RTESEL=T, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
EXTRTEID			EXTERNAL ROUTE IDENTIFIER. Datafill the 2-part field consisting of TABID and KEY.
	TABID		TABLE IDENTIFIER. Enter one of the following tables: OFRT, OFR2, OFR3, OFR4, EXDGTRTE, RRTE, TOPSAMA, TOPS, or TTL4.
		OFRTOFR2OFR3 OFR4EXDGTRTE RRTE	When EXTRTEID=OFR2, OFR3, OFR4, EXDGTRTE, or RRTE, datafill the KEY refinement.
	KEY	0 to 1023	KEY. Enter the number of the routing list in the datafilled table.
		TOPSAMA or TOPS	When EXTRTEID=TOPSAMA or TOPS, datafill the KEY refinement.
	KEY	Valid call origination	KEY. Enter the call origination from the datafilled table (valid entries are listed in the CO field of table TOPS or TOPSAMA).
		TTL4	When EXTRTEID=TTL4, datafill the KEY refinement.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	KEY	0 to 7	KEY. Enter the number of the routing list in the datafilled table.
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=N

When RTESEL=N, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.

FNPACONT.FNPASTS.RTEREF (continued)**RTESEL=ISA**

When RTESEL=ISA, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.
CBQ		Y or N	CALL BACK QUEUE. Enter Y if call back queuing is allowed on this route; otherwise, enter N.
EXP		Y or N	EXPENSIVE. Enter Y if this route choice is considered expensive; otherwise, enter N.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
CALLTYPE			Enter one of the following and datafill the appropriate refinement: PUB, PVT, INWATS, WATS, FX, or TIE.
		PUB	Enter PUB for public call type. When CALLTYPE=PUB, datafill the OATYPE, TNS, NPOS, and DMI refinements.
	OATYPE	NONE, OM, OP	OPERATOR ACCESS TYPE. Enter the type of operator access required on this call.
	TNS	0 to 999NC	TRANSIT NETWORK IN SETUP. Enter the transit network number to request in the SETUP message. If no TNS is required, enter N. If the TNS should be determined from the call's originator, enter C.
	NPOS	Y or N	NO CALLING NUMBER IDENTIFICATION REQUIRED. Enter Y to indicate that calling number identification is not required. Otherwise, enter N.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
		PVTINWATS FXTIE	When CALLTYPE=PVT, INWATS, FX, or TIE, datafill the FACNUM, NPI, and DMI refinements.
	FACNUM	0 to 1023	FACILITY NUMBER. Enter the facility number to include in the network specific facility (NSF) selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.
		WATS	When CALLTYPE=WATS, datafill the ZONE, NPI, and DMI refinements.
	ZONE	0 to 9, A, B, C, AUTO	ZONE. Enter the OUTWATS zone number to include in the NSF selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.

FNPACONT.FNPASTS.RTEREF (continued)**RTESEL=SQ**

When RTESEL=SQ, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=NQ

When RTESEL=NQ, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=QH

When RTESEL=QH, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
QTIME		0 to 255	QUEUE TIME. Enter the time in seconds that the call is in queue for the trunk group.

RTESEL=ST

When RTESEL=ST, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTEREF		0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.

FNPACONT.FNPASTS.RTEREF (continued)**RTESEL=CND or NOT**

When RTESEL=CND or NOT, datafill the following refinements:

(Sheet 1 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
CNDSEL		ALWAYS	CONDITIONAL SELECTOR. Enter one of the following and datafill the appropriate refinement: ALWAYS, RND, SNPA, EA, TOD, CALLCHR and STS. Enter ALWAYS to specify that a specific route or route list always applies regardless of time-of-day. There is no refinement datafill for ALWAYS.
		RND	When CNDSEL=RND, datafill the PERCENT refinement.
	PERCENT	0 to 100	PERCENTAGE. Enter a percentage.
		SNPA	SERVING NUMBERING PLAN AREA. When CNDSEL=SNPA, datafill the SNPA_CND_RTE refinement.
	SNPA_CND_RTE	000-999	SNPA CONDITIONAL ROUTE. Enter an SNPA.
		EA	EQUAL ACCESS. When CNDSEL=EA, datafill the EA_CND_RTE refinement.
	EA_CND_RTE	INTNL, PIC, CAC	EQUAL ACCESS CONDITIONAL ROUTE. Enter INTNL, PIC, or CAC.
		TOD	TIME OF DAY. When CNDSEL=TOD, datafill the TODNAME and TIMES refinements.
	TODNAME	NILTODNMT OD250	TIME OF DAY NAME.
	TIMES	0 to 9, A to F	TIMES. Enter the time range or group of ranges for which a predetermined route or route list is not applied.
		CALLCHR	When CNDSEL=CALLCHR, datafill the CALLCHR refinement.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
RTETYPE	CALLCHR	DIGDATA or SAT	CALL CHARACTERISTICS. Enter DIGDATA (digit data) or SAT (satellite routing).
		STS	SERVING TRANSLATION SCHEME. When CNDSEL=STS, datafill the STS_CND_RTE refinement. The ability to conditionally route based on STS or OPART is performed only for treated calls.
	STS_CND_RTE	STS or OPART	STS CONDITIONAL ROUTING. Enter STS or OPART (originating partition). When STS_CND_RTE=STS, datafill the STS refinement. When STS_CND_RTE=OPART, datafill the OPART refinement.
	STS	000 to 999	SERVING TRANSLATION SCHEME. Enter a valid STS datafilled in table HNPACONT.
	OPART	000 to 999	ORIGINATING PARTITION.
			Enter one of the following and datafill the appropriate refinement: ST, T, or SK.
		ST	Enter ST for same table routing. When RTETYPE=ST, datafill the RTEREF refinement.
	RTEREF	0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.
		T	Enter T for other table routing. When RTETYPE= T, datafill the TABNAME refinement.
	TABNAME		TABLE NAME. Enter one of the following and datafill the appropriate refinement: OFRT, OFR2, OFR3, OFR4, IRTE, RRTE, OPERRTE, or EXDGTRTE.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 3 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
		SK	Enter SK for skip route. When RTETYPE= SK, datafill the SKIPNUM refinement.
	SKIPNUM	0 to 7	SKIP NUMBER. Enter the number of elements to skip within the same route list, to which translation routes when the condition is met.

TABNAME=OFRT, OFR2, OFR3, OFR4, RRTE, or EXDGTRTE

When TABNAME=OFRT, OFR2, OFR3, OFR4, RRTE, or EXDGTRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
INDEX		0 to 1023	INDEX. Enter the number of the routing list in the datafilled table.

TABNAME=OPERRTE

When TABNAME=OPERRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
RRTNO		0 to 999	ROUTE NUMBER. Enter the carrier number of the routing list in the datafilled table.

TABNAME=IRTE

When TABNAME=IRTE, datafill the following refinement:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
XLASYS			Enter one of the following and datafill the appropriate refinement: NIL, AC, PX, CT, FA, OFC, AM, FT, NSC
		NIL	Enter NIL.

FNPACONT.FNPASTS.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
RTEREF		AC, PX, CT, FA, OFC, AM, FT, NSC	When XLASYS=AC, PX, CT, FA, OFC, AM, FT, or NSC, datafill the XLANAME refinement.
	XLANAME	NIL	Enter NIL.
		0 to 1023	ROUTE REFERENCE. Enter the number of the routing list in the datafilled table.

RTESEL=RX

When RTESEL=RX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
STS		000 to 999	SERVING TRANSLATION SCHEME. Enter the STS that requires retranslation.
TYPECALL		DD, OA, NP, NL	CALL TYPE. Enter the type of call: DD (direct dial), OA (operator assisted), NP (nonpulsing), or NL (new line)
DMI		0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN used to build the OFFNET number.
BILLDMI		0 to 32767	BILL DIGIT MANIPULATION INDEX. Enter 0. The PRODUCT NAME switch does not support this field.
OPTION		RC	This is an optional field. When OPTION=RC, datafill the RCNAME refinement.
	RCNAME	NILNAME	

FNPACONT.FNPASTS.RTEREF (continued)

RTESEL=SX

When RTESEL=SX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
ATTR_INDEX		Valid range datafilled in table RTEATTR	ROUTE ATTRIBUTE. Enter an index into the RTEATTR table.

RTESEL=TPBX

When RTESEL=TPBX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DMI		0 to 32767	DIGIT MANIPULATION. This field indexes table DIGMAN.
DISA		Y or N	This field marks the call as DISA or tandem PBX dialing.

FNPACONT.FNPASTS.RTEREF (continued)**RTESEL=MEM**

When RTESEL=MEM, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
MEMNUM		0 to 9999	MEMBER NUMBER. Enter the member number associated with the member number in table TRKMEM.
UPPERMEM		0 to 9999	UPPER MEMBER. enter the upper limit for the range.

RTESEL=FEAT

When RTESEL=FEAT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
FEATTYPE		IVPN, I800, IDDD, GVPN	FEATURE TYPE. This field indicates that the international feature is activated on a specific ISUP IMT. GVPN indicates that a global virtual private network (GVPN) call is being routed over the USS7 Gateway IMT trunk.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=EXDS

When RTESEL=EXDS, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CUST_NAME		Up to 8 alphanumeric characters	CUSTOMER NAME. This field indicates call processing translations are to continue in table EXDGTSCR.

FNPACONT.FNPASTS.RTEREF (end)

RTESEL=TRMT

When RTESEL=TRMT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTETRMT		Valid treatment datafilled in table TMTCNTL	ROUTE TREATMENT. Enter a valid treatment.

Datafill example

The following example shows datafill for table FNPACONT.FNPASTS.RTEREF.

RTE	RTELIST
23	(S D UDAL2WDTLS91) \$
25	(CND STS STS 611 ST 220) (CND STS OPART 111 ST 222) \$

Table history**UCS08**

The STS refinement was added for RTESEL=CND or NOT.

UCS06

Added SX route selector.

FNPACONT.FNPASTS.STSCODE

Table name

Foreign NPA STS Codes Subtable

Functional description

The system accesses subtable FNPACONT.FNPASTS.STSCODE when the system encounters the code type (CD) foreign numbering plan area (FNPA) in subtable HNPACONT.HNPACODE. The system encounters the CD FNPA during translation of a call that originates in a serving translation scheme (STS). The STS is table HNPACONT entries 16 and higher. This condition occurs if field COMMON_FNPA in subtable FNPACONT.FNPASTS is N (no).

Subtable FNPACONT.FNPASTS.STSCODE lists the correct office, operator, or other three-digit codes in the FNPA. The subtable lists these codes for calls that originate in the serving STS. For each three-digit code, the subtable lists the RTEREF index in subtable FNPACONT.FNPASTS.RTEREF.

See table FNPACONT.FNPASTS for related information.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table FNPACONT.FNPASTS.STSCODE.

- HNPACONT
- HNPACONT.HNPACODE
- FNPACONT
- FNPACONT.FNPASTS

Table size

0 to (see note)

Note: This subtable uses digilators. The maximum number of tuples depends on the datafill in the table. The datafill differs with each application.

Office parameter MAXSTS in table OFCENG must be larger than 0 before the extension of subtable FNPACONT.FNPASTS and subtable FNPACONT.FNPASTS.STSCODE.

FNPACONT.FNPASTS.STSCODE (continued)

The system automatically allocates memory for the 1000 three-digit codes with the addition of a tuple in subtable FNPACONT.FNPASTS. The system allocates memory automatically when the value of field COMMON_FNPA equal to N. The system initializes the 1000 three-digit codes to vacant code. The operating company must provided data for each assigned three-digit code. You do not have to enter data for the vacant three-digit codes.

Datafill

Datafill for table FNPACONT.FNPASTS.STSCODE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter a single code or the first number of a block of consecutive three-digit codes. These codes must have the same route reference number and authorized Centralized Automatic Message Accounting (CAMA) indicator.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single three-digit code, the entry is equal to the number in field FROMDIGS. If field FROMDIGS represents the first number of a block of consecutive numbers, the entry is equal to the last number in the block.
Note 1: A line, incoming CAMA/AMR5 trunk, or other trunk defined as a local originating source can dial a three-digit code. The line or trunk can dial a code with the authorized CAMA set to N. A local originating source has a source that is not the operator. If this condition occurs, the originator routes to vacant code treatment in the correct treatment table. Note 2: For all vacant codes from 000 to 199, the system sets the CAMA field that is not authorized to N. Note 3: For all vacant codes from 200 to 999 the system sets the authorized CAMA field to Y.			

FNPACONT.FNPASTS.STSCODE (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
RTEREF		1 to 1023	<i>Route reference</i> Enter the route reference index into subtable FNPACONT.FNPASTS.RTEREF.
CAMAAUTH		Y or N	<i>Authorized CAMA routeField/Subfield long name</i> Enter Y (yes) if a local originating source can access the three digit code.
Note 1: A line, incoming CAMA/AMR5 trunk, or other trunk defined as a local originating source can dial a three-digit code. The line or trunk can dial a code with the authorized CAMA set to N. A local originating source has a source that is not the operator. If this condition occurs, the originator routes to vacant code treatment in the correct treatment table. Note 2: For all vacant codes from 000 to 199, the system sets the CAMA field that is not authorized to N. Note 3: For all vacant codes from 200 to 999 the system sets the authorized CAMA field to Y.			

Datafill example

Sample datafill for table FNPACONT.FNPASTS.STSCODE appears in the following example.

The example indicates six-digit translations for calls to office codes 368, 370, 371, and 372 in foreign NPA 201 of STS 001. The required routing can be different than the routes for these office codes in subtable FNPACONT.FNPACODE at position 201. If this condition occurs, the system can use subtable FNPACONT.FNPASTS.STSCODE for the required special translations.

To allow extension of subtable FNPACONT.FNPASTS, set parameter MAXSTS in table OFCENG to a value greater than 0 (zero).

Each calling STS is a true STS if the STS occupies position 17 or higher in table HNPACONT. The office serves three SNPs. The three SNPs are 302, 704, and 919. The office serves four STSs. The four STSs are 001, 002, 003, and 010. An example of datafill for table HNPACONT appears in the following table. The recognition of STSs as true STS requires the entry of 13 dummy SNPs. The SNPs range from 987 through 999 so that STS 001 occupies position 17.

FNPACONT.FNPASTS.STSCODE (continued)**MAP example for table HNPACONT**

STS	NORTREFS	NOAMBIGC	RTREF	HNPACODE	ATTRIB	RTEMAP	
704	2	20 (	0)	(	0)	(	0)
919	2	20 (	0)	(	0)	(	0)
302	2	20 (	0)	(	0)	(	0)
999	2	0 (	0)	(	0)	(	0)
998	2	0 (	0)	(	0)	(	0)
997	2	0 (	0)	(	0)	(	0)
996	2	0 (	0)	(	0)	(	0)
995	2	0 (	0)	(	0)	(	0)
994	2	0 (	0)	(	0)	(	0)
993	2	0 (	0)	(	0)	(	0)
992	2	0 (	0)	(	0)	(	0)
991	2	0 (	0)	(	0)	(	0)
990	2	0 (	0)	(	0)	(	0)
989	2	0 (	0)	(	0)	(	0)
988	2	0 (	0)	(	0)	(	0)
987	2	0 (	0)	(	0)	(	0)
001	2	0 (	0)	(	0)	(	0)
002	2	0 (	0)	(	0)	(	0)
003	2	0 (	0)	(	0)	(	0)
010	2	0 (	0)	(	0)	(	0)

An entry in subtable HNPACONT.HNPACODE at position STS = 001 indicates that 201 is an FNPA. The entry requires six-digit translations in the FNPA table and subtables.

MAP example for table HNPACONT.HNPACODE

FROMDIGS	TODIGS CDRRTMT
201	201 FNPA 0

Table FNPACONT appears in the following example. Table FNPACONT contains an entry for foreign NPA 201. Table FNPACONT has 2 route references with selector FRTSEL set to - (dash). These route references indicate that subtable FNDACONT.FNPACODE can contain the routes for

FNPACONT.FNPASTS.STSCODE (continued)

office codes in FNPA = 201. These route references can indicate that the call originates from a true STS. Subtable FNPACONT.FNPASTS.STSCODE contains the routes.

MAP example for table FNPACONT

NPA	MAXRTE	ROUTES
FNPA	FNPA	RTREF
201	2	-

The call originates in a true STS. Translation proceeds to subtable FNPACONT.FNPASTS (appears below) at position FNPA = 201. Index STS = 001 where field COMMON_FNPA is N indicates that STS 001 needs special 6-digit translations for FNPA 201.

MAP example for table FNPACONT.FNPASTS

STS	COMMON_FNPA	MAXRTE	ROUTES	STSCODE
RTREF				
001	N	2	-	

If field COMMON_FNPA in subtable FNPACONT.FNPASTS is N, the subtable refers to subtable FNPACONT.FNPASTS.STSCODE for translations. The subtable refers to subtable FNPACONT.FNPASTS.STSCODE for translation by office code in foreign NPA 201. This process is for calls that originate from STS 001.

Translation proceeds to subtable FNPACONT.FNPASTS.STSCODE.

FNPACONT.FNPASTS.STSCODE (end)

MAP example for table FNPACONT.FNPASTS.STSCODE

FROMDIGS	TODIGS	RTEREF	CAMAAUTH
369	369	1	Y
370	372	2	Y

Subtable FNPACONT.FNPASTS.RTEREF appears below. Subtable FNPACONT.FNPASTS.RTEREF defines the necessary special routes.

MAP example for table FNPACONT.FNPASTS.RTEREF

RTE	RTESSEL
1	N D CG001FX 0 N N T IBNRTE 100
2	N D CG001TIE 0 N N T IBNRTE 100

FNPACONT.RTEMAP

Functional description

The system accesses subtable FNPACONT.RTEMAP each time code type (CD) FNPA is in subtable HNPACONT.HNPACODE, and the route reference index in subtable FNPACONT.RTEREF matches the RCNAME index in table RTECHAR. Based on the RCNAME associated with the call and the RTEREF index obtained, a new RTEREF index is possible.

If an entry matching this index is found in subtable FNPACONT.RTEMAP, then the call is routed further using the new RTEREF index. If the new index found is not valid, the call is routed to DFIL treatment, and a corresponding log DFIL102 is generated.

If no entry is found, then the call is routed using the existing RTEREF index datafilled in subtable FNPACONT.FNPACODE. In this case, the foreign NPA call is routed using tables OFRx/IBNRTx and OFRTMAx/IBNMAx.

Refer to table FNPACONT for related information.

Table name

Foreign NPA Route Map Subtable

Datafill sequence and meaning

Enter datafill into the tables below before you enter datafill into table FNPACONT.RTEMAP:

- RCNAME
- RTECHAR
- FNPACONT.RTEREF

Note: Table OFRT describes the field names, subfield names and data ranges for its subtable, FNPACONT.RTEREF.

Table size

0 to 1023

Datavill

The table that follows lists datavill for table FNPACONT.RTEMAP.

Field descriptions

Field	Subfield	Entry	Explanation and action
KEY		see subfields	Key into table FNPACONT.RTEMAP. This field consists of subfields RCNAME and INDEX.
	RCNAME	alphanumeric (1 to 8 characters)	Routing characteristic name. Enter a routing characteristic name known to table RCNAME.
	INDEX	0 to 1023	Route reference index. Enter the route reference index of a basic routing list in table FNPACONT.RTEREF. A basic routing list is one in table FNPACONT.RTEREF that is accessed if ISDN routing characteristics are not present.
NEWINDEX		0 to 1023	New route reference index. Enter the route reference index of a nonbasic routing list in table FNPACONT.RTEREF. A nonbasic routing list is one that is accessed if ISDN routing characteristics are present. Any entry outside the range indicated for this field is invalid.

Datavill example

The figure that follows shows sample datavill for table FNPACONT.RTEMAP.

MAP display example for table FNPACONT.RTEMAP

	KEY	NEWINDEX
-----	-----	-----
64KDATA	10	20

Table history**Release NA016**

Subtable FNPACONT.RTEMAP was introduced in NA016.

FNPACONT.RTEREF

Table name

Foreign NPA Route Reference Subtable

Functional description

See table OFRT for a complete description of subtable FNPACONT.RTEREF.

Each foreign numbering plan area (FNPA) in table FNPACONT with field set to - (dash) requires one route reference subtable FNPACONT.RTEREF.

Any FNPA in table FNPACONT with field FRTSEL set to N, S, SX, or T does not require a subtable.

The system automatically extends field MAXRTE of table FNPACONT to the highest route index used in field RTE of subtable FNPACONT.RTEREF.

See table FNPACONT for related information.

Datafill sequence and meaning

Enter data in tables FNPACONT and OSNCCAP before you enter data in table FNPACONT.RTEREF.

Table size

0 to 1023 tuples

The FNPA control table record allocates memory for 16 route reference indexes in subtable FNPACONT.RTEREF.

Datafill

Table OFRT describes field names, subfield names, and correct data ranges for table FNPACONT.RTEREF.

Datafill example

Sample datafill for subtable FNPACONT.RTEREF in a toll switching unit (DMS-200) appears in the following example.

This subtable belongs to FNPA 416. Subtable FNPACONT.FNPACODE indexes this subtable.

Route reference index number 1

Translation takes this route if:

- The ABC digits the user dials are equal to 416 and DEF digits are in the range of 000 to 021. Translation also takes this route if the call originates

FNPACONT.RTEREF (end)

from a nonlocal source. An example of a nonlocal source is an incoming on an intertoll trunk. The call can originate from a local source like an incoming centralized automatic message accounting (CAMA) trunk. If this condition occurs, the call routes to a vacant code treatment.

- The ABCDEF digits dialed are equal to 416274. The call originates from a local source. A call incoming CAMA trunk is a local source. An incoming on an intertoll trunk is a nonlocal source.

If idle trunks are in the trunk group (TOROON0101TO), the system logic selects the most idle trunk and deletes the digits 416. This process is a standard digit control.

If all trunks in the trunk group (TOROON0101TO) are busy, translation proceeds to table OFRT, index number 2, to select an idle trunk.

Route reference index number 2

Translation takes this route if the user dials ABCDEF digits are equal to 416035. Translation takes this route if the call originates from a nonlocal source like a call incoming on a intertoll trunk group. If the call originates from a local source like an incoming CAMA trunk, the call routes to a vacant code treatment.

If idle trunks are in the trunk group (HMTNON1402TO), the system logic selects the least idle trunk. The system automatically deletes the digits 416035. These actions are standard digit control.

If all trunks in the trunk group are busy, translation proceeds to table OFR3, index number 2, to select an idle trunk.

MAP example for table FNPACONT.RTEREF

RTE				RTELIST			
1	(	S	D	TOROON0101T0)	(	T	OFRT 2)\$
2	(	S	D	HMTNON1402T0)	(	T	OFR3 2)\$

FPDEVINV

Table name

File Processor Device Inventory Table

Functional description

The descriptions of all the devices on a DMS SuperNode file processor (FP) appear in table FPDEVINV. The descriptions identify the following:

- the FP
- the type of small computer systems interface (SCSI) device
- the location
- the hardware configuration required to identify a particular device

Table FPDEVINV dynamically adds and deletes FP SCSI devices. Table FPDEVINV interacts directly with tables APINV, APCDINV, and FPDIPINV. The information is descriptive data. The key fields are FPNO, SCSIBUS and DEVNO.

The configuration data that the resource processor (RP) MAP (maintenance and administration position) facility and the integrated node maintenance (INM) software require appears in Table APINV. The descriptions of all RP cards appear in table APCDINV. The RP cards that do not apply to mass storage devices do not appear in table APCDINV. The configuration data for the FP device interface paddle boards appears in table FPDIPINV.

The following rules apply when the user adds, deletes or changes data entries in table FPDEVINV:

- The FP file maintenance software checks each new entry to table FPDEVINV before the addition of a tuple to the table. This check confirms the following:
 - the data entry of the processor portion of the FP is in table APINV
 - the shelf and quadrant does not already have a device
 - the device product engineering code (PEC) agrees with the device type. The data dictionary does not automatically check for this agreement.
 - the MAP identifier on the specified SCSI bus is not a duplicate
 - the associated SCSI device interface paddle boards (SDIPs) are in FPDIPINV
 - the SCSI identifier on the specified SCSI bus is not a duplicate
- The addition of a tuple that does not meet the above rules can occur. This condition results in warning messages for each datafill error. The system

FPDEVINV (continued)

can accept a tuple that contains errors. The FP cannot operate if inventory information is missing.

- The only entry that can change is the device PEC.
- The device must be offline before the deletion of a device from the datafill can occur. If the maintenance software cannot obtain device status, the software rejects the deletion request.

Datafill sequence and meaning

Enter data in the following tables before you enter data in table FPDEVINV.

- PMLOADS
- APINV
- APCDINV
- FPDIPINV

Table size

0 to 6400 tuples

To set the maximum table size, calculate the number of possible tuples with the following formula:

$$(\text{max FP}) \cdot (\text{max device types}) \cdot (\text{max device numbers}) = \text{possible tuples}$$

$$100 \quad \cdot \quad 4 \quad \cdot \quad 12 \quad = \quad 4800$$

The system dynamically allocates memory for table FPDEVINV.

FPDEVINV (continued)**Datafill**

Datafill for table FPDEVINV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FPNO		0 to 99	<i>File processor instance number</i> Enter the instance number of the FP. This number is an identifier that distinguishes one FP from another. This number is the first of a three-part key.
SCSIBUS		0 to 1	<i>SCSI bus number</i> Enter the bus number on the FP with the device. This number is the second of a three-part key.
DEVNO		0 to 5	<i>Device instance number</i> Enter the instance number of the device type. This identifier distinguishes one device of the same type from another on the same FP. This number is the third of a three-part key.
DEVTYPE		DK or CT (MT and OD: future use)	<i>Device drive type</i> Enter the type of device. The DK is for disk drive. The CT is for tape drive. Entries MT (magnetic tape) and OD (optical disk) are for use in future BCSs.
DEVPEC		NT9X90AA or NT9X90BA (NT9X90AB: future use)	<i>Device drive PEC</i> Enter the PEC for the device. The PEC NT9X90AB is for introduction in a future BCS.
SCSIID		0 to 5	<i>SCSI identifier</i> Enter the SCSI bus identifier for the device. Devices can have specified priorities that start with 0 (zero).
QUADNO		0 to 3	<i>Quadrant number</i> Enter the number of the quadrant that contains the device.
SHELF		0 to 3	<i>Device shelf</i> Enter the number of the shelf that contains the device. The shelf numbers are from top to bottom. The numbers begin with 0 (zero).
SHELFPEC		NT9X83AA	<i>Shelf PEC</i> Enter the PEC for the device shelf.
FLOOR		0 to 99	<i>Floor position</i> Enter the location of the floor number of the frame.

FPDEVINV (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
ROW		A to H, J to N, P to Z, AA to HH, JJ to NN, or PP to ZZ	<i>Row position</i> Enter the row position of the frame that contains the device.
FRAME		0 to 99	<i>Frame position</i> Enter the frame position in the row that contains the device.

Datafill example

Sample datafill for table FPDEVINV appears in the following example.

MAP display example for table FPDEVINV

FPNO	SCSIBUS	DEVNO				
DEVTYPE		DEVPEC	SCSIID	QUADNO	SHELF	SHELFPEC
FLOOR	ROW	FRAME				
0	1	5				
DK	NT9X90AA		3	0	0	NT9X83AA
0	R	1				

Table history**BCS35**

The following were made to table FPDEVINV in BCS35:

- options MT and OD were added in field DEVTYPE. These options are for future use.
- option NT9X90AB was added in field DEVPEC. This option is for future use.

BCS33

Table FPDEVINV was introduced in BCS33.

FPDIPINV

Table name

File Processor Device Interface Paddle Board Inventory Table

Functional description

Table FPDIPINV contains the description of all the Small Computer Systems Interface (SCSI) Device Interface Paddle Boards (SDIPs) on a DMS SuperNode file processor (FP).

The description identifies the following:

- the FPs
- the SCSI bus to which the SDIPs attach
- the SDIP identities, locations and hardware configurations

Use of table FPDIPINV occurs to dynamically add and delete SDIPs. Table FPDIPINV interacts with tables APINV, APCDINV and FPDEVINV. The type of information is description data. The key fields are FPNO, SCSIBUS and SDIPNO.

Table APINV contains configuration data. The resource processor (RP) MAP facility and the Integrated Node Maintenance (INM) software require this configuration data. Table APCDINV contains the descriptions of all RP cards. This condition does not apply to the RP cards that apply to mass storage devices. Table FPDEVINV contains the configuration data for the SCSI devices.

Datafill sequence and meaning

You must enter data in table FPDIPINV before you enter data in the following tables.

- PMLOADS
- APINV
- PACDINV

FPDIPINV (continued)

Consider the following conditions when you add, delete or change SDIP entries in table FPDIPINV:

- The FP file maintenance software checks each new entry to table FPDIPINV before the addition of a tuple to the table. The software checks each new entry to confirm the following:
 - table APINV contains data entries for the processor section of the FP
 - the shelf and quadrant does not have an SDIP
 - the SDIP number of the specified SCSI bus is not a copy
 - the SDIPs are next to each other in the slots of one quadrant
 - the SDIPs are in specified slots in the quadrant
 - the slot numbers are different for both SDIPs
 - the controller (CTRL) numbers are different for both SDIPs
 - table APCDINV does not contain entries for the SCSI Interface Paddleboard (SIP) associated with the SCSI bus of the SDIP

Note: The SIPs in slots 11R, 16R, 23R and 28R correspond to SCSI bus 0. These slots are nearest to the central processing unit (CPU) card. When you enter FP data in table APINV, the system enters data for these slots. The optional SIPs in slots 10R, 17R, 22R and 29R correspond to SCSI bus 1. The letter R refers to the back slot positions.

- The addition of a tuple that does not meet the above rules can occur. The addition of this type of tuple causes warning messages to appear for each datafill error. A table can accept a tuple that contains errors. When a table accepts a tuple with errors, the FP device cannot operate. The FP device cannot operate because some inventory information is not present in the tuple.
- The only entry that you can change is the SDIP product engineering code (PEC).
- Check for an attached device of the SDIP before you delete an SDIP from the datafill. You must delete the attached device before you can delete the SDIP. If the maintenance software cannot obtain device status, the system rejects the deletion request.

Table size

The system dynamically allocates memory for table FPDIPINV. The maximum size of table FPDIPINV is 1600 tuples. The following formula calculates the number of possible tuples to set the maximum table size:

FPDIPINV (continued)

$$A = b \times c \times d$$

where

- A**
is the number of possible tuples
- b**
is the maximum number of file processors
- c**
is the maximum number of SCSI buses
- A**
is the maximum number of SDIPs

Datafill

Datafill for table FPDIPINV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FPNO		0 to 99	<i>File processor instance number</i> Enter the instance number of the FP. This entry is the first of a three-part key.
SCSIBUS		0 to 1	<i>SCSI bus number</i> Enter the bus number on the FP to which the SDIPs attach. This entry is the second of a three-part key.
SDIPNO		0 to 5	<i>SDIP number</i> Enter the specified SDIP pairs on the SCSI bus. This entry is the third of a three-part key.
SHELF		0 to 3	<i>SDIP shelf</i> Enter the number of the shelf that contains the SDIPs. The shelf numbers begin at zero at the top. The shelves are numbered from top to bottom.
SHELFPEC		NT9X83AA	<i>Shelf PEC</i> Enter the PEC for the SDIP shelf.
FLOOR		0 to 99	<i>Floor position</i> Enter the floor number of the frame that contains the SDIPs.

FPDIPINV (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
ROW		A to H, J to N, P to Z, AA to HH, JJ to NN or PP to ZZ	<i>Row position</i> Enter the row position of the frame that contains the SDIPs.
FRAME		0 to 99	<i>Frame position</i> Enter the frame position in the row that contains the SDIPs.
DIPIDS		see subfields	<i>SDIP identification</i> This field contains a table that a CTRL number indexes. The CTRL number distinguishes one SDIP from the other. This field is a vector. This field contains subfields CTRLNO, SLOTNO and DIPPEC.
CTRLNO		0 or 1	<i>Controller number</i> Enter the CTRL number of the SCSI bus to which the SDIP attaches.
SLOTNO		1 to 38	<i>Slot number</i> Enter the slot number of the SDIP. The SDIPs must be in the slot numbers next to each other.
DIPPEC		NT9X89AA or NT9X89BA	<i>SDIP PEC</i> Enter the PEC for the SDIP.

Datafill example

Sample datafill for table FPDIPINV appears in the following example.

MAP display example for table FPDIPINV

FPNO	SCSIBUS	SDIPNO					
SHELF	SHELFPEC	FLOOR	ROW	FRAME		DIPIDS	
0	1	2					
0	NT9X83AA		0	R	1	(0 8 NT9X89AA) (1 9	
NT9X89AA)	\$						

FPDIPINV (end)

Table history

BCS33

Table FPDIPINV was introduced in BCS33.

FRLCOS

Table name

Facility Restriction Level Class of Service (FRLCOS) table

Functional description

Table FRLCOS provides class of service (COS) screening for electronic tandem network intermachine trunk (ETN-IMT) originations and derives a facility restriction level (FRL) for ETN calls terminating to ETN-IMTs.

Each entry maps eight facility restriction codes to COS indexes (one Index into table MULTICOS per FRL). 801 combinations of FRL to COS mappings are allowed, thus providing a unique set of mappings for any of the 801 possible originating partition numbers that might be associated with an ETN call.

Table FRLCOS is a bidirectional table. It can be used to determine the Index into table MULTICOS associated with an FRL for a particular OPART. It can also be used to access the FRL associated with a Index into table MULTICOS for a particular OPART.

Table size

This table contains up to 801 tuples.

Memory requirements

Table FRLCOS statically allocates memory and cannot be extended. The table requires $801 \text{ tuples} \times 8 \text{ words/tuple} = 6408$.

Limitations

The same index into table MULTICOS cannot be assigned to more than one FRL within a tuple.

FRLCOS (continued)

Field descriptions

The following table describes field names, subfield names, and valid data ranges for table FRLCOS.

Field	Subfield or refinement	Entry	Explanation and action
OPART		0 to 999	ORIGINATING PARTITION. The OPART associated with the call. The default is 0.
FRL0COS		0 to 2047	FACILITY RESTRICTION LEVEL 0. Index into table MULTICOS associated with FRL0. The default is 0.
FRL1COS		0 to 2047	FACILITY RESTRICTION LEVEL 1. Index into table MULTICOS associated with FRL1. The default is 0.
FRL2COS		0 to 2047	FACILITY RESTRICTION LEVEL 2. Index into table MULTICOS associated with FRL2. The default is 0.
FRL3COS		0 to 2047	FACILITY RESTRICTION LEVEL 3. Index into table MULTICOS associated with FRL3. The default is 0.
FRL4COS		0 to 2047	FACILITY RESTRICTION LEVEL 4. Index into table MULTICOS associated with FRL4. The default is 0.
FRL5COS		0 to 2047	FACILITY RESTRICTION LEVEL 5. Index into table MULTICOS associated with FRL5. The default is 0.
FRL6COS		0 to 2047	FACILITY RESTRICTION LEVEL 6. Index into table MULTICOS associated with FRL6. The default is 0.
FRL7COS		0 to 2047	FACILITY RESTRICTION LEVEL 7. Index into table MULTICOS associated with FRL7. The default is 0.

Datafill example

The following example shows datafill for table FRLCOS:

FRLCOS (end)

OPART	FRL0COS	FRL1COS	FRL2COS	FRL3COS	FRL4COS	FRL5COS	F	FRL6COS	FRL7COS
111	7	1	2	3	4	5		6	0

Table history**UCS06**

Updated to support the new MULTICOS table.

FTCODE

Table name

Utility Code Table

Functional description

Table FTCODE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FTCODE translates the utility code digit segment, together with tables FTHEAD and FTRTE.

For related information, refer to table ACCODE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and implications

Table FTHEAD must be datafilled before tables FTCODE and FTRTE.

Table size

Refer to table ACCODE.

Datafill

Field names, subfield names, and valid data ranges for table FTCODE are described in table ACCODE.

Datafill example

Refer to table ACCODE.

Table history

Refer to table ACCODE.

FTHEAD

Table name

Utility Code Head Table

Functional description

Table FTHEAD is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FTHEAD translates the utility code digit segment, together with tables FTCODE and FTRTE.

For related information, refer to tables ACCODE and ACRTE. For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and implications

Refer to table ACHEAD.

Table size

Memory is automatically allocated to a maximum of 2047 tuples. The size is initially set to 64 and the table extends itself automatically.

Datafill

Field names, subfield names, and valid data ranges for table FTHEAD are described in table ACHEAD.

Datafill example

Refer to table ACHEAD.

Table history

Refer to table ACHEAD.

FTRANDEV

Table name

File Transfer Device Table

Functional description

Table FTRANDEV is used by the file transfer service to download files to a DMS from a remote node (computer) using network operations protocol (NOP). The information in table FTRANDEV determines the device a particular file is downloaded to. Only tape and disk volumes can be added into the table. The file transfer service uses the key to sequentially select devices from the table until the operation is successful using the device or there are no more devices listed in the table.

The volume can become full during downloading of the file. If table FTRANDEV is datafilled, the file can be put on another volume in the list. Otherwise, an error results.

Datafill sequence and implications

The following tables must be datafilled before table FTRANDEV.

- MTD
- DDU

Table size

0 to 3 tuples

Datafill

The following table lists datafill for table FTRANDEV.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FTKEY		1 to 3	<i>File transfer key</i> This is the key to the table and indicates the choice of the corresponding device. That is, the tuple with a key of 1 indicates that the tuple contains the primary device used.
DEVICE		alphanumeric (7 to 12 characters)	<i>Device</i> Enter a valid device name (tape or disk volume) as previously datafilled in table MTD or table DDU. Device SFDEV (system file device) is not a valid entry.

FTRANDEV (end)

Datafill example

The following example shows sample datafill for table FTRANDEV.

MAP display example for table FTRANDEV

FTKEY	DEVICE
1	D000AMA

FTRTE

Table name

Utility Code Route Table

Functional description

Table FTRTE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table FTRTE translates the utility code digit segment, together with tables FTHEAD and FTCODE.

For related information, refer to table ACRTE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and implications

Table FTHEAD must be datafilled before tables FTRTE and FTCODE.

Table size

Refer to table ACRTE.

Datafill

Field names, subfield names, and valid data ranges for table FTRTE are described in table ACRTE.

Datafill example

Refer to table ACRTE.

Table history

NA017

Feature 59035336 introduces the Supergroup (SG) option.

FTSPCINV

Table name

Frame Transport System Point Code Inventory

Functional description

Table FTSPCINV stores the following information:

- the relationship between device attributes, as node maintenance specifies
- the identifiers, point codes and frame transport addresses the frame transport system (FTA) assigns

The system does not allow direct access to table FTSPCINV. Customers have read-only access. The system allows indirect access through the data entry of specified inventory tables. These inventory tables are for devices that require the FTS.

Datafill sequence and meaning

Does not apply. This section does not apply because the table is write-protected against direct datafill.

Table size

This table can contain 3 to 1024 tuples. The number of tuples dynamically determines the table size.

Datafill

Datafill for table FTSPCINV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PTCODE		0 to 32 767	<i>Point code</i> Enter the identifier assigned to each device. Correct man-machine interface (MMI) level values are in the range 0 to 1023. The FTS reserves the values outside the MMI range, 1024 to 32 767, for internal assignment.
NAME		alphanumeric (one to eight characters)	<i>Device name</i> Enter the device name. At the MMI level, node maintenance uses the device name to identify a device.

FTSPCINV (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action								
TYPE		alphanumeric (one to four characters)	<i>Device type</i> Enter the general type of device. The accepted values are as follows: • MS (message switch) • CM (computing module) • ENET (enhanced network) • LMS (local message switch)-LIM • LIU7 (CCS7 link interface unit)								
LEVEL		0 to 3	<i>Device routing level</i> Enter a value to indicate the level in the switch topology in which the device resides. Correct MMI-level values are in the range 1 to 3. Value 0 is not in the MMI-level range. The FTS reserves this value for internal assignment. The association between LEVEL and TYPE is as follows: <table><tr><td>LEVEL</td><td>TYPE</td></tr><tr><td>1</td><td>MS</td></tr><tr><td>2</td><td>CM, ENET,</td></tr><tr><td>3</td><td>LIU7</td></tr></table>	LEVEL	TYPE	1	MS	2	CM, ENET,	3	LIU7
LEVEL	TYPE										
1	MS										
2	CM, ENET,										
3	LIU7										
FTA0, FTA1, FTA2, and FTA3		0 to 32 767	<i>Frame transport address, instance 0 to 3</i> The datafill for these tuples is the list of FTAs in use to send messages to PTCODE. Correct MMI-level values are in the range of 512 to 4095. Values 0 to 511 and 4096 to 32 767 are not in the MMI-level range. The FTS reserves these values for internal assignment. Value 4095 represents a nil address. Fields FTA1, FTA2 and FTA3 must contain this nil value.								

Datafill example

Sample datafill for table FTSPCINV appears in the following example.

FTSPCINV (end)**MAP example for table FTSPCINV**

PTCODE	NAME	TYPE	LEVEL	FTA0	FTA1	FTA2	FTA3
0	MS0	MS	1	512	4095	4095	4095
1	MS1	MS	1	513	4095	4095	4095
2	CM	CM	2	514	4095	4095	4095
3	LIM1U0	LMS	2	564	4095	4095	4095
4	LIM1U1	LMS	2	565	4095	4095	4095

Table history**BCS26**

Table FTSPCINV was introduced in BCS26.

GASINFO

Table name

GASINFO

Functional description

Table GASINFO specifies the device used for the NEMAS file transfer session, and is also the real time transfer (RTT) system engineering table. It defines the RTT sessions, their mapping to Device Independent Recording Package (DIRP) subsystems, and error recovery control variables.

Datafill sequence and implications

Table NX25 and table RASLAPPL must be datafilled before table GASINFO.

For the RTT process to operate properly, the fields listed below for table DIRPSSYS must be set to the entries listed.

Field	Entry
FILEDATE	OPENED or FIRSTACT
ROTACLOS	BOTH
AUTOXFER	FULL

GASINFO (continued)**Field descriptions**

The following describes field names, subfield names, and valid data ranges for table GASINFO.

Field	Subfield or refinement	Entry	Explanation and action
NETCON		NEMSFO, NEMSFI, DMSSFO, DMSSFI, RTT1, RTT2	NETWORK CONNECTION. Enter the network connection name used in table RASLAPPL. - NEMSFO equals AOM transfer to the DMS-250 switch. - NEMSFI equals AOM request for transfer from the DMS-250 switch. - DMSSFO equals DMS-250 switch transfer to AOM. - DMSSFI equals DMS-250 switch request for transfer from AOM. - RTT is the real time independent transfer session.
TRANSTYPE		MFT, AFT, NFT, or LOG	TRANSFER TYPE. Select entry as follows: - Enter MFT for file transfer sessions that require manual intervention. These sessions includes DMSSFO, DMSSFI, NEMSFO, and NEMSFL. - Enter AFT for file transfer sessions that do not require manual intervention. - Enter NFT for non-file transfer sessions. These session types include PASSTHRU, REMLOGIN, SINS, LINS, and INLOG. - Enter LOG for Robust Application Session Layer (RASL) application types OUTLOG, INLOGPT, OUTLOGPT, SINSPTIN, SINSPTOUT, LINSPTIN, and LINSPTOUT.

GASINFO (continued)

TRANTYPE = MFT

The following describes the field names when TRANTYPE is MFT.

Field	Subfield or refinement	Entry	Explanation and action
MFT	DEVNAME	SFDEV or 16-character alphanumeric vector	DEVICE NAME. Enter the name of the device to hold the transferring file. A DMS-250 switch disk volume name, or SFDEV, may be used as the file transfer spooler.
	WINDOW	1- 4	WINDOW SIZE. Enter the window size for the file transfer. On IC sessions, window size is used as an upper boundary, not a required window size. For OG sessions, window size is a request for the specified window size.

TRANTYPE = AFT

The following describes the field names when TRANTYPE is AFT.

Field	Subfield or refinement	Entry	Explanation and action
AFT	SYSS	AMA, OCC, JF, OM	SUBSYSTEM. Enter the DIRP subsystem to use for the process. Subsystem must be defined in table DIRPSSYS.
	FILENAME	alphanumeric	FILENAME. Specifies filename for message transfer protocol (MTP) message.
	WINDOW	1-8	WINDOW. Enter the window size for file transfer.
	RETRY	0-99	RETRY. Enter the number of times that this feature should try to re-send the file.
	NODETYPE	EIOC_MP, CP_CORE, CFP, EIOC_FP, FOREIGN, CM	This is the data access/information services (DAIS) node of the type of the machine where safe store tap (SST) is resident.
	NODEINST	0-99	This is the DAIS node instance of the machine on which SST is resident.

GASINFO (continued)**TRANTYPE = NFT**

The following describes the field names when TRANTYPE is NFT.

Field	Subfield or refinement	Entry	Explanation and action
NFT	ACTIVE	Y or N	Enter Y to activate the session. Enter N to deactivate the session. This field must be set to Y to begin a session.

TRANTYPE = LOG

The following describes the field names when TRANTYPE is LOG.

Field	Subfield or refinement	Entry	Explanation and action
LOG	ACTIVE	Y or N	Enter Y to activate the session. Enter N to deactivate the session. This field must be set to Y to begin a session.
	MOREFLDS	FUNC, MATE, or NAPP	SELECTOR FIELD. Select entry as follows: • Enter FUNC for Robust Application Session Layer (RASL) application type OUTLOG. • Enter MATE for RASL application types INLOGPT, SINSPTIN, and LINSPTIN. • Enter NAPP for RASL application types OUTLOGPT, SINSPTOUT, and LINSPTOUT.

GASINFO (continued)

MOREFLDS = FUNC

The following describes the field names when MOREFLDS is FUNC.

Field	Subfield or refinement	Entry	Explanation and action
FUNC	FUNCODE	1- 255	FUNCTION CODE. Enter the spontaneous printout (SPR) function code for the OUTLOG RASL application type. Function codes entered on the CP-core cannot be used on the NT40-EIOC; likewise, function codes entered on the NT40-EIOC cannot be used on the CP-core.

MOREFLDS = MATE

The following describes the field names when MOREFLDS is MATE.

Field	Subfield or refinement	Entry	Explanation and action
MATE	APPLMATE		APPLICATION MATE. Enter the NetCon of the outgoing passthrough Robust Application Session Layer (RASL) application with which the INLOGPT, SINSPTIN, or LINSPTIN is communicating. The NetCon name entered here must be datafilled in table RASLAPPL.
	BUFFNUM	4-16	NUMBER OF BUFFERS. Enter the number of 2k buffers used in buffering the passthrough data on the Enhanced Input Output Controller (EIOC).

MOREFLDS = NAPP

When MOREFLDS is NAPP, no additional fields are datafilled.

Datafill example

The following example shows sample datafill for table GASINFO.

GASINFO (end)

NETCON	TRANTYPE	SESSION	FILENAME
RTT1	AFT	OM	CALLHISTORY
RTT2	AFT	OCC	CALLHISTORY
WINDOW	RETRY	NODETYPE	NODEINST
4	3	EIOC_MP	3
4	3	EIOC_MP	3

GDLADEV

Table name

Generic Data Link Application Device Table

Functional description

Table GDLADEV defines the data packet controller (DPC) or multiprotocol controller (MPC) used with a specified data transfer application.

Table GDLADEV contains the following information:

- the name of the data transfer application used
- the device name the data transfer application uses. The device name can be DPC or MPC.

Table GDLADEV associates data transmission devices with specified remote polling system applications for use in data transfer. The network data transfer system allows an operating company (OC) to transfer information to the operating company data processing center. The information is about the operation of a DMS-100 switch. Storage devices at the DMS switch contain this data.

The data processing center normally can request two following types of information:

- billing information
- operational measurement (OM) data

The billing information appears in the form of automatic message accounting (AMA) data. The data transfer system can handle additional types of data.

Table GDLADEV defines a communication device for use with specified system applications for network data transfer. The communication device can be a DPC or an MPC card. The system applications can be a transfer (XFER) or a network operation protocol (NOP). Table GDLADEV can associate only one application with a specified device in this table at one time. Table GDLADEV cannot associate one application with the MPC and the DPC.

Table GDLADEV works with table XFERADDR or table NOPADDR. These tables specify the communication device unit, the link numbers and the data center addresses. The data transfer from the DMS-100 switch to a data processing center uses this information.

GDLADEV (continued)**Datafill sequence and meaning**

You do not need to enter data in other tables before you enter data in table GDLADEV.

Enter data in table GDLADEV before you enter data in table XFERADDR and table NOPADDR.

A change in table GDLADEV entries affects the corresponding entries in tables XFERADDR and NOPADDR. Remove the entries in table XFERADDR or NOPADDR before you make changes to table GDLADEV. Remove the entries in a table when the table contains any related entries. For example, if the entry for NOP table changes, clear only table NOPADDR. You do not need to delete entries in table XFERADDR.

The OC personnel enter data for table GDLADEV at installation. The OC personnel can use the table editor to modify the table. A description of the table editor commands appears in the *Basic Translations Tools Guide*.

Entries XFER and NOP only are correct when the required software is in the load. This condition is also correct for the transmission devices in the DEVICE field. Table GDLADEV only recognizes the devices that are in the software load.

Table size

0 to three tuples.

The system automatically allocates memory for table GDLADEV for four tuples of storage. Changes to memory cannot occur.

Datafill

Datafill for table GDLADEV appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
APPLN		see subfield	<i>Application name</i> This field contains subfield K.

GDLADEV (continued)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DEVICE	K	XFER or NOP	<i>Generic data link application name</i> Enter the data transfer application in use with an associated device that field DEVICE defines. This field is the key to table GDLADEV. A default is not available.
		MPC or DPC	<i>Transmission device name</i> Enter the transmission device associated with a data transfer application. A default is not available. Note: Entry GDL (generic data link) is not a correct entry. The system uses the GDL entry to locate software that relates to a GDL. The system uses the GDL until a user inputs MPC or DPC at a transmission device.

Datafill example

Sample datafill for table GDLADEV appears in the following example.

In the first example, field APPLN indicates that data transfer application XFER is active on the MPC device.

MAP example for table GDLADEV

APPLN DEVICE

XFER MPC

In the second example, field APPLN indicates that data transfer application NOP is active on the DPC device.

GDLADEV (end)

MAP example for table GDLADEV

APPLN	DEVICE
NOP	DPC

In the third example, field APPLN indicates that data transfer application NOP is active. Field DEVICE contains an MPC entry and XFER is active in field APPLN. Field DEVICE contains a DPC entry.

MAP example for table GDLADEV

APPLN	DEVICE
NOP	MPC
XFER	DPC

In the fourth example, field APPLN indicates that data transfer application NOP is active. Field DEVICE contains an MPC entry and XFER is active in field APPLN. Field DEVICE contains an MPC entry.

MAP example for table GDLADEV

APPLN	DEVICE
NOP	MPC
XFER	MPC

Table history**BCS36**

Subfield K was added in BCS36.

HEAPTAB

Table name

Heap Table

Functional description

Table HEAPTAB displays the store allotment for each user of the heap facility or extension store allocator. Operating company personnel cannot add or delete tuples from table HEAPTAB. Operating company personnel can change tuples in table HEAPTAB. Operating company personnel add or delete tuples through software during software initialization or restart reload. This table is for information purposes only. This table does not require input or input form.

Refer to table HPWASTE for additional information.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table HEAPTAB.

Table size

0 to 127 tuples

Datafill

The datafill for table HEAPTAB appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
USERNAME		alphanumeric (1 to 16 characters)	<i>User name</i> This field is a character string that identifies the user. Operating company personnel cannot change this field.
USERTYPE		REGULAR or RESERVED	<i>User type</i> This field specifies the type of user. Operating company personnel cannot change this field.
Note: A default value of 2 is set for field maxstore for tuple GENDIG. This value is for Canada only.			

HEAPTAB (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
MAXSTORE		0 to 32 767	<i>Maximum store</i> This field specifies the maximum amount of store that a user can allocate. This field specifies the amount of store in kilobytes. Operating company personnel can change this value. The system does not require a restart if this field is the only field that operating company personnel change. Refer to note.
CURSTORE		0 to 32 767	<i>Current store</i> This field specifies the current number of kilobytes that the heap user uses. This does not include any store less than 1 kbyte. Operating company personnel cannot change this field.
RESUSED		0 to 32 767	<i>Reserved used</i> This field specifies how many of the reserved heap elements the application uses. This number relates to the number of times the user requests a heap element from the reserved heap elements.
RESSTORE		see subfields	<i>Reserved store</i> This field is a vector of values that specify the store reserved at system initialization and on reload restarts. This field contains subfields BLKSIZE and NUMBLKS.
	BLKSIZE	0 to 32 767	<i>Block size</i> This field specifies the block size in bytes reserved at system initialization reload restarts. Operating company personnel cannot change this field.
	NUMBLKS	0 to 32 767	<i>Number of blocks</i> This field specifies the number of blocks of size that field BLKSIZE defines to reserve at system initialization and on reload restarts. Operating company personnel can change this field. A change takes effect at the next reload restart.
Note: A default value of 2 is set for field maxstore for tuple GENDIG. This value is for Canada only.			

Datafill example

Sample datafill for table HEAPTAB appears in the following example.

HEAPTAB (end)

MAP example for table HEAPTAB

USERNAME	USERTYPE	MAXSTORE	CURSTORE	RESUSED	RESSTORE
GENDIG	RESERVED	32767	1	0	(6 100) (8 0) (510 0) \$

HNPACONT

Table name

List of Home Numbering Plan Area Code Subtables Table

Functional description

The home numbering plan area (HNPA) code subtables are as follows:

- The HNPACONT - List of home numbering plan area code subtables table record.
- The HNPACONT.HNPACODE - Home numbering plan area (NPA) code subtable record.
- The HNPACONT.ATTRIB - Home NPA long haul attribute subtable record.
- The HNPACONT.RTEREF - Home NPA route reference subtable record.
- The HNPACONT.RTEMAP - ISND home NPA route reference subtable record.

Office parameter MAXSTS in table OFCENG sets the maximum number of HNPAs or serving numbering plan areas (SNPA) and serving translation schemes (STS).

All HNPAs or SNPAs appear as the first 128 entries in the table.

Datafill sequence and meaning

Enter data in table SNPANAME before you enter data in table HNPACONT. If addition of a tuple to HNPACONT occurs when field SNPA is Y, the system updates SNPANAME with the same tuple. If SNPA is N, the system does not add the tuple to SNPANAME.

Table SUPERTKG must be data-filled prior to this table.

When you delete STS with field SNPA as Y from HNPACONT, the system does not delete the equivalent entry in SNPANAME.



CAUTION

Possible service degradation of DISA calls

For correct direct inward system access (DISA) operation, you must enter data in table HNPACONT. Service degradation can occur when DISA calls are attempted and table HNPACONT is empty.

HNPACONT (continued)**Table size**

0 to 1000 tuples

Datafill

Datafill for table HNPACONT appears in the following table.

Field descriptions

Field	Subfield or Refinement	Entry	Explanation and action
NPA or STS		000 to 999	<i>Serving translation scheme</i> Enter an SNPA or an STS code. Refer to the example in the description of subtable FNPACONT.FNPASTS.STSCODE if you use an STS.
SNPA		Y or N	<i>Serving numbering plan area</i> Enter Y or N to indicate if a specified STS in this table maps to an SNPA in table SNPANAME. An HNPA or SNPA appears in one of the first 128 positions. You can enter these positions at any time. Use SNPAs in: • line data • plain ordinary telephone service (POTS) • virtual facility group (VFG) data • private automatic branch exchange (PBX) trunk data • table DNINV • table DNROUTE • table TOFCNAME Enter data in table SNPANAME before table HNPACONT. If you add a tuple to HNPACONT first and SNPA is Y, the system updates the same tuple in table SNPANAME. If SNPA is N the system does not add the tuple to table SNPANAME.

HNPACONT (continued)

Field descriptions

Field	Subfield or Refinement	Entry	Explanation and action
NORTREFS		1 to 1023	<i>Number of route references</i> Enter 2 for the quantity of route reference numbers. The system extends field NORTREFS to the highest route index that subtable HNPACONT.RTEREF uses. An entry outside the range indicated for this field is incorrect.
NOAMBIGC		0 to 1000	<i>Number of ambiguous codes</i> Enter the number of ambiguous codes required. An entry outside the range indicated for this field is incorrect.
OPTION		ARS	Enter <i>Option ARS</i> to set the automatic route selection.
OPTIONS (Option list of SG selector.)		see subfield	

HNPACONT (continued)**Field descriptions**

Field	Subfield or Refinement	Entry	Explanation and action
	DMI	1 to 32,766	Digit Manipulation Index (DMI). The DMI option enables the called number characteristics to be manipulated by use of table DIGMAN. This is an index into table DIGMAN
	CALLTYPE	PUBLIC, PriVaTe, WATS, ASDS, LDS, Foreign eXchange, TIE, INWATS	Call Type. This subfield allows for switching of routing call-types on an as-needed basis. • Enter PUB for public routing of calls. Operator Access Type (OATYPE) has options (NONE, OM, OP). Transit Network Selector (TNS) has values (0 to 999, N, C). NPOS has values N, Y. • Enter PVT for private routing of calls. Facility Number (FACNUM) has values 0 to 1023. Numbering Plan Indicator (NPI) has values E164 and PVT. • Enter WATS for WATS routing of calls. Zone is ZONE_TYPE. Numbering Plan Indicator (NPI) has values E164 and PVT. CARRIER IS VECTOR OF UP TO 1 IC_INC_CARRIER_NAME'S. • Enter ASDS for ASDS routing of calls. Numbering Plan Indicator (NPI) has values E164 and PVT. • Enter LDS for LDS routing of calls. Numbering Plan Indicator (NPI) has values E164 and PVT. • Enter FX for foreign exchange routing of calls. Facility Number (FACNUM) has values 0 to 1023. Numbering Plan Indicator (NPI) has values E164 and PVT. • Enter TIE for TIE routing of calls. Facility Number (FACNUM) has values 0 to 1023. Numbering Plan Indicator (NPI) has values E164 and PVT. • Enter INWATS for INWATS routing of calls. Facility Number (FACNUM) has values 0 to 1023. Numbering Plan Indicator has values E164 and PVT.

HNPACONT (continued)**OPTION = ARS**

If the entry in field OPTION is ARS, enter data in subfields ARS_OPTION and RR.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	ARS_OPTION	DEFAULT_RTREF	<i>Automatic route selection option</i> Enter <i>DEFAULT_RTREF</i> to select the default that subtable HNPACONT.RTREF defines.
	RR	0 to 1023	<i>Extended route reference index</i> Enter the extended route reference index.
	10DIG	Y or N	Enter Y if the system collects ten digits before the system sends the call to the ARS default route. The ARS default route is an enforced ten digit dialing environment. Enter N if users dial local calls are dialed as seven digits. Calls dialed as 7D do not have a prefix or an area code. Enter N if toll calls are dialed as 1+10D. Calls dialed as 1+10D have a prefix and a full ten digits. The ten digits include the area code.

Datafill example

Datafill for table HNPACONT appears in the following example. A switching unit with two NPAs, 613 and 819, and two STS codes, 001 and 002, appears in this example.

Field NORTREFS is 2. The system extends field NORTREFS to the highest route index that subtable HNPACONT.RTREF uses. The system allocates memory for 20 ambiguous codes in HNPA 613.

Note: The system labels STS 001 as an ARS STS in the options field. Entry STS 001 does not have an ARS default route set. Entry STS 002 is also an ARS STS. Entry STS 002 has a default route. The default route is entry 5 in HNPACONT 002: RTREF. The default route does not assume ten-digit digit collection. The 10DIG sub-option is N.

HNPACONT (continued)**MAP display example for table HNPACONT**

STS	SNPA	NORTREFS	NOAMBIGC	RTEREF	HNPACODE	ATTRIB	RTEMAP	OPTIONS
001	N	20	2 (3) (	0) (	0) (	0) (	0) (	(ARS) \$)\$
002	N	15	2 (3) (	0) (	0) (	0) (	0) (	(ARS
							(DEFAULT_RTEREF 5 N)	\$)\$
613	Y	932	20 (427) (	1) (	84) (	0) (		\$
819	Y	81	3 (18) (	1) (	91) (	0) (		\$

Table history**NA017**

The SG selector is extended to include a CALLTYPE field that permits customers the select a PUBLIC or PRIVATE calltype per feature activity 59035336.

NA014

Options list added to the SG selector and option DMI added by feature activity 59017604.

NA012

Development activity 59007050 introduces changes to field LINEATTR of table HNPACONT, subtable HNPACODE, selector NSC. This field now accepts an alphanumeric string instead of an integer string.

NA009

This release added a new OPTION field with a single value of ARS. The ARS value associates with two subfields. These subfields are ARS_OPTION and DEFAULT_RTEREF. The operating company can use this option to define a default route for digit ranges not found in HNPACONT.HNPACODE.

CSP06

This release made the following changes:

- The first 16 positions of the table do not require dummy SNPAs with the addition of field SNPA. The release updated datafill and MAP display information. This update reflected changes that the increase in the size of table SNPANAME introduced.
- Added 1 as a route reference index entry in subtable HNPACODE type HNPA.

HNPACONT (continued)

CSP05

Added statement about restricted length of field STS if North American is ACTIVE_DN_SYSTEM in table OFCENG.

BCS36

Added caution for service degradation of DISA calls.

The name of field MAXRTE changed to NORTREFS.

Additional information

This section provides information on how to enter data in table HNPACONT for specified applications. This section also provides product description information for table HNPACONT.

Information messages

If you delete a tuple in table HNPACONT, the system does not delete the same tuple from table SNPANAME.

Deletion of an area code from SNPANAME affects other entries. When deletion of an area code occurs, the system deletes the entry from HNPACONT. The system maintains the route and code references against the deleted tuple. These references are available when a new SNPA replaces the SNPA deleted in SNPANAME.

If you delete a tuple from SNPANAME, the system removes the same tuple from HNPACONT. The following message appears:

```
>>> WARNING: Failure to add a new tuple to replace      >>>
===== the SNPA just deleted                          >>>
===== will leave table HNPACONT corrupted.            TUPLE
DELETED                                                >>>
WARNING: Failure to add a new tuple to replace      >>>
===== the SNPA just deleted                          >>>
===== will leave table TOFCNAME corrupted.          TUPLE
DELETED
```

If you attempt to replace the STS in HNPACONT after the tuple is deleted, the following message appears:

```
An SNPANAME tuple referenced by HNPACONT              was
deleted. Please add tuples back to                     SNPANAME
before entering anything new in      NOT POSSIBLE
```

HNPACONT (continued)

If you attempt to delete a tuple from HNPACONT and the tuple is referenced in any of the screening tables, the delete command is unavailable. The following message appears:

```
WARNING: DELETING A TUPLE FROM A HEAD TABLE WILL
DELETE ALL CORRESPONDING SUBTABLE DATA.
SUBTABLE(S) WITH DATA:                                RTREF
HNPACODE RTEMAP                                         DO YOU REALLY
WANT TO DELETE (Y/N)                                   >y
SERVING_TRANSLATION_SCHEME ??? is used in other tables.  USE
TABREF TO GET POTENTIAL TABLE LIST.
INCONSISTENT DATA                                       DMO
REJECTED
```

If you delete a tuple from HNPACONT and the tuple is not referenced in any of the screening tables, the tuple will be deleted. The following warning message appears:

```
WARNING: DELETING A TUPLE FROM A HEAD TABLE WILL DELETE ALL
CORRESPONDING SUBTABLE DATA.
SUBTABLE(S) WITH DATA:                                RTREF
HNPACODE RTEMAP                                         DO YOU REALLY
WANT TO DELETE (Y/N)                                   >y
All rtref indices from HNPACODE table should be deleted first
THIS TABLE ATTRIB CAN NOT BE EXTENDED                  LCA
AND CSS SCREENING TABLES DEALLOCATED
WARNING: DELETIONS MAY CAUSE PROBLEMS IN OTHER
TABLES REFERENCING STS OR SNPA
IN PARTICULAR, IT IS IMPERATIVE THAT THE STS DELETED SHOULD NOT
BE FOUND IN ANY OF THE FNPASTS SUBTABLES. IF THIS HAPPENS TO BE
THE CASE, THEN ALL TUPLES WITH THE DELETED STS M*U*S*T ALSO BE
DELETED.                                                 TUPLE DELETED
```

If you add a replacement for the deleted tuple into table SNPANAME, the following message appears:

```
REPLACEMENT OF KEY ??? IN TABLE HNPACONT WITH KEY ??? SUCCEEDED.
TUPLE ADDED
```

After this message appears, both tables correctly display the new tuple.

The STSs are necessary for IBN private networks. Table IBNXLA defines the STSs.

HNPACONT (continued)

Each HNPA has the following subtables:

- Subtable HNPACODE: Home NPA Code subtable specifies the translation for each of the 1000 codes (000 to 999). The system initializes the 1000 codes to vacant code.
- Subtable RTEREF: Home NPA Route Reference subtable specifies the translations associated with each of the route reference indexes. The Home NPA Code table specifies these route references indexes.

The system assigns each line, incoming trunk group, and two-way trunk group to 1 of the 128 serving home NPA codes.

Table TRKGRP stores the SNPA for a normal trunk group for each incoming and two-way trunk group.

Table LINEATTR stores the SNPA for a line in the line attribute assigned to the line.

Table IBNLINES stores the SNPA for an IBN line.

Table IBNXLA stores the STS code for an IBN line.

Field NPA changes and allows between one and seven digits instead of the previous three-digit value. When the office parameter `ACTIVE_DN_SYSTEM` in table OFCENG is `NORTH_AMERICA`, expect a three-digit NPA.

For DMS-100 domestic offices, the tuple verification phase that adds to the table allows the entry of only three digits.

International coexistence

International and North American call processing can run in parallel with coexistence. Coexistence allows the international switch to interact with North American developed services like ISDN.

Partitioned Table Editor feature

In DMS offices with feature BC1459 Partitioned Table Editor (PTE), the operating company can allow a user to edit specified tuples of table HNPACONT. The user is from outside the operating company. The user edits

HNPACONT (continued)

using PTE. This feature allows an authorized user to edit the tuples of the following subtables at the authorized positions of table HNPACONT.

- subtable HNPACONT.HNPACODE
- subtable HNPACONT.ATTRIB
- subtable HNPACONT.RTEREF

The user must own the STS to access a tuple in table HNPACONT.

For example, the datafill example for table DATAOWNR can be as follows:

KEY	OWNER
STS 001	CARLING

In this condition, the authorized user, CARLING, can access the tuples with a key 001. User CARLING cannot view table HNPACONT tuples unless other users own these tables. Table OWNER classifies these tuples as public.

The operating company uses the PTE feature to limit edit access to a table for a specified user to the following restrictions:

- deny tuples
- read-only tuples
- change-only tuples
- add and delete tuples

Set the PTE access for users outside the operating company. Table 3 is an example of the PTE access settings.

Recommended PTE access settings

Level	Table name	Action
Table	HNPACONT	change or read-only access
Subtable	HNPACONT.HNPACODE	add or delete tuples access
Subtable	HNPACONT.ATTRIB	add or delete tuples access
Subtable	HNPACONT.RTEREF	add or delete tuples access
Subtable	HNPACONT.RTEMAP	add or delete tuples access

HNPACONT (end)

See the description of table OWNER for more information on the Customer Data Change feature tables.

HNPACONT.RTEREF

Table name

Home NPA Route Reference Subtable

Functional description

One route reference subtable is required for each HNPACONT table.

Each subtable can contain up to 1023 route lists.

Field NORTREFS of table HNPACONT is automatically extended to the highest route index used in field RTE of subtable HNPACONT.RTEREF.

For related information, refer to table HNPACONT.

Datafill sequence and implications

The following tables must be datafilled before subtable HNPACONT.RTEREF:

- HNPACONT
- CLLI
- OFRT
- OFR2
- OFR3
- OFR4
- TRKMEM
- TRIGINFO

Table size

0 to 1024 tuples.

HNPACONT.RTEREF (continued)**Field descriptions**

The following table describes field names, subfield names, and valid data ranges for table HNPACONT.RTEREF.

(Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
RTE		0 to 1023	ROUTE INDEX. Enter a route index. Translation table index this routing table through the RTE field.
RTELIST			ROUTE LIST. Datafill the RTESEL subfield and its refinements. Enter up to 9 RTELISTs.
	RTESEL		ROUTE SELECTOR. Enter one of the following and datafill the appropriate refinements: S, T, N, MN, ISA, TS, RT, TC, DN, SQ, NQ, QH, ST, CND, NOT, RX, SX, NIL, INS, NODE, DCRT, TPBX, NPOS, MEM, FEAT, NPOSDN, EXDS, TRMT, GW_N_ROUTE, GW_MN_ROUTE, AFR_ROUTE, QSCP_ROUTE, QFLEXSTC_ROUTE

HNPACONT.RTEREF (continued)

(Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		S	Enter S for toll switching unit routing. The S selector is available for the following trunks: • outgoing ONAL • two-way ONAL • intermachine trunk (IMT) • intertoll • standard digit manipulation (digit deletion or prefixing) when the ABC digits dialed are represented in table HNPACODE by code types FNPA and FRTE: — Delete the ABC digits from the outpulsed digits when the dialed ABC digits equal the connecting NPA (CONNGNPA) specified in the trunk group data. The system deletes NPA and outpulses seven digits when DNPA equals CONNPA (ONAL). — Prefix 1 and outpulse 1 + 10 digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) specified in the trunk group data. The system prefixes 1 and outpulses 1 + 10 digits when the DNPA does not equal CONNPA (ONAL). — Use standard 10-digit outpulsing when the call terminates on an IMT. Refer to the RTESEL=S section for refinement datafill.
		T	Enter T to index another routing table for the appropriate routing list. Refer to the RTESEL=T section for refinement datafill.

HNPACONT.RTEREF (continued)

(Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		N	Enter N when standard digit manipulation cannot be performed for the following trunks: • outgoing ONAL • two-way trunk group ONAL • IMT • intertoll Route selector N cancels standard digit manipulation automatically and requires that digit deleting and prefixing be specified. • Delete three digits and prefix 1 to outpulse 1 + 7 digits when the dialed ABC digits are equal to the connecting NPA (CONNGNPA). Prefix 1 and outpulse 1 + 7 digits when DNPA = CONNPA (ONAL). • Do not delete digits and prefix of N to outpulse ten digits when the dialed ABC digits are not equal to the connecting NPA (CONNGNPA) and prefix is not required. Outpulse ten digits when DNPA=CONNPA (ONAL) and prefix is not required. • Do not delete digits and prefix 1 to outpulse 1 + 10 digits when CONNPA=DNPA for those areas of the country requiring 1 + 10 digit outpulsing. Refer to the RTESEL=N or NPOS section for refinement datafill.
		ISA	Enter ISA for primary rate access interface routing. Refer to the RTESEL=ISA section for refinement datafill.
		SQ	Enter SQ for queuing with standard digit manipulation. Refer to the RTESEL=SQ section for refinement datafill.
		NQ	Enter NQ for queuing with nonstandard digit manipulation. Refer to the RTESEL=NQ section for refinement datafill.

HNPACONT.RTEREF (continued)

(Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		QH	Enter QH to specify the time, in seconds, that a call queues for trunk groups. QH is considered a queue point, and is placed after a trunk group or several trunk groups in the route list. Trunk groups with queuing capabilities are queued upon for the time period specified in field QTIME. Refer to the RTESEL=QH section for refinement datafill.
		ST	Enter ST for same table routing. If all routes in a specified route list are busy, the ST selector allows additional route choices by pointing to another route reference index number with associated route choices. This is a means of <i>chaining</i> route lists. Refer to the RTESEL=ST section for refinement datafill.
		CND or NOT	Enter CND for Time of Day routing, Satellite Screening routing, and Long Distance Sensitive routing. The CND selector can be replaced by the NOT selector if a route list should not be used during a specific time range or under specific conditions (Satellite Screening or Long Distance Sensitive routing). The Not Condition (NOT) selector uses the same data fields as the CND selector. Refer to the RTESEL=CND or NOT section for refinement datafill.
		RX	Enter RX if the Adaptive Routing Package NTX340AA, containing the Retranslation capability is purchased. The fields associated with selector RX contain information that point the system to the DIGMAN table. Table DIGMAN performs digit substitution and digit replacement for more efficient adaptive routing. Adaptive route is the method of delivering ONNET calls over OFFNET facilities when the ONNET facilities are busy or unavailable. Refer to the RTESEL=RX section for refinement datafill.

HNPACONT.RTEREF (continued)

(Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		SX	Enter SX to use the RTEATTR table index to allow attributes for the call to be applied based on the route destination chosen. See section RTESEL=SX section for refinement datafill.
		NIL	Enter NIL to remove a RTESEL.
		AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE	There is no refinement datafill for RTESEL=AFR_ROUTE, QSCP_ROUTE, or QFLEXSTC_ROUTE
		TPBX	Enter TPBX for tandem public branch exchange routing. Refer to the RTESEL=TPBX section for refinement datafill.
		MEM	Enter MEM for member number routing. Refer to the RTESEL=MEM section for refinement datafill.
		FEAT	Enter FEAT to find a USS7 IMT identified as GVPN in the FEATTYPE field. Call processing sends the correct facility code digits, STS, and 6- or 7-digit address code. Refer to the RTESEL=FEAT section for refinement datafill.
		EXDS	Enter EXDS for extended digit screening. Refer to the RTESEL=EXDS section for refinement datafill.
		TRMT	Enter TRMT to route to treatment. Refer to the RTESEL=TRMT section for refinement datafill.
		MN, TS, RT, TC, DN, NPOSDN, INS, NODE, DCRT, GW_S_ROUTE, GW_N_ROUTE, GW_MN_ROUTE, NPOS	The PRODUCT NAME switch does not support these selectors.

HNPACONT.RTEREF (continued)**RTESEL=S**

When RTESEL=S, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=T

When RTESEL=T, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
EXTRTEID			EXTERNAL ROUTE IDENTIFIER. Datafill the 2-part field consisting of TABID and KEY.
	TABID		TABLE IDENTIFIER. Enter one of the following tables: OFRT, OFR2, OFR3, OFR4, EXDGTRTE, RRTE, TOPSAMA, TOPS, or TTL4.
		OFRTOFR2OFR3OFR4EXDGTRTERRT E	When EXTRTEID=OFR2, OFR3, OFR4, EXDGTRTE, or RRTE, datafill the KEY refinement.
	KEY	0 to 1023	KEY. Enter the number of the routing list in the datafilled table (field TABID).
		TOPSAMA or TOPS	When EXTRTEID=TOPSAMA or TOPS, datafill the KEY refinement.
	KEY	Valid call origination	KEY. Enter the call origination from the datafilled table (field TABID).
		TTL4	When EXTRTEID=TTL4, datafill the KEY refinement.

HNPACONT.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
	KEY	0 to 7	KEY. Enter the number of the routing list in the datafilled table (field TABID).
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=N

When RTESEL=N, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.

HNPACONT.RTEREF (continued)**RTESEL=ISA**

When RTESEL=ISA, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.
CBQ		Y or N	CALL BACK QUEUE. Enter Y if call back queuing is allowed on this route; otherwise, enter N.
EXP		Y or N	EXPENSIVE. Enter Y is this route choice is considered expensive; otherwise, enter N.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
CALLTYPE			Enter one of the following and datafill the appropriate refinement: PUB, PVT, INWATS, WATS, FX, or TIE.
		PUB	Enter PUB for public call type. When CALLTYPE=PUB, datafill the OATYPE, TNS, NPOS, and DMI refinements.
	OATYPE	NONE, OM, OP	OPERATOR ACCESS TYPE. Enter the type of operator access required on this call.
	TNS	0 to 999NC	TRANSIT NETWORK IN SETUP. Enter the transit network number to request in the SETUP message. If no TNS is required, enter N. If the TNS should be determined from the call's originator, enter C.
	NPOS	Y or N	NO CALLING NUMBER IDENTIFICATION REQUIRED. Enter Y to indicate that calling number identification is not required. Otherwise, enter N.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.

HNPACONT.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
		PVTINWATS FXTIE	When CALLTYPE=PVT, INWATS, FX, or TIE, datafill the FACNUM, NPI, and DMI refinements.
	FACNUM	0 to 1023	FACILITY NUMBER. Enter the facility number to include in the network specific facility (NSF) selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.
		WATS	When CALLTYPE=WATS, datafill the ZONE, NPI, and DMI refinements.
	ZONE	0 to 9, A, B, C, AUTO	ZONE. Enter the OUTWATS zone number to include in the NSF selector.
	NPI	E164PVT	Enter the type of number for the calling number delivery.
	DMI	0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN to use to do any called party number modification prior to transmission.

HNPACONT.RTEREF (continued)**RTESEL=SQ**

When RTESEL=SQ, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=NQ

When RTESEL=NQ, datafill the following refinements:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CONNTYPE		D, A, T, CROUTING	CONNECTION TYPE. Enter D. The PRODUCT NAME switch does not support A, T, or CROUTING.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DELDIGS		0 to 15	DELETE DIGITS. Enter the number of digits to delete before outpulsing. Enter 3 to remove area code digits.
PRFXDIGS		Up to 11 digits (0 to 9) or N	PREFIX DIGITS. Enter the prefix digits. Enter N for none.

HNPACONT.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
CANCNORC		Y or N	CANCEL NORMAL CHARGE. Enter N. The PRODUCT NAME switch does not support this field.
OHQ		Y or N	OFFHOOK QUEUING. Enter Y if the trunk group is eligible for offhook queuing; otherwise, enter N for no offhook queuing.

RTESEL=QH

When RTESEL=QH, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
QTIME		0 to 255	QUEUE TIME. Enter the time in seconds that the call is in queue for the trunk group.

RTESEL=ST

When RTESEL=ST, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTEREF		0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.

HNPACONT.RTEREF (continued)**RTESEL=CND or NOT**

When RTESEL=CND or NOT, datafill the following refinements:

(Sheet 1 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
CNDSEL			CONDITIONAL SELECTOR. Enter one of the following and datafill the appropriate refinement: ALWAYS, RND, SNPA, EA, TOD, and CALLCHR
		ALWAYS	Enter ALWAYS to specify that a specific route or route list always applies regardless of time-of-day. There is no refinement datafill for ALWAYS.
		RND	When CNDSEL=RND, datafill the PERCENT refinement.
	PERCENT	0 to 100	PERCENTAGE. Enter a percentage.
		SNPA	SERVING NUMBERING PLAN AREA. When CNDSEL=SNPA, datafill the SNPA_CND_RTE refinement.
	SNPA_CND_RTE	000-999	SNPA CONDITIONAL ROUTE. Enter an SNPA.
		EA	EQUAL ACCESS. When CNDSEL=EA, datafill the EA_CND_RTE refinement.
	EA_CND_RTE	INTNL, PIC, CAC	EQUAL ACCESS CONDITIONAL ROUTE. Enter INTNL, PIC, or CAC.
		TOD	TIME OF DAY. When CNDSEL=TOD, datafill the TODNAME and TIMES refinements.
	TODNAME	NILTODNMT OD250	TIME OF DAY NAME.
	TIMES	0 to 9, A to F	TIMES. Enter the time range or group of ranges for which a predetermined route or route list is not applied.
		CALLCHR	When CNDSEL=CALLCHR, datafill the CALLCHR refinement.

HNPACONT.RTEREF (continued)

(Sheet 2 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
RTETYPE	CALLCHR	DIGDATA or SAT	CALL CHARACTERISTICS. Enter DIGDATA (digit data) or SAT (satellite routing).
		STS	SERVING TRANSLATION SCHEME. When CNDSEL=STS, datafill the STS_CND_RTE refinement. The ability to conditionally route based on STS or OPART is performed only for treated calls.
	STS_CND_RTE	STS or OPART	STS CONDITIONAL ROUTING. Enter STS or OPART (originating partition). When STS_CND_RTE=STS, datafill the STS refinement. When STS_CND_RTE=OPART, datafill the OPART refinement.
	STS	000 to 999	SERVING TRANSLATION SCHEME. Enter a valid STS datafilled in table HNPACONT.
	OPART	000 to 999	ORIGINATING PARTITION.
			Enter one of the following and datafill the appropriate refinement: ST, T, or SK.
		ST	Enter ST for same table routing. When RTETYPE=ST, datafill the RTEREF refinement.
	RTEREF	0 to 1023	ROUTE REFERENCE. Enter the route reference number of the next route list to use from this table.
		T	Enter T for other table routing. When RTETYPE= T, datafill the TABNAME refinement.
	TABNAME		TABLE NAME. Enter one of the following and datafill the appropriate refinement: OFRT, OFR2, OFR3, OFR4, IRTE, RRTE, OPERRTE, or EXDGTRTE.

HNPACONT.RTEREF (continued)

(Sheet 3 of 3)

Refinement	Subfield or refinement	Entry	Explanation and action
		SK	Enter SK for skip route. When RTETYPE= SK, datafill the SKIPNUM refinement.
	SKIPNUM	0 to 7	SKIP NUMBER. Enter the number of elements to skip within the same route list, to which translation routes when the condition is met.

TABNAME=OFRT, OFR2, OFR3, OFR4, RRTE, or EXDGTRTE

When TABNAME=OFRT, OFR2, OFR3, OFR4, RRTE, or EXDGTRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
INDEX		0 to 1023	INDEX. Enter the number of the routing list in the datafilled table.

TABNAME=OPERRTE

When TABNAME=OPERRTE, datafill the following refinement:

Refinement	Subfield or refinement	Entry	Explanation and action
RRTNO		0 to 999	ROUTE NUMBER. Enter the carrier number of the routing list in the datafilled table.

TABNAME=RRTE

When TABNAME=RRTE, datafill the following refinement:

(Sheet 1 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
XLASYS			Enter one of the following and datafill the appropriate refinement: NIL, AC, PX, CT, FA, OFC, AM, FT, NSC
		NIL	Enter NIL.

HNPACONT.RTEREF (continued)

(Sheet 2 of 2)

Refinement	Subfield or refinement	Entry	Explanation and action
RTEREF		AC, PX, CT, FA, OFC, AM, FT, NSC	When XLASYS=AC, PX, CT, FA, OFC, AM, FT, or NSC, datafill the XLANAME refinement.
	XLANAME	NIL	Enter NIL.
		0 to 1023	ROUTE REFERENCE. Enter the number of the routing list in the datafilled table.

RTESEL=RX

When RTESEL=RX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
STS		000 to 999	SERVING TRANSLATION SCHEME. Enter the STS that requires retranslation.
TYPECALL		DD, OA, NP, NL	CALL TYPE. Enter the type of call: DD (direct dial), OA (operator assisted), NP (nonpulsing), or NL (new line)
DMI		0 to 32767	DIGIT MANIPULATION INDEX. Enter the digit manipulation index in table DIGMAN used to build the OFFNET number.
BILLDMI		0 to 32767	BILL DIGIT MANIPULATION INDEX. Enter 0. The PRODUCT NAME switch does not support this field.
OPTION		RC	This is an optional field. When OPTION=RC, datafill the RCNAME refinement.
	RCNAME	NILNAME	

HNPACONT.RTEREF (continued)

RTESEL=TPBX

When RTESEL=TPBX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
DMI		0 to 32767	DIGIT MANIPULATION. This field indexes table DIGMAN.
DISA		Y or N	This field marks the call as DISA or tandem PBX dialing.

RTESEL=MEM

When RTESEL=MEM, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
MEMNUM		0 to 9999	MEMBER NUMBER. Enter the member number associated with the member number in table TRKMEM.
UPPERMEM		0 to 9999	UPPER MEMBER. enter the upper limit for the range.

HNPACONT.RTEREF (continued)**RTESEL=FEAT**

When RTESEL=FEAT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
FEATTYPE		IVPN, I800, IDDD, GVPN	FEATURE TYPE. This field indicates that the international feature is activated on a specific ISUP IMT. GVPN indicates that a global virtual private network (GVPN) call is being routed over the USS7 Gateway IMT trunk.
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.

RTESEL=EXDS

When RTESEL=EXDS, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CUST_NAME		Up to 8 alphanumeric characters	CUSTOMER NAME. This field indicates call processing translations are to continue in table EXDGTSCR.

RTESEL=TRMT

When RTESEL=TRMT, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
RTETRMT		Valid treatment datafilled in table TMTCNTL	ROUTE TREATMENT. Enter a valid treatment.

HNPACONT.RTEREF (continued)

RTESEL=SX

When RTESEL=SX, datafill the following refinements:

Refinement	Subfield or refinement	Entry	Explanation and action
CLLI		Valid CLLI datafilled in table CLLI	COMMON LANGUAGE LOCATION IDENTIFIER. Enter a valid CLLI.
ATTR_INDEX		Valid range datafilled in table RTEATTR	ROUTE ATTRIBUTE. Enter an index into the RTEATTR table.

Datafill example

An example of datafill for subtable HNPACONT.RTEREF in a toll switching unit (PRODUCT NAME) follows. The subtable belongs to home numbering plan area (HNPA) 613 and is indexed from HNPA code subtable 613.

Route reference index number 1

This is the route taken by translation if subtable HNPACONT.HNPACODE for the digits dialed specifies route reference number 1, and system logic (illegal digits) or translation (screening) do not reroute the call.

If there are idle trunks in the trunk group (OTWAON1002TO), the system logic selects the most idle trunk and if the ABC digit dialed are 024, it automatically deletes the digits 024 (standard digit manipulation).

If all trunks in the trunk group are busy, translation proceeds to table OFRT, index number 1, to select an idle trunk.

Route reference index number 7

This is the route taken by translation if the ABC digits dialed are 725 and the call originates from a non-local source (incoming on an intertoll trunk), or a local source (incoming centralized automatic message accounting [CAMA] trunk). The local calling area screening subtable for the incoming CAMA trunk group specifies that code 725 is a local code.

If there are idle trunks in the trunk group (OTWAON0872AO), the system logic selects the most idle trunk and translation deletes the digits 72 and outputpulses the last five digits.

If all trunks in the trunk group are busy, the translation proceeds to table OFRT, index number 3, to select an idle trunk.

HNPACONT.RTEREF (continued)

Route reference index number 12

This is the route taken by translation if the ABC digits dialed are 025 and the call originates from a non-local source (incoming on an intertoll trunk).

If there are idle trunks in the trunk group (OTWAON2301T0), the system logic selects the most idle trunk and automatically deletes the digits 025 (standard digit manipulation).

If all trunks in the trunk group are busy, translation proceeds to the intertoll treatment table treatment NCIT (no-circuit intertoll).

If the switching unit is not equipped with an Intertoll Treatment table, the system logic automatically reverts to table OFRT by default.

Route reference index number 20

This is the route taken by translation if the test code (0683) for the no circuit announcement (NCA) is dialed.

Route reference index number 26

This is the route taken by translation if the balance termination test code 100 is dialed.

Route reference index number 27

This is the route taken by translation if the test board communication list code 101 is dialed.

Route reference index number 28

This is the route taken by translation if the milliwatt supply test code 102 is dialed.

Route reference index number 29

This is the route taken by translation if the signal supervisory test code 103 is dialed.

Route reference index number 30

This is the route taken by translation if the transmission test and noise check test code 104 is dialed.

Route reference index number 31

This is the route taken by translation if the echo suppressor test code 108 is dialed.

An example of datafill for subtable HNPACONT.RTEREF in a toll switching unit is shown below.

HNPACONT.RTEREF (end)

MAP display example for table HNPACONT.RTEREF

RTE	RTELIST
1	(S D OTWAON1002T0) (T OFRT 1) \$
7	(N D OTWAON0872A0 2 N N) (T OFR4 3) \$
12	(S D OTWAON2301T0) \$
20	(S D NCA) \$
26	(S D TERM100Q) \$
27	(S D T101GRP1) \$
28	(S D TERM102T) \$
29	(S D TERM103T) \$
30	(T TTL4 0) \$
31	(S D TERM108) \$
49	(CND STS STS 611 ST 220) (CND STS OPART 111 ST 222) \$

Table history**UCS08**

The STS refinement was added for RTESEL=CND or NOT.

HNPACONT.HNPACODE type AMBI

Code type AMBI: Ambiguous code (local/toll)

A description of code type AMBI appears in the following table.

Code type AMBI

Code type	Description												
AMBI	<i>Ambiguous code</i> Code type (CD) AMBI applies if a dialed three-digit code represents a not clear home, local seven-digit, or foreign numbering plan area (FNPA) ten-digit code. Use one of the following methods to determine if the call requires a long or short route. Use this method if the expected number of digits is seven or ten: • Prefix method (PFX) - A present or absent prefix digit determines the expected number of digits. An example of a prefix digit is 1+. If a prefix is not present, the expected number of digits are seven and the selected route is short. If a prefix is present, the expected number of digits are ten and the route selected is long. • Timing method (TIM) - Present or absent additional digits within 4 s after the system receives the seventh digit determines the number of digits expected. If the expected number of digits is seven the selected route is the short route. If the expected number of digits are ten the selected route is the long route. • Old prefix method (OPF) for seven digit collection - The system selects the short route if one of the following is not true. If one of the following is true, the OPF selects the long route: — the call is incoming on a trunk and the digit count is greater than seven — the system marks the call DD or OA and the digit count is greater than seven — the call has a prefix, for example 1+ or 0+, and the digit count is greater than seven <table><tr><th>Code combinations</th><th>Number of digits</th><th>Originating source</th></tr><tr><td>NXX-XXXX</td><td>7</td><td>local and non-toll</td></tr><tr><td>NPA-NNX-XXXX</td><td>10</td><td>local and non-toll</td></tr><tr><td>NPA-TTC-XXXX</td><td>10</td><td>non-local</td></tr></table>	Code combinations	Number of digits	Originating source	NXX-XXXX	7	local and non-toll	NPA-NNX-XXXX	10	local and non-toll	NPA-TTC-XXXX	10	non-local
Code combinations	Number of digits	Originating source											
NXX-XXXX	7	local and non-toll											
NPA-NNX-XXXX	10	local and non-toll											
NPA-TTC-XXXX	10	non-local											
Note: On the data input forms 2401A or B, the system requires three separate lines for each occurrence of CD AMBI.													

HNPACONT.HNPACODE type AMBI (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type AMBI appears in the following example.

Field descriptions (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the ambiguous number. This number represents a single code or the first in a block of codes in sequence. These codes have the same input data.
		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of numbers in sequence, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference or treatment</i> This field contains subfield CD.
	CD	AMBI	<i>Code type</i> Enter AMBI for ambiguous codes and enter data in refinements METHOD, SHORTRTE, and LONGRTE.

HNPACONT.HNPACODE type AMBI (continued)**Field descriptions (Sheet 2 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	METHOD	PFX, TIM, or OPF	Metho The PFX selector is most easy of the three methods. If you make the call and a prefix digit is not present, the system routes the call to the short route. The short route is for seven digits only. If the call is made with a prefix digit, the system routes the call to the long route. When Overlap Carrier Selection (OCS) is necessary, use the PFX method. The table HNPACONT.HNPACODE datafill appears in the following example: <pre> FROMDIGS TODIGS CDRRTMT ----- 214 214 AMBI PFX LRTE 3 FRTE 8 Short Long </pre> The TIM selector counts the number of digits the system collects to distinguish between the long and short routes. After the seventh dialed digit, a timer begins and waits for more dialed digits, for example, a 10-digit call. The timer default time is 4 s. If the number of digits dialed after the timer expires is seven, the system uses the short route. If thee caller dials ten digits, the system uses the long route. The timer begins after the seventh dialed digit and ends after the XPM sends the last digits message. If you make a 10-digit call, the last digits message carries in the three digits that remain. This event causes most of the delays. You can change the length of the delay with datafill for the office parameter LN_SHORT_PARTIAL_DIAL_TIME in table OFCENG. The increments for this parameter are 160 ms.

HNPACONT.HNPACODE type AMBI (continued)**Field descriptions (Sheet 3 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
	METHOD (continued)		The OPF selector uses a short route if one of the following is not true. If one of the following is true, the OPF selector uses the long route: - the call is incoming on a trunk and the digit count is greater than seven - the system marks the call DD or OA and the digit count is greater than seven - the call has a prefix, for example 1+ or 0+, and the digit count is greater than seven The OPF selector is the most complicated method. The use of this method occurs in different conditions. Many problems occur because the use of the OPF selector is not clear. Do not use the OPF selector method for translation of ambiguous calls. This dialing plan does not comply with Bellcore standards. The OPF selector uses the call type datafill in table STDPRTCT. The call type in STDPRTCT:STDPRT can be NP or NL. If this condition occurs the call must be a seven-digit call from a line. If the call comes from a trunk, the seven-digit call takes the short route. If the call is a ten-digit call, the call takes the long route. If the call type in STDPRTCT:STDPRT is DD or OA, you can make non-prefixed 10-digit calls. These calls cannot use OCS. If the use of a prefix digit occurs, the switch determines how many digits are dialed. If the dialed digits are more than seven, the system uses the long route. If seven or less digits are dialed, the translation of the call waits for more digits. The translation waits for XPM to report the message from the last digit. If the user does not dial more digits the system uses the short route.
	SHORTRTE	see subfields	<i>Short route</i> This route is for seven-digit numbers. This route contains subfield CD and refinements that depend on CD. This information appears in the following paragraphs.

HNPACONT.HNPACODE type AMBI (continued)**Field descriptions (Sheet 4 of 5)**

Field	Subfield or refinement	Entry	Explanation and action		
			CD	CD refinements	Subtable HNPACONT. HNPACODE
			VCT	TMT	type VCT
			STRG	SNPA and NXX	type STRG
			DN	SNPA and NXX	type DN
			NPOSDN	SNPA and NXX	type NPOSDN
			other	RR	refer to table Code types to switch types in table HNPACONT. HNPACODE
			See the appropriate CD for the definition of the CD and fields that depend on CD.		
	LONGRTE	see subfields	<i>Long route</i> This route is for the ten-digit numbers. This route contains subfields CD and subfields that depend on CD. This information appears in the following paragraph.		
			CD	CD refinements	Subtable HNPACONT. HNPACODE
			VCT	TMT	type VCT
			STRG	SNPA and NXX	type STRG
			DN	SNPA and NXX	type DN

HNPACONT.HNPACODE type AMBI (end)**Field descriptions (Sheet 5 of 5)**

Field	Subfield or refinement	Entry	Explanation and action
		other	RR
			refer to table Code types toswitch types in table HNPACONT. HNPACODE
			See the appropriate CD for the definition of the CD and fields that depend on CD.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD AMBI appears in the following example. An ambiguous code 212 in a local, toll, or local/toll switching unit appears in the example. Seven-digit calls are local, code type LRTE, and translation advances to route reference index number 1 in subtable HNPACONT.RTEREF. Ten-digit calls require six-digit translation. These calls advance to the 212 FNPA code table. Absent or present prefix digits define the number of digits.

MAP example for table HNPACONT.HNPACODE type AMBI

FROMDIGS		TODIGS			
		CDRRTMT			
212		212			
AMBI	PFX	LRTE	1	FNPA	1

HNPACONT.HNPACODE type DN

Code type DN: Terminating line (local)

Code type (CD) DN replaces CD TERM.

The CD DN is not for use in a toll switch.

The CD DN is the format in subtable HNPACONT.HNPACODE for a terminating NXX code. A description of the DN code appears in the following table.

Code type DN

Code type	Description
DN	<i>Terminating line</i> If you enter data in the first three digits, the digits represent an office code that terminates in the switching unit. Code type DN allows the code combination NXX-XXXX, number of digits equal to seven and originating source local and non-local.

Datafill

Datafill for table HNPACONT.HNPACODE type DN appears in the following example.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits</i> Enter a digit string if the first three digits represent an office that terminates to a line in the switching unit.
TODIGS		numeric (three to four digits)	<i>To digits</i> Enter the code that terminates to a line in the switching unit. This code is equal to the datafill in field FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	DN	<i>Code type</i> Enter DN for terminating office code and enter data in refinements SNPA and NXX.

HNPACONT.HNPACODE type DN (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	numeric	<i>Terminating serving numbering plan area</i> Enter the serving numbering plan area (SNPA) of the called terminating line directory number. If the operating company uses screening to intra-switch SNPAs, translation of the dialed digits proceeds to table TOFCNAME. Translation uses SNPA and NXX as the key.
	NXX	000 to 999	<i>Terminating nxx</i> Enter three digits for the NXX code of the called terminating line directory number.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD DN appears in the following example. The input for code 725 that terminates to a line in the switching unit appears in the example. The system can receive the correct code combination and number of digits from a local or non-local source. The system does not always route the call through the local calling area or class of service screening. When these event occur translation proceeds to the directory number translations for translation of the last four digits. The terminating office number for code 725 is 0.

MAP example for table HNPACONT.HNPACODE type DN

FROMDIGS	TODIGS	CDRRTMT
725	725	DN 613 725

HNPACONT.HNPACODE type FNPA

Code type FNPA: Foreign numbering plan area (six-digit translations) (local/toll)

The following is the functional description of subtable HNPACONT.HNPACODE if the code is a foreign numbering plan area (FNPA) that requires six-digit translations. A description of the FNPA code appears in the following table.

Foreign numbering plan area code

Code type	Description																		
FNPA	<i>Foreign numbering plan area (six-digit translation)</i> Code type (CD) FNPA applies if a dialed 3-digit code represents a route outside the home numbering plan area (HNPA) and 6-digit translations are necessary. The CD FNPA does not apply to 3-digit codes that represent inward wide area telephone service (INWATS) codes. For INWATS see the following subtables: • HNPACONT.HNPACODE type INWC, INWO • HNPACONT.HNPACODE type INWS • HNPACONT.HNPACODE type INWT The system routes calls to codes with code type FNPA to the appropriate FNPA code table. The system routes the call for translation of the last three digits of a 6-digit code. The code combinations, number of digits and originating sources allowed with CD FNPA appear below. The code combinations can specify an originating source of non-local, receive an origination from a local source. If this condition occurs the system routes the originator to a vacant code treatment. <table><tr><th>Code combinations</th><th>Number of digits</th><th>Originating source</th></tr><tr><td>NPA-1XX</td><td>6</td><td>non-local</td></tr><tr><td>NPA-11XXX</td><td>8</td><td>non-local</td></tr><tr><td>NPA-TTC-1XX</td><td>9</td><td>non-local</td></tr><tr><td>NPA-NNX-XXXX</td><td>10</td><td>local and non-local</td></tr><tr><td>NPA-TTC-XXXX</td><td>10</td><td>non-local</td></tr></table>	Code combinations	Number of digits	Originating source	NPA-1XX	6	non-local	NPA-11XXX	8	non-local	NPA-TTC-1XX	9	non-local	NPA-NNX-XXXX	10	local and non-local	NPA-TTC-XXXX	10	non-local
Code combinations	Number of digits	Originating source																	
NPA-1XX	6	non-local																	
NPA-11XXX	8	non-local																	
NPA-TTC-1XX	9	non-local																	
NPA-NNX-XXXX	10	local and non-local																	
NPA-TTC-XXXX	10	non-local																	

HNPACONT.HNPACODE type FNPA (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type FNPA appears in the following example.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the 3-digit number assigned as a foreign numbering plan area (FNPA). This number represents a single code or the first in a block of consecutive codes that have the same input data.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of numbers in sequence, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	FNPA	<i>Code type</i> Enter FNPA for six-digit translation that uses table FNPACONT and subtables and enter data in refinement RR.
	RR	0	<i>Route reference</i> Enter 0. This field is not a requirement.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD FNPA appears in the following example. The FNPA 416 with six-digit translation appears in the example. The system can receive the correct code combination and number of digits from a local or non-local originating source. The local calling area or class of service screening does not always route the call again. When these condition occur, translation uses the data in the FNPA code subtable 613 for translation of the digits that remain.

HNPACONT.HNPACODE type FNPA (end)

MAP display example for table HNPACONT.HNPACODE type FNPA

FROMDIGS	TODIGS	
	CDRRTMT	
416	416	
	FNPA	0

HNPACONT.HNPACODE type FRTD and FRTE

Code types FRTD, FRTE: Foreign numbering plan area (three-digit translation) (local/toll)

The following is the functional description of subtable HNPACONT.HNPACODE if the code is a foreign numbering plan area (FNPA) that requires three-digit translations. A description of the FRTD and FRTE codes appears in the following table.

Code type FRTD or FRTE

Code type	Description																					
FRTD or FRTE	<i>Foreign area (three-digit translation)</i>Code types (CD) FRTE or FRTD apply if a dialed 3-digit code outside of home numbering plan area (HNPA) that only requires 3-digit translations. Calls to codes with CD FRTD or FRTE indexes into the home NPA route reference subtable. This subtable has the route reference index specified for the code. The code combinations, number of digits, and originating sources allowed with code types FRTD and FRTE appear in the list. Code combinations that specify an originating source of non-local receive an origination from a local source. When this condition occurs, the system routes the originator to a vacant code treatment. A call can originate from a local source. The CD for the code dialed is FRTD and the fourth digit dialed is equal to 0 or 1. When this event occurs, the system routes the originator to a vacant code treatment. <table><tr><th>Code combinations</th><th>Number of digits</th><th>Originating source</th></tr><tr><td>non-local</td><td>6</td><td>non-local</td></tr><tr><td>NPA-11XXX</td><td>8</td><td>non-local</td></tr><tr><td>NPA-TTC-1XX</td><td>9</td><td>non-local</td></tr><tr><td>NPA-NNX-XXXX</td><td>10</td><td>local and non-local</td></tr><tr><td>NPA-TTC-XXXX</td><td>10</td><td>non-local</td></tr><tr><td>0-NPA-NXX-XXXX</td><td>11</td><td>local and non-local</td></tr></table>	Code combinations	Number of digits	Originating source	non-local	6	non-local	NPA-11XXX	8	non-local	NPA-TTC-1XX	9	non-local	NPA-NNX-XXXX	10	local and non-local	NPA-TTC-XXXX	10	non-local	0-NPA-NXX-XXXX	11	local and non-local
Code combinations	Number of digits	Originating source																				
non-local	6	non-local																				
NPA-11XXX	8	non-local																				
NPA-TTC-1XX	9	non-local																				
NPA-NNX-XXXX	10	local and non-local																				
NPA-TTC-XXXX	10	non-local																				
0-NPA-NXX-XXXX	11	local and non-local																				

HNPACONT.HNPACODE type FRTD and FRTE (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type FRTD and FRTE appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter a string if the first three digits represent a foreign numbering plan area (FNPA) code. This number represents a single code or the first in a block of codes in sequence with the same input data.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of consecutive numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	FRTD or FRTE	<i>Code type</i> Enter FRTD for routing to an FNPA with blocking. The fourth digit dialed can be equal to 0 or 1 and the call can originate from a local source. If these events occur the system routes the call to subtable TMTCTL.TREAT with field TREATMT set to vacant code (VACT). Enter FRTE for routing to an FNPA that does not contain blocking on fourth digit. Enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF that translation proceeds to. The route reference index is at the same service numbering plan area (SNPA) position as this subtable

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD FRTE appears in the following example. The input for FNPA code 201 with only three-digit translation and without a fourth digit blocking appears in the example. The

HNPACONT.HNPACODE type FRTD and FRTE (end)

system can receive the correct code combination and number of digits from a local or non-local originating source. When this condition occurs, the system does not reroute the call through local calling area or class of service screening. Translation proceeds to subtable HNPACONT.RTEREF to select an idle trunk from the route list for route reference index number 1. Use code type FRTD if fourth digit blocking is a requirement.

MAP display example for table HNPACONT.HNPACODE type FRTD and FRTE

FROMDIGS	TODIGS	CDRRTMT
201	201	1
	FRTE	

HNPACONT.HNPACODE type HNPACODE

Code type HNPACODE: Home numbering plan area - dialing HNPACODE permitted (local/toll)

The following is the functional description of subtable HNPACONT.HNPACODE. This description applies if the code is a home numbering plan area (HNPACODE) and you have permission to dial an HNPACODE code. A description of the HNPACODE code appears in the following table.

Code type HNPACODE

Code type	Description
HNPACODE	<i>Home NPA</i> Code type (CD) HNPACODE applies if a dialed 3-digit code can occur and the dialed three-digit codes are HNPACODE. Code type HNPACODE ignores digit translation that follows. The following conditions can occur with code type HNPACODE: • code combination HNPACODE-NNX-XXXX • number of digits equal to ten • local or non-local originating source

Datafill

Datafill for table HNPACONT.HNPACODE type HNPACODE appears in the following example.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the three-digit number assigned as the HNPACODE.
TODIGS		numeric (three digits)	<i>To digits</i> Enter the same three-digit number that appears in FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.

HNPACONT.HNPACODE type HNPA (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CD	HNPA	<i>Code type</i> Enter HNPA if you can dial HNPA and enter data in refinement RR.
	RR	0 or 1	<i>Route reference index</i> Enter 0 when this subfield is not a requirement. Enter 1 to strip off the foreign numbering plan area (FNPA) digits on a ten-digit intra-office call terminating on a trunk. This action causes standard seven-digit outpulsing.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD HNPA appears in the following example. Input for HNPA code 613, if the dialing of HNPA code can occur, appears in the example. The system ignores the HNPA code during digit translations that follow.

MAP example for table HNPACONT.HNPACODE type HNPA

FROMDIGS	TODIGS	
	CDRRTMT	
613	613	
	HNPA	0

HNPACONT.HNPACODE type HRTE

Code type HRTE: Home route (local/toll)

A functional description of subtable HNPACONT.HNPACODE for non-local routes in the home numbering plan area (HNPA) follows. A description of the HRTE code appears in the following table.

Code type HRTE

Code type	Description
HRTE	<i>Home route</i> Code type (CD) HRTE applies if a dialed three-digit code represents a non-local route in the HNPA. Calls to codes with code type HRTE, index the HNPA route reference subtable with the route reference index specified for the code. Code type HRTE allows the code combination NXX-XXXX, number of digits and local or non-local originating source.

Datafill

Datafill for table HNPACONT.HNPACODE type HRTE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits</i> Enter a string if the first three digits represent an office code in the HNPA. This number represents a single code or the first in a block of the next codes that contain the same input data.
TODIGS		numeric	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code from field FROMDIGS. If field FROMDIGS represents the first number of a block of the next numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.

HNPACONT.HNPACODE type HRTE (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CD	HRTE	<i>Code type</i> Enter HRTE for the HNPAC route and enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF to where translations proceed. Enter this data at the same position service numbering plan area (SNPA) as this subtable.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD HRTE appears in the following example. The input for the non-local codes 556 to 558 that terminate in the HNPAC appears in the example. If the following events occur, translation proceeds to subtable HNPACONT.RTEREF:

- the system receives the correct code combination and number of digits from a local or non-local originating source
- the system does not reroute the call by local calling area or class of service screening

This event occurs to select an idle trunk from the route list for route reference index number 1.

MAP display example for table HNPACONT.HNPACODE type HRTE

FROMDIGS	TODIGS CDRRTMT
613	613 HRTE 0

HNPACONT.HNPACODE type INWC, INWO

Code types INWO, INWC: INWATS originating (local/toll)

A functional description of subtable HNPACONT.HNPACODE for an inward wide area telephone service (INWATS) originating codes for normal and CCIS signaling follows. A description of the INWO and INWC codes appears in the following table.

Code types INWO and INWC

Code type	Description												
INWO or UNWC	<i>INWATS originating (regular or CCIS)</i> Code type (CD) INVO or INWC apply if a three-digit code that a user dials represents an INWATS originating code. The originating code must be in a switching unit that supports INWATS originating service. The system routes calls to codes with code type INWO or INWC to table INWORICN for translation of DEF digits. The following values are the code groups, number of digits, and originating source for code types INWO and INWC. A code combination that only specifies an originating source of non-local can receive an origination from a local source. If this event occurs, the system automatically routes the originator to a vacant code treatment. <table><tr><th>Code combinations:</th><th>Number of digits:</th><th>Originating source:</th></tr><tr><td></td><td></td><td>non-local</td></tr><tr><td>800 or 00X-1X1</td><td>6</td><td>local and non-local</td></tr><tr><td>800 or 00X-NNX-XXXX</td><td>10</td><td></td></tr></table>	Code combinations:	Number of digits:	Originating source:			non-local	800 or 00X-1X1	6	local and non-local	800 or 00X-NNX-XXXX	10	
Code combinations:	Number of digits:	Originating source:											
		non-local											
800 or 00X-1X1	6	local and non-local											
800 or 00X-NNX-XXXX	10												

HNPACONT.HNPACODE type INWC, INWO (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type INWC, INWO appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the three-digit number assigned as an INWATS code. This number represents a single code or the first in a block of the next codes that have the same input data.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code from field FROMDIGS. If field FROMDIGS represents the first number of a block of the next numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	INWO or INWC	<i>Code type</i> Enter the code type for INWATS originating: INWO for normal signaling, or INWC for CCIS signaling. Enter data in refinement RR.
	RR	0	<i>Route reference index</i> Enter 0. The table does not require this field.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD INWO appears in the following example. The input for the INWATS originating code 800 appears in the example. If the system receives the correct code combination and number of digits from a local or non-local originating source the system routes the call to table INWORICN. The system routes the call to table INWORICN for translation of the digits that remain.

HNPACONT.HNPACODE type INWC, INWO (end)

MAP display example for table HNPACONT.HNPACODE type INWC, INWO

FROMDIGS	TODIGS	
	CDRRTMT	
800	800	
	INWO	0

HNPACONT.HNPACODE type INWS

Code type INWS: INWATS terminating (local/toll)

A functional description of subtable HNPACONT.HNPACODE for an inward wide area telephone service (INWATS) terminating code follows. A description of the INWS code appears in the following table.

Code type INWS

Code type	Description
INWS	<i>INWATS terminating</i> Code type (CD) INWS applies if a three-digit code that the user dials represents an INWATS terminating code. The arrangement of the switching unit must be for INWATS terminating service. The system routes calls to codes with code type INWS to table INWTERCN for translation of the fourth to ninth digits. Code type INWS allows the code combination 1XB-XXXX, number of digits equal to seven, and non-local originating source. If the system receives an origination from a local source, the system routes the originator to vacant code treatment.

Datafill

Datafill for table HNPACONT.HNPACODE type INWS appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the three-digit number assigned as an INWATS code. This number represents a single code or the first in a block of the next codes that have the same input data.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of the next numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.

HNPACONT.HNPACODE type INWS (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CD	INWS	<i>Code type</i> Enter INWS for INWATS terminating. Enter data in refinement RR.
	RR	0	<i>Route reference index</i> Enter 0 (zero). This field is not necessary.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD INWS appears in the following example. The input for terminating INWATS code 167 appears in the example. The system can receive the correct code combination and number of digits from a non-local originating source. The system does not always reroute the call by class of service screening. If these events occur translation uses the data in table INWTERCN for translation of the digits that remain.

MAP display example for table HNPACONT.HNPACODE type INWS

FROMDIGS	TODIGS
	CDRRTMT
167	167
	INWS 0

HNPACONT.HNPACODE type INWT

Code type INWT: INWATS tandem (local/toll)

A functional description of subtable HNPACONT.HNPACODE for an inward wide area telephone service (INWATS) tandem code follows. A description of the INWT code appears in the following table.

Code type INWT

Code type	Description
INWT	<i>INWATS tandem</i> Code type (CD) INWT applies if a three-digit code that a user dials represents an INWATS tandem code in a switching unit that supports INWATS tandem service. The system routes calls to codes with call type INWS to table INWORICN. This action occurs for the translation of the INWATS serving area NXX code. Code type INWT allows the code combination 08B-NXX-XXXX, number of digits equal to ten and non-local originating source. If the system receives origination from a local source, the system routes the originator to vacant code treatment.

Datafill

Datafill for table HNPACONT.HNPACODE type INWT appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits</i> Enter the three-digit number assigned as an INWT code. This number represents a single code or the first in a block of the next codes that have the same input data.
TODIGS		numeric (three digits)	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of the next numbers, enter the last number in the block.

HNPACONT.HNPACODE type INWT (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	INWT	<i>Code type</i> Enter INWT for INWATS tandem. Enter data in refinement RR.
	RR	0	<i>Route reference index</i> Enter 0. The table does not require this field.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD INWT appears in the following example. The input for INWATS tandem code 083 appears in the example. The system can receive the correct code combination and number of digits from a non-local originating source. The system does not always reroute the call by class of service screening. If these events occur translation uses the data in table INWORICN for the translation of the digits that remain.

MAP display example for table HNPACONT.HNPACODE type INWT

FROMDIGS	TODIGS	CDRRTMT
083	083	0
	INWT	

HNPACONT.HNPACODE type LRTE

Code type LRTE: Local route (local/toll)

A functional description of subtable HNPACONT.HNPACODE for a local route follows. A description of the LRTE code appears in the following table.

Code type LRTE

Code type	Description
LRTE	<i>Local route</i> Code type (CD) LRTE applies if a three-digit code that a user dials represents a central office code to at least one originator. Calls to codes with code type LRTE index to subtable HNPACONT.RTEREF with the route reference index specified for the code. Code type LRTE allows the code combination NXX-XXXX, number of digits equal to seven, and local or non-local originating source.

Datafill

The datafill for table HNPACONT.HNPACODE type LRTE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits</i> Enter a string if the leading three digits represent an office code in the home numbering plan area (HNP). This number represents a single code or the first in a block of the next codes that have the same input data.
TODIGS		numeric	<i>To digits</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of the next numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference, and treatment</i> This field contains subfield CD.

HNPACONT.HNPACODE type LRTE (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CD	LRTE	<i>Code type</i> Enter LRTE for local route. Enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF that translation proceeds to. Enter this data at the same position service numbering plan area (SNPA) as this subtable.

Datafill example

The datafill for subtable HNPACONT.HNPACODE with CD LRTE appears in the following example. The input for the local code 224 appears in the example. The system can receive the correct code combination and number of digits from a local or non-local originating source. The system does not always reroute the call by local calling area or class of service screening. If these events occur translation proceeds to subtable HNPACONT.RTEREF to select an idle trunk from the route list for route reference index number 38.

MAP display example for table HNPACONT.HNPACODE type LRTE

FROMDIGS	TODIGS	
	CDRRTMT	
224	224	
	LRTE	38

HNPACONT.HNPACODE type NPOSDN

Code type NPOSDN: No position to DN (local/toll/TOPS)

A functional description of subtable HNPACONT.HNPACODE for code NPOSDN follows. A description of the NPOSDN code appears in the following table.

Local toll and Traffic Operator Position (TOPS) offices with the Basic Rate Access (BRA) to Enhanced Service Providers feature can use code type NPOSDN. The integrated services digital network (ISDN) and automatic message accounting (AMA) must be present.

NPOSDN

Code type	Description
NPOSDN	<i>No position to DN</i> Code type (CD) NPOSDN applies if a dialed three-digit code is in use. This code indicates that calling number identification (no position to directory number [DN]) is not a requirement for: - operator number identification (ONI) - automatic number identification (ANI) failure direct dial (DD) calls The system receives these calls over SuperCAMA (centralized AMA) (SC) or TOPS trunks. In the following conditions, NPOSDN is like the current CD DN: - calls originated from trunks other than SC or TOPS - calls without ONI or ANI failure indication

Datafill

The datafill for table HNPACONT.HNPACODE type NPOSDN appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits</i> Enter a string if the first three digits represent an office that terminates to a line in the switching unit.
TODIGS		numeric (three to four digits)	<i>To digits</i> Enter the three-digit or four-digit code that terminates to a line in the switching unit (equal to field FROMDIGS).

HNPACONT.HNPACODE type NPOSDN (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CDRRTMT		see subfield	<i>Code type, route reference and treatment</i> This field contains subfield CD.
	CD	NPOSDN	<i>Code type</i> Enter NPOSDN for terminating office code. Enter data in refinements SNPA and NXX.
	SNPA	numeric	<i>Terminating serving numbering plan area</i> Enter the serving numbering plan area (SNPA) of the destination address that requires the NPOSDN route selector.
	NXX	numeric (three digits)	<i>Terminating office code NXX</i> Enter the first three digits of the seven-digit destination address that requires the NPOSDN route selector.

Datafill example

Sample datafill for table HNPACONT.HNPACODE type NPOSDN appears in the following table.

MAP display example for table HNPACONT.HNPACODE type NPOSDN

FROMDIGS	TODIGS CDRRTMT
976	976 NPOSDN 613 976

HNPACONT.HNPACODE type NSC

Code type NSC: Number service code (local/toll SSP)

A functional description of subtable HNPACONT.HNPACODE for code NSC follows. A description of the NSC code appears in the following table.

The NSC applies only to local/toll offices without service switching point (SSP).

The Number Service Code (NSC) feature provides inward call management features that require access to operating company databases. The NSC feature option Enhanced 800 (E800) is the only option available.

The E800 service is present on an SSP office that communicates with operating company databases. The SSP office communicates with operating company databases with signaling system 7 (SS7). An SSP is a node in the SS7 network that queries databases at a service control point (SCP). An SSP can be an access tandem (AT) or equal access end office (EAEO) in the equal access network.

Code type NSC (Sheet 1 of 2)

Code type	Description
NSC	<i>Number service code</i> Code type (CD) NSC applies if a dialed three-digit code accesses the E800 service table database to obtain special routing and call handling instructions. See the description of table NSCDEFS for more information on the NSC translation feature tables. The 800 calls with code type NSC index in to table NSCDEFS with the field NCSCODE set to E800. If field NSCCODE is REPLDIGS, the operating company can direct calls to a replacement of dialed digits database. This database is on a network services system (NSS) database control point (DBCP). The operating company can respond to queries from an NSS SSP with the SS7 signaling transaction abilities application part (SS7 TCAP). This database is for N00 dialing applications, like 800 and 900 service. Code type NSC in subtable HNPACONT.HNPACODE is for use in an EAEO SSP or AT SSP for E800 service calls from non-EAEOs. The advanced intelligent network (AIN) option in field NSCCODE triggers database queries with the public office dialing plan (PODP). The PODP trigger is a flexible trigger plan that allows database queries to a SCP. This service depends on the first three, six, and seven through ten dialed digits (3/6/10).

HNPACONT.HNPACODE type NSC (continued)

Code type NSC (Sheet 2 of 2)

Code type	Description
	The 3/6/10 digit PODP trigger is available to all plain ordinary telephone service (POTS) lines and trunks. This provision occurs through the use of feature group C (FGC) signaling in the NPA that table HNPACONT serves. You can not enter the NSC features Virtual Private Network (VPN) and Private Virtual Network (PVN) in table HNPACONT.HNPACODE.

HNPACONT.HNPACODE type NSC (continued)

Datafill

The datafill for table HNPACONT.HNPACODE type NSC appears in the following table.

Field descriptions (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits.</i> Enter a string if the first three digits represent an office code in the home numbering plan area (HNPA). This number represents a single code or the first in a block of codes in sequence that have the same input data. Note: If the 10-digit datafill includes all of the following: • a 3-digit numbering plan area (NPA) • a 3-digit central office code • a 4-digit station code and the number of dialed digits is greater than 19, the call receives treatment.
TODIGS		numeric	<i>To digits.</i> If field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. If field FROMDIGS represents the first number of a block of numbers in sequence, enter the last number in the block. Note: If the 10-digit datafill includes all of the following: • a 3-digit numbering plan area (NPA) • a 3-digit central office code • a 4-digit station code and the number of dialed digits is greater than 19, the call receives treatment.
CDRRTMT		see subfield	<i>Code type, route reference and treatment.</i> This field contains subfield CD.
	CD	NSC	<i>Code type.</i> Enter NSC for number service code. Enter data in refinement NSCCODE.

HNPACONT.HNPACODE type NSC (continued)

Field descriptions (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	NSCCODE	AIN, 800P, E800, PVN, REPLDIGS, or VPN	<i>Number service code.</i> Enter AIN. Enter data in refinements MINDIGS, MAXDIGS, and LINATTR_INDXX. This entry activates the 3/6/10 digit (POTS) processing. You cannot enter 800P, 800 Plus service for subtable HNPACONT.HNPACODE. Enter E800 for Enhanced 800 service. An entry of E800 must be in table NSCDEFS, field NSCODE. You cannot enter PVN, private virtual network service for subtable HNPACONT.HNPACODE. Enter REPLDIGS if the REPLDIGS database in table REPLDATA requires a query. You cannot enter VPN, virtual private network service, for subtable HNPACONT.HNPACODE. All entries for field NSCCODE must be in table NSCDEFS before you enter the data in table HNPACONT.
MINDIGS		1 to 18	<i>Minimum digits.</i> Enter the minimum number of digits required to determine a match and start the SCP query. This field specifies the minimum number of digits that appear as the service key for SCP query messages. Values out of range are not correct.
MAXDIGS		1 to 18	<i>Maximum digits.</i> Enter the maximum number of digits required to determine a match and start the SCP query. This field specifies the maximum number of digits that appear as the service key for the SCP query messages. This condition applies when the system truncates additional digits. Values out of range are not correct.

HNPACONT.HNPACODE type NSC (end)**Field descriptions (Sheet 3 of 3)**

Field	Subfield or refinement	Entry	Explanation and action
LINATTR_NDX		0 to 2047	<i>Line attribute index.</i> Enter the line attribute index in table LINEATTR to translate the routing number the system returns from a successful SCP query.
XLAPLAN		alphanumeric (up to 16 characters)	<i>Translation plan index.</i> Enter the index into the XLAPLAN table.
RATEAREA		alphanumeric (up to 16 characters)	<i>Rate area index.</i> Enter the index into the RATEAREA table.

Datafill example

Sample datafill for table HNPACONT.HNPACODE type NSC appears in the following example.

MAP display example for table HNPACONT.HNPACODE type NSC

FROMDIGS	TODIGS
	CDRRTMT
800	800
	NSC E800

HNPACONT.HNPACODE type OPC3, OPC4, OPC5

Code types OPC3, OPC4, and OPC5: operator codes (local/toll)

A functional description of subtable HNPACONT.HNPACODE for operator codes OPC3, OPC4, and OPC5 follows. A description of the operator codes appears in the following table .

Code types OPC3, OPC4, and OPC5

Code type	Description												
OPC3, OPC4 or OPC5	<i>Operator codes</i> Code types (CD) OPC3, OPC4 or OPC5 apply when one of the following operator or toll maintenance codes refers to an index in subtable HNPACONT.RTEREF. • three-digit • four-digit • five-digit A specified route reference index must be present for the code. The following are code combinations, number of digits and originating sources that can occur with code types OPC3, OPC4, and OPC4: This information can occur in local, toll, or local/toll switching units. If the system receives an origination from a local source, the system routes the originator to vacant code treatment. <table><tr><th>Code combinations:</th><th>Number of digits:</th><th>Originating source:</th></tr><tr><td>0/1XX (OPC3)</td><td>3</td><td>non-local</td></tr><tr><td>XXXX (OPC4)</td><td>4</td><td>non-local</td></tr><tr><td>11XXX (OPC5)</td><td>5</td><td>non-local</td></tr></table>	Code combinations:	Number of digits:	Originating source:	0/1XX (OPC3)	3	non-local	XXXX (OPC4)	4	non-local	11XXX (OPC5)	5	non-local
Code combinations:	Number of digits:	Originating source:											
0/1XX (OPC3)	3	non-local											
XXXX (OPC4)	4	non-local											
11XXX (OPC5)	5	non-local											

HNPACONT.HNPACODE type OPC3, OPC4, OPC5 (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type OPC3, OPC4, OPC5 appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three to five digits)	<i>From digits.</i> Enter the three-digit, four-digit, or five-digit number assigned as an operator or toll maintenance code.
TODIGS		numeric (three to five digits)	<i>To digits.</i> Enter the same number as in field FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference and treatment.</i> This field contains subfield CD.
	CD	OPC3, OPC4, or OPC5	<i>Code type.</i> Enter OPC3, OPC4, or OPC5 for a three-digit, four-digit, or five-digit operator or toll maintenance code. Enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index.</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF. Enter the index at the same position service numbering plan area (SNPA) as this subtable. Translation proceeds to the route reference index you enter.

Datafill example

Datafill for subtable HNPACONT.HNPACODE with CD OPC4 appears in the following example. The input for a four-digit code appears in the example. Translation proceeds to subtable HNPACONT.RTEREF when the following conditions occur:

- a call originates from a non-local originating source with the correct code and number of digits
- the system does not reroute the call with calling area or class of service screening

Translation proceeds the subtable HNPACONT.RTEREF to select an idle trunk from the route list for route reference index number 26.

HNPACONT.HNPACODE type OPC3, OPC4, OPC5 (end)

MAP display example for table HNPACONT.HNPACODE type OPC3, OPC4, OPC5

FROMDIGS	TODIGS	
	CDRRTMT	
1121	1121	
	OPC4	26

HNPACONT.HNPACODE type SACNWM

Code type SACNWM: Service access code network management (DMS-250)

A functional description of subtable HNPACONT.HNPACODE code type SACNWM follows. Code type SACNWM is for use in a DMS-250 switch. A description of the SACNWM code appears in the following table.

Code type SACNWM

Code type	Description
SACNWM	<i>Service access code network management code</i> Code type (CD) SACNWM applies if a dialed code translation must proceed to DMS-250 table INWATXLA.

Datafill

The datafill for table HNPACONT.HNPACODE type SACNWM appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits.</i> Enter the service access code (SAC) identified in table STDPRTCT as an SAC code.
TODIGS		numeric	<i>To digits.</i> Enter the same number as in field FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference, and treatment.</i> This field contains subfield CD.
	CD	SACNWM	<i>Code type.</i> Enter the SAC network management code SACNWM. Enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index.</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF. Enter this index at the same position service numbering plan area (SNPA) as this subtable. Translation proceeds to the route reference index you enter.

HNPACONT.HNPACODE type SACNWM (end)

Datafill example

Sample datafill for table HNPACONT.HNPACODE type SACNWM appears in the following example.

MAP display example for table HNPACONT.HNPACODE type SACNWM

FROMDIGS		TODIGS		
		CDRRTMT		
800		800		
		SACNWM	0	900 900
		SACNWM	0	001 001
		SACNWM	0	

HNPACONT. HNPACODE type SCD3, SCD4

Code types SCD3 & SCD4: three- or four-digit local service codes (local/toll)

A functional description of subtable HNPACONT.HNPACODE for a three-digit or four-digit local service code follows. A description of the SCD3 and SCD4 codes appears in the following table.

SCD3 and SCD4

Code type	Description									
SCD3 or SCD4 (three or four digits)	<i>Service codes</i> Code type (CD) SCD applies if a dialed three-digit or four-digit code represents local service or a maintenance test. Calls to codes with code types SCD 3 or 4, index to subtable HNPACONT.RTEREF. A specified route reference index for the code must be present. The following are the code combinations, number of digits and originating source that can occur with code types SCD3 or SCD4. If the system receives an origination from a non-local source, the system routes the originator to vacant code treatment. <table><tr><th>Code combinations:</th><th>Number of digits:</th><th>Originating source:</th></tr><tr><td>XXX (SCD3)</td><td>3</td><td>local</td></tr><tr><td>XXXX (SCD4)</td><td>4</td><td>local</td></tr></table>	Code combinations:	Number of digits:	Originating source:	XXX (SCD3)	3	local	XXXX (SCD4)	4	local
Code combinations:	Number of digits:	Originating source:								
XXX (SCD3)	3	local								
XXXX (SCD4)	4	local								

Datafill

The datafill for table HNPACONT.HNPACODE type SCD3, SCD4 appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three or four digits)	<i>From digits.</i> Enter the three-digit or four-digit number assigned as a local service or maintenance code. This number represents a single code or the first in a block of codes in sequence that have the same input data.
TODIGS		numeric (three or four digits)	<i>To digits.</i> Enter the same number as in field FROMDIGS.

HNPACONT. HNPACODE type SCD3, SCD4 (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CDRRTMT		see subfield	<i>Code type, route reference, and treatment.</i> This field contains subfield CD.
CD		SCD3 or SCD4	<i>Code type.</i> Enter SCD3 or SCD4 for a three-digit or four-digit local service or maintenance test code. Enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index.</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF. Enter this index at the same position service numbering plan area (SNPA) as this subtable. Translation proceeds to the route reference index you enter.

Datafill example

The datafill for subtable HNPACONT.HNPACODE with CD SCD3 appears in the following example. The input for the three-digit service code 411 appears in the example. Translation proceeds to subtable HNPACONT.RTEREF when the following conditions occur:

- the system receives a correct code combination and three digits from a local source
- the system does not reroute the call with local calling area or class of service screening

Translation proceeds to HNPACONT.RTEREF to select an idle trunk from the route list for route reference index number 10.

MAP example for table HNPACONT.HNPACODE type SCD3, SCD4

FROMDIGS	TODIGS	CDRRTMT
411	411	
	SCD3	10

HNPACONT.HNPACODE type SLRTE

Code type SLRTE: Special local route for SC/TOPS trunks code (toll)

The following is the functional description of subtable HNPACONT.HNPACODE for code type SLRTE. The SLRTE code is for centralized automatic message accounting (CAMA) or a Traffic Operator Position System (TOPS) toll office use. A description of the SLRTE code appears in the following table.

Code type SLRTE

Code type	Description
SLRTE	<i>Special local route for SC/TOPS trunks</i> Code type (CD) SLRTE applies when a dialed code provides the following abilities for SuperCAMA (SC) and TOPS trunk group types: allow special local route (SLRTE) calls suppress CAMA/TOPS billing for SLRTE calls The SLRTE applies when the following conditions occur: The call originates from a trunk of a trunk group type SC or TOPS that uses CAMA signaling Use of SLRTE occurs in table HNPACONT The entry of a correct LCANAME for the SC or TOPS trunk group type. The NLCA is not a correct LCANAME entry for this condition. The correct LCANAME handles the automatic number identification (ANI), operator number identification (ONI) or ANI failure conditions. Enter an entry in table BILLCODE with 000. The value 000 is the NXX of the ANI digits for each trunk group type SC common language location identifier (CLLI). The entry provides the LCANAME for ONI or ANI failure calls. The ANI is not available in this event. The entry of the NXX of the dialed digits occurs in table LCASCRN to indicate that the call is a local call. When any of the previous conditions do not occur, the system treats SLRTE as a regular local route translation selector (LRTE). This event does not affect the automatic message accounting (AMA) record for a billable call. The switch routes a local call that uses CAMA signaling routes to treatment.

HNPACONT.HNPACODE type SLRTE (continued)

Datafill

Datafill for table HNPACONT.HNPACODE type SLRTE appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits.</i> Enter a string when the leading three-digits represent an office code in the home numbering plan area (HNP). This number can represent a single code. This number can represent the first in a block of consecutive codes that have the same input data.
TODIGS		numeric	<i>To digits.</i> When field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. When field FROMDIGS represents the first number of a block of consecutive numbers, enter the last number in the block.
CDRRTMT		refer to subfield	<i>Code type, route reference and treatment.</i> This field has subfield CD.
	CD	SLRTE	<i>Code type.</i> Enter SLRTE for special local route and enter refinement RR.
	RR	1 to 1023	<i>Route reference index.</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF that translation proceeds to. Enter this index at the same position service numbering plan area (SNPA) as this subtable.

Datafill example

Sample datafill for table HNPACONT.HNPACODE type SLRTE appears in the following example.

HNPACONT.HNPACODE type SLRTE (end)

MAP display example for table HNPACONT.HNPACODE type SLRTE

FROMDIGS	TODIGS	
	CDRRTMT	
976	976	
	SLRTE	2

HNPACONT.HNPACODE type STRG

Code type STRG: Station ringer (local)

The following is the functional description of the new format in subtable HNPACONT.HNPACODE for a station ringer code. A description of the STRG code appears in the following table.

Code type (CD) STRG is not for use in a toll switch.

CD STRG replaces CD SRNG.

Note: This method requires the definition of a distinct station ringer test office code for each office code that this office serves.

An alternate method for station ringer test is available that does not involve the use of this subtable. With the alternate method, dial a single station ringer test access code for the complete office. After you dial this code, dial the seven- or ten-digit directory number (DN) for testing use. The system directs translation to a fixed common language location identifier (CLLI) (STRG). The system uses subtable STDPRTCT.STDPRT and table OFRT to direct translation to a CLLI STRG. The CLLI STRG appears in table CLLI.

Code type STRG

Code type	Description
STRG	<i>Station ringer</i> The CD STRG applies when a dialed three-digit code represents a station ringer test code. The code combination NXX-XXXX, number of digits equal to seven and local originating source is correct for code type STRG. When the reception of an origination from a non-local source occurs, the system routes the originator to vacant code treatment.

HNPACONT.HNPACODE type STRG (continued)**Datafill**

Datafill for table HNPACONT.HNPACODE type STRG appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits.</i> Enter the three-digit number assigned as the station ringer test code.
TODIGS		numeric (three digits)	<i>To digits.</i> Enter the same number as in field FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference, and treatment.</i> This field contains subfield CD.
	CD	STRG	<i>Code type.</i> Enter STRG for the station ringer test and enter data in refinements SNPA and NXX.
	SNPA	numeric	<i>Terminating serving numbering plan area.</i> Enter the serving numbering plan area (SNPA) of the called terminating line DN that the station ringer test code is assigned to. Translation of the dialed digits proceeds to table TOFCNAME with the use of refinements SNPA and NXX as the key.
	NXX	numeric	<i>Terminating office code nxx.</i> Enter the office code of the called terminating line DN that the station ringer test code is assigned to. Translation of the dialed digits proceeds to table TOFCNAME with the use of SNPA and NXX refinements as the key.

Datafill example

An example of datafill for subtable HNPACONT.HNPACODE with CD STRG appears in the following example. The input for code 725 appears in the example. The input terminates to a line in the switching unit. Translation

HNPACONT.HNPACODE type STRG (end)

proceeds to the DN translations for translation of the last four digits when the following conditions occur:

- the reception of the correct code combination and number of digits from a non-local source
- the system does not use local calling area or class of service screening to route the call

The terminating office number for code 725 is 0 (zero).

MAP display example for table HNPACONT.HNPACODE type STRG

FROMDIGS	TODIGS CDRRTMT
725	725 STRG 613 000

HNPACONT.HNPACODE type TTC

Code type TTC: Terminating toll center (local/toll)

The following is the functional description of subtable HNPACONT.HNPACODE for a terminating toll center code appears in the following table. A description of the TTC code appears in the following table.

Code type TTC

Code type	Description									
TTC	<i>Terminating toll center.</i> Code type (CD) TTC applies when a dialed three-digit code represents a terminating toll center code. Calls to codes with call type TTC indexes to subtable HNPACONT.RTEREF with the route reference index specified for the code. The following are the code combinations, number of digits and originating source acceptable with code type TTC. When the reception of an origination from a local source occurs, the system routes the originator to vacant code treatment. <table><tr><th>Code combinations:</th><th>Number of digits:</th><th>Originating source:</th></tr><tr><td>XXX-1X1</td><td>6</td><td>non-local</td></tr><tr><td>XXX-11XX</td><td>7</td><td>non-local</td></tr></table>	Code combinations:	Number of digits:	Originating source:	XXX-1X1	6	non-local	XXX-11XX	7	non-local
Code combinations:	Number of digits:	Originating source:								
XXX-1X1	6	non-local								
XXX-11XX	7	non-local								

Datafill

Datafill for table HNPACONT.HNPACODE type TTC appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric (three digits)	<i>From digits.</i> Enter the three-digit code assigned as a terminating toll center code.
TODIGS		numeric (three digits)	<i>To digits.</i> Enter the same number as in field FROMDIGS.
CDRRTMT		see subfield	<i>Code type, route reference, and treatment.</i> This field has subfield CD.

HNPACONT.HNPACODE type TTC (end)

Field descriptions (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CD	TTC	<i>Code type.</i> Enter TTC for terminating toll center and enter data in refinement RR.
	RR	1 to 1023	<i>Route reference index.</i> Enter the route reference index of the route list in subtable HNPACONT.RTEREF. Enter the index at the same position service numbering plan area (SNPA) as this subtable. Translation routes to this route reference index.

Datafill example

An example of datafill for subtable HNPACONT.HNPACODE with CD TTC appears in the following example. Input for the terminating toll center code 025 appears in the example. Translation proceeds to subtable HNPACONT.RTEREF to select an idle trunk from the route list for route reference number 12. Translation proceed to subtable HNPACONT.RTEREF when the following conditions occur:

- the reception of the correct code combination and number of digits from a non-local source or origination
- the system does not use class of service screening to route the call

MAP display example for table HNPACONT.HNPACODE type TTC

FROMDIGS	TODIGS
	CDRRTMT
TUPLE TO BE ADDED:	
025	025
TTC	12

HNPACONT.HNPACODE type VCT

Code type VCT: Vacant code (local/toll)

The functional description of subtable HNPACONT.HNPACODE for a vacant code appears in the following table. A description of the VCT code appears in the following table .

Code type VCT

Code type	Description
VCT	<i>Vacant code.</i> Code type (CD) VCT applies when a dialed code represents a vacant code. The code combination XXXXXX represents the number of digits received from three to six. The code combination and local and non-local originating sources are acceptable for code type VCT.

Datafill

Datafill for table HNPACONT.HNPACODE type VCT appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FROMDIGS		numeric	<i>From digits.</i> Enter a string that routes to subtable TMTCTL.TREAT with the entry field TREATMT equal to the entry in field TMT. This number can represent a single code. This number can represent the first in a block of consecutive codes that have the same input data.
TODIGS		numeric	<i>To digits.</i> When field FROMDIGS represents a single code, enter the same single code as in field FROMDIGS. When field FROMDIGS represents the first number of a block of consecutive numbers, enter the last number in the block.
CDRRTMT		see subfield	<i>Code type, route reference, and treatment.</i> This field has subfield CD.

HNPACONT.HNPACODE type VCT (end)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	CD	VCT	<i>Code type.</i> Enter VCT to route a call to treatment specified in refinement TMT.
	TMT	alphanumeric	<i>Treatment.</i> Enter the treatment that indexes subtable TMTCNTL.TREAT.

Datafill example

An example of datafill for subtable HNPACONT.HNPACODE with CD VCT appears in the following example. A code that routes to treatment appears in the example. In this example, the system prevents HNPA dialing. The switch routes subscribers that dial an HNPA to HNPA intercept treatment (HNPI) in subtable TMTCNTL.TREAT.

MAP display example for table HNPACONT.HNPACODE type VCT

FROMDIGS		TODIGS	
		CDRRTMT	
613	613	VCT HNPI	

HNPACONT.HNPACODE

Table name

Home NPA Code Subtable

Functional description

Subtable HNPACONT.HNPACODE lists the route, treatment, or table that translation routes to for each of the 1000 three-digit codes (000 to 999) within each of the serving number plan areas (SNPA) or serving translation scheme (STS) assigned in table HNPACONT.

The subtables are initialized with each of the three-digit codes routed to a vacant code.

Each of the three-digit codes can be expanded to ten or more digits, provided that the incoming call equipment is capable of sending that many digits. The number of leading digits defined as prefix digits in field NOPREDIG in subtable STDPRTCT.STDPRT are stripped from the digit string used to index into subtable HNPACONT.HNPACODE.

The number of digits entered must not exceed the maximum number of digits permitted by the associated code type (CD).

If the total number of post prefix digits received is less than the matching string in fields FROMDIGS or TODIGS, the call is automatically routed to the appropriate subtable of TMTCNTL at TREATMT set to VACT (vacant treatment).

If the value of the post prefix digits received does not fall within the range set by the matching string in fields FROMDIGS or TODIGS, the call is automatically routed to the appropriate subtable of TMTCNTL at TREATMT set to PDIL (partial dial treatment).

The translation is routed to HNPACONT.HNPACODE when a line or trunk has pretranslation and field TRANSYS in subtable STDPRTCT.STDPRT is set to NA.

Note: Field TRANSYS is a refinement field for subtable STDPRTCT.STDPRT selector field PRETRTSEL.

If pretranslation is not required for the line or trunk group, subtable HNPACONT.HNPACODE is indexed directly from the line attribute or trunk group table for all codes dialed.

HNPACONT.HNPACODE (continued)

For related information, refer to table HNPACONT.



CAUTION

Lost data

A requested change overwrites neighboring fields FROMDIGS and TODIGS ranges. This overwriting results in the inclusion of neighboring tuple ranges in the one range requested by the change. Hence, the data from the previously neighboring tuple is lost. Therefore, make certain of the tuple range of fields FROMDIGS and TODIGS before making changes to the range data.

DMSMON DBLOCKS command

The DMS monitoring system (DMSMON) command DBLOCKS displays the number of digit blocks being used, the number of digit blocks allocated, the percent of digit blocks used, and the percent of digit blocks available for each of several tables including:

- CLSVSCRC.CLSVSCR
- CODEBLK
- HNPACONT.HNPACODE
- IBNXLA
- LATAXLA
- SPLDNID
- STDPRTCT.STDPRT

Each of the three-, four- or five-digit codes are assigned to one of the following CDs.

Code type to switch type table

A Y at the intersection of the CD line and the switching unit column indicates that the CD can be used in the switching unit type. Table Table , "Code types to switch types" on page -926 lists these types. Refer to the appropriate type of subtable HNPACONT.HNPACODE, for the description of each code type.

HNPACONT.HNPACODE (continued)

For example, for the description of code type AMBI, see subtable HNPACONT.HNPACODE type AMBI.

Code types to switch types (Sheet 1 of 2)

Code	Description	Local	Toll
AMBI	Ambiguous code	Y	Y
CONT	For future use		
DN	Terminating line (replaces CD TERM)	Y	
FNPA	Foreign NPA six-digit translations	Y	Y
FRTD	Foreign NPA three-digit translations	Y	Y
FRTE	Foreign NPA three-digit translations	Y	Y
HNPA	Home NPA: dialing of home NPA code permitted	Y	Y
HRTE	Home route (non-local within the home NPA)	Y	Y
INWC	CCIS INWATS OSO (originating screen office)	Y	Y
INWO	INWATS OSO (originating screen office)	Y	Y
INWS	INWATS terminating	Y	Y
INWT	INWATS tandem	Y	Y
LRTE	Local route	Y	Y
NPOSDN	No position to DN	Y	N
NSC	Number service code	Y	Y
OPC3	Three-digit operator code	Y	Y
OPC4	Four-digit operator code	Y	Y
OPC5	Five-digit operator code	Y	Y
SACNWM	Service access code network management code		
SCD3	Three-digit service code	Y	Y
SCD4	Four-digit service code	Y	Y
SLRTE	Special local route from SC/TOPS trunks code		Y
STRG	Station ringer test (replaces CD SRNG)	Y	

HNPACONT.HNPACODE (continued)

Code types to switch types (Sheet 2 of 2)

Code	Description	Local	Toll
TTC	Terminating toll center	Y	Y
VCT	Vacant code	Y	Y

Notes on originating source

Originating source, local and non-local, is used to prevent the operating company from originating calls to destinations that are reserved for operators only. The operating company is defined as local and authorized operators are defined as non-local.

Originating source is also used to prevent non-local sources from reaching service operators.

The sources, lines or trunks are defined as local or non-local as follows:

- Lines are automatically assumed to be local.
- Trunks are divided into the following groups:
 - Trunks that are explicitly defined by the telephone operating company as local (LCL) or non-local (NLCL) in table TRKGRP field ORIGSRCE (trunk group types MTR, OI, OPR, PX, P2, TD, TI, TPS101, and T2) or field ORIGSRC (trunk group types A5, OC, and OA).
 - Trunks that have no originating source field and are automatically assumed to be LCL, except for the intertoll trunk group IT, which is automatically assumed to be NLCL. Calls incoming on intertoll trunk groups (field GRPTYP is set to IT) are assumed to be from a non-local originating source, even though the trunk group can carry traffic from local and non-local originating sources. Blocking of unauthorized users from dialing certain codes is done before the call is allowed to proceed on the trunk group.

An example of the application of originating source is as follows.

If field ORIGSRCE is set to LCL and the incoming digits in subtable HNPACONT.HNPACODE get a code type of OPC3, the call is automatically routed to vacant code treatment (VACT).

HNPACONT.HNPACODE (continued)

Datafill sequence and implications

There is no requirement to datafill other tables prior to table HNPACONT.HNPACODE.

Note: Additions or changes (through the table editor or through DMOPRO) to tuples with a value of AIN result in the error message that follows:

AIN is not a supported value.

Table size

Memory is allocated for 1000 codes in each assigned subtable.

For each serving translation scheme (STS), the maximum number of unique tuples in subtable HNPACONT.HNPACODE is 1022 for the following selectors

- DN
- STRG
- NPOSDN
- NSC
- FEAT

Description of code types

The method for datafilling the fields for subtable HNPACONT.HNPACODE is described on the following pages, organized in ascending alphabetical order of CD.

Datafill example

An example of datafill for subtable HNPACONT.HNPACODE with various CDs is shown below.

The example consists of all the previous examples, excluding code type VCT (assuming HNPA dialing is permitted) plus examples of the following:

- an FNPA 202 with three-digit translation and blocking if the fourth digit is 0 or 1
- the INWATS originating code 008
- a four-digit service code 4102 with code type SCD4
- a four-digit test maintenance code 0683 with code type OPC4
- an example of office code sharing, 692-0XXX to 692-2XXX routing using route index 18 in subtable HNPACONT.RTEREF, and 692-3XXX to

HNPACONT.HNPACODE (end)

692-9XXX routing using route index 19 in the HNPA route reference subtable 613

MAP display example for subtable HNPACONT.HNPACODE

FROMDIGS		TODIGS CDRRTMT		
008		008		
	INW0	0	025	025
	TTC	12	0683	0683
	OPC4	20	201	201
	FRTE	1	202	202
	FRTD	1	224	224
	LRTE	38	4102	4102
	SCD4	39	411	411
	SCD3	10	416	416
	FNPA	0	556	558
	HRTE	1	575	575
	STRG	0	613	613
	HNPA	0	6920	6922
	LRTE	18	6923	6929
	LRTE	19	800	800
	INW0	0		

HPWASTE

Table name

Heap Waste Table

Functional description

The amount of store each user of the heap facility does not use appears in table HPWASTE. This table is a read-only table. The addition of tuples from the software heap user occurs when the table identifies the tuples. To allow the table to identify the tuples, the tuples bind in. This table is for information purposes only. This table does not require input or input form.

See table HEAPTAB for related information.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table HPWASTE.

Table size

0 to 127 tuples

Datafill

Datafill for table HPWASTE appears in the following table.

Field descriptions (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
USERNAME		alphanumeric (1 to 16 characters)	<i>User name</i> This character string identifies the user. Operating company personnel are not allowed to change this field.
WASTE6		0 to 32 767	<i>Waste6</i> This value indicates the average amount of store that the heap user in question does not use. A heap user can request a heap element of less than 6 bytes with an element of 6 bytes. The system can provide an element of 6 bytes. When these conditions occur, this field accumulates the bytes the heap user does not use. The operating company can recommend that the heap support different block sizes. Note: Deallocations that follow do not alter this waste value.

HPWASTE (continued)**Field descriptions (Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
WASTE8		0 to 32 767	<i>Waste8.</i> Field WASTE8 is like field WASTE6. Field WASTE8 has a block size of 8 bytes.
WASTE10		0 to 32 767	<i>Waste10.</i> Field WASTE10 is like field WASTE6. Field WASTE10 has a block size of 10 bytes.
WASTE12		0 to 32 767	<i>Waste12.</i> Field WASTE12 is like field WASTE6. Field WASTE12 has a block size of 12 bytes.
WASTE14		0 to 32 767	<i>Waste14.</i> Field WASTE14 is like field WASTE6. Field WASTE14 has a block size of 14 bytes.
WASTE16		0 to 32 767	<i>Waste16.</i> Field WASTE16 is like field WASTE6. Field WASTE16 has a block size of 16 bytes.
WASTE24		0 to 32 767	<i>Waste24</i> Field WASTE24 is like field WASTE6. Field WASTE24 has a block size of 24 bytes.
WASTE32		0 to 32 767	<i>Waste32.</i> Field WASTE32 is like field WASTE6. Field WASTE32 has a block size of 32 bytes.
WASTE40		0 to 32 767	<i>Waste40.</i> Field WASTE40 is like field WASTE6. Field WASTE40 has a block size of 40 bytes.
WASTE48		0 to 32 767	<i>Waste48.</i> Field WASTE48 is like field WASTE6. Field WASTE48 has a block size of 48 bytes.
WASTE64		0 to 32 767	<i>Waste64Fie.</i> Field WASTE64 is like field WASTE6. Field WASTE64 has a block size of 64 bytes.
WASTE96		0 to 32 767	<i>Waste96.</i> Field WASTE96 is like field WASTE6. Field WASTE96 has a block size of 96 bytes.
WASTE128		0 to 32 767	<i>Waste128</i> Field WASTE128 is like field WASTE6. Field WASTE128 has a block size of 128 bytes.
WASTE192		0 to 32 767	<i>Waste192</i> Field WASTE192 is like field WASTE6. Field WASTE192 has a block size of 192 bytes.
WASTE256		0 to 32 767	<i>Waste256</i> Field WASTE256 is like field WASTE6. Field WASTE256 has a block size of 256 bytes.
WASTE510		0 to 32 767	<i>Waste510</i> Field WASTE510 is like field WASTE6. Field WASTE510 has a block size of 510 bytes.

HPWASTE (end)

Datafill example

Sample datafill for table HPWASTE appears in the following example.

MAP display example for table HPWASTE

USERNAME	WASTE6	WASTE8	WASTE10	WASTE12	WASTE14	WASTE16	WASTE24	WASTE32	WASTE40	WASTE48	WASTE64	WASTE96	WASTE128	WASTE192	WASTE256	WASTE510
GENDIG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HWM

Table name

High Water Mark

Functional description

Table HWM is an internal-use only table. The table holds high water marks (HWM) for the different pools that are bound to the CPPOOLMGR. This table allows HWMs to transfer from one software load to another load.

The HWMs indicate peak use of pools in the current software load. This table retains HWM information. The information in the table allows the pool to begin at normal levels of use. The pool levels do not increase without growing after a software upgrade.

Note: Table HWM is a read-only table.

Datafill sequence and meaning

Enter data in table OFCENG (Office Engineering) before you enter data in table HWM. Data entries in office parameter Dynamic_Memory_Size occur first. These data entries provide the total amount of memory available for every table of dynamic resources that the CPPOOLMGR handles.

Table size

256 tuples

HWM (end)**Datafill**

Datafill for table HWM appears in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
NAME		0 to 255	Pool name. This field provides a view to the pool names the CPPOOLMGR the CPPOOLMGR binds. The IPL restart entry code of current processes binds the entries.
HWM		0 to 2147483647	High water mark. This field is an index to the data structure of POOLEX. The system reads entries from this field from the data store structure.
Note: Telephone operating company personnel cannot change these fields.			

Datafill example

Sample datafill for table HWM appears in the following example.

MAP example for table HWM

NAME	HWM
FTRQAGENTS	00000000
FTRQ0WAREAS	00000000

Table history**TL05**

This table was first released in TL05.

Additional information

There is no additional information.

IBNRTE selector CND

Selector CND

- Always
- Time of day
- Class of service
- Call characteristic (digital data, satellite)
- MIGRATE
- Network access registers
- Random
- Site
- SNPA (Serving numbering plan area)

Datafill example

An example of datafill for route selector CND is shown below.

Field descriptions for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and Action
RTE		0 to 1023	<i>IBN route reference index</i> Enter the route reference number that is assigned to the route list.
RTELIST		see subfields	<i>Route list</i> This field consists of subfields IBNRTESEL, CONDITION, and CONDRTE.
IBNRTESEL		CND	<i>IBN route selector</i> Enter CND.
CONDITION		see subfields	<i>Condition</i> This field consists of subfields CNDSEL, TODNAME, TIMES, COSMAP, CALLCHR, and SITE.

IBNRTE selector CND (continued)

If a route list requires more than eight route elements, to link two route lists together, datafill field CNDSEL as follows.

IBNRTE selector CND (continued)**Conditional datafill for table IBNRTE**

Field	Subfield or refinement	Entry	Explanation and Action
CNDSEL		ALWAYS NARS COSMAP TOPEAXFR TOPEAALT TOPEACLS INTERLATA SITE TOD EA SNPA NRR RND CALLCHR MIGRATE	<i>Condition selector</i> Enter the condition selector required. If the route requires more than eight route elements to link two route lists together, enter ALWAYS. If the call is transferred to the route list or element specified, or if one of the times specified in field TIMES is compatible with one of table times specified in TIMEODAY enter TOD. Up to 14 of table times specified in TIMEODAY can be entered. No spaces are left between the times. If the call's ability to terminate is regulated (throttled) on a Meridian Digital Centrex (MDC) group, enter NARS. Note: NARS is a valid entry for table IBNRTE only. It appears in other routing tables such as OFRT, RTEREF, HNPACONT, and FNPACONT, but is not a valid entry for these tables. Note: The CND NRR option is not supported in GSM offices. If the call is transferred to the route list or element specified or if the NCOS assigned to the call passes the class of service screening enter COSMAP.

IBNRTE selector CND (continued)**Conditional datafill for table IBNRTE**

Field	Subfield or refinement	Entry	Explanation and Action
			If a call is transferred to the route list or element specified, or if the call characteristic specified is assigned in table CALLCHR enter CALLCHR. If a call is transferred to a route list or element based on the percentage specified on a random basis, enter RND. If the call is transferred to a route list or element based on the origination of the call, enter SITE. If the call is transferred to a route list or element based on the SNPA of the call enter SNPA.

CNDSEL = TOD

If the entry for field CNDSEL is TOD, datafill the following subfields.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and Action
TODNAME		alphanumeric (1 to 16 characters)	<i>Time of day name</i> Enter the table name assigned to the entry in TIMEODAY to which translation routes.
TIMES		alphanumeric (up to 14 characters)	<i>Times</i> enter the times at which the transfer to another route list or element can occur. This vector can be up to 14 characters in length.

IBNRTE selector CND (continued)**CNDSEL = NARS**

If the entry for field CNDSEL is NARS, datafill the following subfields.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and Action
NARNAME (BCS36-)		alphanumeric (1 to 16 characters) or NILNAR	<i>Network access register name</i> Enter the network access register (NAR) name from field NARNAME in table NARDATA, which specifies the conditional route for the call. Enter NILNAR to specify the use of the network class of service (NCOS) or customer group NAR.

CNDSEL = COSMAP

If the entry for field CNDSEL is COSMAP, datafill the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
COSMAP		alphanumeric (up to 8 characters)	<i>Class of service map</i> Enter the table name of the entry in COSMAP that contains the NCOS mapping upon which the transfer is dependent.

CNDSEL = CALLCHR

If the entry for field CNDSEL is CALLCHR, datafill the following subfields.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
CALLCHR		DIGDATA SAT	<i>Call characteristic</i> Enter the characteristic of the call upon which transfer is dependent. DIGDATA is for routing on digital facilities. SAT indicates the call has been previously routed over a satellite link.

CNDSEL = MIGRATE

Use condition MIGRATE if translation proceeds as specified in field CONDRTE unconditionally.

IBNRTE selector CND (continued)

This condition occurs when the terminator has the MIGRATE option.
Translation does not proceed unconditionally.

Datafill field CNDSEL as follows.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CNDSEL	MIGRATE	Enter MIGRATE if the call is to be transferred to a route list or element based on the assignment of the MIGRATE line option to the terminating DN.

CNDSEL = RND

If the entry for field CNDSEL is RND, datafill the following subfields.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
PERCENT		0 to 100	<i>Percent</i> Enter the percentage of calls affected.

CNDSEL = SITE

If the entry for field CNDSEL is SITE, datafill the following subfields.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
SITE		alphanumeric (up to 8 characters)	<i>Site</i> Enter the table name of the site that must be datafilled.

IBNRTE selector CND (continued)**CNDSEL = SNPA**

If the entry for field CNDSEL is SNPA, datafill the following subfield.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
SNPA_CND_RTE		alphanumeric	<i>Serving numbering plan area conditional route</i> Enter the valid SNPA conditional route which is desired.

CNDSEL = EA

If the entry for field CNDSEL is EA, datafill the following subfield.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
EA_CND_RTE		INTNL, PIC, CAC	<i>Equal access conditional route</i> Enter the equal access conditional route.

CNDSEL = TOPEACLS

If the entry for field CNDSEL is TOPEACLS, datafill the following subfield.

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
TOP_CND_RTE		alphanumeric	<i>Top conditional route</i> Enter the top conditional route.
CONDRTE		see subfields	<i>Conditional route</i> This field consists of subfields RTETYPE, RTEREF, SKIPNUM, EXTRTEID, TABNAME, and INDEX.

IBNRTE selector CND (continued)

If the call is transferred to another route list in the same table, then datafill fields RTETYPE and RTEREF as follows:

Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
RTETYPE		ST	<i>Route type</i> Enter ST as the route type.
RTEREF		0 to 1023	<i>Route reference number</i> Enter the route reference number. It must be a greater number in the same table, to which translation transfers when condition is met.

If a call skips to another route element within the same route list, then complete fields RTETYPE and SKIPNUM as follows.

13 Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
RTETYPE		SK	<i>Route type</i> Enter SK as the route type.
SKIPNUM		0 to 7	<i>Skip number</i> Enter the number of elements to skip within the same route list, to which translation is routed when condition is met.

If the call is transferred to another route list in any route table, then datafill fields RTETYPE and EXTRTEID as follows.

14 Conditional datafill for table IBNRTE

Field	Subfield or refinement	Entry	Explanation and action
RTETYPE		T	<i>Route type</i> Enter T as the route type.
EXTRTEID		see subfields	<i>External route identifier</i> This field consists of subfields TABNAME and INDEX.

IBNRTE selector CND (continued)**14 Conditional datafill for table IBNRTE**

Field	Subfield or refinement	Entry	Explanation and action
TABNAME		OFRT IBNRTE IBNRT2 IBNRT3 IBNRT4 OFR2 OFR3 OFR4	<i>Table name</i> Enter the table name to which translation has to transfer when condition is met. An entry outside this range is invalid.
INDEX		0 to 1023	<i>Route reference index</i> Enter the table route reference index number in the route to which translation transfers when the condition is met.

Datafill example**Example 1**

This is an example of extending a route list that requires more than eight route elements. The last element in the route list contains the conditional selector ALWAYS and transfers to a higher route list in same table.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
1	(CND ALWAYS ST 25)\$

IBNRTE selector CND (continued)

Example 2

If the call passes class of service when the class of service mapping MAP1 is performed on its NCOS or time-of-day NCOS, then skip three elements in the route list. Otherwise, go to the next element in the route list.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
2	(CND COSMAP MAP1 SK 3)\$

Example 3

If this call has previously been over a satellite link, go to route list 35 in table OFRT. Otherwise, go to the next element in the route list.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
5	(CND CALLCHR SAT T OFRT 35)\$

IBNRTE selector CND (continued)**Example 4**

If this is a data call using ESN signaling and must be routed over specific digital facilities, go to the route list 36 in table OFRT. Otherwise go to the next element in route list.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
6	(CND CALLCHR DIGDATA T OFRT 36)\$

Example 5

If the time is equal to table times specified in TIMEODAY for routes 4 and F for time of day name CUST01, skip one element in the route list.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
28	(CND TOD CUST01 4F SK 1)\$

Example 6

This is an example of a call distributed equally to two trunk groups.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
1	(CND RND 50 ST 2) (CND ALWAYS ST 3)\$
2	(S N N N TRUNK1) (S N N N TRUNK2)\$
3	(S N N N TRUNK2) (S N N N TRUNK1)\$

IBNRTE selector CND (continued)

All calls are routed to IBNRTE for rerouting. Half the calls are routed to IBNRTE2, the other half to IBNRTE3. Trunk 2 gets equal distribution of calls because IBNRTE2 attempts to use Trunk 1 first. If that fails, it tries Trunk 2 and IBNRTE3 reverses the order of IBNRTE2.

Example 7

This is an example of calls distributed over more than two route lists.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
1 (CND RND 10 ST 2) (CND RND 10 ST 3) (CND RND 10 ST 4)\$	

IBNRTE2 (first RND) gets 10% of the calls. IBNRTE3 (second RND) gets 10% of the remainder that did not go to the first route. IBNRTE4 gets another 10% of the remainder and so on. In absolute percentage, IBNRTE3 gets 9% of the original calls (10% of 90% of the original calls).

Example 8

This is an example of calls that are routed based on the origination.

Datafill example for table IBNRTE selector CND

RTE	RTELIST
1 (CND SITE HOST ST 2)(CND SITE REM1ST 3)(CND SITE REM2ST4)\$	
2 (S N N N GROUP0) (S N N N GROUP1) (S N N N GROUP2)\$	
3 (S N N N GROUP1) (S N N N GROUP0) (S N N N GROUP2)\$	
4 (S N N N GROUP2) (S N N N GROUP0) (S N N N GROUP1)\$	

Route element 1 sends the call on route list 2 if the call origination is on HOST, on route list 3 if the call is on site REM1, and on route list 4 if on site REM2.

Example 9

An example of datafill for table IBNRTE, along with conditional selector MIGRATE follows:

IBNRTE selector CND (end)

MAP display example for table IBNRTE selector CND

TABLE IBNRTE
520 (CND MIGRATE SK 2)(DN 214 520 4)(CND ALWAYS SK 1)(T OFRT 895) \$

Table history**SN06 (DMS)**

Added CND and NOT conditional routes to table IBNRTE selector CND for feature activity A00001207.

IEXCLUDE

Table name

Incoming Trunk Exclusion (IEXCLUDE)

Functional description

Table IEXCLUDE allows the operating company to block calls to certain areas so that Intrastate Traffic not permitted by the individual state's Public Utilities Commission (PUC) can be blocked.

This table does not screen out invalid NPAs; that is a function of normal translations and routing. Screening is applied only to calls originating on trunk group types: FGA, FGB, FGC, and FGD.

Trunk group parameter IEXCLINX specifies an index number into the Incoming Trunk Exclusion database.

Two methods of call blocking allow calls to be blocked based on the:

- dialed NPA (area code)
- NXX (Office Code)

The Incoming Trunk Exclusion database includes two subtables: IEXCNPAS and IEXCNXXS.

Datafill sequence and implications

This table does not have any datafill dependencies.

Table size

The maximum table size is 255 tuples. Each of these tuples can have up to 800 tuples in the subtable IEXCNPAS.

IEXCLUDE (continued)**Field descriptions**

The following table describes field names, subfield names, and valid data ranges for table IEXCLUDE.

(Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
IEXCINDX		0-255	INCOMING TRUNK EXCLUSION INDEX. Enter the indices that are referenced in the incoming trunk group data. Enter 0 if incoming exclusion is not required.
IEXCNPAS		NPA, IEXCSTAT, IEXCNXXS	INCOMING EXCLUSION BY NUMBERING PLAN AREA. Subtable IEXCNPAS of table IEXCLUDE allows the operating company to specify the Numbering Plan Areas requiring incoming exclusion for each trunk group. The incoming exclusion status states whether or not further screening down to the NXX level is required.
	NPA	numeric	NPA. Enter the 3-digit NPA (area code) that requires incoming trunk exclusion.
	IEXCSTAT	BLOCKED, OFFBLOCK, OFFALLOW	INCOMING TRUNK EXCLUSION STATUS. Specify the incoming exclusion status to be associated with the NPA. - Enter BLOCKED if the NPA is to be totally blocked. - Enter OFFBLOCK if the NPA/NXX combination is blocked. - Enter OFFALLOW if the NPA/NXX combination is allowed. Note: Only eight NPAs for each IEXCLINX may use the status of OFFBLOCK or OFFALLOW. This field cannot be changed. Use delete, then add it again.

IEXCLUDE (end)

(Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	IEXCNXXS	NXX	INCOMING EXCLUSION BY NXX. Subtable IEXCNXXS allows the operating company to specify particular NXXs (exchanges) to be blocked or allowed based upon the incoming exclusion status specified by previous subtable IEXCNPAS.
	KEY	0-32767	NXX/EXCHANGE. Enter the NXXs (exchanges) to be blocked or allowed.

Datafill example

The following example shows sample datafill for table IEXCLUDE.

IEXCINDX	IEXCNPAS
1	(4)

Digital Switching Systems

UCS DMS-250

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