



Succession Networks Operational Configuration: Data Schema Reference

Introduction

The purpose of data schema is to assist the operating company in preparing office-dependent data for the relevant DMS switching unit.

The office-dependent data is stored in a series of data store lookup tables that are used in conjunction with software programs and circuits to advance each call through the various stages of call processing.

The data schema portion of the document provides functional descriptions of tables and their fields, including valid entries for each field. It does not provide translation information, call progression sequence, or complete feature implementation datafill.

In this document

Data schema tables are arranged in alphabetical order by short table name. Each table has a unique name, which is the abbreviation of the long table title. For example, table CLLI is the short table name for the Common Language Location Identifier Table.

Data schema is also divided into modules, with each module describing one table. As new software features are added, or capabilities are enhanced, existing table documents are revised, or new tables are written.

The following table lists Succession data schema tables by component (device, manager or application). This table also lists data schema tables common to the DMS that also apply to Succession. For a description of a table, click on the name.

Data schema tables available in Succession (Sheet 1 of 7)

Name	Description	Device, Manager or Application
ALMSC	Alarm Scan	MG4K
ALMSCGRP	Alarm Scan Group	MG4K
ALMSD	Alarm Signal Distributor Point	MG4K
ALMSDGRP	Alarm Signal Distributor Group	MG4K
ANNS	Announcement table	Common
AUTHCODE	Authorization Code	Common
BCDEF	Bearer Capability Definition	Common
C6TRKMEM	CCIS6 Trunk Member	Common
C7TRKMEM	CCS7 Trunk Member	MG4K, SPM
C7UPTMR	CCS7 Signaling ISUP Timers	Common
CISCPCPR	Commonwealth of Independent States Calling Party Category Privileges	Common
CLIDN	Calling Line Identification Directory Number	Common
CLLI	Common Language Location Identifier	MG4K, SPM
CRSFMT	Call Record Stream Format	CS 2000 Core Manager
CRSMAP	Call Record Stream Mapping	CS 2000 Core Manager
CTCODE	Country Code Code	Common
CTHEAD	Country Code Head	Common
CUSTNTWK	Customer Group Network	Common
CUSTPROT	Customer Protection	Common

Data schema tables available in Succession (Sheet 2 of 7)

Name	Description	Device, Manager or Application
<u>DIRPOOL</u>	Device Independent Recording Package	CS 2000 Core Manager
<u>DIRPOOL2</u>	Device Independent Recording Package Pool 2	Common
<u>DIRPSSYS</u>	Device Independent Recording Package Subsystem	CS 2000 Core Manager
<u>DNINV</u>	Directory Number Inventory	MG9K
<u>DNMAP</u>	Directory Number Mapping	Common
<u>DNROUTE</u>	Directory Number Route	Common
<u>DPCMAP</u>	Destination Point Code Mapping	Common
<u>E911ALI</u>	Enhanced 911 Direct Access to ALI Controller	Common
<u>E911ESN</u>	Enhanced 911 Emergency Service Number	Common
<u>E911NPD</u>	Enhanced 911 Numbering Plan Digit	Common
<u>E911PSAP</u>	Enhanced 911 Public Safety Answering Point	Common
<u>E911RCER</u>	Enhanced 911 Remote Call Event Record	Common
<u>E911SRDB</u>	Enhanced 911 Selective Routing Database	Common
<u>EMMCDATA</u>	Enhanced Meet-Me Conference Data	Common
<u>ENCDINV</u>	Enhanced Network Card Inventory	SPM
<u>ENINV</u>	Enhanced Network Node Inventory	IW SPM ATM, IW SPM IP, SPM
<u>FACODE</u>	Foreign Area Code	Common

Data schema tables available in Succession (Sheet 3 of 7)

Name	Description	Device, Manager or Application
<u>FAHEAD</u>	Foreign Area Code Head	Common
<u>FLXCMAP</u>	Flexible ISDN User Part Cause to Treatment Mapping	CS 2000 Management Tools
<u>FTCODE</u>	Utility Code	Common
<u>FTHEAD</u>	Utility Code Head	Common
<u>FWINV</u>	Firmware Inventory	Common
<u>HNPACONT</u>	Home Numbering Plan Area Code	Common
<u>HUNTGRP</u>	Hunt Group	Common
<u>IBNFEAT</u> <u>feature</u> <u>SimRing</u>	Simultaneous Ringing	Common
<u>IBNLINES</u>	IBN Line Assignment	SPM
<u>IBNRT2</u>	IBN Second Route	Common
<u>IBNRT3</u>	IBN Third Route	Common
<u>IBNRT4</u>	IBN Forth Route	Common
<u>IBNRTE</u>	IBN Route Table	Common
<u>ILRCLASS</u>	International Line Restriction Class	Common
<u>IOC</u>	Input/Output Controller	Common
<u>ISDNPARM</u>	ISDN Trunk Subgroup Parameter	SPM
<u>ISDNPROT</u>	ISDN Protocol Variant Timer	SPM
<u>ISERVOPT</u>	International Service Option	Common
<u>ISUPDEST</u>	CCS7 ISDN User Part Destination	MG4K, SPM
<u>LGRPINV</u>	Logical Group Inventory	Common

Data schema tables available in Succession (Sheet 4 of 7)

Name	Description	Device, Manager or Application
<u>LINEATTR</u>	Line Attribute	SPM
<u>LIUINV</u>	Link Interface Unit Inventory	Common
<u>LTCALLS</u>	Logical Terminal Calls	MG4K
<u>LTCINV</u>	Line Trunk Controller Inventory	MG9K
<u>LTDEF</u>	Logical Terminal Definition	MG4K, SPM
<u>LTMAP</u>	Logical Terminal Mapping	MG4K, SPM
<u>MNCKTPAK</u>	Management Network Circuit Pack	DPT SPM ATM, IW SPM ATM, MG4K, SPM
<u>MNIP</u>	Management Network Internet Protocol	MG4K
<u>MNLINK</u>	Management Network Link	DPT SPM ATM, IW SPM ATM, SPM
<u>MNNODE</u>	Management Network Node	DPT SPM ATM, IW SPM ATM, MG4K, SPM
<u>MNPRIID</u>	PRI Interface Identification	MG4K, SPM
<u>MNPRTGRP</u>	Management Network Protection Group	DPT SPM ATM, IW SPM ATM, MG4K, SPM
<u>MNSHELF</u>	Management Network Shelf	DPT SPM ATM, IW SPM ATM, MG4K
<u>MPC</u>	Multiprotocol Controller	Common
<u>MPCFASTA</u>	Multiprotocol Controller Fast Applications	Common
<u>MPCLINK</u>	Multiprotocol Controller Link	Common
<u>MPCLSET</u>	Multiprotocol Controller LINKSET	Common

Data schema tables available in Succession (Sheet 5 of 7)

Name	Description	Device, Manager or Application
<u>MSCIDMAP</u>	Mobile Switching Center Identifier Mapping	Common
<u>MULTITM</u>	Multi Time Zone Support (M)	Common
<u>MULTITZ</u>	Multi Time Zone Support (Z)	Common
<u>NLUPCLLI</u>	Nailed-up Connection Common Language Location Identifier	MG4K
<u>OAFUNDEF</u>	Operator Services System Advanced Intelligent Network Function Definition	Common
<u>OFCCODE</u>	Office Code	Common
<u>OFCHEAD</u>	Office Code Head	Common
<u>OFR2</u>	Office Route-2	Common
<u>OFR3</u>	Office Route-3	Common
<u>OFR4</u>	Office Route-4	Common
<u>OFRT</u>	Office Route Table	Common
<u>PADDATA</u>	Pad Data	Common
<u>PADNDEV</u>	Patch Administration Device	DPT SPM ATM, IW SPM ATM, MG4K
<u>PECINV</u>	Product Engineering Code Inventory	MG4K, SPM
<u>PMLOADS</u>	Peripheral Module Loads	DPT SPM ATM, IW SPM ATM, MG4K, SPM
<u>PXCODE</u>	Prefix Code	Common
<u>PXHEAD</u>	Prefix Code Head	Common
<u>PXRTE</u>	Prefix Code Route	Common
<u>QMSMIS</u>	QMS MIS Link Definition	Common

Data schema tables available in Succession (Sheet 6 of 7)

Name	Description	Device, Manager or Application
<u>RESFEAT</u>	Residential Line	Common
<u>REXSCHED</u>	Routine Exercise Schedule	IW SPM ATM
<u>RMMINV</u>	Remote Maintenance Module Inventory	Common
<u>SDMBILL</u>	SuperNode Data Manager Billing	CS 2000 Core Manager
<u>SERVINFO</u>	Intelligent Network Service Information	Common
<u>SERVSINV</u>	Server Subtending Node Inventory	GWC
<u>SITE</u>	Site	MG4K
<u>SOSMMPC</u>	System of Operative Searching Measures MPC	Common
<u>SOSMPARM</u>	System of Operative Searching Measures Parameters	Common
<u>SOSMTRK</u>	System of Operative Searching Measures Trunk	Common
<u>SPMCHAST</u>	SPM Messaging Channel Assignment	DPT SPM ATM, IW SPM ATM
<u>SPMECAN</u>	SPM Echo Cancellor	MG4K, SPM
<u>SPMLDVAL</u>	Spectrum Load Name Validation	SPM
<u>SYNCLK</u>	Synchronous Clock	IW SPM ATM, SPM
<u>TDBDAOPT</u>	TOPS Database Directory Assistance Options	Common
<u>TFANINT</u>	Traffic Separation Intersection	Common
<u>TOLLTRKS</u>	TOLLTRKS	Common
<u>TONES</u>	Tones	Common

Data schema tables available in Succession (Sheet 7 of 7)

Name	Description	Device, Manager or Application
TOPSFTR	TOPS features	Common
TOPSMCDB	TOPS Message Center Database	Common
TOPSPARM	TOPS Office Parameter	Common
TOPSTOPT	Traffic Operator Position System Trunk Options	Common
TRKMEM	Trunk Member	GWC, MG4K, SPM
TRKSGRP type C7UP	Trunk Subgroup Type CCS7 User Part	MG4K
TRKSGRP type ISDN	Trunk Subgroup Type ISDN	MG4K
VIRTGRPS	Virtual Facility Group	Common
VOWINV	Virtual Office Worker Inventory	Common
XAFWLOAD	XA-Core Firmware Load	Common
XLABILL	XLAGRP Translation Refinement for Billing Types	Common
XLACCLASS	XLAGRP Translation Refinement for Calling Service Class	Common
XLAPLAN	Translation Plan	SPM

Supplementary data schema

The following list references data schema that do not appear in this document:

- *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual*, 297-8021-351.09.03
- *DMS-100 Family North American DMS-100 Translations Guide*, 297-8021-350.17.03
- *Succession SN07 OSS (ATM and IP) Advance Feature Guide*, PLN-07AT-OSS

- *Succession Fault Management Logs Reference*, NN10275-909
- *Succession Performance Management Operational Measurements Reference*, NN10264-709

The following documents list the translation service documents available in this Succession release:

- *Configuration Management: Government Emergency Telephone Service*, NN10341-501
- *Configuration Management: Enhanced 911 Service*, NN10343-501
- *Configuration Management: Lawful Intercept Service*, NN10345-501

ALMSC

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Alarm Scan

Table ALMSC identifies the function performed by each of the assigned scan (SC) points in the alarm scan groups.

The table that points into table ALMSC is Alarm Scan Group (ALMSCGRP). See the description of table ALMSCGRP for more information.

The following table lists available scan point functions.

Scan point functions (Sheet 1 of 3)

Scan point	Function
ABMTMFL	Alarm battery failure, miscellaneous trunk module
ABOAUFL	Alarm battery failure, office alarm unit
ABSFAIL	Alarm battery supply failure
ACDLPTST	Alarm control and display lamp test
ALMGRP	Alarm grouping
AUDARM	Audible alarm reset, miscellaneous trunk module
AUDARD	Audible alarm reset, office alarm unit
AUDDIS	Audible alarm disable
CRPREFLR	Critical alarm, preceding floor
CRPWR	Critical power alarm
CRSUCFLR	Critical alarm, succeeding floor
FEEDLOSS1	DMS power feed loss, OAU

Scan point functions (Sheet 2 of 3)

Scan point	Function
FEEDLOSS2	DMS power feed loss, MTM
FSPAIS	Frame supervisory panel aisleXX = A to Z and AA to RR (excluding I, O, II, and OO)
Note: When you assign a scan point for detection of low voltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function	
LOWBATT1	Low office battery, OAU (See Note)
LOWBATT2	Low office battery, MTM (See Note)
MJPREFLR	Major alarm, preceding floor
MJPWR	Major power alarm
MJSUCFLR	Major alarm, succeeding floor
MNPREFLR0	Major alarm, preceding floor
MNPWR	Minor power alarm
MNSUCFLR	Minor alarm, succeeding floor
PDCFAL	Power distribution center failure
RDBALM	Remote distribution bay alarm
RDTALRMCO	Remote digital terminal alarm cut-off
REMOPEAR	Remote alarm release
TONEMONITOR	Tone monitor for alarm sending
TSTLN101	101 test line
TTCNTXFR	TTC night alarm transfer
VCEALMO	Recorded announcement 0 (zero)
XFRALM	Alarm transfer

Scan point functions (Sheet 3 of 3)

Scan point	Function
130MONITOR	130-V monitor (See Note)
Note: When you assign a scan point for detection of lowvoltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function.	

Scan and signal distribution points work together. SC points detect alarm conditions such as loss of loop closure, ground, or battery feed. SD points report these alarm conditions audibly (bells) or visually (lights).

For each alarm SC point with field LOGIC set to Y (yes), the alarm SD functions are part of the system logic (fixed).

For each alarm SC point with field LOGIC set to N (no), the operating company can define up to 14 related SD functions.

If Field LOGIC is set to Y to designate a fixed function, the affected SD point generates an audible or visual alarm.

If field LOGIC is set to N to designate a non-fixed function, the operating company must set up the related SD point for the desired type of alarm indication.

Nortel Networks provides a standard set of SD functions for each alarm SC point that has field LOGIC set to Y.

The standard set of SD functions for each alarm SC point can be changed by the operating company to suit their requirements.

The following table lists the available signal distribution point functions.

Signal distribution point functions (Sheet 1 of 4)

Signal distribution point	Function
ABAUD	Alarm battery supply, audible alarm
AB0AU	Alarm battery supply, OAU, visual
ABSVIS	Alarm battery supply, visual

Signal distribution point functions (Sheet 2 of 4)

Signal distribution point	Function
ALMXFR	Alarm transfer
COMAUD1	Common audible, OAU
COMAUD2	Common audible, MTM
CRALMAUD	Critical alarm audible
CRALMVIS	Critical alarm visual
CRPWRVIS	Critical power alarm visual
EXPILDMS	Exit pilot DMS
EXPILPWR	Exit pilot power
Note: When you assign a scan point for detection of low voltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function. You use scan point 130MONITOR only for non-LPA systems (systems that do not contain the NT3X83BA card). For LPA configurations, use MONITOR.	
LN101TST	101 test line
LOWVOLTPWR	Low DMS office battery level
MJALMAUD1 & 2	Major alarm audible (1 OAU, 2 MTM)
MJALMVIS	Major alarm visual
MJOTHVIS	Major alarm, other floor, visual
MJPWRVIS	Major power alarm visual
MJVISLOOP	Major alarm visual loop
MJXFR	Major alarm transfer
MNALMAUD	Minor alarm audible
MNALMVIS	Minor alarm visual
MNOTHVIS	Minor alarm, other floor, visual

Signal distribution point functions (Sheet 3 of 4)

Signal distribution point	Function
MNPWRVIS	Minor power alarm visual
MNVISLOOP	Minor alarm visual loop
MNXFR	Minor alarm transfer
MTMFAIL	Miscellaneous trunk module failure
MTMPWR	Miscellaneous trunk module power transfer
NTALMXFR	Night alarm transfer
OAUFAIL	Office alarm unit failure
OAUFLAUD	Office alarm unit failure, audible
OAUFLVIS	Office alarm unit failure, visual
OAUPWR	Office alarm unit power transfer
Note: When you assign a scan point for detection of low voltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function. You use scan point 130MONITOR only for non-LPA systems (systems that do not contain the NT3X83BA card). For LPA configurations, use MONITOR.	
OAUVISLOOP	Office alarm unit power visual loop
PDCVIS	Power distribution center visual
PREFLRCR	Preceding floor, critical alarm
PREFLRMJ	Preceding floor, major alarm
PREFLRMN	Preceding floor, minor alarm
SUCFLRCR	Succeeding floor, critical alarm
SUCFLRMJ	Succeeding floor, major alarm

Signal distribution point functions (Sheet 4 of 4)

Signal distribution point	Function
SUCFLRMN	Succeeding floor, minor alarm
Note: When you assign a scan point for detection of low voltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function. You use scan point 130MONITOR only for non-LPA systems (systems that do not contain the NT3X83BA card). For LPA configurations, use MONITOR.	

The following table lists suggested miscellaneous alarm scan point functions for use by the operating company. The operating company supplies input data for the miscellaneous alarm SC points.

Suggested miscellaneous alarm scan point functions (Sheet 1 of 2)

Scan point	Function	Type
FIREALM	Fire alarm	CR
SMOKEALM	Smoke alarm	CR
GASALM	Building gas alarm	CR
FRONTDOR	Front door alarm	CR
REARDOR	Rear door alarm	MJ
HIGHTEMP	Building high temperature alarm	MJ
LOWTEMP	Building low temperature alarm	MJ
HIGHHUM	Building high humidity alarm	MJ
LOWHUM	Building low humidity alarm	MJ
COMACFAL	Commercial AC failure alarm	MJ
AIRDRYER	Air dryer failure alarm	MJ
CABPRESS	Cable pressure low alarm	MJ

**Suggested miscellaneous alarm scan point functions
(Sheet 2 of 2)**

Scan point	Function	Type
SEWPUMP	Sewage pump alarm	MJ
HIWATER	Sump pump high water alarm	MJ
RDBALM	Remote distributor bays	CR
VCEALM1-4	Recorded announcements	MN

Datafill sequence and meaning

You must datafill the hardware alarm scan groups in table ALMSCGRP before you datafill table ALMSC. After you enter the scan groups in table ALMSCGRP, you can datafill table ALMSC with the scan group numbers in the ALMSCGRP tuple entries.

For common language location identifier (CLLI) OAUSC in table CLLI, you must datafill field TRKGRSIZ as the number of tuples in table ALMSCGRP.

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

Table size

The maximum size is 4096 tuples. Memory is automatically allocated for 4096 SC points. If you do not datafill all the predefined SC points, the size of table ALMSC decreases.

Datafill

The following table lists the datafill for table ALMSC. You datafill fields FUNCTION, SCGROUP, POINT, NORMALST, REPORT, ALM, and subfield LOGIC only if the entry is the first record for the scan point. If the entry is not the first record for the scan point, you leave these fields blank.

Field, subfield, and refinement descriptions for table ALMSC (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FUNCTION		alphanumeric (vector of up to 16 characters)	Function Enter the alarm scan point. See the first table for a list of alarm scan point functions. See the third table for a list of suggested miscellaneous alarm scan point functions.
SCGROUP		0 to 512	Scan group Enter the scan group to which the scan point belongs.
POINT		0 to 6	Scan point Enter the scan point number within the scan group.
NORMALST		0 to 1	Normal state Enter the normal state of the scan point. If the scan point is normally off or open, enter 0 (zero). If the scan point is normally on or closed, enter 1.
REPORT		Y or N	Report Enter Y (yes) if an alarm report is logged; otherwise, enter N (no).
ALM		CR, MJ, MN, or NA	Alarm Enter the type of alarm to be activated: CR (critical alarm), MJ (major alarm), MN (minor alarm), or NA (no alarm).
LOGIC		see subfields	Logic This field consists of subfield FIX_LOGIC.

Field, subfield, and refinement descriptions for table ALMSC (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LOGIC (continued)	FIX_LOGIC	Y or N	Fix Logic Enter Y if the logic associated with the function is fixed. If you enter Y, no other datafill is required. Enter N if the logic associated with the function is not fixed. Then, datafill refinements SDFUNCT, ALMGRP, and ALMXFR.
NON_FIX_LOGIC_VECTOR		see subfields	This field consists of subfields SDFUNCT, ALMGRP, and ALMXFR.
	SDFUNCT	alphanumeric	Signal distribution function Enter the signal distribution (SD) function or functions associated with a specific scan point. See the second table for a list of SD point functions.
	ALMGRP	Y or N	Alarm grouping Enter Y if the alarm function is activated when the alarm grouping key is activated. Enter N if the alarm function is activated at all times, regardless of the alarm grouping key setting.
	ALMXFR	Y or N	Alarm transfer Enter Y if the alarm function is activated when the alarm transfer key is activated, otherwise, enter N.

Table history

SN07

Table ALMSC migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Added datafills to implement FSP Alarms for frame failures for remotely located MG4K nodes for activity 89007540.

ALMSCGRP

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Alarm Scan Group

The following office alarm systems (OAS) exist:

- Version 1
- Version 2
- Version 2 Enhanced Alarm System (EAS)
- Low Power Alarm (LPA) system

The DMS alarm systems detect and report failures and service degradations. The alarm system is a set of hardware devices and software modules that provide the following:

- visual (lights) and audible (tones) indication of alarm conditions
- transfer of critical, major, and minor alarms to remote sites
- data loops for a portable MAP terminal
- battery power feed for telephone headset communication within the office with the following:
 - frame supervisory panel (FSP)
 - maintenance supervisory panel (MSP)
 - main distribution frame (MDF)
 - operator MAP terminal access points

The alarm system uses scan (SC) points and signal distribution (SD) points to and report the alarm status of each equipment row, to a maximum of 40 rows. Scan points detect voltage, ground, open-loop, or closed-loop conditions. Signal distribution points transfer alarm indications to alarm panels and other equipment. Hardware switch settings and datafill in tables ALMSCGRP, ALMSC, ALMSDGRP, and ALMSD define the scan and signal distribution points.

Some hardware is specific to one alarm system version. Other hardware, like scan and signal distribution cards, is common to all versions.

The office alarm unit (OAU) in Version 1 OAS is on a maintenance trunk module (MTM) shelf. All alarm detection and control hardware is in the OAU and an associated (standby) MTM. The Version 1 OAU uses NT2X41, NT2X42, and NT2X43 cards.

The OAU is dedicated to the alarm system. The standby MTM contains the alarm system backup circuits that generate an alarm if the OAU fails. The standby MTM can also contain equipment not related to the alarm system.

In the Version 2 OAS and the EAS, the primary OAU and the standby unit are on an MTM or ISM shelf.

In the LPA system, the primary OAU and the standby unit are on an ISM shelf.

In Version 2 and later OAS, you can provision the alarm SC and SD hardware on various MTM or ISM shelves throughout the office.

For further information on the OAS, refer to *Alarm System Description*, 297-1001-122.

NT3X82 - OAU dead system card

The OAU dead system (NT3X82) cards used in Version 2, EAS, and LPA OAUs contain both SC and SD points. These cards contain two circuits. The even-numbered circuit contains SD points and the odd-numbered circuit contains SC points. The following table shows the versions of NT3X82 card.

The table below lists the NT3X versions.

NT3X82 versions

PEC	Card name	Shelf	OAS
NT3X82AA	OAU dead system with unique audibles	MTM	Version 2
NT3X82AB	OAU dead system with common audibles	MTM	Version 2
NT3X82AC	OAU dead system with unique audibles	MTM	EAS
NT3X82AD	OAU dead system with common audibles	MTM	EAS
NT3X82AE	OAU dead system with unique audibles (-60V version)	MTM	EAS
NT3X82AF	OAU dead system with unique audibles	ISM	Version 2
NT3X82AG	OAU dead system with common audibles	ISM	Version 2
NT3X82AH	OAU dead system with unique audibles	ISM	EAS
NT3X82AJ	OAU dead system with common audibles	ISM	EAS
NT3X82AK	OAU dead system with unique audibles (-60V version)	ISM	EAS
NT3X82BA	LPA dead system audibles & IATC	ISM	LPA

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards

In the LPA system, the OAU common audibles, unique audibles, and the inactive timing circuit (IATC) clock are combined on the NT3X82BA card.

The following table lists the SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in an OAU.

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in an OAU

SD point	Function	Normal state	SC point	Function	Normal state
0	OAUFAIL	0	0	ABMTMFL	0
1	OAUPWR	0	1	AUDARO	0
2	MJALMAUD1	0	2	LOWBATT1	0
3	ABAUD	0	3	Internal circuit	0
4	ABOAU	0	4	FEEDLOSS1	0
5	COMAUD	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA in standby MTM or ISM

The following table lists the SD and SC points for the NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in a standby MTM or ISM.

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA in standby MTM or ISM

SD point	Function	Normal state	SC point	Function	Normal state
0	MTMFAIL	0	0	ABOAUFL	0
1	MTMPWR	0	1	AUDARM	0
2	MJALMAUD2	0	2	LOWBATT2	0
3	OAUFLAUD	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS2	0
5	COMAUD	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU

The following table lists the SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU.

SSD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU

SD point	Function	Normal state	SC point	Function	Normal state
0	OAUFAIL	0	0	ABMTMFL	0
1	OAUPWR	0	1	AUDARO	0
2	Internal circuit	0	2	LOWBATT1	0
3	Internal circuit	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS1	0
5	COMAUD1	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in a standby MTM or ISM.

The following table lists the SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in a standby MTM or ISM.

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ in standby MTM or ISM (Sheet 1 of 2)

SD point	Function	Normal state	SC point	Function	Normal state
0	MTMFAIL	0	0	ABOAUFL	0
1	MTMPWR	0	1	AUDARM	0
2	Internal circuit	0	2	LOWBATT2	0
3	Internal circuit	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS2	0
5	COMAUD2	0	5	Internal circuit	0

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ in standby MTM or ISM (Sheet 2 of 2)

SD point	Function	Normal state	SC point	Function	Normal state
6	Internal circuit	0	6	Internal circuit	0

NT3X83 - OAU alarm transfer card

The OAU alarm transfer (NT3X83) cards in Version 2, EAS, and LPA OAU's contain SC and SD points. These cards contain two circuits. The

even-numbered circuit contains SD points and the odd-numbered circuit contains SC points. The following table shows the versions of NT3X83 card.

NT3X83 versions

PEC	Card name	Shelf	OAS
NT3X83AA	OAU alarm transfer	MTM	Version 2, EAS
NT3X83AB	OAU alarm transfer (-60V version)	MTM	Version 2, EAS
NT3X83AC	OAU alarm transfer	ISM	Version 2, EAS
NT3X83AD	OAU alarm transfer (-60V version)	ISM	Version 2, EAS
NT3X83BA	LP alarm transfer & sending	ISM	LPA

In the LPA system, the OAU alarm sending function is on the NT3X83BA card. This function is on the NT3X84 card in alarm systems other than LPA. The NT3X83BA can be used in both -48V and -60V applications.

SD and SC points for the NT3X83 card

The following table lists the SD and SC points for the NT3X83 card.

SD and SC points for the NT3X83 card

SD point	Function	Normal state	SC point	Function	Normal state
0	ALMXFR	0	0	AXFRALM	0
1	MJXFR	0	1	REMOTEAR	0
2	MJXFR	0	2	130MONITOR (See Note)	0
3	LN101TST	0	3	TTCNTXFR	0
4	NTALMXFR	0	4	TSTLN101	0
5	EXPILDMS	0	5	Internal circuit	0
6	EXPILPWR	0	6	Internal circuit	0
Note: You use scan point 130MONITOR only for non-LPA systems (systems that do not contain the NT3X83BA card). For LPA configurations, use MONITOR.					

NT3X84 - OAU alarm sending card

The OAU alarm sending (NT3X84) cards in Version 2 and EAS OAUs contain both SC and SD points. These cards contain two circuits. The even-numbered circuit contains SD points and the odd-numbered circuit contains SC points.

The following table lists the versions of NT3X84 card.

NT3X84 versions

PEC	Card name	Shelf	OAS
NT3X84AA	OAU alarm sending	MTM	Version 2, EAS
NT3X84AB	OAU alarm sending	ISM	Version 2, EAS

In the LPA system, the OAU alarm sending and alarm transfer functions are combined on the NT3X83BA card.

SD and SC points for the NT3X84 card

The following table lists the SD and SC points for the NT3X84 card.

SD and SC points for the NT3X84

SD point	Function	Normal state	SC point	Function	Normal state
0	Internal circuit	0	0	Internal circuit	0
1	Internal circuit	0	1	Internal circuit	0
2	Internal circuit	0	2	TONEMONITOR	0
3	LN101TST	0	3	TTCNTXFR	0
4	NTALMXFR	0	4	TSTLN101	0
5	EXPILDMS	0	5	Internal circuit	0
6	EXPILPWR	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

NT3X85 - OAU alarm group card

The following table lists the SD and SC points for the NT3X85 card.

NT3X85 versions

PEC	Card name	Shelf	OAS
NT3X85AA	OAU alarm group	MTM	Version 2, EAS, LPA
NT3X85AB	OAU alarm group	ISM	Version 2, EAS, LPA

SD and SC points for the NT3X85 card

The following table lists the SD and SC points for the NT3X85 card.

SD and SC points for the NT3X85

SC point	Function	Normal state	SC point	Function	Normal state
0	MJOTHVIS	0	0	CRSUCFLR	0
1	MNOTHVIS	0	1	MJSUCFLR	0
2	SUCFLRCR	0	2	MNSUCFLR	0
3	SUCFLRMJ	0	3	CRPREFLR	0
4	SUCFLRMN	0	4	MJPREFLR	0
5	PREFLRCR	0	5	MNPREFLR	0
6	PREFLRMJ	0	6	ALMGRP	0
7	PREFLRMN	0	7	Internal circuit	0

NT0X10AA - miscellaneous scan cards

The first miscellaneous scan card has the following SC point assignments.

Each miscellaneous scan detector card provides 14 single-lead scan points. The card has two groups of seven scan points (0 to 6). You assign a trunk module circuit number to each scan group.

Scan points for first NT0X10 card

Even numbered circuit	Odd numbered circuit				
SC point	Function	Normal state	SC point	Function	Normal state
0	CRPWR	0	0	FSPAISA	0
1	MJPWR	0	1	FSPAISB	0
2	MNPWR	0	2	FSPAISC	0
3	PDCFAL	0	3	FSPAISD	0
4	ABSFAIL	0	4	FSPAISE	0
5	ACDLPTST	0	5	FSPAISF	0
6	VCEALM0	0	6	AUDDIS	0

Second miscellaneous scan card

The second miscellaneous scan card has the following SC point assignments.

Scan points for second NT0X10 card

Even numbered circuit			Odd numbered circuit		
SC point	Function	Normal state	SC point	Function	Normal state
0	FSPAISG	0	0	Spare	0
1	PSPAISH	0	1	Spare	0
2	PSPAISJ	0	2	Spare	0
3	FSPAISK	0	3	Spare	0
4	FSPAISL	0	4	Spare	0
5	PSPAISM	0	5	Spare	0
6	RDBALM	0	6	Spare	0

Third miscellaneous scan card

The operating company can assign the spare SC points to various unique applications. The third miscellaneous scan card has the following SC point assignments.

Scan points for third NT0X10 card

Even numbered circuit			Odd numbered circuit		
SC point	Function	Normal state	SC point	Function	Normal state
0	FSPAISN	0	0	FSPAISV	0
1	PSPAISP	0	1	FSPAISW	0
2	PSPAISQ	0	2	FSPAISX	0
3	FSPAISR	0	3	FSPAISY	0
4	FSPAISS	0	4	FSPAISZ	0
5	FSPAIST	0	5	FSPAISAA	0
6	RDBALU	0	6	FSPAISBB	0

Fourth miscellaneous scan card

The fourth miscellaneous scan card has the following SC point assignments.

Scan points for fourth NT0X10 card

Even numbered circuit	Odd numbered circuit				
SC point	Function	Normal state	SC point	Function	Normal state
0	FSPAISCC	0	0	FSPAISKK	0
1	PSPAISDD	0	1	FSPAISLL	0
2	PSPAISEE	0	2	FSPAISMM	0
3	FSPAISFF	0	3	FSPAISNN	0
4	FSPAISGG	0	4	FSPAISPP	0
5	FSPAISHH	0	5	FSPAISQQ	0
6	FSPAISJJ	0	6	FSPAISRR	0

Fifth and sixth miscellaneous scan cards

The fifth and sixth miscellaneous scan cards contains 14 customer-assignable scan points for each card respectively.

Datafill sequence and meaning

Before you assign a scan group to table ALMSCGRP, verify that the scan group has not been assigned to table SCGRP for other switching units, or to tables NWMSC and NWMSCPT.

Table size

0 to 512 tuples.

The true datafillable maximum for table ALMSCGRP is 492 tuples. The maximum size of table ALMSCGRP is 512 tuples, but 20 of these tuples are reserved for table SFWALARM. These 20 tuples do not appear in table ALMSCGRP.

The maximum number of scan points you can assign is 4096. The maximum number of scan groups you can datafill is 512.

Memory for SC groups is automatically allocated.

Datafill

The following table lists the datafill for table ALMSCGRP.

Field, subfield, and refinement descriptions for table ALMSCGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SCGROUP		0 to 512	Scan group. Enter the scan group number.
TMTYPE		ATM, CTM, DTM, ISM, MTM, OAU, PTM, RMM, RSM, STM, TAN, TMA, TM2, TM4, TM8, or T8A	Trunk module type. Enter the type of trunk module that contains the circuit. Note: Peripheral trunk modules (PTMs) are manufacture discontinued. PTMs that are datafilled as PTMs in table TMINV cause the failure of international 101 test lines. You must datafill PTMs as MTMs to avoid this problem.
TMNO		0 to 2047	Trunk module number. Enter the number of the trunk module that contains the circuit. If the entry in field TMTYPE is OAU, enter 0. If the entry in field TMTYPE is MTM, enter 0 to 255. If the entry in field TMTYPE is RSM, enter 99.

Field, subfield, and refinement descriptions for table ALMSCGRP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TMCKTNO		0 to 29	Trunk module circuit number. Enter the trunk module circuit number for the card.
CARDCODE		0X10AA 3X82AA 3X82AC 3X82AD 3X82AE 3X82AF 3X82AG 3X82AH 3X82AJ 3X82AK 3X82BA 3X83AA 3X83AB 3X83AC 3X83AD 3X83BA 3X84AA 3X84AB 3X85AA or 3X85AB	Product engineering code. Enter the code (abbreviated PEC) for the alarm card. For Version 2 OAU on an MTM shelf, enter 3X82AA or 3X82AB. For EAS OAU on an MTM shelf, enter 3X82AC, 3X82AD, or 3X82AE. For Version 2 OAU on an ISM shelf, enter 3X82AF or 3X82AG. For EAS OAU on an ISM shelf, enter 3X82AH, 3X82AJ, or 3X82AK. For LPA OAU, enter 3X82BA.

Table history

SN07

Table ALMSCGRP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Added details of implementing FSP Alarms frame failures for remotely located MG4K nodes, supporting activity 89007540.

ALMSD

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Alarm Signal Distributor Point

Table ALMSD identifies the function performed by each of the assigned signal distribution (SD) points in the alarm SD groups.

The table that points into table ALMSD is Alarm Signal Distributor Group (ALMSDGRP). See the description of table ALMSDGRP for more information.

The following table lists available signal distribution point functions.

Signal distribution point functions (Sheet 1 of 3)

Signal distribution point	Function
ABAUD	Alarm battery supply, audible alarm
ABOAU	Alarm battery supply, office alarm unit (OAU), visual
ABSVIS	Alarm battery supply, visual
ALMXFR	Alarm transfer
COMAUD1	Common audible, OAU
COMAUD2	Common audible, maintenance trunk module (MTM)
CRALMAUD	Critical alarm audible
CRALMVIS	Critical alarm visual
CRPWRVIS	Critical power alarm visual
EXPILDMS	Exit pilot DMS
EXPILPWR	Exit pilot power
LN101TST	101 test line
MJALMAUD1&2	Major alarm audible (1-OAU, 2-MTM)

Signal distribution point functions (Sheet 2 of 3)

Signal distribution point	Function
RDTACO	Indicates the presence of cut-off RDT alarms
RDTSD1	Remote digital terminal 1
RDTSD2	Remote digital terminal 2
RDTSD3	Remote digital terminal 3
RDTSD4	Remote digital terminal 4
RDTSD5	Remote digital terminal 5
RDTSD6	Remote digital terminal 6
RDTSD7	Remote digital terminal 7
RDTSD8	Remote digital terminal 8
RDTCRIT	Remote digital terminal critical alarm
RDTMAJOR	Remote digital terminal major alarm
RDTMINOR	Remote digital terminal minor alarm
RDTWARN	Indicates the presence of RDT warning-level alarms
SUCFLRCR	Succeeding floor, critical alarm
SUCFLRMJ	Succeeding floor, major alarm
SUCFLRMN	Succeeding floor, minor alarm
SDOC3CUTOFF	Breaks the link between the dead system alarm (DSA) and dynamic overload control (DOC) level 3 to prevent routing controls from being implemented when a simulation of DSA is done
TOPS_ECP_TAPEDEV	Traffic Operator Position System (TOPS) emergency calling present recorded on tape recorder
TOPS_ECW_AUDIBLE	TOPS emergency calling visible
SCC_CC_ALM	Central control alarm
SCC_CCS_ALM	Common channel signaling alarm

Signal distribution point functions (Sheet 3 of 3)

Signal distribution point	Function
SCC_CMC_ALM	Central message controller alarm
SCC_IO_ALM	Input/output controller
SCC_NMC_ALM	Switching network alarm
SCC_CKT_ALM	Circuit limit alarm
SCC_PM_ALM	Peripheral module alarm
Note: When you assign a scan point for detection of low voltage (LOWBATT1 and LOWBATT2 on the NT3X82 card), you must also assign the LOWVOLTPWR SD function.	

You use the RDT function entries RDTCRIT, RDTMAJOR, RDTMINOR, and RDTWARN to indicate the severity of the alarm. You use RDTACO to indicate the presence of cut-off RDT alarms.

Note: SD points RDTACO and RDTWARN are optional. You do not need to datafill these SD points before you datafill SD points in table RDTINV.

Datafill sequence and meaning

You must datafill table ALMSDGRP before table ALMSD.

You must datafill field SDGROUP in table ALMSDGRP before you datafill SD points.

Table size

The maximum size is 4096 tuples. Memory is automatically allocated for 4096 SD points. If you do not datafill all the predefined SD points, the size of table ALMSD decreases.

Datafill

The following table lists the datafill for table ALMSD.

Field, subfield, and refinement descriptions for table ALMSD

Field	Subfield or refinement	Entry	Explanation and action
FUNCTION		alphanumeric vector, maximum 16 characters	Function Enter the alarm function. See the first table for a list of signal distribution points.
SDGROUP		0 to 512	Signal distribution group. Enter the signal distribution group to which the SD point belongs.
POINT		0 to 7	Signal distribution point. Enter the signal distribution point number within the SD group.
NORMALST		0 to 1	Normal state. Enter the normal state of the SD point. Enter 0 (zero) if the SD point is normally off or open. Enter 1 if the SD point is normally on or closed.
AUDIBLE		Y or N	Audible. Enter Y (yes) if the SD point resets when you operate the audible alarm reset key; otherwise, enter N (no). Note: This field must always contain N for the SD points associated with RDT alarms. Table control software disallows a Y entry.
LAMPTEST		Y or N	Lamp test. Enter Y if the SD point is included in the lamp test; otherwise, enter N.

Table history**SN07**

Table ALMSD was migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Added MAP example for FSP Alarms for frame failures for remotely located MG4K nodes supporting activity 89007540.

ALMSDGRP

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Alarm Signal Distributor Group

Table Alarm Signal Distributor Group (ALMSDGRP) stores alarm circuit equipment, location, and card type information. This table is a head table for table ALMSD.

Table ALMSDGRP has a fixed pseudo common language location identifier (CLLI) code of OAUSD. For information on the fixed CLLI code, see the description of table CLLI.

The following office alarm systems (OAS) exist:

- Version 1
- Version 2
- Version 2 Enhanced Alarm System (EAS)
- Low Power Alarm (LPA) system

The DMS alarm systems detect and report failures and service degradations. The alarm system is a set of hardware devices and software modules that provide the following:

- visual (lights) and audible (tones) indication of alarm conditions
- transfer of critical, major, and minor alarms to remote sites
- data loops for a portable MAP terminal
- battery power feed for telephone headset communication within the office with the following:
 - frame supervisory panel (FSP)
 - maintenance supervisory panel (MSP)
 - main distribution frame (MDF)
 - operator MAP terminal access points

The alarm system uses scan (SC) points and signal distribution (SD) points to and report the alarm status of each equipment row, to a maximum of 40 rows. Scan points detect voltage, ground, open-loop, or

closed-loop conditions. Signal distribution points transfer alarm indications to alarm panels and other equipment. Hardware switch settings and datafill in tables ALMSCGRP, ALMSC, ALMSDGRP, and ALMSD define the scan and signal distribution points.

Some hardware is specific to one alarm system version. Other hardware, like scan and signal distribution cards, is common to all versions.

The office alarm unit (OAU) in Version 1 OAS is on a maintenance trunk module (MTM) shelf. All alarm detection and control hardware is in the OAU and an associated (standby) MTM. The Version 1 OAU uses NT2X41, NT2X42, and NT2X43 cards.

The OAU is dedicated to the alarm system. The standby MTM contains the alarm system backup circuits that generate an alarm if the OAU fails. The standby MTM can also contain equipment not related to the alarm system.

In the Version 2 OAS and the EAS, the primary OAU and the standby unit are on an MTM or ISM shelf.

In the LPA system, the primary OAU and the standby unit are on an ISM shelf.

In Version 2 and later OAS, you can provision the alarm SC and SD hardware on various MTM or ISM shelves throughout the office.

For further information on the OAS, refer to *Alarm System Description*, 297-1001-122.

NT3X82 - OAU dead system card

The OAU dead system (NT3X82) cards used in Version 2, EAS, and LPA OAUs contain both SC and SD points. These cards contain two circuits. The even-numbered circuit contains SD points and the odd-numbered circuit contains SC points. The following table shows the versions of NT3X82 card.

The table below lists the NT3X versions.

NT3X82 versions

PEC	Card name	Shelf	OAS
NT3X82AA	OAU dead system with unique audibles	MTM	Version 2
NT3X82AB	OAU dead system with common audibles	MTM	Version 2
NT3X82AC	OAU dead system with unique audibles	MTM	EAS
NT3X82AD	OAU dead system with common audibles	MTM	EAS
NT3X82AE	OAU dead system with unique audibles (-60V version)	MTM	EAS
NT3X82AF	OAU dead system with unique audibles	ISM	Version 2
NT3X82AG	OAU dead system with common audibles	ISM	Version 2
NT3X82AH	OAU dead system with unique audibles	ISM	EAS
NT3X82AJ	OAU dead system with common audibles	ISM	EAS
NT3X82AK	OAU dead system with unique audibles (-60V version)	ISM	EAS
NT3X82BA	LPA dead system audibles & IATC	ISM	LPA

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards

In the LPA system, the OAU common audibles, unique audibles, and the inactive timing circuit (IATC) clock are combined on the NT3X82BA card.

The following table lists the SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in an OAU.

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in an OAU

SD point	Function	Normal state	SC point	Function	Normal state
0	OAUFAIL	0	0	ABMTMFL	0
1	OAUPWR	0	1	AUDARO	0
2	MJALMAUD1	0	2	LOWBATT1	0
3	ABAUD	0	3	not used	0
4	ABOAU	0	4	FEEDLOSS1	0
5	COMAUD	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA in standby MTM or ISM

The following table lists the SD and SC points for the NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA cards in a standby MTM or ISM.

SD and SC points for NT3X82AA, NT3X82AC, NT3X82AE, NT3X82AF, NT3X82AH, or NT3X82BA in standby MTM or ISM

SD point	Function	Normal state	SC point	Function	Normal state
0	MTMFAIL	0	0	ABOAUFL	0
1	MTMPWR	0	1	AUDARM	0
2	MJALMAUD2	0	2	LOWBATT2	0
3	OAUFLAUD	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS2	0
5	COMAUD	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU

The following table lists the SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU.

SSD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in an OAU

SD point	Function	Normal state	SC point	Function	Normal state
0	OAUFAIL	0	0	ABMTMFL	0
1	OAUPWR	0	1	AUDARO	0
2	Internal circuit	0	2	LOWBATT1	0
3	Internal circuit	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS1	0
5	COMAUD1	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in a standby MTM or ISM.

The following table lists the SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ cards in a standby MTM or ISM.

SD and SC points for NT3X82AB, NT3X82AD, NT3X82AG, or NT3X82AJ in standby MTM or ISM

SD point	Function	Normal state	SC point	Function	Normal state
0	MTMFAIL	0	0	ABOAUFL	0
1	MTMPWR	0	1	AUDARM	0
2	Internal circuit	0	2	LOWBATT2	0
3	Internal circuit	0	3	Internal circuit	0
4	OAUFLVIS	0	4	FEEDLOSS2	0
5	COMAUD2	0	5	Internal circuit	0
6	Internal circuit	0	6	Internal circuit	0

NT3X83 - OAU alarm transfer card

The OAU alarm transfer (NT3X83) cards in Version 2, EAS, and LPA OAU contain SC and SD points. These cards contain two circuits. The even-numbered circuit contains SD points and the odd-numbered circuit contains SC points. The following table shows the versions of NT3X83 card.

NT3X83 versions

PEC	Card name	Shelf	OAS
NT3X83AA	OAU alarm transfer	MTM	Version 2, EAS
NT3X83AB	OAU alarm transfer (-60V version)	MTM	Version 2, EAS
NT3X83AC	OAU alarm transfer	ISM	Version 2, EAS
NT3X83AD	OAU alarm transfer (-60V version)	ISM	Version 2, EAS
NT3X83BA	LP alarm transfer & sending	ISM	LPA

In the LPA system, the OAU alarm sending function is on the NT3X83BA card. This function is on the NT3X84 card in alarm systems other than LPA. The NT3X83BA can be used in both -48V and -60V applications.

SD and SC points for the NT3X83 card

The following table lists the SD and SC points for the NT3X83 card.

SD and SC points for the NT3X83 card

SD point	Function	Normal state	SC point	Function	Normal state
0	ALMXFR	0	0	AXFRALM	0
1	MJXFR	0	1	REMOTEAR	0
2	MJXFR	0	2	130MONITOR	0
3	LN101TST	0	3	TTCNTXFR	0
4	NTALMXFR	0	4	TSTLN101	0
5	EXPILDMS	0	5	Internal circuit	0
6	EXPILPWR	0	6	Internal circuit	0

NT3X84 - OAU alarm sending card

The OAU alarm sending (NT3X84) cards in Version 2 and EAS OAUs contain both SC and SD points. These cards contain two circuits. The even-numbered circuit contains SD points and the odd-numbered circuit contains SC points.

The following table lists the versions of NT3X84 card.

NT3X84 versions

PEC	Card name	Shelf	OAS
NT3X84AA	OAU alarm sending	MTM	Version 2, EAS
NT3X84AB	OAU alarm sending	ISM	Version 2, EAS

In the LPA system, the OAU alarm sending and alarm transfer functions are combined on the NT3X83BA card.

SD and SC points for the NT3X84 card

The following table lists the SD and SC points for the NT3X84 card.

SD and SC points for the NT3X84

SD point	Function	Normal state	SC point	Function	Normal state
0	Internal circuit	0	0	Internal circuit	0
1	Internal circuit	0	1	Internal circuit	0
2	Internal circuit	0	2	TONEMONITOR	0
3	LN101TST	0	3	TTCNTXFR	0
4	NTALMXFR	0	4	TSTLN101	0
5	EXPILDMS	0	5	Internal circuit	0
6	EXPILPWR	0	6	Internal circuit	0
7	Internal circuit	0	7	Internal circuit	0

NT3X85 - OAU alarm group card

The following table lists the SD and SC points for the NT3X85 card.

NT3X85 versions

PEC	Card name	Shelf	OAS
NT3X85AA	OAU alarm group	MTM	Version 2, EAS, LPA
NT3X85AB	OAU alarm group	ISM	Version 2, EAS, LPA

SD and SC points for the NT3X85 card

The following table lists the SD and SC points for the NT3X85 card.

SD and SC points for the NT3X85

SC point	Function	Normal state	SC point	Function	Normal state
0	MJOTHVIS	0	0	CRSUCFLR	0
1	MNOTHVIS	0	1	MJSUCFLR	0
2	SUCFLRCR	0	2	MNSUCFLR	0
3	SUCFLRMJ	0	3	CRPREFLR	0
4	SUCFLRMN	0	4	MJPREFLR	0
5	PREFLRCR	0	5	MNPREFLR	0
6	PREFLRMJ	0	6	ALMGRP	0
7	PREFLRMN	0	7	Internal circuit	0

NT2X57 - signal distribution card

Each NT2X57 card provides 16 SD points. The card is divided into two SD groups. Each SD group has eight SD points (0 to 7). You assign a trunk module circuit number to each scan group.

The following table shows the SD point assignments for the first NT2X57 card. Each of the other NT2X57 cards has 14 customer-assignable SD points.

Scan points for first NT2X57 card

SC point	Function	Normal state	SC point	Function	Normal state
0	CRALMVIS	0	0	CRPWRVIS	0
1	MJALMVIS	0	1	MJPWRVIS	0
2	MNALMVIS	0	2	MNPWRVIS	0
3	PDCVIS	0	3	CRVISLOOP	0
4	ABSVIS	0	4	MJVISLOOP	0
5	CRALMAUD	0	5	MNVISLOOP	0
6	MNALMAUD	0	6	OAUVIS-LOOP	0
7	Internal circuit	0	7	Internal circuit	0

Datafill sequence and meaning

Before you assign an SD group in table ALMSDGRP, verify that you have not already assigned the SD group in table SDGRP, SITE, NWMSD and NWMSD.NWMSDPT, or TMINV.

Table size

0 to 512 tuples.

The maximum number of SD points you can assign is 1024.

Memory for SD groups is automatically allocated.

Datafill

The following table lists the datafill for table ALMSCGRP.

Field, subfield, and refinement descriptions for table ALMSCGRP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SCGROUP		0 to 512	Scan group. Enter the scan group number.
TMTYPE		ATM, CTM, DTM, ISM, MTM, OAU, PTM, RMM, RSM, STM, TAN, TMA, TM2, TM4, TM8, or T8A	Trunk module type. Enter the type of trunk module that contains the circuit. Note: Peripheral trunk modules (PTMs) have been manufacturer discontinued. PTMs that are datafilled as PTMs in table TMINV cause the failure of international 101 test lines. You must datafill PTMs as MTMs to avoid this problem.
TMNO		0 to 2047	Trunk module number. Enter the number of the trunk module that contains the circuit. If the entry in field TMTYPE is OAU, enter 0. If the entry in field TMTYPE is MTM, enter 0 to 255. If the entry in field TMTYPE is RSM, enter 99.
TMCKTNO		0 to 29	Trunk module circuit number. Enter the trunk module circuit number for the card.

Field, subfield, and refinement descriptions for table ALMSCGRP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CARDCODE		2X57AA	Product engineering code.
		3X82AA	
		3X82AB	Enter the code (abbreviated PEC) for the alarm card.
		3X82AC	
		3X82AD	For Version 2 OAU on an MTM shelf, enter 3X82AA or 3X82AB.
		3X82AE	
		3X82AF	For EAS OAU on an MTM shelf, enter 3X82AC, 3X82AD, or 3X82AE.
		3X82AG	
		3X82AH	
		3X82AJ	For Version 2 OAU on an ISM shelf, enter 3X82AF or 3X82AG.
		3X82AK	
		3X82BA	For EAS OAU on an ISM shelf, enter 3X82AH, 3X82AJ, or 3X82AK.
		3X83AA	
		3X83AB	For LPA OAU, enter 3X82BA.
		3X83AC	
		3X83AD	
		3X83BA	
		3X84AA	
		3X84AB	
		3X85AA or	
		3X85AB	

Additional information

For information on individual SD point assignments, see the descriptions in table ALMSD.

Table history**SN07**

Table ALMSDGRP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Added sample datafill for implementing FSP Alarm frame failures for remotely located MG4K nodes supporting activity 89007540.

ANNS

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Announcement table

Table Announcements (ANNS) contains data for each analog and digital announcement that is assigned in the switching unit.

For all line connections to announcements, the central control (CC) instructs the connecting peripheral modules (PM) to use a 0-dB (zero) pad level on the line card gain setting. This is a default value and cannot be administered. A 0-dB pad level is the nil pad group (NPDGP). For further information, refer to table PADDATA.

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:

Datafill sequence and meaning

The following tables must be datafilled before table ANNS:

- CLLI
- DRAMS

The following tables must be datafilled after table ANNS:

- ANNMEMS
- DRAMTRK
- DRMUSERS

Before a Subscriber Activated Call Blocking (SACB) announcement can be entered in table ANNS, an announcement CLLI must first be entered in table CLLI. An entry for SACB announcements can then be entered in table ANNS. Once value SACB is entered in table ANNS, the data for each announcement member must be entered in table ANNMEMS, and the phrases recorded on the DRAM cards must be entered in table ANNPFLST.

DMS-100 SSP standard announcements are datafilled in table ANNS and are mapped to the system announcement ID in table AINANNS.

DMS-100SSP customized announcements are datafilled in tables ANNS and ANNPHLST and are mapped to the system announcement ID in table AINANNS.

Table size

0 to 256 tuples.

Memory for table ANNS is allocated dynamically.

Note: The size of table ANNS increases if tables CUSTANN and NSCANNS and if XN26AA or X983AB are present in the office. With these tables, the size of table ANNS increases to 2047 tuples. This increase is needed to support a larger number of customer groups (300 to 500).

Datafill

The following table lists the datafill for table ANNS.

Field, subfield, and refinement descriptions for table ANNS (Sheet 1 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric 1 to 16 characters	Announcement CLLI keys. Enter the code that represents the announcement in table CLLI. If the Attendant Busy feature is present in the switching unit, the suggested common language location identifier (CLLI) for Attendant Busy is ATTBUSY. If the Music On Hold feature is present in the switch, the suggested CLLI for the Music On Hold announcement is MUSIC. Each loudspeaker location must have its own Announcement CLLI associated with it. Enter fixed CLLI TOPSACTS if field ANTYPE is set to ACTS for automatic coin toll service. Office parameter TOPS_ACTS must be set to Y (yes) in table OFCENG.

Field, subfield, and refinement descriptions for table ANNS (Sheet 2 of 8)

Field	Subfield or refinement	Entry	Explanation and action
ANNARCH		LOCAL, NETWK, ALL	Announcement Platform Architectures. This field is used to determine if the announcement exists on NETWK, LOCAL or ALL. Non-GSM products should use the default value of NETWK. LOCAL- announcement resides on each individual gateway. NETWK- announcement resides on a networked announcement resource. ALL- Announcement resides on both individual gateways and a networked announcement resource.
TRAFSNO		0 to127	Traffic separation numbers. If the switch has feature package X085AA (Traffic Separation Peg Count), enter the Traffic Separation number, 1 to 127, that is assigned to the announcement. If the traffic separation is not required, enter 0 (zero). For switches with package X085AA, the range of values for the traffic separation number depends on office parameter TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without package X085AA, the range of values for the traffic separation numbers is 0 to 15. Reserve the traffic separation numbers 1 to 9 for generic traffic separation numbers. Refer to table TFANINT for more information.

Field, subfield, and refinement descriptions for table ANNS (Sheet 3 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CYTIME		1 to 18 or 0	Cycle times. Enter the time, in seconds, for one announcement cycle on one channel (see the second, third, and fourth tables in this document). An entry outside this range is invalid and will cause the recorded announcement to be cut-off, at which point the line will be placed in a SYSBSY state. See also Additional information for field CYTIME for more details. Note 1: If the announcement cycle is longer than 18 seconds, field CYTIME can be changed to 0 (zero). This allows flexible announcement timing, which does not have a maximum limit for announcement length. The length of the announcement is always matched without datafill change. Note 2: If your office is equipped with a Cook or equivalent announcement machine and table AUDIO is datafilled as ANNS, 0 is datafilled in field CYTIME. Note 3: The cycle time for an Audichron is 0 (zero) due to the variable length announcement feature on Audichron. By setting the value of this field to 0 (zero), the length of the announcement is always matched.

Field, subfield, and refinement descriptions for table ANNS (Sheet 4 of 8)

Field	Subfield or refinement	Entry	Explanation and action
MAXCYC		1 to 255	Maximum cycles. Enter the maximum number of times the complete announcement is heard before the call is advanced to the next route in the route list. An entry outside of this range is invalid. This field must be set to 1 for multilingual NTC service. For multilingual NTC service, since one tuple represents one language and one announcement cycle contains several languages, each tuple in table ANNPHLST is used only once before advancing to the next tuple (language) in the same cycle. Thus, the number of announcement cycles datafilled in table ANNS must be 1 to ensure that languages are repeated in the proper sequence. This field should be set to "1" for ADS announcements. Refer to the Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013) in this document.
DATA		see subfields	Announcement data. This field contains the subfields ANNTYP, GAP, MAXCONN, and ANNID.

Field, subfield, and refinement descriptions for table ANNS (Sheet 5 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ANNTYP	ACTS, AIN, AIS, AOSSVR, CFPA, CFRA, CLASS, CNAL, CNALT, CNAT, CSMI, DMCT, ECWTPA, IN, MCCS, MDS, NFRA, NTC, RCTL, SACB, SLEENG, SLEFRE, SPP, STND, TOPSVR or VPSA DMS-250 only)	Announcement type. If the ANNARCH field is set to NETWORK or ALL, enter the appropriate announcement type. Enter the announcement type as follows: • ACTS to specify Automatic Coin Toll Service. • AIN to specify a given DMS user interface for each customer group. • AIS to specify Automatic Intercept System announcement if the switch has the AIS feature. • AOSSVR to specify AOSS Voice Response. • CFPA to specify Call Forwarding Programming announcement. • CFRA to specify Call Forwarding Remote Access announcement. • CLASS to specify Custom Local Area Signaling Services announcement. • CNAL to specify Calling Number Announcement playback to a line. • CNAT to specify Calling Number Announcement playback over a trunk to a loudspeaker. • CSMI to specify Call Screening, Monitoring, and Intercept. • DMCT to specify Denied Malicious Call Termination. • ECWTPA to specify Enhanced Call Waiting Programming announcements. • IN to specify an Intelligent Network (IN) Capability Set 1 Revised (CS-1R) custom announcement. • MCCS to specify Mechanized Calling Card Announcement.

Field, subfield, and refinement descriptions for table ANNS (Sheet 6 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ANNTYP (continued)		• MDS to specify Audiogram Delivery Services (ADS) announcements. Refer to the Audiogram Delivery Services-offer of Service Prompt functionality (ENSV0013) in this document. • NFRA to specify Network facility Remote Access. • NTC to specify Notification of Time and Charge announcement. • RCTL to specify Subscriber Programmable Ringing for CFDVT (SPRING). • SLEENG to specify Screening List Editing English. • SLEFRE to specify Screening List Editing French. • SPP to specify Station Programmable PIN (Personal Identification Number). • STND to specify Standard Announcement. • SACB to specify Subscriber Activated Call Blocking. • TOPSVR to specify TOPS Voice Response. Note: Office parameter TOPS_ACTS must be set to Y in table OFCENG. • VPSA to indicate Variable Phrase Standard Announcement (VPSA) phrases such as DNAENG (dialed number digits), CHAENG (charged number digits), CGAENG (calling number digits) or CNAENG (called number digits). For DMS-250 only.

Field, subfield, and refinement descriptions for table ANNS (Sheet 7 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	GAP	Y, N	GAP Enter the value Y to generate a gap between the tracks of a multi-track announcements. Enter N to have no gap between the track of a multi-track announcements. The system produces the GAP prompt only for selected announcement types.
	MAXCONN	1 to 255	Maximum connections. This field is prompted only if the ANNARCH field is set to NETWORK or ALL. Enter the maximum number of simultaneous connections that are permitted on the announcement. An entry outside this range is invalid. IF ANNTYPE is equal to VPSSA or CNAT, a value of 255 must be entered. For XA-Core, Nortel Networks recommends 255 be entered.

Field, subfield, and refinement descriptions for table ANNS (Sheet 8 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	ANNID	1 to 10 Character String, valid characters are {A...Z, 0...9, and _}	Announcement Identification. This field is prompted only if the ANNARCH field is set to LOCAL or ALL. This field is the H.248 announcement ID of the requested announcement on the MGW. The ANNID provisioned on the DMS-MSC/Server must match the one on the APS. Note: For MGW-based local announcements, the field CYTIME is not functionally applicable (i.e. it does not dictate the cycle time for the corresponding announcement on the MGWs). The intent of this field for local announcements is to provide a means for the operator to be able to provision the known cycle time for the announcement and use it as a guide for informational purposes

Additional information for field CYTIME

The following table shows the times for one cycle of prerecorded announcement. Use this table to datafill field CYTIME.

If special information tone (SIT) or silence is the first phrase for the announcement in the ANNPHLST table, add 1 s to the values shown.

The time shown has been rounded off to the next second. The value in brackets is the actual value.

One-cycle prerecorded announcement time

Announcement	Time (in seconds)
No circuit (NCA)	10 (9.248)
Sender overload (SOA)	10 (9.248)
Reorder (ROA)	9 (8.96)
Vacant code (VCA)	12 (12.032)
Unauthorized code (UCA)	12 (12.032)

The following table shows cycle times for digits.

Digit	Duration
0	1 (.608)
1	1 (.512)
2	1 (.544)
3	1 (.544)
4	1 (.640)
5	1 (.768)
6	1 (.640)
7	1 (.672)
8	1 (.544)
9	1 (.672)

The following table shows cycle times for special symbols.

Special symbol	Duration
Silence	1 (1.024)
Test tone	1 (.160)
Prompt	1 (.992)

Table history

SN07

Table ANNS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

Fields ANNARCH and ANNID were updated as per CR Q00854743.

NA017 (SN04)

DMS-100 SSP standard and customized announcements are datafilled in table ANNS as a result of feature 59037140.

AUTHCDE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Authorization Code

Table Authorization Code (AUTHCDE) defines the authorization codes used by various network services. This table supports Integrated Business Network (IBN) and call forwarding remote access (CFRA). Authorization codes can also be assigned to customer groups.

For IBN services, entries in this table define the authorization code and (if active) the network class of service, account option, and security digits.

If the authorization or account code last (ACR) option is datafilled in field OPTION in table CUSTHEAD and in field NCOSOPTN in table NCOS, the authorization code entered in field NCOS in table AUTHCDE cannot be used to retranslate dialed digits. Call routing is determined prior to the entry of the authorization code and calls follow that selected route if the authorization code is valid. Changing the authorization code has the sole effect of applying the code restriction level datafilled in field CRL in table NCOS to the call.

Authorization codes are not unique to a customer group. For example, customer group BNR can have the same authorization code length and numbers as customer group NTI.

For CFRA services, entries in this table define the authorization code, serving numbering plan area (SNPA), and directory number (DN) assigned to the CFRA station. CFRA-related entries cannot be datafilled or changed using table control. Entries can only be added or changed by the service order system (SERVORD) or by datafilling tables IBNFEAT or KSETFEAT.

For related information, refer to table AUTHPART.

Datafill sequence and meaning

The following tables must be datafilled before table AUTHCDE:

- AUTHPART
- HNPACONT

- NCOS
- PSCNUM

Table size

A maximum of 1023 unique national number group plus (NNGP) values can be assigned to any IBN format authorization code in any partition. There is no limit on the number of authorization codes that can use a single unique NNGP value.

Memory is dynamically allocated for each entry in table AUTHCDE.

An authorization code with options assigned requires 22 bytes of storage.

A partition that contains authorization codes with options, requires data store memory according to the following equation:

$$\text{data store bytes} = \{(\text{SW} \times 22) + (\text{SSAC} \times 22)\}$$

where

SW is the number of field AUTHTYPE with entry SW

SSAC is the number of field AUTHTYPE with entry SSAC

In addition:

- the number of partitions containing options cannot exceed 32.
- the number of SW, ASR, or SUPAC authorization codes cannot exceed 520 200 for each partition.
- the number of SSAC authorization codes cannot exceed 65 025 for each partition.

Datafill

The following table lists the datafill for table AUTHCODE.

Field, subfield, and refinement descriptions for table AUTHCODE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
AUTHPART		alphanumeric 1 to 16 characters	Partition name. This is the first part of the key to this table and must exist in table AUTHPART, field PARTNM. If field FORMAT is set to EXEMPT or IBN, enter the partition name assigned to the customer group. If field FORMAT is set to CFRA, this field is automatically datafilled.
AUTHCODE		0 to 9 (2 to 12 digits)	Authorization code. This is the second part of the key to this table and must contain the same number of digits as defined in table AUTHPART, field LENGTH. If field FORMAT is set to EXEMPT or IBN, enter the authorization code for the customer group. If field FORMAT is set to CFRA, this field is automatically datafilled.
INFO		see subfields and refinements	Information. This field consists of subfield FORMAT and its refinements.

Field, subfield, and refinement descriptions for table AUTHCODE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FORMAT		CFRA, EXEMPT, or IBN	Format. Enter CFRA (call forwarding remote access) to assign the authorization code to the CFRA feature. This field and refinements SNPA and LCLDN are automatically datafilled. Enter EXEMPT to assign the authorization code to the customer group (not usable) and datafill refinement DDMM. Enter IBN to assign the authorization code to the customer group (usable) and datafill refinements NCOS, ACCT, SECDIGS, AUTHTYPE, and OPTIONS. Refinements for the formats are shown on the following pages in alphabetical order by format.

FORMAT = CFRA

If the entry in subfield FORMAT is CFRA, refinements SNPA and LCLDN are automatically datafilled as described below.

Subfield or refinement	Entry	Explanation and action
SNPA	0 to 9 (3 digits)	Serving numbering plan area. The serving numbering plan area (SNPA) of the directory number (DN) assigned in field LCLDN is automatically datafilled.
LCLDN	0 to 9 (7 digits)	Directory number. The DN of the CFRA station is automatically datafilled.

FORMAT = EXEMPT

If the entry in subfield FORMAT is EXEMPT, datafill refinement DDMM as described below.

Field	Subfield or refinement	Entry	Explanation and action
DDMM		0 to 9 (4 digits)	Day and month. Enter the date (day and month) the authorization code becomes exempt. For example, enter 0106 for June 1st.

FORMAT = IBN

If the entry in subfield FORMAT is IBN, datafill refinements NCOS, ACCT, SECDIGS, AUTHTYPE, and OPTIONS as described below.

Field	Subfield or refinement	Entry	Explanation and action
NCOS		0 to 251	Network class of service. 0 to 251. Enter the network class of service associated with the authorization code as previously datafilled in table NCOS.
ACCT		Y or N	Account option. Enter Y (yes), to indicate that an account code is required. Otherwise, enter N (no).
SECDIGS		0 to 9 (1 to 4 digits) or \$	Security code digits. If a nil security code is required, enter \$. If a security code is required, enter a security code.
AUTHTYPE		ASR SSAC SUPAC SW or VOW	Authorization code type. Enter one of the following authorization code types: ASR (automatic set relocation) SSAC (station specific) SUPAC (super) SW (system wide) VOW - used to denote the tuple as a VOW authorization code.

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	Options. This field consists of subfield OPTION.
	OPTION	CUSTGRP HOTLINE NNGP PIN PSC or TONEBURST	Option. Enter up to eight options and refinements. If less than eight options are required, end the list with a \$ (dollar sign). Separate each option and its refinement with a single space. Datafill as many tuples as required to complete the list of options and refinements. If the option is not provided, no input for that option is required. Enter CUSTGRP for customer group and datafill refinement CUSTGRP. Enter HOTLINE for hotline and datafill refinement HOTLN_NM. Enter NNGP for national number group plus and datafill refinement NNGP_DIGITS. Enter PIN for personal identification number and datafill refinement PINSTATS. Enter PSC for private speed call and datafill refinement PSC_IDX. Enter TONEBURST to specify that tone burst on answer is required. Tone burst on answer is provided on calls to indicate to the subscriber that the call has been answered and that authcode digits can be entered.

Field	Subfield or refinement	Entry	Explanation and action
	CUSTGRP	alphanumeric (1 to 16 characters)	Customer group. If the entry in subfield OPTION is CUSTGRP, datafill this refinement. Enter the customer group name as previously datafilled in table CUSTGRP.
	HOTLN_NUM	0 to 9 (1 to 10 digits)	Hotline number. If the entry in subfield OPTION is HOTLINE, datafill this refinement. Enter the hotline number associated with this AUTHCODE.
	NNGP_DIGIT S	00000 to 99999	National number group plus digits. If the entry in subfield OPTION is NNGP, datafill this refinement. Enter the NNGP number. This number is compared with the digits received in a BTUP initial address message. The validation of the datafilled digits with the received digits determines if the call is allowed to proceed.
	PINSTATS	OPTBYREG or REQUIRED	Personal identification number status. Enter the type of status given to the authcode. If an authcode is always required, enter REQUIRED and datafill refinement PINSEL. If an authcode is required based on the region code, enter OPTBYREG and datafill refinements REGNCODE and PINSEL.
	REGNCODE	0 to 2047	Region code. If the entry in refinement PINSTATS is OPTBYREG, enter the region code.

Field	Subfield or refinement	Entry	Explanation and action
	PINSEL	SINGLE or MULTIPLE	Personal identification number digits. If the entry in refinement PINSEL is SINGLE, enter the PIN digits.
	PININDEX	0 to 8191	Personal identification number index. If the entry in refinement PINSEL is MULTIPLE, enter the PIN index number. Each index can be associated with 100 PINs or 1000 PINs, depending on the index value.
	PSC_IDX	0 to 4999	Private speed call index. If the entry in subfield OPTION is PSC, enter the same index number as datafilled in field PSC_IDX in table PSCNUM. This number associates an AUTHCODE with a private speed call list.

Table history

SN07

Table AUTHCODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.09.03.

Updates to field AUTHTYPE as per feature AX1236.

BCDEF

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Bearer Capability Definition

Table Bearer Capability Definition Table (BCDEF) defines the required bearer capabilities (BC). The BCDEF can define a maximum of 59 BCs. The system enters ten default BCs when you enter data in the switch. See the table “Default bearer capabilities” in the Additional information for the default BCs.

Most ISDN calls use a small number of BCs.

Datafill sequence and meaning

You must enter data in table DTUPRO before you enter data in table BCDEF.

Office parameter DEFAULT_BEARER_CAPABILITY in table OFCENG controls the BC default for the office. The default can be SPEECH or 3_1KHZ. See table OFCENG for additional information on this parameter.

Table size

0 to 64 tuples.

The table is a fixed size.

Datafill

The following table lists the datafill for table BCDEF.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
KEY		see subfield	Key. This field contains subfield BCNAME.
	BCNAME	3_1KHZ 7_1KHZ 56KDATA 64KDATA 64KX25 64_RATE_ AD_DATA DATAUNIT NILBC SPEECH VOICE_ DATA	Bearer capability name. This subfield is the key to the table. This subfield specifies a name you define that describes the bearer capability (BC) and can describe the low layer capability. Enter 3_1KHZ for the default BC for calls that originate from trunks other than primary rate access (PRA) and ISDN user part (ISUP). Enter 3_1KHZ for the default BC for calls that originate from trunks other than intermachine trunk (IMT) and dedicated access line (DAL). Use this BC to transport of speech and voiceband data. Enter 7_1HKZ for voice band high quality audio and voice band data. Use this BC for high quality audio applications like music. You can use this BC for voiceband data. Enter 56KDATA for the basic 56-kbit/s data adapted for 64 kbit/s data. This data rate is the normal North American data rate. This BC uses 7 bits of data sampled at 8000 times for each second for the 56 kbit/s rate. The eighth bit of every octet is 1. This condition makes sure that an all 0 (zero) octet does not occur. An all 0 (zero) octet can and cause problems with 64KDATA.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
KEY (continued)	BCNAME		Enter 64KDATA for ISDN circuit switched packet data calls. This BC is 64 kbit/s of clear channel data. This BC uses the 64 kbit bandwidth for data. The number of consecutive 0s (zero) can be 16. Most operating companies in North America use 56 kbit/s data transport. This condition occurs because of the problems that can occur with North American repeaters if the system receives 16 consecutive 0s (zeroes). Use techniques like B8ZS on the data to make sure the problem is not present. Enter 64KX25 for packet data calls in the X.25 packet network. The system follows the X.25 protocol to encode data. Enter 64_RATE_AD_DATA if the data stream contains less than 64 kbit/s and the stream is bit-stuffed to a 64 kbit/s data rate. Use this BC for applications where the following conditions apply: • data rate is less than 64 kbit/s (2400, 4800, 9600, 16 000, 19 600, 32 000, 48 000) • the bandwidth that remains on the channel is stuffed according to the correct CCITT protocols for rate-adaption. Enter DATAUNIT for the basic 56KDATA adapted for 64KDATA on primarily non-ISDN data units. This BC is equivalent to the 56KDATA BC.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
KEY (continued)	BCNAME		Enter NILBC if bearer capability is not required for the call, for example, plain ordinary telephone service (POTS) calls. Enter SPEECH for the default BC for calls that originate from 500/2500 sets, electronic business sets or attendant consoles. Electronic business sets can be a Northern Telecom multikey business set. The attendant consoles can be a Northern Telecom Integrated Business Network [IBN] attendant console. This BC is assigned to calls over trunks. Use this BC for the transport of speech. Use this BC to transport voiceband data, if voice compression techniques do not occur on the data. Enter VOICE_DATA for backward compatibility with the DMS-250 feature AD0499 (DAL & IMT Switched 56 KB Data & Multiple PINs per Auth CP). The feature is available in feature packages NTX222AB [DMS-250 Call Processing Type II] and NTX222BA (DMS-250 Call Processing [Type II]). Use this BC on the DMS-250 switch.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
BCDATA		see subfields	Bearer capability data. Bearer capability data. This field contains subfields XFERCAP, XFERMOD, and CODINGST.
	XFERCAP	SPEECH UNRESDIG RESDIG AU3_1KHZ or AU7KHZ	Transfer capability. Enter the transfer capability that describes the data that the system transmits. Enter AU3_1KHZ if the system transmits audio data at 3.1 kHz. Enter AU7KHZ if the system transmits audio data at 7 kHz. Enter RESDIG if restricted digital information is required for packet mode calls and most circuit mode data calls. Enter RESDIG if the network with every transparent data transfer capability provides information transfer capability. Enter SPEECH for standard voice calls. Enter UNRESDIG if packet mode calls and most circuit mode data calls require digital information that is not required. Enter UNRESDIG if restricted digital information refers to the information transfer capability a network capable of 56 kbit/s transparent data transfer. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is UNRESDIG.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	XFERMOD	CIRCUIT or PACKET	Transfer mode. Enter the transfer mode that describes the mode of transmission. Enter CIRCUIT if the call is a circuit switched call. Enter PACKET if the call is a packet data call. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is CIRCUIT.
	CODINGST	CCITT or NETWORK	Coding standard. Enter the coding standard for bearer capability and low layer capability. Enter CCITT if the use of CCITT coding standard occurs. Additional datafill is not required. Enter NETWORK if a network specified coding standard is required and datafill refinement PROTOTYP. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is NETWORK.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
PROTOTYP		DTU, MODEM or OTHER	Protocol type. Enter the protocol type of the device at the endpoint of the connection. Enter DTU (data terminating unit) and datafill refinements DTUPRO, DTUSYNC, and DTURATE on the next page. Enter MODEM (modem) and enter data in refinement MODEMPRO, MODEMSNC, and MODEMRTE in the section "PROTOTYP = MODEM". Enter OTHER (other device) and enter data in refinement DISCRIM in the section "PROTOTYP = OTHER". If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is DTU.

Field, subfield, and refinement descriptions for table BCDEF (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	DTURATE	75BS, 150BS, 300BS, 600BS, 1200BS, 2400BS, 3600BS, 4800BS, 7200BS, 16KBS, 9600BS, 14400BS, 16KBS, 19200BS, 32KBS, 48KBS, 8KBS, or AUTO	Data terminating unit data rate. Enter the data access rate of the modem. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is 56KBS.

PROTOTYP = DTU

If the entry in refinement PROTOTYP is DTU, enter data in refinements DTUPRO, DTUSYNC, and DTURATE. See the following description.

Field	Subfield or refinement	Entry	Explanation and action
	DTUPRO	NONE, TLINK, or X25	Data terminating unit protocol. Enter the DTU protocol used. Define the name that identifies the protocol in table DTUPRO. If the entry in field BCNAME is 56KDATA, the default value is NONE. If the entry in field BCNAME is DATAUNIT, the default value is TLINK.
	DTUSYNC	Y or N	Data terminating unit communication. Enter Y (yes) if communication is synchronous. Enter N (no) if communication is asynchronous. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is Y.
	DTURATE	75BS 150BS 300BS 600BS 1200BS 2400BS 3600BS 4800BS 7200BS 16KBS 9600BS 14400BS 16KBS 19200BS 32KBS 48KBS 8KBS, or AUTO	Data terminating unit data rate. Enter the data access rate of the modem. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is 56KBS.

PROTOTYP = MODEM

If the entry in refinement PROTOTYP is MODEM, enter data in refinements MODEMPRO, MODEMSNC, and MODEMRTE. See the following description.

Field	Subfield or refinement	Entry	Explanation and action
	MODEMPRO	alphanumeric (a maximum of 32 characters)	Modem protocol. Enter the modem protocol used. Define the name that identifies the protocol in table MODEMPRO.
	MODEMSNC	Y or N	Modem communication. Enter Y (yes) if communication is synchronous. Enter N (no) if communication is asynchronous.

Field	Subfield or refinement	Entry	Explanation and action
	MODEMRTC	75BS 150BS 300BS 600BS, 1200BS 2400BS 3600BS 4800BS 7200BS 16KBS 9600BS 14400BS 16KBS 19200BS 32KBS 48KBS 56KBS 8KBS or AUTO	Modem data rate. Enter the modem data access rate.
	DTURATE	75BS 150BS 300BS 600BS 1200BS 2400BS 3600BS 4800BS 7200BS 16KBS 9600BS 14400BS 16KBS 19200BS 32KBS 48KBS 8KBS, or AUTO	Data terminating unit data rate. Enter the data access rate of the modem. If the entry in field BCNAME is 56KDATA or DATAUNIT, the default value is 56KBS.

PROTOTYP = OTHER

If the entry in refinement PROTOTYP is OTHER, enter data in refinement DISCRIM. See the following description.

Field	Subfield or refinement	Entry	Explanation and action
DISCRIM		0 to 63	Discriminator. Enter a positive integer value. Use the value entered as a discriminator between the different OTHERs.

Additional information

This section provides information on how to enter default bearer capabilities in table BCDEF. This section also provides product descriptive information related to table BCDEF.

Default bearer capabilities

Table “Default bearer capabilities” contains the order of the ten default BCs the system enters in table BCDEF. The order of the default BCs is order-dependent. The operating company cannot change the datafill. This condition applies because constants are set up in the software code for each of default BC.

The system enters the ten default BCs when the switch is booted.

The operating company can enter additional BCs in any order.

Default bearer capabilities

BCNAME	XFERCAP	XFERMODE	CODINGST	PROTO- TYPE	DTUPRO	DTUSYNC	DTURATE
SPEECH	SPEECH	CIRCUIT	CCITT				
64KDATA	UNRESDIG	CIRCUIT	CCITT				
64KX25	RESDIG	CIRCUIT	NETWORK	DTU	X25	Y	AUTO
56 KDATA	UNRESDIG	CIRCUIT	NETWORK	DTU	NONE	Y	56KBS
DATAUNIT	UNRESDIG	CIRCUIT	NETWORK	DTU	TLINK	Y	56KBS
64KRES	RESDIG	CIRCUIT	CCITT				
3_1KHZ	AU3_1KHZ	CIRCUIT	CCITT				
7_KHZ	AU7KHZ	CIRCUIT	CCITT				
VOICE_ DATA	AU3_1KHZ	CIRCUIT	CCITT				
64K_RATE_AD _DATA	UNRESDIG	CIRCUIT	CCITT				

Synonym directory numbers

The ISDN terminals can have more than one call appearance with the same DN and with different BCs. Intra-ISDN calls terminate on call appearances. The BC of the incoming call and on the BC of the terminator determines if calls terminate on call appearances. The originator of a call to an ISDN terminal can require that the originating BC be different from the default BC. For example, data calls that go over trunks, or MODEM use on voice lines.

Use one of the following two methods to specify different BCs:

1. In an IBN environment, dial a feature access code and the DN of the desired party. This method is not compatible with current POTS dial plans.
2. Enter a set of synonym DNs for terminals to receive calls from non-ISDN terminals or other ISDN networks. When one of these synonym DNs is called, the BC associated with the synonym DN replaces the original call. The call terminates on the desired call appearance (CAP) on the ISDN terminal. Each ISDN terminal with more than one CAP with the same DN but with different BCs can use synonym numbers associated with a BC. Each synonym DN is different. To terminate on a CAP with the desired BC, the synonym DN associated with that BC is dialed.
 - a. Define synonym DNs with the following function: (synonym DN) = actual DN + BC

Table history

SN07

Table BCDEF migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.09.03.

C6TRKMEM

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

CCIS6 Trunk Member

Table CCIS6 Trunk Member (C6TRKMEM) relates the CCIS trunks that table TRKMEM defines to the signaling network identifiers (SNID) of the CCIS trunks. Each SNID contains a layer number, band number, and circuit number.

- A maximum of 30 layers is present over which every office can signal. Each layer can contain a maximum of 512 bands. Each band can contain a maximum of 16 circuits.
- in an office
- one of the 16 circuits which are signaling channel slots in a band of a given layer in the CCIS network

Entries in table C6TRKMEM are accessed in parallel with table TRKMEM by CLLI and external trunk number.

The maximum number of trunks for each layer is 2000.

Datafill sequence and meaning

You do not need to enter data in other tables before you enter data in table C6TRKMEM.

Table size

0 to 8191 tuples.

The entry for table TRKGRP in table DATASIZE controls the size of table C6TRKMEM.

Datafill

The following table lists the datafill for table C6TRKMEM.

Field, subfield, and refinement descriptions for table C6TRKMEM

Field	Subfield or refinement	Entry	Explanation and action
MEMKEY		see subfields	Member key. This field contains subfields CLLI and MEMNAME.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. Enter the code assigned in table CLLI to the intertoll CCIS trunk group of which the trunk is a member.
	MEMNAME	numeric (0 to 9999)	External trunk number. Enter the external trunk number assigned to the CCIS trunk.
LAYER		numeric (0 to 29)	Layer. Enter the layer number in the office. Entries out of the range 0 to 29 are not correct.
BAND		numeric (0 to 511)	Band. Enter the band number in the office.
CKT		numeric (0 to 15)	Circuit. Enter the circuit number in the band.

Table history**SN07**

Table C6TRKMEM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.09.03.

C7TRKMEM

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

CCS7 Trunk Member

Table CCS7 Trunk Member (C7TRKMEM) is used by CCS7 to relate the CIC portion of the SNID to the common language location identifier (CLLI) and trunk member number.

Signaling network identifiers (SNID), which consist of a network identifier, point code, and circuit identification code (CIC), are used by Common Channel Signaling 7 (CCS7) to reference specific circuits (trunks) within the CCS7 network.

CCS7 ISDN user part (ISUP) trunks and some United Kingdom versions of the user part trunks can be datafilled in this table.

Table C7TRKMEM is indexed at the operating company level by CLLI and MEMNAME (trunk member number). In addition to the table key, table C7TRKMEM contains a field that lists the CIC for the specified trunk. The network and point code portions of a trunk's SNID (identified by its routeset) are stored in table ISUPDEST.

Datafill sequence and meaning

The following tables must be datafilled before table C7TRKMEM.

- ISUPDEST
- TRKMEM

Table size

58,000 tuples (default) to 100,000 tuples.

Note: To enable the above table size, the switch must be equipped with CCS7 external routers.

100,001 to 120,960 tuples.

Note: To enable the larger tuple range, the switch must be a stand-alone SSP that is equipped with external routing, 32-megabyte

LIU7s. The external routing must be on, and the value of the Network_Active office parameter must be set to EXTERNET.

For an INode office, you cannot datafill more than 20 k tuples if table C7GTT has more than 25 k tuples.

For more information, refer to the appropriate engineering guidelines.

Datafill

The following table lists the datafill for table C7TRKMEM.

Field, subfield, and refinement descriptions for table C7TRKMEM

Field	Subfield or refinement	Entry	Explanation and action
MEMKEY		see subfields	Member key. This field consists of subfields CLLI and MEMNAME.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. Enter the code assigned in table CLLI to the intertoll CCIS trunk group of which the trunk is a member.
	MEMNAME	numeric (0 to 9999)	Trunk member number. Enter the member number assigned to the trunk. This number is assigned in field EXTRKNM of table TRKMEM.
CIC		numeric (0 to 16383)	CCS7 circuit identification code. Enter a digit to represent the CIC of the trunk circuit. Allocating CICs contiguously (top down, bottom up, or both) makes the most efficient use of data store. For CCITT trunks, the valid range is limited to 0 to 4095.

Additional information

This section provides additional information related to table C7TRKMEM.

Data entry error messages

If you try to add an entry that is associated with a subgroup for which no routeset has been defined in table ISUPDEST, the following error message is displayed:

```
A DESTINATION HAS NOT BEEN DEFINED FOR THIS MEMBER'S  
TRUNK SUBGROUP - SEE TABLE xxxxDEST
```

CCS7 supports connections to a maximum of 256 CCS7 nodes (network and point code). If you try to datafill table C7TRKMEM with trunk CICs that are associated with more than the maximum number of nodes allowed, the following error message is displayed:

```
LIMIT ON POINT CODE CONNECTIONS EXCEEDED
```

If you try to datafill a trunk using the same CIC and associated routeset as an existing trunk, the following error message is displayed:

```
THE SNID SPECIFIED BY THE ROUTESET (FROM THE xxxxDEST  
table) AND THE CIC JUST ENTERED HAS ALREADY BEEN  
ALLOCATED
```

Note: While the cause of this error is often obvious, it can be obscured if the user has datafilled multiple ISUPDEST entries with the same routeset.

The range of CICs allowed in a CCITT network is smaller than the range allowed in an American National Standards Institute (ANSI) or NTC7 network (0 to 4095 rather than 0 to 16 383). If you are datafilling a CCITT trunk and have provided a CIC greater than 4095, the following error message is displayed:

```
INVALID CIRCUIT ID CODE FOR CCITT NETWORK
```

If the table control software is unable to establish a context in which to interpret the CIC just entered, this means that no associated entries exist in tables TRKMEM and TRKSGRP. In this case, an attempt to add an entry to table C7TRKMEM results in the display of the standard error message:

```
UNEXPECTED ERROR CONDITION
```

For an INode office, if table C7GTT has more than 25 k tuples, you cannot datafill more than 20 k tuples in table C7TRKMEM. If you try, the system displays the following error message:

```
Table C7TRKMEM is at the limit of 20 000 tuples. This  
limit is for offices functioning as INodes if Table  
C7GTT contains more than 25 000 tuples. Tuple NOT  
added.
```

Table history

SN07

Table C7TRKMEM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.09.03.

C7UPTMR

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

CCS7 Signaling ISUP Timers Table

Table C7UPTMR contains call processing and maintenance timers. The timers are datafilled according to trunk subgroup.

Table TRKSGRP contains field TMRNAME, which is also the key to table C7UPTMR. The entry in field TMRNAME connects one or more trunk subgroups to one tuple in table C7UPTMR.

You use table C7UPTMR to datafill sets of timers. The timers are assigned according to the direction and protocol fields of table C7UPTMR.

Note 1: After changing timer values in C7UPTMR, you must reset the affected trunks for the changes to take effect.

Note 2: On SPMs the Backward Check Tone Timer (T24 Timer) is always fixed at the maximum value of 2 seconds (2000ms) and does not depend on the datafill in table C7UPTMR. See the specific signaling protocol sections, including CCITT250, Q767, TUP_BLUE, and TUPPLUS, for further explanation of the Backward Check Tone Timer.

The following protocols can be datafilled in table C7UPTMR:

- AISUP is used for all versions of Australian ISDN user part (ISUP) in DMS-100 switches that include:
 - Australian ISUP (AISUP)
 - Interconnect-ISUP (I-ISUP)
 - Malaysian ISUP (MISUP)
 - Philippines telephone user part (TUP) (PTUP)
- ATUP is used for the Australian telephone user part for DMS-100 and DMS-300 switches
- BTUP is used for the United Kingdom (UK) variant of national user part
- CCITT250 is used for CCITT ISUP on DMS-250 switches

- CTUP is used for Chinese telephone user part for MMP and CS2KC switches
- IBNISUP is used for Integrated Business Network 7 (IBN7), also known as American National Standards Institute 7 (ANSI7), call processing, and IBN7-to-IBN7 for global networking (GN) calls
- JPNISUP is used for Japan Public Network 7 (JPN7) trunks in DMS-100 switches
- MBTUP is used for interworking within operating company-specific networks
- NCCI is used if the operating company-specific CCITT7 protocols (NCCI7) are packaged on the DMS-100 switch
- Q764 is used for American National Standards Institute (ANSI) ISUP
- Q767 is used for ITU-T/ETSI ISUP in DMS-100 switches
- RBTUP is used for any Redbook TUP protocol
- TUP_BLUE is used by the DMS-300 switch for interworking with signaling 7 protocols BTUP and TUPPLUS (TUP+)
- TUPPLUS is used for interworking BTUP with telephone user part plus (TUP+) (or any other signaling 7 protocol)

Note: Datafill in table C7UPTMR that references a particular protocol is ineffective unless the functionality that supports the protocol is installed. See the following table for a list of required feature packages for each protocol.

Functionalities supporting protocols (Sheet 1 of 2)

Protocol	Functionality
AISUP	Australian ISUP for DMS-100
ATUP	Australian TUP for DMS-100 DMS-300 Australian ISUP
BTUP	BTUP on DMS-300
CCITT250	DMS-300 International CCITT ISUP (Q.767) & ETSI ISUP
CTUP	International China TUP for MMP and CS2KC
IBNISUP	DMS-300 ANSI7+ Services

Functionalities supporting protocols (Sheet 2 of 2)

Protocol	Functionality
JPNISUP	JPN ISUP Trunk Signaling
MBTUP	BTUP on DMS-300
NCCI	DMS-100 NCCI#7 to ANSI7+ Interworking CCITT #7 and NCCI #7 for DMS-100
Q764	DMS-300 ANSI7+ Services International ANSI ISUP
Q767	ETSI ISUP, including all versions and national variants currently supported
RBTUP	Standard Redbook TUP, SSUTR2 (French TUP), and Brazilian TUP
TUP_BLUE	DMS-300 ANSI7+Blue Book TUP I/W TUP Blue Book on DMS-300
TUPPLUS	TUP(+) on DMS-300
general	ATUP-ANSI ISUP/AISUP Interworking

Three directions can be datafilled:

- 2W (two-way)
- IC (incoming)
- OG (outgoing)

The sets of timers are as follows:

- AISUP incoming, outgoing, and two-way timers
- ATUP incoming, outgoing, and two-way timers
- BTUP incoming, outgoing, and two-way timers
- CCITT incoming, outgoing, and two-way timers
- CTUP incoming, outgoing, and two-way timers
- IBNISUP incoming, outgoing, and two-way timers
- JPNISUP incoming, outgoing, and two-way timers
- MBTUP incoming, outgoing, and two-way timers

- NCCI incoming, outgoing, and two-way timers
- Q764 incoming, outgoing, and two-way timers
- Q767 two-way timers
- Q767 incoming timers (for SSUTR2 only)
- Q767 outgoing timers (for SSUTR2 only)
- RBTUP incoming, outgoing, and two-way timers
- TUP_BLUE incoming, outgoing, and two-way timers
- TUPPLUS incoming, outgoing, and two-way timers

Any set of timers can be datafilled more than once. For example, table TRKSGRP can contain two tuples that require incoming CCITT timers, but require different values for the timers. The entry in field TMRNAME (timer name) is different for each tuple in table C7UPTMR.

The direction, protocol, and timer name (TMRNAME) values of table TRKSGRP must also exist in a tuple of table C7UPTMR. If this requirement is not met, the entry in table TRKSGRP is not valid.

Q33 timer on DMS-300 gateway

If the Q33 option is present in the load, field OPTION is always visible, but is present only on selected incoming and two-way trunks.

The Q33 option cannot be deleted from table C7UPTMR if it is referenced by a tuple in table TRKSGRP that is datafilled with the Q33SUP option. The Q33SUP option must first be deleted from table TRKSGRP and then the Q33 option can be deleted from table C7UPTMR.

ANSI ISUP on DMS-300 gateway

The DMS-300 gateway switch can support ANSI7 Signaling ISUP trunks and interwork calls on these trunks with CCITT No. 7 Signaling (N7) ISUP trunk calls.

ANSI trunks use ANSI timer values that are defined in table C7UPTMR. An ANSI timer must be datafilled in table C7UPTMR.

Datafill sequence and meaning

The following tables must be datafilled before table C7UPTMR:

- TRKGRP
- TRKMEM
- TRKBCHNL

- all message transfer part (MTP) tables
- ISUPDEST
- C7TRKMEM

The following tables must be datafilled after table C7UPTMR:

- TRKSGRP

Table size

0 to 31 tuples

The maximum number of tuples that can be datafilled is 31, with one tuple assigned the value NIL.

Datafill

The following table lists the datafill for table C7UPTMR:

Field, subfield, and refinement descriptions for table C7UPTMR (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TMKEY		alphanumeric (1 to 16 characters)	<i>Timer key</i> Enter a name that is the key to the table and is datafilled in table TRKSGRP. For global trunks (GTRK), enter a name that is the key to the table and is datafilled in table TRKSIGPF.
C7UPDIR		2W, IC, or OG	<i>C7 trunk direction</i> If the trunk direction is two-way (or both ways), enter 2W. If the trunk direction is incoming, enter IC. If the trunk direction is outgoing, enter OG.

Field, subfield, and refinement descriptions for table C7UPTMR (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TMRS		see subfield	<i>Timers</i> This field contains subfield PROT. Datafill for subfield PROT depends on the signaling protocol.
	PROT	AISUP, ATUP, BTUP, CCITT250, CTUP, IBNISUP, JPNISUP, MBTUP, NCCI, Q764, Q767, RBTUP, TUP_BLUE, or TUPPLUS	Enter the required protocol, and enter the remaining datafill for subfield PROT as described in this document.

Signaling protocol CTUP: Chinese Telephone User Part

Signaling protocol CTUP is used for the Chinese telephone user part for DMS-100MMP and CS2KC.

Datafill

The following table lists the datafill for table C7UPTMR for signaling protocol CTUP:

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	PROT	See subfields	<i>Protocol</i> If the entry in field C7UPDIR is 2W, this subfield consists of subfield BWPROT described in section "C7UPDIR = 2W". If the entry in field C7UPDIR is IC, this subfield consists of subfield ICPROT described in section "C7UPDIR = IC". If the entry in field C7UPDIR is OG, this subfield consists of subfield OGPROT described in section "C7UPDIR = OG".

C7UPDIR=2W

If the entry in subfield C7UPDIR is 2W, datafill subfield BWPROT and refinements as described in the following table, then datafill field OPTIONS.

Field descriptions for conditional datafill (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	BWPROT	CTUP	<i>Two-way protocol</i> Enter CTUP to indicate that the timers are CTUP timers.
	ACMBSM	1 to 45	<i>Address complete or backward setup signal timer</i> Times from the sending of last forward address message (IAM / IAI / SAM / SAO) to the receipt of an ACM or BSM. It is reset at the sending of each forward address message. On timeout, the call is taken down.
	UBMCLF	4 to 15	<i>Unsuccessful backward message to clear forward signal timer</i> Times from the sending of a UBM to the receipt of a CLF for the incoming circuit On timeout, a CFL is sent, and the UBMCLF timer is restarted.

Field descriptions for conditional datafill (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	UBMCLF2	60 to 120	<i>Unsuccessful backward message to clear forward secondary signal timer</i> This timer is started in parallel with the UBMCLF timer. It times from the sending of a UBM to the receipt of a CLF for the incoming circuit. On timeout, the UBMCLF timer is stopped, the RSC is sent.
	CFLCLF	4 to 15	<i>Call failure to clear forward signal timer</i> Times from the sending of a CFL to the receipt of a CLF for the incoming circuit. On timeout a CFL is sent and the CFLCLF timer is restarted. Since CFLCLF timer is used with CFLCLF2 timer, CFLCLF timer is stopped when CFLCLF2 timer expires.
	CFLCLF2	60 to 120	<i>Call failure to clear forward secondary signal timer</i> This timer is started in parallel with the CFLCLF timer. It times from the sending of a CFL to the receipt of a CLF for the incoming circuit. On timeout, the CFLCLF timer is stopped, the RSC is sent, and the RSCRESP timer is started.

Field descriptions for conditional datafill (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	CLFRLG	4 to 15	<i>Clear forward to release guard signal timer</i> Times from the sending of a CLF to the receipt of a RLG. On timeout, a CLF is sent and the CLFRLG timer is restarted. The CLFRLG timer is used in conjunction with CLFRLG2 timer. Thus CLFRLG timer is stopped when CLFRLG2 expires.
	CLFRLG2	60 to 120	<i>Clear forward to release guard secondary signal timer</i> This timer is started in parallel with the CLFRLG timer. It times from the sending of a CLF to the receipt of a RLG. On timeout, the CLFRLG timer is stopped, the RSC is sent, and the RSCRESP timer is started.

Field descriptions for conditional datafill (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	RSCRESP	4 to 15	<i>Reset circuit response timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. This ensures circuits are reset to idle after a fault has occurred. On timeout, the RSC is repeated and the RSCRESP timer is restarted. Since RSCRESP timer is used with secondary timer RSCRESP2, RSCRESP is stopped when RSCRESP2 expires.
	RSCRESP2	60 to 120	<i>Reset circuit response secondary timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. On timeout, the RSCRESP timer is stopped, the RSC is sent and the RSCRESP2 timer is restarted.

Field descriptions for conditional datafill (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	ANSWER	50 to 70	<i>Answer timer for local calls</i> Times from the reception of an ACM message to the reception of an ANC/ANN message for local calls. On timeout, the call is taken down. A CFL is used to take down the call in the backward direction when the originating trunk is a CTUP trunk.
	ANSNATL	80 to 100	<i>Answer timer for national calls</i> The functionality is the same for ANSWER timer, the only difference is the range which is 80-100 seconds. This timer is used instead of ANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 10 (national).
	ANSINTL	100 to 140	<i>Answer timer for international calls</i> The functionality is the same for ANSWER timer, the only difference is the range which is 100-140 seconds. This timer is used instead of ANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 11 (international).

Field descriptions for conditional datafill (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	REANSWER	50 to 70	<i>Reanswer timer for local calls</i> For incoming trunk, times from the sending of a CBK to the receipt of a CLF or RAN. On timeout, the call is taken down in the backward direction by sending a RSC. For the outgoing circuit it is used for waiting reanswer message. On timeout the call is taken down in the forward direction by sending a CLF.
	REANSNATL	80 to 100	<i>Reanswer timer for national calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 10 (national).
	REANSINTL	100 to 140	<i>Reanswer timer for international calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 11 (international).

Field descriptions for conditional datafill (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	IDGTBFR	4 to 21	<i>Interdigit timer before receipt of minimum number of digits</i> Times from the receipt of an initial address message (IAM / IAI) or from each subsequent address message (SAM / SAO) before the minimum number of digits required for routing have been received (partial dialling). On timeout, the call is cleared down. The ADI is used for take down in the backward direction.
	IDGTAFT	4 to 21	<i>Interdigit timer after receipt of minimum number of digits</i> Times from the receipt of an initial address message (IAM / IAI) or from each subsequent address message (SAM / SAO) after minimum number of digits required for routing have been received. Timeout indicates end of dialling; normal actions continue.
OPTION		\$	<i>Timer options list</i> Enter \$.

C7UPDIR=IC

If the entry in subfield C7UPDIR is IC, datafill subfield ICPROT and refinements as described in the following table, then datafill field OPTIONS.

Field descriptions for conditional datafill (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	ICPROT	CTUP	<i>Incoming protocol</i> Enter CTUP to indicate that the timers are CTUP timers.
	UBMCLF	4 to 15	<i>Unsuccessful backward message to clear forward signal timer</i> Times from the sending of a UBM to the receipt of a CLF for the incoming circuit. On timeout, a CFL is sent, and the UBMCLF timer is restarted.
	UBMCLF2	60 to 120	<i>Unsuccessful backward message to clear forward secondary signal timer</i> This timer is started in parallel with the UBMCLF timer. It times from the sending of a UBM to the receipt of a CLF for the incoming circuit. On timeout, the UBMCLF timer is stopped, the RSC is sent.

Field descriptions for conditional datafill (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CFLCLF	4 to 15	<i>Call failure to clear forward signal timer</i> Times from the sending of a CFL to the receipt of a CLF for the incoming circuit. On timeout a CFL is sent and the CFLCLF timer is restarted. Since CFLCLF timer is used with CFLCLF2 timer, CFLCLF timer is stopped when CFLCLF2 timer expires.
	CFLCLF2	60 to 120	<i>Call failure to clear forward secondary signal timer</i> This timer is started in parallel with the CFLCLF timer. It times from the sending of a CFL to the receipt of a CLF for the incoming circuit. On timeout, the CFLCLF timer is stopped, the RSC is sent, and the RSCRESP timer is started.

Field descriptions for conditional datafill (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	RSCRESP	4 to 15	<i>Reset circuit response timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. This ensures circuits are reset to idle after a fault has occurred. On timeout, the RSC is repeated and the RSCRESP timer is restarted. Since RSCRESP timer is used with secondary timer RSCRESP2, RSCRESP is stopped when RSCRESP2 expires.
	RSCRESP2	60 to 120	<i>Reset circuit response secondary timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. On timeout, the RSCRESP timer is stopped, the RSC is sent and the RSCRESP2 timer is restarted.

Field descriptions for conditional datafill (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	REANSWER	50 to 70	<i>Reanswer timer for local calls</i> Times from the sending of a CBK to the receipt of a CLF or RAN. On timeout, the call is taken down in the backward direction by sending a RSC.
	REANSNATL	80 to 100	<i>Reanswer timer for national calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 10 (national).
	REANSINTL	100 to 140	<i>Reanswer timer for international calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 11 (international).

Field descriptions for conditional datafill (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	IDGTBFR	4 to 21	<i>Interdigit timer before receipt of minimum number of digits</i> Times from the receipt of an initial address message (IAM / IAI) or from each subsequent address message (SAM / SAO) before the minimum number of digits required for routing have been received (partial dialling). On timeout, the call is cleared down. The ADI is used for take down in the backward direction.
	IDGTAFT	4 to 21	<i>Interdigit timer after receipt of minimum number of digits</i> Times from the receipt of an initial address message (IAM / IAI) or from each subsequent address message (SAM / SAO) after minimum number of digits required for routing have been received. Timeout indicates end of dialling; normal actions continue.
OPTION		\$	<i>Timer options list</i> Enter \$.

C7UPDIR=OG

If the entry in subfield C7UPDIR is OG, datafill subfield OGPROT and refinements as described in the following table, then datafill field OPTIONS described at the end of the following table.

Field descriptions for conditional datafill (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	OGPROT	CTUP	<i>Outgoing protocol</i> Enter CTUP to indicate that the timers are CTUP timers
	ACMBSM	1 to 45	<i>Address complete or backward setup signal timer</i> Times from the sending of last forward address message (IAM / IAI / SAM / SAO) to the receipt of an ACM or BSM. It is reset at the sending of each forward address message. On timeout, the call is taken down.
	CLFRLG	4 to 15	<i>Clear forward to release guard signal timer</i> Times from the sending of a CLF to the receipt of a RLG. On timeout, a CLF is sent and the CLFRLG timer is restarted. The CLFRLG timer is used in conjunction with CLFRLG2 timer. Thus CLFRLG timer is stopped when CLFRLG2 expires.

Field descriptions for conditional datafill (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	CLFRLG2	60 to 120	<i>Clear forward to release guard secondary signal timer</i> This timer is started in parallel with the CLFRLG timer. It times from the sending of a CLF to the receipt of a RLG. On timeout, the CLFRLG timer is stopped, the RSC is sent, and the RSCRESP timer is started.
	RSCRESP	4 to 15	<i>Reset circuit response timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. This ensures circuits are reset to idle after a fault has occurred. On timeout, the RSC is repeated and the RSCRESP timer is restarted. Since RSCRESP timer is used with secondary timer RSCRESP2, RSCRESP is stopped when RSCRESP2 expires.

Field descriptions for conditional datafill (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	RSCRESP2	60 to 120	<i>Reset circuit response secondary timer</i> Times from the sending of a RSC to the receipt of an acknowledgement for this message. The particular acknowledgement received will depend on initial conditions. On timeout, the RSCRESP timer is stopped, the RSC is sent and the RSCRESP2 timer is restarted.
	ANSWER	50 to 70	<i>Answer timer for local calls</i> Times from the reception of an ACM message to the reception of an ANC/ANN message for local calls. On timeout, the call is taken down. A CFL is used to take down the call in the backward direction when the originating trunk is a CTUP trunk.
	ANSNATL	80 to 100	<i>Answer timer for national calls</i> The functionality is the same for ANSWER timer, the only difference is the range which is 80-100 seconds. This timer is used instead of ANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 10 (national).

Field descriptions for conditional datafill (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	ANSINTL	100 to 140	<i>Answer timer for international calls</i> The functionality is the same for ANSWER timer, the only difference is the range which is 100-140 seconds. This timer is used instead of ANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 11 (international).
	REANSWER	50 to 70	<i>Reanswer timer for local calls</i> For incoming trunk, times from the sending of a CBK to the receipt of a CLF or RAN. On timeout, the call is taken down in the backward direction by sending a RSC. For the outgoing circuit it is used for waiting reanswer message. On timeout the call is taken down in the forward direction by sending a CLF.
	REANSNATL	80 to 100	<i>Reanswer timer for national calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 10 (national).

Field descriptions for conditional datafill (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	REANSINTL	100 to 140	<i>Reanswer timer for international calls</i> The functionality is the same as REANSWER timer above. This timer is used instead of REANSWER timer when the nature of address signal in the message indicators of a received or sent IAM or IAI message is equal to 11 (international).
OPTION		\$	<i>Timer options list</i> Enter \$.

Table history**SN07**

Table C7UPTMR migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Added support for Russian ISUP variant (feature A00000937) by increasing the maximum ranges of values for the following timers, within the BWPROT, ICPROT and OGPROT refinements for the Q767 protocol:

- NQ764T5, NQ764T13, NQ764T15, NQ764T17, NQ764T19, NQ764T21 and NQ764T23

The range in each case is now 1 to 900. These timers are described in the section "C7UPTMR signaling protocol Q767".

Added CTUP to field PROT to specify the timer for CTUP trunk. Feature A89008212.

Included fixed 2 second Backward Check Tone Timer (T24 Timer) on SPMs for activity Q00733877.

Added a note indicating that trunks must be reset to implement new timer values in C7UPTMR for activity Q00733616.

CISCPCPR

Commonwealth Independent States Calling Party Category Privileges

Table Commonwealth of Independent States Calling Party Category Privileges (CISCPCPR) is used to define network and service access privileges using CPC value and call translation class.

Table CISCPCPR is accessed with the Table Control operations. Adding, deleting and changing a tuple is possible.

Datafill sequence and meaning

There is no specific datafill sequence required for table CISCPCPR.

Table CISCPCPR is not initialized to default values. This table is only used at CIS network.

When a tuple for a CPC type does not exist, no restrictions are applied to calls having that CPC type.

Table size

0 to 17 tuples.

Datafill

The following table lists the datafill for table CISCPCPR.

Field, subfield, and refinement descriptions for table CISCPCPR (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
cpc		CPC_name_type	CPC name type. CPC values: • AU_ORD • AU_PRIO • CNDB • FOC • HOTEL • ITDN • LOCL • MAINT • METER • ORD • OPER • PRIOR • RSRVD • SPM • TRAN • UNKNOWN

Field, subfield, and refinement descriptions for table CISCPCPR (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
class		ixla_class	Call translation class. Class values: • ATT • CELL • COLL • CNTL • DATT • EMRG • IAGRP • ICNTL • INTL • IOPRA • LCL • NATL • OPRA • RURAL • SPEC • UNKW
privilege		Yes or No	Privilege information. It is YES, when CPC and translation class have privilege.

Table history**SN07**

Table CISCPCPR was added in SN07 by feature A00001923.

CLIDN

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Calling Line Identification Directory Number

Table Calling Line Identification Directory Number (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. I

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 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.

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

There is no specific datafill sequence required for table CLIDN.

Table size

0 to 67 tuples.

Datafill

The following table lists the datafill for table CLIDN.

Field, subfield, and refinement descriptions for Table CLIDN

Field	Subfield or refinement	Entry	Explanation and action
DIGITS		numeric and N	Digits. 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.

Table history**SN07**

Table CLIDN migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

CLLI

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Common Language Location Identifier

The Common Language Location Identifier (CLLI) codes identify the far end of each announcement, tone, or trunk group.

The CLLI codes describe each announcement, tone, trunk group, test trunk, national milliwatt test line, and service circuit.

You must enter the CLLI codes for all national milliwatt test lines in tables CLLI and TRKGRP. In table TRKGRP, type TTL2, field MWDBLEVEL specifies the card code of the milliwatt test line. The card code indicates the dB level of the milliwatt source. Field MWSPRVSN specifies the supervision. The old fixed pseudo CLLI codes can be present. Pseudo CLLI code cannot assume the dB level and supervision.

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 have datafill in fields MWDBLEVEL and MWSPRVSN. The switch does not use the information in these fields.

The list of codes must contain the fixed pseudo codes that apply to the switch. The list of codes must contain the codes that the operating company defines.

Use the command interpreter (CI) command RENAMECLLI to rename or change the spelling of a current CLLI code. Use the CI command CLLINUMBER to obtain the number associated with the CLLI name.

Specified tables require the CLLI number and not the CLLI name. Refer to the *Basic Translations Tools Guide* for additional information.

Note: Do not use the CI command RENAMECLLI for primary rate interface (PRI) trunks that are used as a PRI public safety answering point (PSAP).

The following codes are four types of CLLI codes:

- The CLLI codes that external (EXT) files contain. The system adds these codes to table CLLI if a feature is in the switch.
- The fixed CLLI codes that you must add to table CLLI. The spelling of the codes must be the same as the spelling that appears.
- The suggested CLLI codes that you must add to table CLLI. The spelling of these codes can be different. This condition applies if the spelling of the code is the same in each table in which the code appears.
- The CLLI codes that the operating company defines.

The CLLI codes the EXT files contain appear in the following table. The system adds these codes to table CLLI for an associated feature.

The type of restart the system requires after the addition of the CLLI code to table CLLI appears in the list. This addition allows this CLLI code to occur in another table. The system requires this restart to increase the TRKGRSIZ for the specified CLLI.

If your switch has the NORESTARTSWACT utility, a service interruption does not occur when you activate data changes. Refer to the *NORESTARTSWACT User Guide*.



CAUTION

Possibility of service interruption

Perform restarts only during low traffic periods. You can enter data anytime. The data activates only after the restart. The following information tables indicate the restart.

CLLI codes that depend on the 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

CLLI codes that depend on the feature (Sheet 2 of 3)

CLLI	Explanation	Related table	Restart
DPPSC	Distributed processing peripheral scan circuits	DPP	None
DSCKT	Dialable short	MTAHORIZ	None
FRBTONE	Faultsman's ringback tone. Use this tone to access acknowledgement tone. The acknowledgement tone is 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 points	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. Refer to the current station ringer test example on page 17.	None	None

CLLI codes that depend on the feature (Sheet 3 of 3)

CLLI	Explanation	Related table	Restart
SYNCH	Synchronous test line. Refer to route reference 11 for table OFRT.	OFRT and all RTEREF subtables	None
TERMARTER	International ARTER transmission testing of Turkish trunks. The addition of these trunks occurs at initial program load (IPL) time by terminating ARTER software code.	None	None
TOPSCOINC OLLECT	TOPS coin collect (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINDI SABLE	TOPS coin key pad disable (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINE NABLE	TOPS coin key pad enable (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINR ETURN	TOPS coin return (see note 4)	OFRT and all RTEREF subtables	None
TRKL PBK	Dialable loop back for trunks that are DS-0 channels. These trunks include ISDN user part [ISUP] trunks. (see note 10)	None	None
WINKSUP	Supervision signal wink (see note 5)	OFRT and all RTEREF subtables	None

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	ANNS DRMUSERS	None
AOSSDEV	ADSS device	AOSSDEV	Cold
AOSSPOS	ADSS position	AOSSPOS	Cold
AOSSPOS DATA	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	OVR0-9	Cold
ATMERC	ATME2 type C responder (see note 11)	OVR0-9	Cold
BVTONE	Busy verification tone (see note 7)	STN	Warm
CAPOX	CAMA Call Waiting suspension	CAMACSW	Cold
CF3P	Three-port conference circuit	CONF3PR	None
CF6P	Six-port conference circuit	CONF6PR	None
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

Fixed CLLI codes (Sheet 2 of 8)

CLLI	Explanation	Related table	Type of restart needed
CWT	Call Waiting tone	STN	Warm
DCLTONE	Dialable cable locator tone	TRKGRP (type MAINT)	None
DCTTERMBERT	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	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. Most switches use this tone. The UK switches are the only switches that do not use this tone.	STN	Warm
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

Fixed CLLI codes (Sheet 3 of 8)

CLLI	Explanation	Related table	Type of restart needed
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 (refer to example F at the end of this section)	OFRT and all RTEREF subtables	None
GTERM102T	Terminates testlines on Global 100 trunks. This CLLI routes and incoming call to the MTM Test equipment. The MTM generates a T102 Toll Milliwatt tone.		None
GTERM100Q	Terminates testlines on Global 100 trunks. This CLLI routes an incoming call to the MTM Test equipment. The MTM generates a T100 Quiet Termination.		None
GTERM102S	Terminates testlines on Global 100 trunks. This CLLI routes an incoming call to the MTM Test equipment. The MTM generates a T102 Steady Tone.		None
GTERM102L	Terminates testlines on Global 100 trunks. This CLLI routes an incoming call to the MTM Test equipment. The MTM generates a T102 Local Milliwatt Tone.		None
HOBICDEV	Hotel billing information center device	HOBICDEV	Cold
HSET	Maintenance head set circuit	TRKGRP (type MAINT)	None

Fixed CLLI codes (Sheet 4 of 8)

CLLI	Explanation	Related table	Type of restart needed
IEBOT	International Executive Busy Override tone. Only UK switches use this tone.	STN	Warm
IDLE	Idle. Only in a North American switch uses this CLLI. Refer to 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
INTL102L	International 102 test line	TRKGRP (type MAINT)	None
ISDNBRIVOE	Integrated services digital network basic rate interface verification, office equipment assignment verification STDPRI, RTEREF None	STDPRI, RTEREF	None
IROH	International receiver off-hook	TONES	Warm
ITOPSDEV	International TOPS device (see note 6)	ITOPSDEV	Cold
ITOPSPOS	International TOPS position voice trunk (see note 6)	ITOPSPOS	Cold
ITOPSPOSD ATA	International TOPS position voice trunk (see note 6)	ITOPSPOS	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. Refer to example G at the end of this section.	OFRT and all RTEREF subtables	None

Fixed CLLI codes (Sheet 5 of 8)

CLLI	Explanation	Related table	Type of restart needed
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. This CLLI is for line test unit [LTU].	TRKGRP	None
MTADriver	Metallic test access driver	MTAHORIZ	None
MTU	Metallic test unit (nondomestic) or multiline test unit (domestic)	TRKGRP	None
NOSYN	Non synchronous test line (see route reference 11 for table OFRT)	OFRT and all RTEREF subtables	None
OAUSC	Office alarm unit scan groups (refer to note 2)	ALMSCGRP	None
OAUSD	Office alarm unit signal distributor groups (refer to note 2)	ALMSDGRP	None
OCKT	Open circuit termination	TRKGRP (type SOCKT)	None
OHQT	Off-hook queuing tone	STN	Warm
OOCDEV	Overseas operator center (OOC) device	TOPSDEV	Cold

Fixed CLLI codes (Sheet 6 of 8)

CLLI	Explanation	Related table	Type of restart needed
OOCPOS	OOC operator position - voice	TOPSPOS	Cold
OOCPOSDAT A	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
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	Receiver off-hook	Warm
ROTLTP	Remote office test line (ROTL) port	TRKGRP (type ROTL)	None
SIGTERM	CCS6 signaling terminal	None	None
SCKT	Short circuit termination	TRKGRP (type SOCKET)	None
SSMAN	Silent switchman. See table OFCENG, parameter SILENT_SWITCHMAN_TIMEOUT.	OFCENG	None
SVDTMF	Dual-tone multi frequency (DTMF) transmitter	SVRCKT	Warm

Fixed CLLI codes (Sheet 7 of 8)

CLLI	Explanation	Related table	Type of restart needed
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
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. The use of fixed pseudo CLLI TERM105 occurs if ROTL equipment is present.	TRKGRP (type T105)	Cold
TERM105T	Terminating 105 test line. The use of fixed pseudo CLLI TERM105T occurs if ROTL equipment is not present. This condition permits the use of the 105 test line with the transmission test unit (TTU) at the terminating office. Tables TRKGRP, TRKSGRP or TRKMEM do not require additional datafill.		None
TERM107T	Terminating 107 test line (preemption test line)	None	Cold
TERM108	Terminating 108 test line	TRKGRP (type MAINT)	None

Fixed CLLI codes (Sheet 8 of 8)

CLLI	Explanation	Related table	Type of restart needed
TISS	Terminating international 103 signal supervisory test line	TSTLCONT (subtable TLNOS)	None
TOPSDEV	TOPS device (refer to note 6)	TOPSDEV	Cold
TOPSPOS	TOPS position - voice (refer to note 12) TOPSPOS	TOPSPOS	None
TOPSPOS DA TA	TOPS position - data (refer to note 12)	TOPSPOS	None
TTT	Transmission trunk test	TRKGRP (type MAINT)	None
TTU	Transmission test unit	TRKGRP (type MAINT)	None
UASCF3P	Audio Server based three-port conference circuit. Required before datafilling the 3PORT option in table SERVSINV.	SERVSINV	None
UASCF3PX	Audio Server based three-port conference circuit. Required if more than 2046 ports are specified in the CONFTERMS field of the 3PORT option in table SERVSINV.	SERVSINV	None
UASCF6P	Audio Server based six-port conference circuit. Required before datafilling the 6PORT option in table SERVSINV.	SERVSINV	None
VER90	Operator verification (refer to note 1)	TRKGRP (type VR)	None

A list of suggested CLLI codes you must add to table CLLI appears in the following table. The spelling of these codes can be different. The spelling of the code must be the same in each table in which the code appears. Use the spelling that appears.

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 (refer to 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

Notes for table data above:

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

Note 2: Trunk group size for fixed pseudo CLLI codes OAUSC and OAUSD equals the number of scan and signal distributor groups. The office alarm requires the scan and signal distributor groups.

Note 3: For codes ESUP1 to ESUP5, the value in field TRKGRSIZ must be equal to two times the number of digital echo suppressors. The digital echo suppressors are for the code in table ECHOSUP. One digital echo suppressor must be present for each port.

Note 4: The pseudo CLLI codes TOPSCOINCOLLECT, TOPSCOINENABLE, TOPSCOINDISABLE, and TOPSCOINRETURN allow the operating company to specify coin signals. These coin signals are for calls that arrive at an access tandem on TOPS trunks. These calls do not route to an operator. One CLLI code allows the operating company to make sure the system enables Digitone key pads. These Digitone key pads are on coin phones. The system allows these Digitone key pads for feature group B calls and for 800 service calls.

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 to enable these pads. To use this CLLI code, place this code at the beginning of a route list. This route list must route the call to an incoming (IC) trunk. To route a call on trunk group OGEACAR1, the operating company can enter the following data in a route in table OFRT:

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 finishes, the call routes to trunk group OGEACAR1. A coin call can originate from an end office that left the key pad in the correct state. When this event occurs, calls from these offices can route to a different route list. This route list does not include the coin enable the CLLI code. This routing avoids the additional post-dial delay the coin enable signal causes.

The addition of a coin signal to a route list can occur. This addition adds approximately 3 s of post-dial delay to each coin call that uses this route list. The time for the transmission of the coin signal is 3 s.

The three other types of coin signals are pad disable, coin collect, and coin return. A requirement to send these signals for some calls on TOPS trunks that do not route to TOPS operators can occur. Three CLLI codes, TOPSCOINDISABLE, TOPSCOINCOLLECT, and TOPSCOINRETURN are available for this purpose.

The position of these coin CLLI codes is at the beginning of a route list before any trunk CLLI codes. The system can require more than one coin signal. When this event occurs, the addition of more than one CLLI code to the route list can occur. Only calls that originate on TOPS trunks and that a TOPS operator does not complete can use the CLLI codes. The Centralized Automatic Message Accounting (CAMA) calls that route to a TOPS operator can use the CLLI codes. Calls that transfer to an IC operator service can use the CLLI codes. These conditions occur because the TOPS operator does not complete these calls.

The system can route noncoin calls to a route list with the special coin CLLI code. The software determines that the call is noncoin. The system does not attempt coin signaling.

Note 5: To use the four CLLI codes, add the codes to table CLLI. The system does not require a restart. The removal of restart requirement occurred in CSP04.

The system can use the CLLI codes at the end of a route list. The CLLI codes send the correct supervision signal to the originating office. This event occurs if all members of the outgoing trunk group are busy. The system performs the standard treatment after the system completes this procedure. The system only supports the following trunk group types: SC, IS, IT, OI, OC, OP, TI, T2, TOPS, A5, and TDDO.

Note 6: You can enter the fixed CLLI code TOPSDEV, ITOPSPPOS, ITOPSPPOS DATA, or ITOPSPDEV in table CLLI. When you perform this action, you must perform a cold restart before you enter tuples in the associated tables.

To increase the size of tables TOPSDEV, ITOPSPPOS, or ITOPSPDEV, you must delete all members of these tables. The value in field TRKGRSIZ in table CLLI increases for the associated fixed CLLI code or codes. Perform a cold restart or a reload restart. Enter the members of the table again.

Note 1: The remote switch in the network busy verification line (BVL) requires the busy verification tone (BVTONE) circuit. You must enter the fixed CLLI code BVTONE on the remote switch in table CLLI.

Note 2: Treatment NTRS (no terminal responding) or CREJ (call rejected) can occur on an ISDN basic rate access (BRA) call. When this event occurs, the caller receives audible ringback. The system can apply ringback at the originating agent after these events occurred. The definition of a tone that software generated appears in table TONES for ISDN switches. This tone is *RING. Enter the *RING tone in table CLLI. Table OFRT and fields LNT and OFFTREAT in table TMTCNTL.TREAT define tuples. This action maps treatments NTRS and CREJ to this tone. When one of these treatments occurs, the system sustains audible ringback at the originating end of the call.

Note 3: You can enter members of the SC and SD groups in tables SCGRP and SDGRP. When this event occurs, the system automatically enters a tuple in table CLLI for pseudo fixed CLLI codes MISCSC and MISCSD.

Note 4: Trunk group size for CLLI code TRKLBPBK is equal to 0 (zero). This event occurs because table TRKMEM does not assign trunks.

Note 5: For ATME2 to function, add the three CLLI codes ATMERA, ATMERB, and ATMERC to table CLLI. Perform a cold restart. If you do not perform this action, the system does not bind the correct CLLI codes.

Note 6: For CSP04, the system eliminates the restart requirement when the size of table TOPSPOS changes. Before CSP04, the size increased as note 6 indicated for the other TOPS tables. In CSP04, to increase the size, increase the value of TRKGRSIZ in table CLLI for TOPSPOS and TOPSPOSDATA CLLIs. Add the new tuples in table TOPSPOS. The system does not require a restart.

Deallocation of memory does not change. You must delete all tuples as follows:

- delete all tuples in table TOPSPOS
- change the value of field TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs to value 0
- change the value of field TRKGRSIZ in table CLLI for both TOPSPOS and TOPSPOSDATA CLLIs to the new size
- add tuples or add tuples again to table TOPSPOS

The system does not require a restart.

Warning: The maximum size of table TOPSPOS is 1023 tuples. The TRKGRSIZ can be higher than 1023 for fixed CLLI (TOPSPOS or TOPSPOSDATA). When this event occurs, the addition of tuples to table TOPSPOS cannot occur and an error message appears. You cannot change tuples. You must delete and add all tuples again. The steps for this action appear above. For releases before CSP04, this condition causes an outage because of the cold restart requirement.

Deleting CLLI codes from table CLLI

To delete a CLLI code, you must delete the CLLI code from all tables in which the code appears. You must perform this action before you delete the tuple from table CLLI. The system does not require that you delete the tuple from table CLLIMTCE. When you delete the tuple table CLLI, the system deletes the tuple from table CLLIMTCE.

The CI command TABREF can determine the other tables that a CLLI code can reference.

Assigning CLLI codes for spare analog trunks

All spare analog trunks in the switch must appear in the table TRKGRP with a CLLI code of SPAREXXXXXX. The XXXXXX is the card code of the spare analog trunk or trunks. If spare analog trunks are present 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. You must add the spare analog trunks to table CLLIMTCE.

SEAS 1.1 Enhancements

Feature AL1334 (SEAS 1.1 Enhancements) changed the design of routeset CLLI codes. Routeset CLLI codes are the key to table C7RTESET when the Signaling Engineering and Administration System (SEAS) commands ADD_RTE or CHG_RTE modify data routing information.

Feature AL1334 maintained tuples in table CLLI. These tuples are the key to table C7LKSET. Field ADMININF in table CLLI contains the far-end office name. This name is in field FECLLI of table C7LKSET as SEAS commands ADD_LS or CHG_LS provide.

Note: For feature AE0901 for BT7, you must enter EMERGENCY_CALL_ANN in field ADMININF in table CLLI. This entry specifies that an emergency call announcement will occur.

Routeset CLLI codes

For feature AL1334, the name that is the routeset name changes to reflect information about the routeset the data determines. This action can occur by the two following methods.

The name can be the exact name entered in field FECLLI of table C7LKSET of the linkset. This table defines the linkset as the associated route of the routeset. A route is associated if the far-end point code of this linkset is the correct point code of this routeset. The far-end point code is in field FEPC of table C7LKSET. The routeset is in field DPC of table C7RTESET.

If the routes are not associated, the routeset name can be the textual representation of the point code of the routeset. This textual representation is a field that contains nine digits.

You must create the name of the routeset when the definition of a route for a new destination occurs. Routes are not defined to this point code. When the addition of a route to a current routeset occurs, the routeset

name does not change. When the following events occur, the routeset name changes to reflect the new configuration:

- The SEAS uses the command CHG_RTE to add an associated route where a route was not present.
- The SEAS uses the command CHG_RTE to remove a current associated route.

Field ADMININF for linkset CLLI tuples

Field ADMININF of table CLLI stores any additional information on the CLLI code you define. With feature AL1334, the field ADMININF indicates the associated far-end CLLI name of the linkset you add. The associated far-end CLLI name is in field FECLLI in table C7LKSET. You can use the SEAS command CHG_LS to change the name in field FENAME of the linkset. When you change the name, you must update field ADMININF to maintain this new relationship.

Limits

The system maintains the routeset name relationship that feature AL1334 defines only if the SEAS interface changes the data. If the DMS table control interface changes this data, the routeset name does not change.

The DMS table control interface can change table C7LKSET. When this event occurs, the system does not update field ADMININF of table CLLI to reflect the far-end name of the linkset.

The DMS table control interface can make changes. When this event occurs, operating company personnel must maintain the name relationships manually.

To invoke the DMS-100G Terminating Testline Service, you must enter the CLLI name. Provisioned CLLI names are fixed. You cannot delete the CLLI names.

The DMS-100 Terminating Testline datafill must be in the office for a DMS-100G Terminating Testline to function. A warning message appears if the datafill is not present when you provision table CLLI. Calls that originate in an office where DMS-100 datafill is not available transfer to datafill_error treatment. Offices can use DMS-100 and DMS-100G Terminating Testline routing. For these offices, use different digits for digits the originating office outpulses.

Tables TRKGRP, TRKSGRP, and TRKMEM do not require additional datafill. The DMS-100 testline datafill must be present in the office for DMS-100G Testline to function correctly.

Station ringer test examples

To activate the station ringer test (SRT), dial a two-digit code and the last five digits of the directory number (DN). This DN is the DN for which the test occurs. The two-digit code can be 57. For example, to test DN 621-1234, the tester dials 571-1234. This condition applies if the DNs in an office do not share the same last five digits. The same office can serve two DNs, 621-1234 and 631-1234. When this event occurs a separate test cannot occur for each station because the only dialing pattern possible is 571-1234. This dialing pattern refers to both DNs.

A more current method to invoke SRT is to dial the SRT access code and the DN for which the test occurs. This method can be present with the method that appears above.

The SRT access code is nominally three digits. Datafill can change the SRT access code. Both access methods function on the same switch. You can use datafill access codes for both methods to dial SRT.

The DN for which the test occurs can be seven digits without the numbering plan area (NPA). This DN can be ten digits with NPA. The DN can be a seven-digit DN. If this condition occurs, the SRT tests that compare the number dialed against the station dialing cannot include the NPA. This condition does not cause a problem often. A problem occurs only if the same switch serves two DNs that differ only by NPA. Operating companies can use different datafill to allow one the following events to occur:

- access code plus seven- or ten-digit DN dialing of SRT
- access code plus seven-digit dialing only
- access code plus ten-digit dialing only

If the operating company specifies the first option, and the subscriber dials seven digits, a pause of several seconds occurs. After the pause, the system processes the call. The pause occurs because the line module (LM) waits. The LM waits to make sure the subscriber does not dial additional digits.

Example

The DN to test is DN 613-621-1234. The older SRT access code is 57. The newer SRT access code is 999. Dial 571-1234, 999-621-1234, or 999-613-621-1234 from that station to invoke SRT.

Administrative trunk group number (ADNUM)

In table CLLI, field ADNUM can range from 0 to 8191. This range is one less than the maximum size of table CLLI. This field allows the operating company to associate an ADNUM with each DMS-100 family

trunk group CLLI code. This ADNUM must be different between the CLLI codes. This ADNUM remains fixed for the life of the trunk group. The number of dump-and-restore actions that occur on the switch does not affect this condition.

The range of values for field ADNUM starts at 0 (zero). The range is from 0 to a number that is one less than the size of table CLLI. The size of table CLLI appears in table DATASIZE. For example, if the size of table CLLI is 650, the maximum value that for field ADNUM is 649.

For pseudo CLLI codes, the operating company assigns a specified ADNUM occurs. The pseudo CLLI codes are CLLI codes added from EXT files. These numbers start with 1 and continue in ascending order. Avoid a value of 0 (zero) because specified downstream processors do not accept 0 as an allowed identifier. These downstream processors include Engineering and Administrative Data Acquisition System (EADAS) for network management (EADAS/NM). To assign a 0 causes an error message. The system does not reject the entry.

Assign CLLI codes that the operating company defines in sequence. Start with the lower numbers. The ADNUM values 1 to 50 are for pseudo CLLI codes. The value 0 (zero) is not always correct for some downstream processing.

The number of CLLI codes the operating company defines can be greater than the size of table CLLI minus 50. When this event occurs, increase the size of table CLLI. This increase in table size prevents the use of ADNUM values reserved for additional future pseudo CLLI codes.

Modifying the value in field ADNUM

You can change the value in field ADNUM. You can change this value if other tables in the DMS-100 switch do not refer to the CLLI code. To change the ADNUM value, you must remove tuples that contain the CLLI code from the following tables:

- all routing tables
- trunk tables
- any other tables

You must delete the tuple that contains the CLLI code in table CLLI. You must enter this tuple again in table CLLI to change the value of field ADNUM.

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

Default ADNUMs for pseudo CLLI codes

The default ADNUM assigned to each pseudo CLLI code that an EXT file adds appears in the following table.

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
WINKSUP	20
BBTOUT	21

Default ADNUMs (Sheet 2 of 2)

CLLI	ADNUM
ROTLSC	22
ROTLSD	23
TRKL PBK	24
TERMARTER	25
MISCSC	26
MISCSD	27
NILWAITANNC	29
Note: The ADNUM assigned to a CLLI code must be different. The system does not allow you to assign an ADNUM associated with another CLLI code. Do not use an ADNUM assigned to a pseudo CLLI code for CLLI codes the operating company defines.	

The EADAS for data collection (EADAS/DC) and EADAS network management (EADAS/NM) interfaces to the DMS-100 change. This change allows the use of the ADNUM in table CLLI.

EADAS/DC changes

The record identification (ID) fields in the EADAS/DC sections for the following operational measurement (OM) groups contain the administrative number. This number relates to the CLLI code:

- TRK
- TRK250
- NWMSILC
- DCRICTRK

The ADNUM orders the records in these sections.

The EADAS/DC section contains the counts for the preceding 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. The output identifies the codes by the character name of the codes.

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

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

To change an ADNUM, you must remove the tuples that refer to the CLLI code of the ADNUM from all tables. You must delete the tuple in table CLLI that contains the ADNUM. You must enter this tuple again in table CLLI with the new ADNUM value. Enter tuples that contain the CLLI code again. Enter these tuples in the tables from which you removed these tuples.

EADAS/NM changes

If an ADNUM changes, the ADNUM sets the EADAS/NM trunk group list discrete to indicate the change. The office can have feature package X455AB (1A EADAS Network Management). If the office has this package, a change to the ADNUM creates two entries. These entries are in the EADAS/NM trunk group changed list. One entry identifies the old ADNUM. The other entry identifies the new ADNUM.

Table TRKNAME

Table TRKNAME is a read-only table. The system enters data in this table with entries in table CLLI. With an ADNUM value, the associated CLLI code can appear in table TRKNAME. The reverse mapping appears in table CLLI. See the example at the end of this section.

Datafill sequence and meaning

There is no specific datafill sequence required for table CLLI.

Table size

0 to 8192 tuples.

The system allocates memory by field SIZE in table DATASIZE for the entry with field DATSKEY equal to CLLI. To extend table CLLI, increase the value of field SIZE in table DATASIZE. Perform a cold restart. If your switch has the NORESTARTSWACT utility, an interruption of service does not occur when you activate data changes. Refer to the *NORESTARTSWACT User Guide*.

Datafill

The following table lists the datafill for table CLLI.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 1 of 9)

Field	Subfield or refinement	Entry	Explanation and action
CLLI	alpha -numeric, vector max. of 16 chars.	numeric digits 0-9 and N	Common language location identifier. Enter a CLLI code to identify the far end of each announcement, tone, or trunk group. Note 1: Note: You can only enter alphabetic characters, numeric characters, and _ underscores in this field. The first character must be alphabetic. The use of other special characters: @, #, \$, %, ^, &, *, (,), -, +, =, /, ', ;, :, ?, }, and { can cause errors in the data in this field. Note 2: For best use, a CLLI code must contain a maximum of 12 characters. Only the first 12 characters appear on the MAP. When a CLLI code appears in a log report, the whole 16-character CLLI code appears.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 2 of 9)

Field	Subfield or refinement	Entry	Explanation and action
			The recommended code for a gateway switch contains the following elements: • SITE - Site. This element has three characters. This element identifies the name of the site. The site is a switch. If more than one site is present in a city, each site has a name. If only one site is in a city, enter the abbreviated city name. • SUFIX - Suffix. This element has two characters. This element identifies the trunk group. If more than one trunk group is in the same site, each trunk group has a different number for identification. • COUNTRY - Country. This element has three characters. This element identifies the name of the country that is the location of the site. • CITY - City. Three characters. This element identifies the name of the city at the far end of each trunk group. If only one site is in a city, and the abbreviated city name identified the entry, leave CITY blank. If more than one site is present in a city, use both element SITE and element CITY.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 3 of 9)

Field	Subfield or refinement	Entry	Explanation and action
CLLI (continued)			Note: The CLLI code can occupy 11 characters of the string of 16 characters. The field ends at the first blank character. For example, only one trunk group can be present for a specified switch. When this event occurs, only the element SITE requires data entry as the CLLI code. The recommended CLLI code for other than a gateway switch contains the following elements: • PLACE - Place. This element has four characters. This element identifies the name of the city or town at the far end of each group. This element can identify the name for each tone or announcement. • PROV - Province or state. This element has two characters. This element identifies the province or state at the far end of the trunkgroup. • BLDG - Building. This element has two characters. This element identifies the building number at the far end of the trunk group. • TRAFUNIT - Traffic unit. This element has three characters. This element identifies the designation of the traffic unit at the far end of the trunk group. • SUFX - Suffix. This element has one characters. This element identifies trunk groups that terminate at the same location. Note: This CLLI code can occupy 12 characters of the field of 16 characters. The system treats the CLLI code as a character string. The field ends at the first blank character. If only one trunk group ends at a specified switch, only the element PLACE requires data entry for the CLLI code.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 4 of 9)

Field	Subfield or refinement	Entry	Explanation and action
CLLI (continued)			Note: For feature AE0901 for BT7, the entry EMERCALL in this field specifies the emergency call feature.
ADNUM		numeric, 0 to 8191	Administrative trunk group number. Enter a number in the range from 0 to one less than the current size of table CLLI. The current size of table CLLI appears in field SIZE of table DATASIZE. The operating company must not assign administrative numbers (ADNUM) below 51. This condition allows for future growth in the number of pseudo CLLI codes. The ADNUMs for fixed CLLI codes and CLLI codes the operating company defines have a specified range. This range is from 51 to the size of table CLLI that appears in table DATASIZE minus one. The ADNUMs for pseudo CLLI codes external (EXT) files add must use the default value. The value of field ADNUM in table CLLI must be different. The system rejects attempts to add a CLLI code with an ADNUM that is in use. You cannot change field ADNUM in table CLLI if one of the following events occurs: • The system reports operational measurement (OM) counts to the Engineering and Administrative Data Acquisition System (EADAS). The system reports OM counts for data collection (EADAS/DC). These OM counts are for OM groups TRK, NWMSILC, TRK250, or DCRICTRK • the CLLI code is in the EADAS network management (EADAS/NM) trunk group schedule

Field, subfield, and refinement descriptions for Table CLLI (Sheet 5 of 9)

Field	Subfield or refinement	Entry	Explanation and action
TRKGRSIZ		numeric, (0 to 2047)	Trunk group size Enter the maximum number of trunk members to assign in the trunk group. This number allocates storage. This number can be greater than the number of initial working trunks. The only continuous change you can make to this quantity is to increase the size. An attempt to decrease TRKGRSIZ causes an error message. The only size reduction that can occur is to decrease the quantity in field TRKGRSIZ to 0 (zero). When this event occurs, you must delete all members that use this CLLI code before you decrease the quantity to 0. Enter 10 for a DRAM or EDRAM of 4 m. Enter 33 for an EDRAM of 16 m. You must define an announcement CLLI Audiogram Delivery Services (ADS). If the ADS has only one EDRAM card, you can set the field TRKGRSI to 30. This action allows all 30 channels on the EDRAM card to connect at the same time. These channels connect to play ADS OOSPs. See the Audiogram Delivery Services-Offer of Service Prompt functionality (ENSV0013) in this document.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 6 of 9)

Field	Subfield or refinement	Entry	Explanation and action
ADMININF		alphanumeric (vector, max. 32 chars.)	Administrative information. Enter operating company administration information. The switch does not use the information in this field. Note: Use only alphabetical characters, numeric characters, and _ (underscore) in this field. The use of other special characters: @, #, \$, %, ^, &, *, (,), -, +, =, /, ', ;, :, ?, }, and { can cause errors in this field. The following entries are the recommended entries in field ADMININF for a gateway switch: • DIR • MED • SIG • SRVCAT • N6MODE • MISC DIR - Direction. This entry is optional datafill for administration only. If the system requires specification of the direction, enter the direction of the traffic in the trunk group. If the system does not require direction, enter a - (dash) for entry DIR. MED - Medium. This entry of one character is optional datafill for administration only. If the system requires specification of the medium, enter the medium of the trunk group. The medium is S for satellite or C for cable. If the system does not require the medium, enter a - (dash) for entry MED. If the entries that follow MED do not contain information, leave MED blank.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 7 of 9)

Field	Subfield or refinement	Entry	Explanation and action
ADMININF (continued)			SIG - Signaling. This entry of one character is optional datafill for administration only. If the system requires specification of the signaling type, enter the signaling type for the trunk group. The signaling type is 5 for CCITT Signaling No. 5 (N5) and 6 for CCITT Signaling No. 6 (N6). If the system does not require specification of the signaling type, enter a - (dash) for entry SIG. If the entries that follow entry SIG do not contain information, leave SIG blank. SRVCAT - Service category. This entry of three characters is optional datafill for administration only. If the system requires specification of the service category, enter the type of service the trunk group provides. The type of service is TEL for telephone. If the system does not require specification of the service category, enter a - (dash) in entry SRVCAT. If the entries that follow entry SRVCAT do not contain information, leave SRVCAT blank. NO6MODE - Signaling 6 mode. This entry of four characters is optional datafill for administration only. If the system requires specification of the N6 mode, enter the following: • FA for fully associated • QA for quasi-associated • FQ for fully and quasi-associated This entry can identify which route set or signaling link set carries the signal for this trunk group. If the system does not require specification of the N6 mode, enter a - (dash) for entry NO6MODE. If the entries that follow entry NO6MODE do not contain information, leave NO6MODE blank.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 8 of 9)

Field	Subfield or refinement	Entry	Explanation and action
ADMININF (continued)			MISC - Miscellaneous information. This entry of 12 characters is optional datafill for administration only. If the system requires miscellaneous information, you can enter any data in this field. For example, the entry can contain the full name of the abbreviated site name. If the system does not require this entry, leave MISC blank. Note: The field ADMININF can occupy 32 characters. The system treats this field like a character string. The field ends at the first blank character. You must enter an _ (underscore) between each entry in field ADMININF, if the entries that follow this entry are not blank. The recommended entries for field ADMININF for other than a gateway switch are TRAFCLS, OFFCLS, and TRKGRTYP. TRAFCLS - Trunk group traffic class. This entry is optional datafill for administration only. If the system requires specification of traffic class, enter one of the traffic classes that operating company practices define. If the system does not require specification of traffic class, enter a - (dash) for entry TRAFCLS. OFFCLS - Office class. This entry is optional datafill for administration only. If the system requires specification of office class, enter one of the office classes that operating company practices define. If the system does not require specification of office class, enter a - (dash) for entry OFFCLS. If entry TRKGRTYP is blank, entry OFFCLS can be blank.

Field, subfield, and refinement descriptions for Table CLLI (Sheet 9 of 9)

Field	Subfield or refinement	Entry	Explanation and action
ADMININF (continued)			TRKGRTYP - Trunk group type. This entry is optional datafill for administration only. The system can require specification of the trunk group type. When this event occurs, enter an alphanumeric entry equal to one of the trunk group types that the operating company practices define. If the system does not require specification of trunk group type, leave TRKGRTYP blank. Note 1: The field ADMININF can occupy 32 characters. The system treats this field like a character string. The field ends at the first blank character. You must enter an _ (underscore) between each entry in field ADMININF, if the entries that follow this field are not blank. Note 2: For feature AE0901 for BT7, the entry EMERGENCY_CALL_ANN in this field specifies that an emergency call announcement will occur.

Table history**SN07**

Table CLLI migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

Added information about UASCF3P, UASCF3PX, and UASCF6P as per CR Q00737124.

CRSFMT

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Call Record Stream Format

Table Call Record Stream Format Table (CRSMFT) defines format characteristics for specified data streams.

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

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

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.

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.

Datafill

The following table lists the datafill for table CRSFMT..

Field, subfield, and refinement descriptions for table CRSFMT (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
KEY		AMA, CDR, ICAMA, OCC, SMDR, or alphanumeric (maximum of 16 characters)	Key. 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	Format. 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>.)

Field, subfield, and refinement descriptions for table CRSFMT (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FORMAT (continued)			- 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)
DATADUMP		Y or N	Data dump. 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	Call detail recording search. This field is for DMS-250 switches. An entry of NIL_FM satisfies the table editor.
ALARMS		Y or N	Y or N Enter Y to indicate that this stream requires audible alarms for billing failures. Enter N to indicate that audible alarms are not a requirement.

Field, subfield, and refinement descriptions for table CRSFMT (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
TIMERDMP		Y or N	Timer dump. Enter Y to activate the timer dump mechanism. Enter N to deactivate the timer dump. The default value is N.
TIMERVAL		0 to 32767	Timer interval. Enter the time in even-numbered seconds between timer dumps. The default value is 0 (zero).

Table history**SN07**

Table CRSFMT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

CRSMAP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Call Record Stream Mapping

Table Call Record Stream Mapping (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.

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

The following table lists the datafill for table CRSMAP.

Field, subfield, and refinement descriptions for table CRSMAP (Sheet 1 of 2).

Field	Subfield or refinement	Entry	Explanation and action
KEY		AOSS, CAMA, CDR, ICAMA, IT CR, ITOPS, LAMA, MCDR, MTX, OCC, SMDR, TOPS, or alphanumeric (a maximum of 16 characters)	Key. 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

Field, subfield, and refinement descriptions for table CRSMAP (Sheet 2 of 2).

Field	Subfield or refinement	Entry	Explanation and action
STREAM		AMA, CDR, ICAMA, ITOP, OCC, SMDR, or alphanumeric	Stream. 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.

Additional 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:

```

KEY          FORMAT DATADUMP CDRSRCH ALARMS TIMEDMP
TIMERVAL

```

0	SMDR	SMDRFMT	N	NIL_FM	N	N

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

```

KEY          FORMAT DATADUMP CDRSRCH ALARMS TIMEDMP
TIMERVAL

```

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 DIRPPOOL 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.

Table history

SN07

Table CRSMAP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

CTCODE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Country Code Code

Table Country Code Code (CTCODE) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table CTCODE translates the country code digit segment, together with tables CTHEAD and CTRTE.

For related information, refer to tables ACCODE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Table CTHEAD must be datafilled before tables CTRTE and CTCODE.

Datafill

Refer to the table ACCODE for more information.

Table size

Refer to the table ACCODE for more information.

Table history

SN07

Table CTCODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

CTHEAD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Country Code Head

Applies to new or modified content for NA015 that is valid through the current release.

Table Country Code Head (CTHEAD) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table CTHEAD translates the country code digit segment, together with tables CTCODE and CTRTE.

For related information, refer to tables ACCODE and ACRTE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Refer to the table ACHEAD for more information.

Datafill

Refer to the table ACHEAD for more information.

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.

Table history

SN07

Table CTHEAD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

CUSTNTWK

Customer Group Network

Table CUSTNTWK is required for switches that use Integrated Business Network (IBN) translations or universal translations.

In North America, table CUSTNTWK is required for switches that use North American translations, IBN translations, and feature package NTXR78AA (MBG Feature Networking Control).

Table CUSTNTWK allows the operating company to specify a network name (field NETNAME) with which a customer group is associated. It also provides a predetermined global numeric identifier field (field NETCGID) in the specified NETNAME used for the customer group throughout the network.

Table CUSTNTWK allows the operating company to assign or deny calling features to customer groups.

Table CUSTNTWK is provided with legacy ordering code MDC0001 and is initialized with the PUBLIC network.

Datafill sequence and implications

The following tables must be datafilled before table CUSTNTWK:

- CUSTENG
- NETNAMES

If the customer group has feature AG0981 (Network Dial Plan Display), the tables must be datafilled in the following sequence: DNREGION, then DNREVLXA, and then CUSTNTWK.

Table size

0 to 4096 tuples.

Datafill

The following table lists datafill for table CUSTNTWK.

Field descriptions

Field	Subfield	Entry	Explanation and action
CUSTNAME		alphanumeric (1 to 16 characters)	<i>Customer group name</i> Enter the name that is assigned to the customer group. This name must be a valid customer group that is datafilled in table CUSTENG.
NETNAME		alphanumeric (1 to 31 characters)	<i>Network name</i> Enter the name of the network that is assigned to the customer group in table NETNAMES. If the customer group of the originating agent and the terminating agent are the same, use the network that is datafilled in table CUSTNTWK against that customer group. If the customer group of the terminating agent is assigned NETNAME_PUBLIC, use the PUBLIC network.
NETCGID		numeric (0 to 4096)	<i>Network customer group identifier</i> enter the number of the network customer group identifier that is assigned to the customer group.

Customer group has feature AG0981

If the customer group has feature AG0981 (Network Dial Plan Display), datafill the following fields. Otherwise, go to the Field descriptions table X-REF on pagexxxx and refer to the OPTIONS field.

The maximum number of reverse translators that can be specified in field DNREVLXA is four.

Datafill fields NETNAME, RXLANAME, and NUMDIGS for each reverse translator. One entry on the form is used for each reverse translator.

Conditional datafill for feature AG0981

Field	Subfield	Entry	Explanation and action
DNREVLXA		see subfields (up to 4 multiples)	<i>DN reverse translators</i> This field consists of subfields NETNAME, RXLANAME, and NUMDIGS.
	NETNAME	public or private	<i>Network name</i> Enter PUBLIC for a public network or PRIVATE for a private branch exchange. For the DMS-300 switch, leave this field blank.
	RXLANAME	alphanumeric (1 to 8 characters)	<i>Reverse translator name</i> Enter the name assigned to the reverse translator associated with the network specified in field NETNAME. For the DMS-300 switch, leave this field blank. Enter NAT2DIAL to indicate that the group uses the automatic reverse translation utility. Use this option for AR-type reverse translations, in which the system converts digits from dialable to national format.

Conditional datafill for feature AG0981

Field	Subfield	Entry	Explanation and action
	NUMDIGS	numeric (1 to 15)	<i>Number of digits</i> Enter the number of digits used for the reverse translation process by applications that are using the reverse translator identified in field RXLANAME. For the DMS-300 switch, leave this field blank. The automatic reverse translation utility does not use this field. The utility assumes a value of 10.
NADDRVX		NADDRVX	<i>Reverse translations</i> Datafill this field to activate Reverse translation enhancements for IBN7.

Customer group does not have feature AG0981

If the customer group does not have feature AG0981 (Network Dial Plan Display), datafill the following fields.

Conditional datafill without feature AG0981 (Sheet 1 of 4)

Field	Subfield	Entry	Explanation and action
OPTIONS		see subfields (up to 13 multiples)	<i>Options</i> This field consists of subfield OPTION and refinements.
	OPTION	BTUP_CBWF, CFWPVT, CLID, COF, COSMAP, DFTVM, DTKDIV, DTKROP, ECM, EI, MBGDENY, NASOPT, NTKKCCBS, NTKKEMW, NTKKRAG, QSIG93, QSIGPR, REDIR, RNID, RLT and TCAPNM	<i>Option</i> This subfield lists options assigned to the customer group. Option BTUP_CBWF assigns the BTUP (UK variant of national user part) Call Back When Free (CBWF) feature to customer groups in the UK market that have the NTKKRAG option datafilled in this table. If option BTUP_CBWF is datafilled, datafill is complete. Office parameter BTUP_NEEDS_STATUS must also be set to ACTIVE. To complete the call, both conditions are required; however, one has no effect on the other. Option CLID assigns the feature BT0072 (Calling Line Identification) to a RES or ISDN customer group.

Conditional datafill without feature AG0981 (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
OPTIONS (continued)	OPTION (continued)		Option COF assigns feature AE0781 (DPNSS Call Offer) as a network feature against a customer group. The originating and terminating lines must be interconnected through a full Digital Private Network Signaling System No. 1 (DPNSS). Option COSMAP assigns Class of Service mapping. Option DFTVM allows incoming ISUP DFT calls to terminate on the UCD or hunt group being datafilled. If this option is selected, incoming DPNSS calls can route to voice mail or a voice mail message desk. Option DTKDIV assigns feature AE0782 (DPNSS Call Diversion). Option DTKROP selects originating or terminating node functionalities, or both, for route optimization (ROP). Option ECM assigns Extended Call Management. Option Executive Intrusion (EI) is for UK switches and assigns the DPNSS EI (Executive Intrusion) feature to a customer group. Note: A line using the Executive Intrusion network feature requires the UK Centrex, Executive Busy Override (EBO) feature (AC0251). EBO is assigned to a line when the option EBO is present in table IBNLINES or KSETLINE.

Conditional datafill without feature AG0981 (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
OPTIONS (continued)	OPTION (continued)		Option MBGDENY allows individual networked features on multi-location business group (MBG) plain ordinary telephone service (POTS) ISDN user part (ISUP) calls denied for a customer group. Enter MGBDENY and datafill refinements CLID and NAME to deny all networked features in the customer group specified. Option NASOPT assigns network attendant service. Option NTKWCCBS provides CCBS (Call Completion to Busy Subscriber) service for the selected customer group. If this option is not datafilled, the customer group will use the default option of PUBLIC_NTKWCCBS. Option NTKWEMW assigns the Network Executive Message Waiting feature. Option NTKWKRAg assigns the Network Ring Again (RAG) feature. Note: Options NTKWKRAg and BTUP_CBWF are related. Option BTUP_CBWF must be present if option NTKWKRAg is present. You can add NTKWKRAg and then BTUP_CBWF, or you can add both at once. Option NTKWKRAg cannot be removed if the BTUP_CBWF option is present.

Conditional datafill without feature AG0981 (Sheet 4 of 4)

Field	Subfield	Entry	Explanation and action
OPTIONS (continued)	OPTION (continued)		Option QSIG93 enables the support of QSIG93 on ETSI ISUP QSIG feature transparency (QFT) trunks. If this option is absent, QSIG95 is supported on ETSI ISUP QFT trunks. Option QSIGPR specifies that the QSIG Path Replacement feature is applicable to the customer group for QSIG or QFT trunks. Option REDIR allows a customer group to use the DPNSS redirection service. Option RNID controls whether the redirecting number is available for all BRI lines in the customer group. Note: changing from pre-NA011 to NA011 or higher adds RNID to table CUSTNTWK. RNID is added to all entries that have option CLID. RNID is set to match what CLID is set to (OFFNET, or ONNET, or INTRAGRP). Option RLT assigns Release Link Trunk service for IBN trunks. Option TCAPNM uses the TCAP CNAMD architecture to deliver centralized calling name information.

OPTION = CLID

If the entry in field OPTION is CLID, datafill refinement CLIDOPT as shown in the following table. Leave one blank space between the data for field OPTIONS and refinement CLIDOPT.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CLIDOPT	INTRAGRP, ONNET or OFFNET	<i>CLID option</i> Enter INTRAGRP to indicate that option CLID is available only to terminating agents in the same customer group as the originating agent. Enter ONNET to indicate that option CLID is enabled on calls originating in the same network as option CLID that is associated with the called party. Enter OFFNET to indicate that option CLID is enabled on all networked calls, regardless of their origin. Tuple KSET_INTER_GRP_DISP of table OFCENG overrides the entry for field LCIDOPT. For displays to work according to datafill in refinement CLIDOPT, tuple KSET_INTER_GRP_DISP of table OFCENG must be set to N.

OPTION = COSMAP

If the entry in field OPTION is COSMAP, datafill refinements COSMIN and COSMOUT as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	COSMIN	alphanumeric (1 to 16 characters)	<i>Class of service mapping in</i> Enter the mapping name from table COSMAP. The mapping name is used with the network class of service (NCOS) found in the parameter NETINFO of the initial address message (IAM) to index into table COSDATA. Field RESULT from table COSDATA determines the internal NCOS.
	COSMOUT	alphanumeric (1 to 16 characters)	<i>Class of service mapping out</i> Enter the mapping name from table COSMAP. The mapping name is used with the internal NCOS to index into table COSDATA. Field RESULT from table COSDATA is taken as the network NCOS and placed in field NCOS of the parameter NETINFO of the IAM.

OPTION = DTKROP

If the entry in field OPTION is DTKROP, enter the refinements ORIGOP, TERMROP and ROP_BILL as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield	Entry	Explanation and action
ORIGOP		ROP_INT, MAX_ATTEMPTS, ROP_ON_CON, ROP_DIGS	<i>Originating node options</i> See subfields.
	ROP_INT	numeric, 60 to 300 (seconds)	<i>ROP interval</i> Enter the required interval between ROP request retries.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield	Entry	Explanation and action
	MAX_ATTEMPTS	numeric, 1 to 7	<i>Maximum ROP attempts</i> Enter the maximum number of times that ROP should be attempted. 0 indicates infinite attempts.
	ROP_ON_CON	ON or OFF	<i>ROP on congestion</i> Enter ON to allow ROP in an alternate route selection. In networks where some routes are not DPNSS/IBN7DFT, the network operator can turn off ROP to avoid wasting resources. In such a network, ROP attempts cannot succeed because the preferred optimized route does not support the DPNSS ROP signaling.
	ROP_IDGS	numeric, 0 to 24	<i>ROP ID digits</i> Enter the format of the ID digits of the DA sent in the ROP request. Enter this format as an n-digit string. This value does not affect SLC digits. Formatting adds n leading zeroes to the ROP ID digit string, so that the length of DA is consistent with the network dial plan. If n is less than the length of the ROP ID dial digits, the DA includes the unformatted ROP ID digits.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield	Entry	Explanation and action
TERMROP			<i>Terminating node ROP</i> Enter TERMROP to activate DPNSS route optimization on a customer group when a terminating node receives a ROP. If TERMROP is not present, such a request is refused.
ROP_BILL	ROP_BILL_CALLCODE	numeric, 800 to 999	<i>ROP billing (AMA record)</i> Enter ROP_BILL together with a callcode to generate an AMA record. The AMA record is used to identify and bill the route optimized portion of a call. (In prompt mode you are prompted for a CALLCODE after entering ROP_BILL.

OPTION = MBGDENY

If the entry in field OPTION is MBGDENY, datafill refinements CLID and NAME as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CLID	CLID	<i>Calling line display</i> Enter CLID to specify that option MBGDENY applies to customer display for agents in the customer group.
	NAME	NAME	<i>Name</i> Enter NAME to specify that option MBGDENY applies to network name display for agents in the customer group.

OPTION = NASOPT

If the entry in field OPTION is NASOPT, datafill refinement NASOPT as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	DNASOPT	ENHDSP, NACO, NACR, NBVL, NDSP, or NRLT	<i>Network attendant services options</i> Enter NACO if network camp-on and network camp-on recall features are allowed. Enter ENHDSP to activate network Attendant Name and Number Display enhancements. Enter NACR if feature AD1521 (network attendant control) and network flash recall features are allowed. Enter NBVL if the Network Busy Verify Line feature is allowed. Enter NDSP if feature BT0072 (Calling Line Identification) and NCOS Display are allowed. Enter NRLT if the network attendant services (NAS) release link trunk (RLT) option is available for a network customer group.

OPTION = NACO

If the entry in field OPTION is NACO, datafill refinements NACO_TIMER and NACO_MUSIC as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	NACO_TIMER	numeric (0 or 12 to 60)	<i>Timer</i> Enter 0 (zero) for network camp-on. Enter a value ranging between 12 and 60 for network camp-on recall. The default value is 20.
	NACO_MUSIC	Y or N	<i>Music</i> Enter Y if music is requested from the terminating DMS switch node. Enter N if silence is requested.

OPTION = NTWKCCBS

If the entry in field OPTION is NTWKCCBS, datafill refinement NTWKCCBS as shown in the following table. The entries apply for the customer group being datafilled.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	NTWKCCBS	NTWKCCBS or blank	<i>Private Call Completion to Busy Subscriber</i> Enter NTWKCCBS to enable private CCBS for the customer group. If private CCBS is not required for this customer group, leave this field blank.

OPTION = NTWKCRAG

If the entry in field OPTION is NTWKCRAG, datafill refinements TIMEOUT, ORIGDUR, ORIGRTY, TERMDUR, TERMGRD,

TERMQAD, and NETOPT as shown in the following table. The entries apply for the customer group being datafilled.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TIMEOUT	10 to 60, or blank	<i>Time-out</i> Enter the time in seconds to apply ringing to alert a line with the NRAG feature that the previously busy line is now idle. If time-out is not required, leave this field blank. If a time-out is entered, the value plus the \$ sign is displayed. For example, to indicate a 35-second time-out, the display is 35 \$. The \$ sign without an accompanying value indicates that no time-out is entered.
	ORIGDUR	numeric (5 to 180)	<i>Originator duration time-out</i> Enter the time in minutes that the Network Ring Again feature request at the originating switch remains active. The default value is 30 minutes.
	ORIGRTY	numeric (2 to 10)	<i>Originator retry time-out</i> Enter the time in seconds that the originator waits after sending a transaction capability application part (TCAP) QUERY message before either sending another or terminating the attempt.
	TERMDUR	numeric (5 to 185)	<i>Terminator duration time-out</i> Enter the time in minutes that the Network Ring Again feature request remains active at the terminating switch. This time-out value must be greater than the value in subfield ORIGDUR. The default value is 31 minutes.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	TERMGRD	numeric (1 to 6)	<i>Terminator guard time-out</i> Enter the time in seconds to wait before ringing is applied to a line to indicate that the previously busy line is now idle.
	TERMQAD	numeric (5 to 40)	<i>Terminator queue advance time-out</i> Enter the time in seconds that the terminating switch waits before sending messages to alert different originators that the line is free.
	NETOPT	INTRAGRP, ONNET, or OFFNET	<i>Network options</i> Enter INTRAGRP to indicate that option NTWKRAAG is available only to those terminating agents in the same customer group as the originating agent. Enter ONNET to indicate that option NTWKRAAG is available only to those terminating agents in the same network as the originating agent. Enter OFFNET to indicate that option NTWKRAAG is available for all terminating agents.

OPTION = QSIGPR

If the entry in field OPTION is QSIGPR, datafill refinements RN, TON, NPI, and PRI_BILL as shown in the following table. The entries apply for the customer group being datafilled.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	RN	any decimal number up to 20 digits in length	<i>Rerouting number</i> This is the RN (Rerouting Number) used by the Path Replacement feature to set up the optimized connection.
	TON	any TON of type QSIG_TON_TYPE	<i>TON for the rerouting number</i> This specifies the TON (Type of Number) for the Rerouting Number.
	NPI	any NPI of type QSIG_NPI_TYPE	<i>NPI for the Rerouting Number</i> This specifies the NPI (Numbering Plan Indicator) for the Rerouting Number.
	PR_BILL	BILL_ON or BILL_OFF	<i>PR Billing procedures</i> This specifies whether PR billing procedures should be applied to the calls that are route optimized.

OPTION = REDIR

If the entry in field OPTION is REDIR, datafill refinement REDIRTMR as shown in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	REDIRTMR	numeric (12 to 600)	<i>Redirection timer</i> Enter the time-out value, in seconds, before the call is redirected to the operator. The default value is 330 seconds.

OPTION = RNID

If the entry in field OPTION is RNID, datafill refinement RNIDOPT as shown in the following table. Leave one blank space between the data for field OPTIONS and refinement RNIDOPT.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	RNIDOPT	INTRAGRP, ONNET, or OFFNET	<i>RNID option</i> Enter INTRAGRP to indicate that option RNID is available only to terminating agents in the same customer group as the originating agent. Enter ONNET to indicate that option RNID is enabled on calls originating in the same network as option RNID that is associated with the called party. Enter OFFNET to indicate that option RNID is enabled on all networked calls, regardless of their origin. Note: Office parameter KSET_INTER_GRP_DISP of table OFCENG overrides the value of field RNIDOPT. For displays to work according to datafill in subfield RNIDOPT, set KSET_INTER_GRP_DISP to N. When you set KSET_INTER_GRP_DISP to Y, all redirecting numbers are available to the terminator.

OPTION = TCAPNM

If the entry in field OPTION is TCAPNM, datafill as shown in the following table. Use refinement LOCAL to enable a local name search

before a TCAP query is launched. Enter NONLOCAL to disable the local lookup feature,.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	TCAPNM	LOCAL or NONLOCAL	<i>TCAPNM</i> Enter LOCAL to activate the TCAPNM Local Lookup feature and search the local DMS name database for the calling name. Enter NONLOCAL to disable the local lookup feature and perform only TCAP queries. The default value is NONLOCAL.

OPTION = COF, DTKDIV, DTKNS, ECM, EI, NTWKEMW, RLT, BTUP_CBWF, DFTVM or ROP

Leave all refinements blank.

Table history

SN07

CR Q00963119

Table CUSTNTWK was added in response to this CR.

CUSTPROT

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Customer Protection

Table Customer Protection (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

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

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.

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.

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

The following table lists the datafill for table CUSTPROT.

Field, subfield, and refinement descriptions for table CUSTPROT (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
TABNAME		alphanumeric (a maximum of 16 characters)	Table name. Enter the table name.
READPROT		0 to 30	Read protection. Enter the privilege class that can read this table.
UPDTPROT		0 to 30	Update protection. Enter the privilege class that can read the table and update tuples. This class cannot add or delete tuples from the table.

Field, subfield, and refinement descriptions for table CUSTPROT (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
ALLPROT		0 to 30	All protection. Enter the privilege class that can read, update, add, or delete tuples from the table.
VALACC		ALL, OFF, or WRITE	Correct access. 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	Denied access. 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.

Table history**SN07**

Table CUSTPROT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 3 of 12*, 297-8021-351.09.03.

DIRPPOOL

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Device Independent Recording Package Pool

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".

The recommended datafill for table DIRPPPOOL appears in the following table.

Table DIRPPPOOL 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	\$	\$	\$	\$	\$	\$
VOLUME17	\$	\$	\$	\$	\$	\$
VOLUME18	\$	\$	\$	\$	\$	\$

Table DIRPPPOOL recommended datafill (Sheet 2 of 2)

Field name	Recommended datafill					
VOLUME19	\$	\$	\$	\$	\$	\$
VOLUME20	\$	\$	\$	\$	\$	\$
VOLUME21	\$	\$	\$	\$	\$	\$
VOLUME22	\$	\$	\$	\$	\$	\$
VOLUME23	\$	\$	\$	\$	\$	\$
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 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 DIRPPOOL 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	\$

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 1: * is the next available pool number. Note 2: <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. Note 3: <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.

Datafill sequence and meaning

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

- 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

The following table lists the datafill for table DIRPPPOOL.

Field, subfield, and refinement descriptions for table DIRPPPOOL (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
POOLNO		numeric, 0 to 63	Pool number. 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, maximum of eight characters	Pool name. 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 DIRPPPOOL.
POOLTYPE		PARALLEL or REGULAR	Pool type. 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.

Field, subfield, and refinement descriptions for table DIRPPPOOL (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DEVTYPE		DISK DPP TAPE or TAPEX	Device type. 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 DIRPPPOOL. 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, maximum of eight characters or \$	Volume 0 through volume 23. 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 1: All volumes assigned in a specified pool must be of the same device type.

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 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.

Table history

SN07

Table DIRPPOOL migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

DIRPPOOL2

Device Independent Recording Package Pool Table 2

Table Device Independent Recording Package Pool (DIRPPOOL2) links three DIRP pools in table DIRPPOOL for a subsystem listed in table DIRPSSYS. The three pools provide 72 volumes of storage capacity per subsystem.

Table DIRPPOOL2 is created for the purpose of providing information needed to consolidate linked pools when moving to a load that now has 72 volumes per pool in table DIRPPOOL. This table is created at IPL and its data is transferred during DART (if applicable). Linked pools would be provided by feature bridge SBB28 functionality.

The table data is used during POSTSWACT to consolidate volumes in DIRPPOOL. At the end of POSTSWACT, table DIRPPOOL2 is rendered inert on the switch.

Basic table functionality is provided during the duration of the ONP, but no data verification is done. Valid data is assumed from the old load (pre-SNNCSH07).

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- DIRPPOOL
- DIRPSSYS
- DIRPPOOL2

Table size

0 to 24 tuples. No data is left in the table after POSTSWACT

Memory is allocated only during ONP and this memory is freed immediately after ONP completes.

Datafill

The following table lists the datafill for table DIRPPOOL2.

Field, subfield, and refinement descriptions for table DIRPPOOL2

Field	Subfield or refinement	Entry	Explanation and action
SSYSNAME		nssnamesr	DIRP subsystem name
POOLNAM1		poolnamesr	DIRP pool name
POOLNAM2		poolnamesr	DIRP pool name
POOLNAM3		poolnamesr	DIRP pool name

Table history

SN07

Table DIRPPOOL2 was added in SN07 by feature A00003905.

DIRPSSYS

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Device Independent Recording Package Subsystem Table

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 DIRPPPOOL 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). 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

Recommended datafill for table DIRPSSYS (Sheet 2 of 2)

Field name	Recommended datafill		
SHEDBASE	0	0	0
SHEDINCR	NOROTATE	NOROTATE	NOROTATE
ROTACLOS	NONE	NONE	NONE
AUTOXFER	NONE	NONE	NONE
SPACROTE	N	N	N
the MAXDFSIZ	64	64	64
the PRIORTIO	Y	Y	Y

Datafill sequence and meaning

You must enter data in table DIRPPPOOL 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

The following table lists the datafill for table DIRPSSYS.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 1 of 18)

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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 2 of 18)

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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 3 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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 DIRPPool. This is necessary this field is the index to DIRPPool. Subsystems cannot share pools. Only one subsystem can use a pool name.
FILENAME		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

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 4 of 18)

Field	Subfield or refinement	Entry	Explanation and action
FILENAME (continued)			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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 5 of 18)

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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 6 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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.
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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 7 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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 DIRPPOOL. 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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 8 of 18)

Field	Subfield or refinement	Entry	Explanation and action
PARLPOOL (continued)			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.
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 condition 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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 9 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 10 of 18)

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: YNYYNNN)

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 11 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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.			

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 12 of 18)

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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 13 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 14 of 18)

Field	Subfield or refinement	Entry	Explanation and action
AUTOXFER (continued)			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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 15 of 18)

Field	Subfield or refinement	Entry	Explanation and action
AUTOXFER (continued)			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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 16 of 18)

Field	Subfield or refinement	Entry	Explanation and action
AUTOXFER (continued)			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

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 17 of 18)

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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 18 of 18)

Field	Subfield or refinement	Entry	Explanation and action
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.

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.

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

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 1: 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 2: 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 3: The recommended field PRIORTIO value for the AMA subsystem is Y.

Note 4: When the entry of data for the system is complete, change field PARCONC from N to Y.

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	Dtafill
SSYSNAME	DLOG
READRITE	N
NUMFILES	1
MINFILES	1

DLOG datafill (Sheet 2 of 2)

Field name	Dtafill
POOLNAME	LOGSPOOL (corresponds to entry in table DIRPOOL)
FILENAME	\$
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 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	\$

ICAMA datafill (Sheet 2 of 2)

Field name	Datafill
ALARM0	CR
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

Table history**SN07**

Table DIRPSSYS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

DNINV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Directory Number Inventory

Table Directory Number Inventory (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
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)

DNINV features (Sheet 2 of 2)

DN selector	Use
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 meaning

There is no requirement to datafill other tables before table DNINV.

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.

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.

Table history

SN07

Table DNINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

DNMAP

Table DNMAP

This table is used by CLASS features when multiple Network Appearance entries are present on the switch.

When routing outgoing TCAP traffic, XA Core provisioned with multiple point codes can make some INTRA-LATA calls appear as INTER-LATA calls. These calls can be incorrectly discarded at the STP due to gateway screening rules.

Table DNMAP and Table DCPMAP are used to ensure that initial and subsequent TCAP CLASS query messages are sent using an Origination Point Code (OPC) that will keep the message from being sent INTER-LATA.

For initial CLASS queries, Global Title Translation is performed at the adjacent STPs on the Dialed Digits in the message. For each outgoing CLASS query that is routed on Global Title, a lookup is done in Table DNMAP, which contains a list of NPA/NXX and OPC pairs. If the digits in the message match one of the tuples in the DNMAP table, the TCAP query will use the OPC provisioned against that tuple.

For subsequent CLASS queries, Global Title Translation is not performed at the Adjacent STPs on the Dialed Digits in the message. For each outgoing CLASS query that is not routed on Global Title, a lookup is done in Table DPCMAP, which contains a list of Destination Point Code (DPC) and OPC pairs. If the DPC in the message matches one of the tuples in the DNMAP table, the TCAP query will use the OPC provisioned against that tuple.

For more information, refer to the section on DPCMAP on page xxx

Datafill sequence and meaning

There is no specific datafill sequence required for table DNMAP.

Table size

0 to 4000 tuples.

Datafill

The following table lists the datafill for table DNMAP.

Field, subfield, and refinement descriptions for table DNMAP

Field	Subfield or refinement	Entry	Explanation and action
DN		NPA/NXX	<i>Directory number</i> Enter the 6-digit code.
OPC		Network	<i>Origination point code</i> 1 Byte (0-255)
OPC		Cluster	1 Byte (0-255)
OPC		Member	1 Byte (0-255)

Table history

SN07

Table DNMAP was added in SN07 by feature A00004978.

DNROUTE

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Directory Number Route

Table Directory Number Route (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 (Sheet 1 of 2)

DN selector	Use
D	Treatment
DSVC	Default Service
M	Listed Directory Number
MM	Meet-Me Conference
RSDT	Restricted Dial Tone
MM	MEET-ME conference (datafill table MMCONF)
SYN	Synonym Directory Number
T	Route List
FEAT	Automatic Call Distribution (ACD)

DNROUTE features (Sheet 2 of 2)

DN selector	Use
FEAT	Advanced Intelligent Network (AIN)
FEAT	Automatic Set Relocation (ASR)
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 3: 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 meaning

The following tables must be datafilled before table DNROUTE.

- TOFCNAME
- ACDSGRP
- AVRTDATA

- BCDEF
- BROADCAST
- CLLI
- COSMAP
- 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.

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 the datafill for table DNROUTE.

Field, subfield, and refinement descriptions for table DNROUTE (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
AREACODE		0 to 9999999 (1 to 7 digits)	Area code. 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.
FEATURE		FTRDN_CODE	Feature. Enter the FTRDN_CODE value of VOWDN
CUSTGRP		CUSTOMER_GROUP	Customer Group. If VOWDN is present as the value of FEATURE, then the new field CUSTGRP of type CUSTOMER_GROUP represents the customer group associated with the tuple.
OFCCODE		0 to 9999999 (0 to 7 digits)	Office code digit register. 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.

Field, subfield, and refinement descriptions for table DNROUTE (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
STNCODE		0 to 99999999 (up to 8 digits)	Station code. Enter the signal distribution point number within the SD group. 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 TMTCNTL. 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)	Translation plan index. Enter the index into the XLAPLAN table.

Field, subfield, and refinement descriptions for table DNROUTE (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
RATEAREA		alphanumeric (up to 16 characters)	Area code. Enter the index into the RATEAREA table.

Additional information

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.

Error 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**SN07**

Table DNROUTE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

This table was changed as per feature AX1236.

DPCMAP

Table DPCMAP

This table is used by CLASS features when multiple Network Appearance entries are present on the switch.

When routing outgoing TCAP traffic, XA Core provisioned with multiple point codes can make some INTRA-LATA calls appear as INTER-LATA calls. These calls can be incorrectly discarded at the STP due to gateway screening rules.

Table DPCMAP is used with Table DNMAP to ensure that initial and subsequent TCAP CLASS query messages are sent using an Origination Point Code (OPC) that will keep the message from being sent INTER-LATA.

For initial CLASS queries, Global Title Translation is performed at the adjacent STPs on the Dialed Digits in the message. For each outgoing CLASS query that is routed on Global Title, a lookup is done in Table DNMAP, which contains a list of NPA/NXX and OPC pairs. If the digits in the message match one of the tuples in the DNMAP table, the TCAP query will use the OPC provisioned against that tuple.

For subsequent CLASS queries, Global Title Translation is not performed at the Adjacent STPs on the Dialed Digits in the message. For each outgoing CLASS query that is not routed on Global Title, a lookup is done in Table DPCMAP, which contains a list of Destination Point Code (DPC) and OPC pairs. If the DPC in the message matches one of the tuples in the DNMAP table, the TCAP query will use the OPC provisioned against that tuple.

For more information, refer to the section on DNMAP on page xxx

Datafill sequence and meaning

There is no specific datafill sequence required for table DPCMAP.

Table size

0 to 4000 tuples.

Datafill

The following table lists the datafill for table DPCMAP.

Field, subfield, and refinement descriptions for table DPCMAP

Field	Subfield or refinement	Entry	Explanation and action
DPC		Network	<i>Destination point code</i> 1 Byte (0-255)
DPC		Cluster	1 Byte (0-255)
DPC		Member	1 Byte (0-255)
OPC		Network	<i>Origination point code</i> 1 Byte (0-255)
OPC		Network	1 Byte (0-255)
OPC		Cluster	1 Byte (0-255)

Table history

SN07

Table DPCMAP was added in SN07 by feature A00004978.

E911ALI

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Direct Access to ALI Controller

Table E911ALI contains one entry for each public safety answering point (PSAP) in the tandem that requires the automatic location identification (ALI) interface. The key to this table is the PSAP name (field PSAPNAME), as defined in table E911PSAP.

This table implements an interface between a DMS-100 switch that serves as an E911 tandem with external 911 equipment, and a previous connection to an automatic number identification (ANI) concentrator. This interface is asynchronous, with ASCII data links located between the multiprotocol controller (MPC) card on the DMS switch and ALI data links connected to an ALI controller. This interface was originally designed specifically for the AT&T ALI controller, which is typically connected to the AT&T Data Management System. The "E911 Direct Access to ALI Database" and "E911 Wireless Interface" features have expanded the interface to support other ALI controllers.

Datafill sequence and meaning

The following tables must be datafilled after table E911ALI:

- E911PSAP
- MPCLSET

Table size

0 to 700 tuples

The number of entries in table E911ALI is equal to the number of PSAPs that require ALI service.

Datafill

The following table lists the datafill for table E911ALI.

Field, subfield, and refinement descriptions for table E911ALI (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PSAPNAME		see subfield	<i>Public safety answering point name key</i> This field consists of subfield PSAPNAME. This is the key to the table.
	PSAPNAME	alphanumeric (1 to 16 characters)	<i>Public safety answering point name</i> Enter the public safety answering point (PSAP) name. This entry must correspond to an entry in table E911PSAP.
PSAPNUM		0 to 999	<i>Public safety answering point number</i> Enter the number of the PSAP receiving automatic location identification (ALI) service. Individual positions are numbered within the PSAP. This value must be consistent with datafill in the ALI system computer, and with the values entered when assigning the ALI option to individual lines.

Field, subfield, and refinement descriptions for table E911ALI (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
IFTYPE		ATT911AS OPN911AS ENH911AS WLS911	<i>Interface type</i> Enter the type of interface to the ALI system computer. This value must correspond to the multiprotocol controller (MPC) application name entered in table MPCFASTA.
LSETIDX		0 to 15	<i>Link set index</i> This number corresponds to the number of the MPC linkset defined in table MPCLSET for use by the data links serving this PSAP. Each unique index specifies a unique instance of an ALI interface between the AT&T database and the ALI controller.

Additional information

This section provides information concerning the dump and restore procedure that applies to table E911ALI.

Dump and restore

No dump and restore is required.

Table history**SN07**

Table E911ALI migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

E911ESN

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Emergency Service Number

All E911 tables (except E911SRDB which is optional) are required for Enhanced 911 (E911) Emergency Service.

E911 trunks can be dedicated for incoming 911 calls (datafilled in table TRKGRP with trunk group type E911). E911 type trunks support both multifrequency (MF) and dial pulse (DP) signaling formats in accordance with the following conditions:

- E911 trunks can be specified as either MF or DP in table TRKSGRP, field IPULSTYP.
- MF and DP signaling formats are valid only for CALLED digit collection. Automatic number identification (ANI) digits are always collected as MF signals.
- If direct seizure is desired, MF signaling can recognize a direct seize several seconds earlier than DP signaling. Since there is no functional difference, MF direct seizure is recommended.

Any outgoing (wink-start) trunk from the end office that is capable of spilling ANI and conforms to feature group C signaling can interface with an incoming E911 trunk at the E911 Tandem.

Table E911ESN associates an emergency service number (ESN) with a flash control field, a primary public safety answering point (PSAP) name, and up to six secondary PSAP names. Secondary PSAPs are used in call transfers made by a primary PSAP attendant.

This table stores all the PSAPs (maximum of seven) for each of the ESNs. The information for each ESN also contains a flash field.

The order of the secondary PSAPs at all E911 offices need not be the same. However, within each office, all the PSAPs in a table column must correspond to the same type of agency (for example, fire department). It is the responsibility of the operating company to confer with the PSAP agencies and reach a common agreement as to the location of the types of agencies in this table. Values of fields

PRIMPSAP, PSAP1..PSAP6 are names of PSAPs already datafilled in table E911PSAP and are intended to indicate the type of service provided, for example, RALEIGHFIRE. All secondary PSAPs providing a particular service, for example a fire department, must be datafilled as the same field, PSAP1. If a particular emergency service zone does not offer a particular emergency service, that field must be datafilled as NONE. Selective transfer codes *11 through *16 dialed by the PSAP operator correspond to PSAP1 through PSAP6.

A PSAP name can be datafilled in this table only if it already exists in table E911PSAP. Of the seven PSAPs, PRIMPSAP is always the primary PSAP. For example, Police might be the primary PSAP and the other six are secondary PSAPs (Fire, Ambulance, Poison Control, Rescue, and so on).

If for any reason a particular emergency service other than the primary PSAP is not being provided by the ESZ, then the value NONE must be entered as the PSAP name for that field. The value NONE can be entered as a default PSAP name for any secondary PSAP, but not for a primary PSAP.

Regenerated ANI format

The E911 feature requires ANI information from an end office. The E911 tandem uses ANI information to facilitate selective routing which is regenerated to the PSAP. The sequence for transmitting ANI information is as follows:

- The end office transmits ANI information to the E911 tandem.
- The E911 tandem regenerates ANI data and output pulses the data, along with information digits to the PSAP. The E911 tandem transmits the data by standard multifrequency (MF) pulses.

ANI information is output pulsed to the PSAP in the form of Key Pulse (KP) + information digit + NXX-XXXX + start (ST), where NXX-XXXX is the ANI directory number (DN) of the calling station.

E911 offers single-digit and three-digit information digit formats for transmitting ANI data, as well as substitute ANI codes that can be used in the event of ANI failure or in cases where an end office is not equipped for ANI operation. The choice of ANI format is left to the operating company and is determined on a per-office basis.

Single-digit information digit

In the single-digit information digit format, the single digit is encoded so that it represents both the calling party's NPD and a flash control signal. The E911 tandem output pulses the ANI information to the PSAP in the

form of standard MF pulses. These pulses are sent in the following order:

- KP digit
- encoded single-digit information digit representing the calling party's NPD and a flash control signal
- ANI DN (normally the billing DN of the originating station)
- ST signal

A single information digit is encoded according to a combination of the following values:

- The value of the flash control field setting: 0 for no flash, 1 for flash. This flash control value is assigned for each ESN and is operative only on ANI consoles equipped with flash display.
- The value of the NPD that represents the calling party's numbering plan area (NPA): 0, 1, 2, or 3. Because there are four NPDs to represent NPAs, four NPAs are supported with the single-digit information digit format.

The value of the flash control field combined with the value of the NPD constitute the encoded information digit. For example, an E911 tandem serves four NPAs, the PSAPs are equipped with flashing ANI display units, and the telephone operating company has assigned one PSAP as the primary PSAP for all foreign exchange (FX) lines terminated outside the E911 service area. FX lines are used in this example because additional call handling by the PSAP attendant may be required.

If the flash control field for the FX caller's ESN is datafilled as ON (1), the information digit shown in the ANI format causes a flashing display of the calling party's DN, complete with an encoded digit representing the caller's NPA.

The following table gives the determination of the single-digit information digit.

Single-digit information digit determination (Sheet 1 of 2)

NPA	NPD	Flash control	Information digit
919	0	0	0
518	1	0	1
201	2	0	2

Single-digit information digit determination (Sheet 2 of 2)

NPA	NPD	Flash control	Information digit
312	3	0	3
919	0	1	4
518	1	1	5
201	2	1	6
312	3	1	7
			8 (test call)
			9 (not used)

The information digit is used at the PSAP in the following manner:

- 0 0 plus ANI DN displayed steady
- 1 1 plus ANI DN displayed steady
- 2 2 plus ANI DN displayed steady
- 3 3 plus ANI DN displayed steady
- 0 4 plus ANI DN displayed flashing
- 1 5 plus ANI DN displayed flashing
- 2 6 plus ANI DN displayed flashing
- 3 7 plus ANI DN displayed flashing
- 8 8 for maintenance test call

The following conditions apply to the use of the single-digit information digit:

- An E911 tandem must serve an area with four or fewer NPAs.
- The PSAPs connected to the E911 tandem must be equipped with appropriate ANI consoles to display flash.

Information digit format (NPA)

Feature AN0930 enhances the E911 tandem by allowing the support of up to 16 NPAs.

For the NPA, the three digits are not encoded and no flash signal is provided. Instead, the three digits correlate directly to the calling party NPA.

The format for sending ANI data is the same for three-digit and one-digit information digits: ANI information outpulsed to the PSAP in the form KP + information digit (NPA) + NXX-XXXX + ST, where NXX-XXXX is the ANI DN of the calling station. With the three-digit format, however, the information digits are normally the calling station's NPA. Because the three digits bear a one-to-one correlation to the calling party's NPA, no encoding is required and no flash is provided. The pulses are sent in the following order:

- KP digit
- information digit representing the calling party's NPA
- ANI DN (normally the billing DN of the originating station)
- ST signal

Substitute ANI formats

An end office can still be part of the E911 system, even if it is not equipped for ANI operation or cannot outpulse the digits 911. In this case, an emergency call is recognized by being routed over a dedicated E911 trunk group.

If a 911 call without ANI information is received or if ANI failure has occurred, the E911 tandem generates a substitute ANI DN code. This substitute code can take one of the following two forms:

- Substitute NPD-911-0TTT format (ANI failure)- This format is sent in the case of ANI failure (ANIF). The code TTT indicates the office from which the telephone call originates.
- Substitute 0-911-0000 format (Anonymous Call)- This format is sent when an anonymous call is made to a PSAP. An anonymous call is a seven-digit call (non-911) to the directory number of PSAP. However, this substitute code is unnecessary if subscribers are denied directory number access to PSAPs. PSAP attendants and toll operators may be granted directory number access to PSAPs.

When incoming calls to the E911 tandem are in either the Bellcore standard ANI format or the North Electric AMR 4/5 format, the tandem deletes the existing information digits and replaces them with an encoded information digit NPD.

Selective transfer

Selective transfer is initiated when the PSAP operator uses the speed calling code format *11 to *16 to designate call transfer to PSAP1 through PSAP6 from Table E911ESN. Similar emergency services should be datafilled vertically in table E911ESN. Every ESN designated PSAP1 would, for example, be for a fire DN datafilled in table E911PSAP.

Speed calling code *10 designates a selective transfer to the primary PSAP when dialed from any secondary PSAP. Speed call code *10 can also be used to transfer the call from a member of the primary PSAP to other members of the primary PSAP or overflow routing for the primary PSAP.

Datafill sequence and meaning

Table E911PSAP must be datafilled before table E911ESN.

Table size

100 tuples

The size of this table is 1000 entries since an E911 office serves a maximum of 1000 ESZs.

Datafill

The following table lists the datafill for table E911ESN.

Field, subfield, and refinement descriptions for table E911ESN (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ESN		0 to 15999	<i>Emergency service number</i> Enter a number up to five digits representing an emergency service zone (ESZ).
FLASH		Y or N	<i>Flash</i> Enter Y (yes) to alert the public safety answering point (PSAP) attendant that the calling party using this emergency service number (ESN) needs special attention or the call is incoming on a message or FX trunk. Otherwise, enter N (no).

Field, subfield, and refinement descriptions for table E911ESN (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
PRIMPSAP		alphanumeric (1 to 16 characters)	<i>Primary public safety answering point</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided. NONE is not a valid entry.
PSAP1		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 1</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
Note: All secondary PSAPs providing a particular service must be datafilled as the same field, for example, fire as PSAP1. If a particular emergency service zone does not offer a particular emergency service, that field must be datafilled as NONE.			
PSAP2		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 2</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP3		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 3</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.

Field, subfield, and refinement descriptions for table E911ESN (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
PSAP4		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 4</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP5		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 5</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP6		alphanumeric (1 to 16 characters)	<i>Secondary public safety answering point 6</i> Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
Note: All secondary PSAPs providing a particular service must be datafilled as the same field, for example, fire as PSAP1. If a particular emergency service zone does not offer a particular emergency service, that field must be datafilled as NONE.			

Table history**SN07**

Table E911ESN migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

E911NPD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Numbering Plan Digit

Table E911NPD associates an NPD with the serving numbering plan area (SNPA) of the E911 tandem previously datafilled in table HNPACONT.

An SNPA cannot be datafilled against two NPDs. That is, no two tuples in table E911NPD can have the same SNPA.

The NPD is used for single information digit automatic number identification (ANI) format if ANI is forwarded to the public safety answering point (PSAP).

Note: Table E911NPD is not used if there are no PSAPs served by the E911 tandem that use single information digit ANI format. This format applies when office parameter E911_PSAPS_USING_1_INFO_DIGIT has value N.

For related information, refer to E911 Emergency Service Number (ESN) Table E911ESN.

Regenerated ANI format

The E911 feature requires ANI information from an end office. The E911 tandem uses ANI information to facilitate selective routing which is regenerated to the PSAP. The sequence for transmitting ANI information is as follows:

- The end office transmits ANI information to the E911 tandem.
- The E911 tandem regenerates ANI data and output pulses the data, along with information digits to the PSAP. The E911 tandem transmits the data by standard multifrequency (MF) pulses.

ANI information is output to the PSAP in the form of Key Pulse (KP) + information digit + NXX-XXXX + start (ST), where NXX-XXXX is the ANI directory number (DN) of the calling station.

E911 offers single-digit and three-digit information digit formats for transmitting ANI data, as well as substitute ANI codes that can be used

in the event of ANI failure or in cases where an end office is not equipped for ANI operation. The choice of ANI format is left to the operating company and is determined on a per-office basis.

Single-digit information digit

In the single-digit information digit format, the single digit is encoded so that it represents both the calling party's NPD and a flash control signal. The E911 tandem outpulses the ANI information to the PSAP in the form of standard MF pulses. These pulses are sent in the following order:

- KP digit
- encoded single-digit information digit representing the calling party's NPD and a flash control signal
- ANI DN (normally the billing DN of the originating station)
- ST signal

A single information digit is encoded according to a combination of the following values:

- The value of the flash control field setting: 0 for no flash, 1 for flash. This flash control value is assigned for each ESN and is operative only on ANI consoles equipped with flash display.
- The value of the NPD that represents the calling party's numbering plan area (NPA): 0, 1, 2, or 3. Because there are four NPDs to represent NPAs, four NPAs are supported with the single-digit information digit format.

The value of the flash control field combined with the value of the NPD constitute the encoded information digit. For example, an E911 tandem serves four NPAs, the PSAPs are equipped with flashing ANI display units, and the telephone operating company has assigned one PSAP as the primary PSAP for all foreign exchange (FX) lines terminated outside the E911 service area. FX lines are used in this example because additional call handling by the PSAP attendant may be required.

If the flash control field for the FX caller's ESN is datafilled as ON (1), the information digit shown in the ANI format causes a flashing display of the calling party's DN, complete with an encoded digit representing the caller's NPA.

The following table gives the determination of the single-digit information digit.

Single-digit information digit determination

NPA	NPD	Flash control	Information digit
919	0	0	0
518	1	0	1
201	2	0	2
312	3	0	3
919	0	1	4
518	1	1	5
201	2	1	6
312	3	1	7
			8 (test call)
			9 (not used)

The information digit is used at the PSAP in the following manner:

- 0 0 plus ANI DN displayed steady
- 1 1 plus ANI DN displayed steady
- 2 2 plus ANI DN displayed steady
- 3 3 plus ANI DN displayed steady
- 0 4 plus ANI DN displayed flashing
- 1 5 plus ANI DN displayed flashing
- 2 6 plus ANI DN displayed flashing
- 3 7 plus ANI DN displayed flashing
- 8 8 for maintenance test call

The following conditions apply to the use of the single-digit information digit:

- An E911 tandem must serve an area with four or fewer NPAs.
- The PSAPs connected to the E911 tandem must be equipped with appropriate ANI consoles to display flash.

Three-digit information digit

For the three-digit information digit format, the digits are not encoded and no flash signal is provided. Instead, the three digits correlate directly to the calling party NPA.

The format for sending ANI data is the same for three-digit and one-digit information digits: ANI information outpulsed to the PSAP in the form KP + information digit + NXX-XXXX + ST, where NXX-XXXX is the ANI DN of the calling station. With the three-digit format, however, the information digits are normally the calling station's NPA. Because the three digits bear a one-to-one correlation to the calling party's NPA, no encoding is required, and no flash is provided.

Substitute ANI formats

An end office can still be part of the E911 system, even if it is not equipped for ANI operation or cannot outpulse the digits 911. In this case, an emergency call is recognized by being routed over a dedicated E911 trunk group.

If a 911 call without ANI information is received or if ANI failure has occurred, the E911 tandem generates a substitute ANI DN code. This substitute code can take one of the following two forms:

- Substitute NPD-911-0TTT format (ANI failure)- This format is sent in the case of ANI failure (ANIF). The code TTT indicates the office from which the telephone call originates.
- Substitute 0-911-0000 format (Anonymous Call)- This format is sent when an anonymous call is made to a PSAP. An anonymous call is a seven-digit call (non-911) to the directory number of PSAP. However, this substitute code is unnecessary if subscribers are denied directory number access to PSAPs. PSAP attendants and toll operators may be granted directory number access to PSAPs.

When incoming calls to the E911 tandem are in either the Bellcore standard ANI format or the North Electric AMR 4/5 format, the tandem deletes the existing information digits and replaces them with an encoded information digit (NPD).

Datafill sequence and meaning

Table HNPACONT must be datafilled before table E911NPD.

Note: Table E911NPD must be datafilled before the SNPA can be used in the E911 trunk group data in table TRKGRP. The SNPA used must already exist in table HNPACONT.

Table size

0 to 4 tuples

Datafill

The following table lists the datafill for table E911NPD.

Field, subfield, and refinement descriptions for table E911NPD

Field	Subfield or refinement	Entry	Explanation and action
NPD		0 to 3 (1 digits)	<i>Numbering plan digit</i> Enter a digit representing single information digit automatic number identification (ANI).
SNPA		0 to 9 (1 to 7 digits)	<i>Serving numbering plan area</i> Enter the serving numbering plan area (SNPA), already datafilled in table HNPACONT, of the E911 trunk group incoming from the end office to the E911 office assigned to that numbering plan digit (NPD).

Table history

SN07

Table E911NPD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

E911PSAP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Public Safety Answering Point

Table E911PSAP associates a public safety answering point (PSAP) name with a local directory number (DN) or an emergency directory number route (EDNR). EDNRs are used for call transfers or routes to emergency agencies that are not E911 line or line appearance on a digital trunk (LDT) PSAPs, or are not served directly by the E911 tandem switch.

In order to selectively route or transfer an E911 call to an EDNR, the agency name and number to be dialed for the agency must be datafilled in table E911PSAP. The PSAP name assigned to the EDNR must then be datafilled in table E911ESN. An EDNR can be datafilled as a primary or secondary PSAP.

Entries in table E911PSAP are datafilled automatically by table HUNTGRP when either the LDTPSAP or LINEPSAP option is assigned to a hunt group through the Service Order (SERVORD) system to create a PSAP.

The field EDNR (Y or N) appears in table E911PSAP to distinguish EDNR entries that are datafilled directly in table E911PSAP from PSAPDN entries that are datafilled automatically through SERVORD. EDNR tuples are entered using the table editor.

This table contains a default tuple, NONE \$, that is always present and is used in table E911ESN if no secondary PSAP exists. The \$ (dollar sign) entry indicates that there is no DN associated with this PSAP.

An entry in this table can be deleted only if the name of the PSAP to be deleted is not referenced by table E911ESN.

For related information, refer to table E911ESN in the data schema section of this document.

Emergency directory number routes

Every PSAP, primary or secondary, that terminates on an E911 tandem must be datafilled in table E911PSAP. An entry in this table must

contain the exact digits necessary for a PSAP to "dial" to transfer a caller to the proper destination. This is especially important for E911 tandems that serve more than one numbering plan area (NPA). It may be necessary for a PSAP in one NPA to transfer a caller to a PSAP in another NPA.

An EDNR must be added to table E911PSAP to handle the above situation. PSAP DNs can be stored as seven or ten digits. The tuple required for this may include a digit string such as 1 + 7-digit DN or 1 + 10-digit DN of the destination PSAP. A similar situation may occur if PSAPs are datafilled as part of an IBN group that requires an access code (that is, a "9") to be dialed before transferring a call outside the IBN group.

Note: When one of these options (LINEPSAP, LDTPSAP, ACDPSAP, or PRIPsAP) is assigned or modified, a prompt for a 'Y' (yes) or 'N' (no) to a field named NATLXLA appears. When the value of NATLXLA is 'Y', PSAPDN in this table is ten-digit. When the value is 'N', PSAPDN in this table is seven-digit. If your office does not support the appropriate seven- or ten-digit translations, the change of value of NATLXLA field when modifying an existing PSAP can cause problems in completing 911 calls to that PSAP.

An EDNR can be any valid DN within a DMS switch. For example, it could be a 1FR, a MADN, or an ISDN line. An EDNR can also be a special translations DN that points to some type of office route or trunk group.

Table DNROUTE is used in conjunction with EDNRs when it is necessary to use a PSAP to route an E911 call out of the office (tandem-to-tandem routing). A DN may be datafilled in this table that points to a tuple in a routing table that will take the 911 call out of the office to either another E911 tandem or an agency that resides outside of the first E911 tandem.

Datafill sequence and meaning

The following tables must be datafilled before table E911PSAP:

- HUNTGRP
- DNROUTE

Table E911ESN must be datafilled after table E911PSAP.

Table size

0 to 7 000 tuples

There can be a maximum of seven PSAPs serving an emergency service zone (ESZ). An E911 tandem can serve a maximum of 15 999 ESZs.

Datafill

The following table lists the datafill for table E911PSAP.

Field, subfield, and refinement descriptions for table E911PSAP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PSAPNAME		alphanumeric (1 to 16 characters)	<i>Public safety answering point name</i> Enter the name of the public safety answering point (PSAP) offering services.

Field, subfield, and refinement descriptions for table E911PSAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PSAPDN		numeric (18 digits)	<i>Public safety answering point directory number</i> Enter the directory number (DN) of a line PSAP, line appearance on a digital trunk (LDT) PSAP, or emergency directory number route (EDNR). The default is \$. When one of these options (LINEPSAP, LDTPSAP, ACDPSAP, PRIPSA) is assigned or modified, a prompt for a 'Y' (yes) or 'N' (no) to a field named NATLXLA appears. When the value of NATLXLA is 'Y', this field is 10-digit. When the value is 'N', this field is 7-digit.
EDNR		Y	<i>Emergency directory number route</i> Enter Y (yes) if an EDNR is used. If table E911PSAP is datafilled through table HUNTGRP, this field automatically is set to N. If set to N, tuples cannot be changed or deleted.

Table history**SN07**

Table E911PSAP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

E911RCER

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Remote Call Event Record Table

Table E911RCER associates a public safety answering point (PSAP) with a multiprotocol controller (MPC) linkset (datafilled in table MPCLSET) over which remote call event records (RCER) are transmitted. The format of the log is specified either as BRIEF or LONG. If a PSAP is not datafilled here, then no RCERs are transmitted for that PSAP. The RCERs have no correlation to the log system, which generates E911 212 logs for Automatic Call Distribution (ACD) and line PSAPs, except that they look similar and contain the same data. This data includes the call events and times involved in an E911 call such as time answered, transferred, and disconnected.

Datafill sequence and meaning

The following tables must be datafilled before table E911RCER:

- MPC (must be datafilled with valid MPCNOs)
- MPCLINK (must be datafilled with valid MPCLINKs)
- MPCFASTA (must be datafilled with valid RCERAPPL)
- MPCLSET (must be datafilled with valid MPCLSETS)
- E911PSAP (must contain a valid PSAPNAME)

Table size

0 to 700 tuples

The number of entries in table E911RCER is equal to the number of different PSAPs that require remote call event records.

Datafill

The following table lists the datafill for table E911RCER.

Field, subfield, and refinement descriptions for table E911RCER

Field	Subfield or refinement	Entry	Explanation and action
PSAPNAME		alphanumeric (up to 16 characters)	Public safety answering point name Enter the PSAP name. This field is the key to the table and corresponds to an entry in table E911PSAP.
FORMAT		BRIEF or LONG	FormatEnter BRIEF if the RCER is to contain only the data. Enter LONG if the RCER is to contain a header, the data, and a blank line.
APPLID		911RCER1 911RCER2 911RCER3 911RCER4 911RCER5 911RCER6	Application identificationEnter the appropriate linkset identification to which field LINKSET applies.
LINKSET		0-15	Multiprotocol controller linkset numberEnter linkset number (defined in table MPCLSET) of the MPC over which the RCERs are transmitted.

Table history

SN07

Table E911RCER migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

E911SRDB

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced 911 Selective Routing Database Table

Table E911SRDB is an optional table and provides the database for enhanced 911 (E911) service to associate the Emergency Service Number (ESN) to a directory number (DN) served by the E911 tandem.

This database allows E911 to selectively route 911 calls to the primary public service access point (PSAP) serving a subscribers ESN. This provides the calling party in an E911 call with emergency services from the location serving them.

An ESN cannot be datafilled in table E911SRDB unless it is already defined in table E911ESN. Table E911ESN associates the names of primary and secondary PSAPs to the ESN they serve.

For related information, refer to table E911ESN.

Datafill sequence and meaning

Table E911ESN must be datafilled before table E911SRDB.

Table size

0 to 32 million tuples

Table E911SRDB has a maximum of 32 million tuples. The maximum number of DNs that the table will represent is dependent on how the table is datafilled.

Table E911SRDB stores a small number of tuples inefficiently, but becomes more efficient for a large number of tuples, depending on the distribution of DNs. Space for four number plan areas (NPA) is pre-allocated at 78 words of store. Space for two office exchanges (NXX) is allocated at 1150 words each. Space for each thousand group (THGP) is allocated at 29 words each and space for each DN level is allocated at 879 words each.

The maximum data store requirement for a selective routing database (SRDB) for four NPAs is:

NPA

(78)= 78

NXX

(4X2X1150)= 9 207

THGP

(4x2x400x29)= 92 807

XXX

(4x2x400x10x879)= 28 128 000

Total:

(32 000 000 tuples) 28 230 092 words

Datafill

The following table lists the datafill for table E911SRDB.

Field, subfield, and refinement descriptions for table E911SRDB (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
E911		see subfields	<i>E911 directory number</i>
			This field describes a range of DNs in four significant parts: NPA, NXX, THGP, and XXX.
	NPA	000 to 999	<i>Number plan area</i> Represents the DNs in a specific NPA.
	NXX	200 to 999	<i>Office code</i> Represents the NXXs.
	THGP	0 to 9	<i>Thousands group</i> Represents a range of DNs.

Field, subfield, and refinement descriptions for table E911SRDB (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	XXX	000 to 999	<i>3 digit combination</i> Represents a single DN.
ESN		000 to 15,999	<i>Emergency service number</i> This field is the ESN assigned to the DN or group of DNs represented by the E911DN field. This number describes the set of PSAPs serving the calling party. The 911 call will be routed to the primary PSAP within this ESN.

Table history**SN07**

Table E911SRDB migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

EMMCDATA

Enhanced Meet-Me Conference Data

Table Enhanced Meet-Me Conference Data (EMMCDATA) is used for provisioning the following information for the Enhanced Meet-Me Conference feature:

- conference bridge directory number (DN)
- conference reservation type
 - Timeless, Scheduled or Periodic
- conference date, start time, elapsed time
 - this information cannot be provisioned if the conference type is Timeless
- maximum number of ports available
- invited participant password
- chairperson password
- quick-start option
 - allows the conference to start even if the chairperson is not present
- ID of the greeting to conference participants
 - operators can datafill a default greeting for each conference
 - if the customer's software and hardware resources are sufficient, operators can datafill a specific conference greeting for the customer
- audio group number for playing music
- timing of the alarm tone indicating the conference time has almost expired
 - number of minutes between the alarm tone and the end of the conference
 - this feature is disabled if the conference type is Timeless
- allow_to_continue option
 - allows the conference to continue after the chairperson drops off
- billing option
 - generates a specific billing record for the conference

Datafill sequence and meaning

There is no specific datafill sequence required for table EMMCDATA.

Table size

0 to 8192 tuples.

Datafill

The following table lists the datafill for table EMMCDATA.

Field, subfield, and refinement descriptions for table EMMCDATA (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
LKEY		see subfields	EMMC table key. This field consists of subfields SNPA, OFCCODE and STNCODE.
	SNPA	serving_numbering_plan_area	Serving numbering plan area. Enter the area code of a DN.
	OFCCODE	ofccode_digit_register	Office code. Enter the office code of a DN.
	STNCODE	stncode_digit_register	Station code. Enter the station code of a DN.
RESERVE		see subfields	This field consists of subfield RESERVED and refinements STARTDAT, STARTTIM, ELAPSED.
	RESERVED	SCHEDULE or TIMELESS	Enter the reservation type for the conference: TIMELESS or SCHEDULE.

Field, subfield, and refinement descriptions for table EMMCDATA (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	SCHEDULE See refinements STARTDAT, STARTTIM, ELAPSED	DAILY, WEEKLY, MONTHLY, or NONPERIOD	This field indicates the type of scheduled conference being reserved. To reserve a conference during a specific time each day, enter DAILY. To reserve a conference during a specific time on the same day of each week, enter WEEKLY. To reserve a conference during a specific time on the same day of each month, enter MONTHLY. To reserve a conference that will only be held once, enter NONPERIOD.
	STARTDAT	yyyymmdd	Conference start date. Enter the start date of this conference (year, month and day).
	STARTTIM	hhmm	Conference start time. Enter the start time of this conference (hours and minutes).
	ELAPSED	1 to 9999	Conference elapsed time. Enter the predefined elapsed time of this conference (in minutes).
SIZE		numeric, 3 to 30	Conference size. Specify the maximum allowed conferees in this conference.

Field, subfield, and refinement descriptions for table EMMCDATA (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CHAIPSWD		6-digit code	Chairperson's password. Enter the 6-digit password.
PARTPSWD		6-digit code	Invited participant's password. Enter the 6-digit password. This password cannot be the same as the chairperson's password.
QUICKST		boolean, Y or N	Quick start option. If the conference can start without the chair-person, enter Y. All participants who enter before the chair-person will be placed on hold. If the conference cannot start without the chairperson, enter N.
GREETING		alphanumeric, maximum of 16 characters	Enter the CLLI name of the announcement defined as the greeting of this conference.
AUDIOGRP		audio group	Audio group name. Enter the audio group name of the music which will be played while an invited participant is on hold.
ENDALARM		numeric range, 1 to 10	Number of minutes before the end of the conference to sound the alarm tone.

Field, subfield, and refinement descriptions for table EMMCDATA (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CONTINUE		boolean, Y or N	Continue option. Enter Y if the conference can continue after the chair-person leaves. If the conference should end when the chair-person leaves, enter N.
BILLING		boolean, Y or N	Billing option. To generate a conference-specific AMA log, enter Y. Enter N if no specific AMA log is required.

Table history**SN07**

Table EMMCDATA was added in SN07 by feature A00002901.

ENCDINV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced Network Card Inventory

Table Enhanced Network Card Inventory (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 accommodate 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.

Datafill

The following table lists the datafill for table ENCDINV.

Field, subfield, and refinement descriptions for table ENCDINV (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ENCDKEY		see subfields	Enhanced network card key. This field contains subfields PLANE, SHELF and SLOT. These fields are the keys to the table.
	PLANE	0 or 1	Enhanced network plane. 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	ENET shelf. 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.

Field, subfield, and refinement descriptions for table ENCDINV (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	SLOT	1 to 36	Slot. Enter the slot number.
CPTYPE		CROSSPOIT PROCESSOR CLOCK_ MESSAGE POS_PWR_C ONVERTER NEG_PWR_C ONVERTER or NIL_CP	Circuit pack (card) type. 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	Circuit pack (card) product engineering code. 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	Circuit pack (card) design change document number. Enter a number between 0 and 99 to represent the circuit card DCD number.

Field, subfield, and refinement descriptions for table ENCDINV (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
PBTYPE		DS_512 - INTERFACE DS_30_INTER FACE DS_30_DS_51 2_INTERFACE REMOTE_TER MINAL MESSAGE_LI NK or NIL_PB	Paddleboard type. 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.
PBPEC		NT9X40BA NT9X40BB NT9X40DA NT9X41BA NT9X41BB NT9X45BA NT9X26AA NT9X26AB or NIL_PEC	Paddleboard product engineering code. 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.
PBD CD		0 to 99	Paddleboard design change document. Enter a number between 0 and 99 to represent the paddleboard design change document number.

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 the table, below.

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.	

Table history

SN07

Table ENCDINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

ENINV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Enhanced Network Node Inventory

Table Enhanced Network Node Inventory (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.

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

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.

Datafill

The following table lists the datafill for table ENINV.

Field, subfield, and refinement descriptions for table ENINV (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
ENKEY		see subfield	Enhanced network shelf number. This field contains subfield SHELF.
	SHELF	0 to 3	Shelf. 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	Enhanced network class. 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	Frame type. Enter the frame type that contains the ENET. The correct entries are ENC, DPCC, NWDC, NWSC and SCC.
FRNO		0 to 511	Frame number. Enter the frame number.
FRPEC		NT9X05AB, NT9X0101, NT9X01MB or NT9X05AA	Frame product engineering code. Enter the frame product engineering code (PEC). The correct entries are NT9X05AA, NT9X05BA, NT9X0101 and NT9X01MB.
SHPEC		NT9X0801, NT9X0810	Shelf product engineering code. Enter the PEC for the shelf. The correct entries are NT9X0801 and NT9X0810.

Field, subfield, and refinement descriptions for table ENINV (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
MSCARD0		1 to 26	Message switch card number. Enter the message switch card number for plane 0.
MSLINK0		0 to 3	Message switch interface paddleboard link number 0. 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.
MSPORT0		0 to 127	Message switch port number. 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	Frame floor. Enter the floor location of the frame.
ROW0		A to Z, AA to ZZ (does not include I, O, II and OO)	Frame row. 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	Frame position. Enter the frame position for plane 0.

Field, subfield, and refinement descriptions for table ENINV (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
SHELF0		0, 00, 13, 26 or 39	Shelf position. Enter the shelf position for plane 0. The correct entries are 0, 00, 13, 26 or 39.
LOAD0		alphanumeric (one to eight characters)	Load file name. 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	Message switch card number. Enter the MS card number for plane 1.
MSLINK1		0 to 3	Message switch interface paddleboard link number 1. 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.
MSPORT1		0 to 127	Message switch port number. 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	Frame floor. Enter the floor number of the frame.

Field, subfield, and refinement descriptions for table ENINV (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
ROW1		A to Z, AA to ZZ (does not include I, O, II and OO)	Frame row. 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	Frame position. Enter the frame position for plane 1.
SHELF1		0, 00, 13, 26, or 39	Shelf position. Enter the shelf position for plane 1. The correct entries are 0, 00, 13, 26 or 39.
LOAD1		alphanumeric (one to eight characters)	Load name. Enter the loadfile name for plane 1. This name must appear in table PMLOADS and must be 1 to 8 characters.

Table history**SN07**

Table ENINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FACODE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Foreign Area Code

Table Foreign Area Code (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 tables ACCODE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Refer to table ACCODE for more information.

Datafill

Refer to table ACCODE for more information.

Table size

Refer to table ACCODE for more information.

Table history

SN07

Table FACODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FAHEAD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Foreign Area Code Head

Table Foreign Area Code Head (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 meaning

Refer to table ACHEAD for more information.

Datafill

Refer to table ACHEAD for more information.

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.

Table history

SN07

Table FAHEAD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FLXCMAP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Flexible ISDN User Part Cause to Treatment Mapping (ISUP CAUSEMAP)

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.

Datafill

The following table lists the datafill for table FLXCMAP.

Field, subfield, and refinement descriptions for Table FLXCMAP

Field	Subfield or refinement	Entry	Explanation and action
CSEMAPKEY		numeric and N	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.

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.

Table history

SN07

Table FLXCMAP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FTCODE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Utility Code

Table Utility Code (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 tables ACCODE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Table FTHEAD must be datafilled before tables FTCODE and FTRTE.

Datafill

Refer to table ACCODE for more information.

Table size

Refer to table ACCODE for more information.

Table history

SN07

Table FTCODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FTHEAD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Utility Code Head

Table Utility Code Head (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 meaning

Refer to table ACHEAD for more information.

Datafill

Refer to table ACHEAD for more information.

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.

Table history

SN07

Table FTHEAD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.09.03.

FWINV

Firmware Inventory

Table Firmware Inventory (FWINV) is intended to maintain the FW baseline for a Product Engineering Code (PEC), and allows from 0 up to 4 exception versions.

Table FWINV data is accessed by:

- MAPCI;MTC;XAC;QUERY SHELF/CARD
- periodic internal queries
- SREx
- Card/Packlet RTS
- ONP prechecks prior to ONP

Datafill sequence and meaning

There is no specific datafill sequence required for table FWINV.

Table size

0 to 64 tuples.

Datafill

The following table lists the datafill for table FWINV.

Field, subfield, and refinement descriptions for table FWINV (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PEC		alphanumeric 8 characters	Product engineering code. Entry must begin with NTLX
FWBASE		See subfields.	Firmware base.
	FWTYPE	FW or DLL	Firmware type. FW for ROM baseline. DLL for DLL baseline.

Field, subfield, and refinement descriptions for table FWINV (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	VERSION	8 characters	Version. Enter ASCII A-Z, 0-9, beginning with: PE: XAPE IOP: XAIO HIOP: XHIO CMIC: PKdd, d=0-9 AMDl: PKdd, d=0-9 ETHR: EPdd, d=0-9 NO FW for: SM, DISK, TAPE, RTIF
	EXCEPTIONS	8 characters	Exceptions. Same restrictions as above. Enter the FW/DLL version which cannot be used and will be alarmed if used.

Table history**SN07**

Table FWINV was added in SN07 by feature A00002433.

HNPACONT

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

List of Home Numbering Plan Area Code Subtables

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.

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.

Table size

0 to 1000 tuples

Datafill

The following table lists the datafill for table HNPACONT.

Field, subfield, and refinement descriptions for table HNPACONT (Sheet 1 of 3)

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.S TSCODE 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 HNP 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

Field, subfield, and refinement descriptions for table HNPACONT (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
			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.
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	

Field, subfield, and refinement descriptions for tableHNPACONT (Sheet 3 of 3)

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	Call Type. This subfield allows for switching of routing call-types on an as-needed basis. • Enter PUBLIC for public routing of calls • Enter PUBLIC for public routing of calls • Enter PRIVATE for private routing of calls
RTELIST	CND:CNDSEL	MIGRATE	If the call is transferred to a route list or element based on the assignment of the MIGRATE line option to the terminating DN, enter MIGRATE.
	NOT:CNDSEL	MIGRATE	If the call is transferred to a route list or element based on the assignment of the MIGRATE line option to the terminating DN, enter MIGRATE.

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 dialled as 1+10D. Calls dialed as 1+10D have a prefix and a full ten digits. The ten digits include the area code.

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
```

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.

Each HNPACODE 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 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

See the description of table OWNER for more information on the Customer Data Change feature tables.

Table history

SN07

Table HNPACONT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

SN06 (DMS)

New conditional routing selector (CND MIGRATE) added to the range of possible values of RTELIST in table HNPACONT:RTEREF. Refer to the description for table HNPACONT:RTEREF, as well as to this section. Activity A00001207.

NA017 (SN04)

The SG selector is extended to include a CALLTYPE field that permits customers the select a PUBLIC or PRIVATE calltype per feature activity 59035336.

HUNTGRP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Hunt Group

Applies to new or modified content for NA015 that is valid through the current release.

Table HUNTGRP contains the data for each hunt group assigned in the switching unit.

If a switching unit has feature BR0750 (Hunt Group Size Expansion), then a distributed line hunt (DLH) group, directory number hunt (DNH) group, or multiline hunt (MLH) group can be assigned up to 1024 members.

For switching units without feature BR0750, a DLH, DNH, or MLH group can be assigned up to 256 members.

The maximum number of members for a bridged night number (BNN) hunt group is 210.

The Terminating Fault Option (TFO) specifies the type of search that is made of a hunt group's members for an incoming call.

If field TFO is set to Y (yes), then an incoming call attempts to terminate to the first member that appears idle, regardless of whether that member has passed line diagnostics. A DLH group must have field TFO is set to Y because DLH overrides the fault flag.

If field TFO is set to N (no), then an incoming call searches the hunt group for an idle line, but skips over any members that have failed line diagnostics. If no idle member is found, then a second search for an idle line is made through the members that have failed line diagnostics. Members that have failed line diagnostics are put last in the search order for an idle line. Incoming calls have a better chance of completing if field TFO is set to N.

The following information is applicable to switching units with software package NTX806AA (Enhanced Call Forwarding ó POTS) and plain ordinary telephone service (POTS) hunt groups. Software package

NTX806AA is required for the feature Call Forward Group Don't Answer (CFGDA).

Feature CFGDA can be assigned to MLH, DLH, BNN, and DNH groups on a hunt group basis.

Either feature Call Forward Don't Answer (CFDA) or feature CFGDA can be assigned to the pilots of only MLH and DLH groups. Features CFDA and CFGDA are mutually exclusive in function on MLH and DLH groups.

Call Forward Don't Answer can be assigned as CFDA to individual lines within a DNH group, and as CFGDA to the DNH group on a group basis. The line CFDA takes precedence over the group CFGDA, on a directly dialed DN.

The number of lines within a DNH group that can be assigned individual CFDA is restricted by the real-time considerations based on the number of features that can be assigned to a DNH group.

The forward directory number (DN) of a CFGDA group must never be a member of the same hunt group. This looping unnecessarily exhausts the simultaneous call limit and has a cost of real-time efficiency.

Field LINETYPE allows for the distinction between POTS and Meridian* Digital Centrex (MDC) lines. If MDC is selected, then calls can be forwarded within or outside an Integrated Business Network (IBN) hunt group.

Call Forward Group Don't Answer can be assigned so that calls to an idle hunt group station ring for a predetermined amount of time before being forwarded either to the next station in the hunt sequence or to a DN outside the hunt group but inside the customer group. This feature can be assigned only by the operating company; subscribers must contact the operating company to assign or deassign CFDA or to change the forward DN. The DN can be of any size up to 30 digits. No translation verification is performed when CFDA is entered into the database whether through the service order system (SERVORD) or table control, except to ensure that the station does not forward to itself.

The data for the CFDA and CFGDA features is stored in table CFW. Adding the CFGDA feature to table HUNTGRP automatically updates table CFW; similarly, updating table CFW updates table HUNTGRP.

The Terminating Billing Option (TBO) is incompatible with features CFGDA and CFDA.

Feature ISDN Packet single DN (AF6872) allows DLH, DNH, MLH, or PRH hunt groups to be assigned on the voice interface (VI) circuit mode data (CMD) appearance of a shared DN. Only DLH and DNH type hunt groups can be assigned to the packet data mode (PMD) appearance of a DN. A DN can only be datafilled as shared if SOC option NI000051 is on.

The following table control rules for shared ISDN terminals apply to table HUNTGRP:

- Members can be added to hunt groups for circuit switched (CS) and packet switched (PS) NI2 ISDN terminals provisioned on the same DN.
- Two separate hunt groups for CS and PS ISDN terminals can be added on the same DN.
- Attributes of hunt groups with CALLTYPES PMD and VI_CMD on the same DN can be changed.
- Hunt groups provisioned as shared DN can be deleted.

Note: For more information about DN CALLTYPE sharing, see subfield OPTION in table HUNTGRP and feature AF6782 in the *Feature Description Manual*.

If the LOD DN is a 1 + 10 digit inter-LATA call, the Primary Inter-LATA Carrier (PIC) assigned to the phone will not be used for the call. LOD is an overflow feature and does not reference line options for call routing. The Equal Access (EA) option for selector NET GEN in table IBNXLA can be used to specify a PIC in this situation.

The LODDN field in table HUNTGRP allows the capability to store DNs from 1 to 30 digits for the overflow option LOD.

Enhanced 911 emergency services

The following two options support E911:

- line appearance on a digital trunk [LDT] public safety answering point [PSAP] (LDTPSAP)
- line-ended PSAP (LINEPSAP) added through field E911PSAP

If field E911PSAP is set to Y, then two sets of subfields are possible, depending on the option (LDTPSAP or LINEPSAP), and the corresponding subfields are prompted for. If neither option LDTPSAP nor LINEPSAP has been assigned to a hunt group, then field E911PSAP for that hunt group entry has a default value of N.

Option LDTPSAP can be added to an MLH group only with line class code (LCC) IBN. Option LINEPSAP can be added to an MLH, DLH, or DNH group with LCC IBN.

Note: When adding option LDTPSAP or LINEPSAP, do not manually update table HUNTGRP through the table editor. Table HUNTGRP is automatically updated when either of these options is added to an IBN hunt group, using SERVORD. (For information on the SERVORD, refer to the *SERVORD Reference Manual*.)

The LDTPSAP or LINEPSAP data is added to table HUNTGRP through field E911PSAP. When adding to or changing a hunt group tuple, the field name is E911PSAP. When positioning or listing on a hunt group tuple, the field name is LDTLNOPT.

Table HUNTGRP has a new field named NATLXLA. Entry to this field is prompted when assigning or modifying options LINEPSAP and LDTPSAP. If the entry to this field is "Y" (yes), call translations to the PSAP are based on 10 digits (with NPA) and the PSAPDN field in table E911PSAP is datafilled with 10 digits. If the entry is "N" (no), call translations to the PSAP are based on 7 digits (without NPA) and the PSAPDN field in table E911PSAP is datafilled with 7 digits. This affects 911 call routing.

**CAUTION****Change to the NATLXLA field entry for an existing PSAP**

If your office does not support the appropriate seven- or ten-digit call translations, changing the NATLXLA field entry for an existing PSAP can cause problems in completing 911 calls to that PSAP.

Release NA012 adds fields SNGLSANI and WANITYPE to table HUNTGRP. The SNGLSANI prompt occurs when the LDTPSAP option ENHDISP is equal to Y. Field SNGLSANI defines the ANI spill as either single or double. The WANITYPE prompt occurs when SNGLSANI is equal to Y or when ENHDISP is equal to N and NUMIDIGS is equal to one or three. Subfield WANITYPE defines the source for the ANI spill. The WANITYPE field also exists as a subfield to ENHDISP when ENHDISP is equal to N. The following represent the wireless ANI types:

- callback (mobile directory number)
- location (pseudo ANI)
- generated (a value generated for the WLS911 ALI protocol)

Release NA016 adds field OVFLFLSH to table HUNTGRP. The OVFLFLSH prompt occurs when LDTPSAP option ANISPILL is equal to Y. Field OVFLFLSH enhances the current FLASHING ANI feature, activated in table E911ESN, to include calls that get overflowed from one PSAP to another when all members are busy. If the OVFLFLSH option is activated for the terminating PSAP and Call Processing recognizes the call as being overflowed, then the flash bit is set.

Assignable hunt group types

The following types of hunt groups can be assigned in the switching unit.

- Directory number hunting (DNH)
- Multiline hunting (MLH)
- Multiple position hunting (MPH)
- Distributed line hunting (DLH)
- Bridged night number (BNN)

Directory number hunting

Each line in the hunt group has a unique DN. The hunt group can be accessed by dialing the main number (called the pilot DN) or by dialing the DN of one of the hunt group members. Hunting starts at the number dialed. The number of lines hunted to find an idle line is dependent on the hunting option assigned to the DNH group.

If option CIR (circular hunting) is assigned to the group, then all lines in the hunt group are hunted, regardless of the start point. If CIR is not assigned, then the default is sequential hunting (sometimes called linear hunting). Sequential hunting starts at the number dialed and ends at the last number in the hunt group. Therefore, if the pilot DN is not dialed, not all lines are hunted.

For optimum performance, no more than 70 lines within a given group should have any combination of features CFDA, CFW/CFX, MSB, RMB, SHU, DTM, or CDIV (Call Diversion), regardless of whether they are activated or not.

CDIV features can only be provided in a switching unit (international) with universal translations.

The above option limitations are not enforced by table control.

Multiline hunting

Only a pilot DN is associated with the hunt group. To access the group, the pilot must be dialed. Hunting starts with the pilot and ends at the last line, in a sequential fashion.

For optimum performance, no more than 140 lines within a given group should have any combination of features MSB, RMB, SHU, DTM, or CDIV.

CDIV features can only be provided in a switching unit (international) with universal translations.

The above option limitations are not enforced by table control.

Multiple position hunting

MPH with queue allows the distribution of calls evenly across multiple non-data-link attendant consoles. Calls are presented to the consoles in the order they arrive at the DMS-100* Family switch. Calls that cannot be presented to any console are enqueued in the DMS-100F switch until a console is available to serve that call.

A call is directed to a multiple hunting arrangement by associating a DN with each call type in the console group. A maximum of 32 call types are supported. To establish a multiple position arrangement, primary tables requiring datafill include SCGRP, SDGRP, MPHGRP, MPHCON, HUNTGRP, and HUNTMEM.

Night Service is activated by the operation of a service control point (SCP) from the master console in a console group. If Night Service is activated, arriving calls are redirected to a predefined DN. The Night Service DNs are assigned separately for each call type.

Many hunt group options are either not assigned to MPH groups, or have no effect on MPH hunting patterns. These options are CIR, TFO, LOR, LOD, CFGD, OFR, OFS, and TRMBOPT.

Options that are incompatible with MPH groups are ACD, AUL, BC, CFB, CFD, CFGD, CIR, CWI, CWX, DNH, DSCWID, DTM, LOD, LOR, MDN, OFR, OFS, RAG, RMB, SCMP, SCWID, SETMODEL, SHU, SLQ, SMDICND, SOR, SORC, TFO, TRMBOPT, and UCD.

To forward all calls directed to an MPH group (not all calls to a console group), Call Forwarding can be assigned to the pilot of that hunt group. Activation of Call Forwarding by the pilot redirects all calls destined for the hunt group to the forwarded-to number.

Other restrictions that apply are as follows:

- A maximum of 16 consoles are allowed in an MPH group.
- A maximum of 32 lines are allowed on a non-data-link console.
- A maximum of 32 calls can be enqueued for an MPH group.

Call request retrieval (CRR) calls can be made to consoles but queuing of this type of call is not supported.

Distributed line hunting

Only a pilot DN is associated with the hunt group. To access the group, the pilot must be dialed. Hunting always starts on the subsequent line in the group.

If the line where hunting starts is not idle due to an origination, the next line is checked. This continues until the hunting start point is reached. At this point, busy tone is returned unless options line overflow to DN (LOD) or line overflow to route (LOR) are assigned to the hunt group.

DLH is assigned to large hunt groups that require equal distribution of calls.

For optimum performance, no more than 170 lines within a given group should have any combination of features MSB, RMB, DTM, or CDI, regardless of whether they are activated or not.

CDIV features can only be provided in a switching unit (international) with universal translations.

The above option limitations are not enforced by table control.

Bridged night number

This type of hunt group has several BNNs that can be formed into a BNN hunt group. Hunting is sequential unless option CIR is assigned to the hunt group.

The following options can be assigned to DNH, MLH, and DLH groups:

- Line overflow to a route (LOR). If all the lines in a hunt group are busy, option LOR causes hunting to continue to a specified route index.
- Line overflow to a DN (LOD). If all the lines in a hunt group are busy, option LOD causes hunting to continue to a specified DN. This DN can be part of a hunt group.

If the hunt group belongs to an IBN customer group, the pilot DN and the hunt group members must belong to the same customer group. The LOD number can be outside the customer group.

If the hunt group has option LOD, the following applies for a Ring Again (RAG) request.

If a party calls the hunt group only to find it busy as well as the overflow DN busy, then the RAG request is activated against the LOD line and not against the hunt group. RAG Recall is activated against the REQUESTOR only if the LOD line becomes idle.

If any member of the hunt group becomes idle, the RAG Recall is not activated against the REQUESTOR. When the REQUESTOR answers the RAG Recall, the LOD DN is rung back.

**CAUTION****Possible hunting loop may occur**

Do not use the LOD option to overflow from one hunt group to a second group that overflows back to the first group, or any other configuration that results in a "hunting loop."

The operation of the LOD option for translation and billing is as follows:

- The pilot of the hunt group is considered to be the originator of this second leg.
- Pretranslation and screening is obtained from the line attribute information of the pilot DN.
- If the LOD and LOR options are not assigned and the hunt group is busy or unavailable for any reason, the caller hears a busy tone.
- A hardware or software register can be assigned to the hunt group so that the register is incremented every time a call cannot find an idle line in the hunt group.
- The signal distributor (SD) points required for the operation of the hardware register are assigned in table SDGRP.
- The operating company uses the SERVORD to add and delete hunt groups and to change data to a hunt group.
- The test line and final line data is loaded into the switch from tape using the table editor, all other changes, additions and deletions must be entered by means of SERVORD.

For assignment of members to a hunt group, see table HUNTMEM.

Note: In NA012, feature 59006893, Provisioning for Enhanced Multi-NPA, allows hunt group member DNs to have NPAs different from those of the pilot DNs. When the NPA of a new pilot is different from that of the old pilot, the NPA in the NPA field in table HUNTGRP changes to that of the new pilot.

Datafill sequence and meaning

The following tables must be datafilled before table HUNTGRP:

- TOFCNAME
- SNPANAME
- SCRNCCLASS
- OFRT
- IBNTRE

To create a hunt group using table control, add hunt group datafill in the following order:

- first, table HUNTGRP
- table LENLINES or IBNLINES or KSETLINE
- last, table HUNTMEM

To delete hunt group datafill, remove data in the reverse order.

Deletion of an MPH, MLH, or DLH hunt group from table HUNTGRP can cause line data corruption. The line data corruption is from partially datafilled hunt members, members that are datafilled in the lines table but not in table HUNTMEM.

To avoid line data corruption, do not delete an MPH, MLH, or DLH hunt group from table HUNTGRP if line data exists for members in tables LENLINES, IBNLINES, or KSETLINE.

Table size

0 to 8192 tuples

Datafill

The following table lists the datafill for table HUNTGRP.

Field, subfield, and refinement descriptions for table HUNTGRP

Field	Subfield or refinement	Entry	Explanation and action
HTGRP		0 to 32 767	Hunt group number. Enter the hunt group number assigned to the hunt group. Any entry outside the range of indicated values for this field is invalid.
SNPA		numeric	Serving numbering plan area. Enter the serving numbering plan area (SNPA) to which the hunt group belongs.
DN		numeric (up to 15 digits)	Directory number. Enter the listed DN of the hunt group.
GRPTYP		see subfield	Group type. This field consists of subfield GRPTYPE and refinements.
	GRPTYPE	BNN, CPU, DLH, DNH, MLH, MPH, PRH, or UA	Hunt group type. Enter the type of hunt group: BNN (bridged night number), CPU (call pickup), DLH (distributed), DNH (directory number), MLH (multiline), MPH (multiple position), PRH (preferential hunt), or UA (universal access). Any entry outside the range indicated for this field is invalid.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill CIR, TFO, TRMBOPT, TRMBILL, LOROPT, LODOPT, CFGADAOPT, OFROPT, OFSOPT, LDTLNOPT, SIZE, and OPTIONS subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield	Entry	Explanation and action
	CIR	Y or N	Circular hunt. If the hunt group type is DNH and it is arranged for circular hunt, enter Y (yes). Otherwise, enter N (no).
	TFO	Y or N	Terminating fault option. If an attempt is made to terminate to the first idle member of a hunt group, regardless of whether or not the member has passed line diagnostics, enter Y. If GRPTYPE is DLH, then TFO must be Y. If an attempt is made to search for an idle member of a hunt group that has passed line diagnostics, before searching for an idle member that has not passed line diagnostics, enter N. Incoming calls have a better chance of completing if TFO is N.
	TRMBOPT	Y or N	Terminating billing option. If the optional terminator software package is provided, and if a record is generated for each call to a member of the hunt group, enter Y. Otherwise, enter N.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield	Entry	Explanation and action
	TABID	AOSS, AOSSAMA, IBNRT2, IBNRT3, IBNRT4, IBNRTE, OFR2, OFR3, OFR4, OFRT, RRTE, TOPS, TOPSAMA, or TTL4	Table name. Enter the routing table that calls are routed to if all lines are busy.
	KEY	0 to 1023 or alphanumeric	Index. Enter the index (route reference number) within the routing table that all calls route to if all lines are busy. If the TABID field is set to AOSS, AOSSAMA, TOPS, or TOPSAMA, then enter the call origination. For further information, refer to the AOSS, AOSSAMA, TOPS, or TOSAMA tables. If the TABID field is set to TTL4, then the range is 0 to 7. For further information, refer to the TTL4 table.
	LODOPT		Line overflow to directory number option. Datafill the subfield LOD.
	LOD	Y or N	Line overflow to directory number. If the hunt group is arranged to overflow to a DN if all lines are busy, enter Y and datafill the following subfields. Otherwise, enter N.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield	Entry	Explanation and action
	LODDN	numeric (up to 30 digits)	Line overflow directory number. Enter the DN to which all overflow calls route. Note: Alphabetic characters are not allowed.
	CFGDAOPT		Call forward group don't answer option. Datafill the CFGDA subfield.
	CFGDA	Y or N	Call forwarding group don't answer. Enter Y if the switching unit has software package NTX806AA (Enhanced Call Forwarding- POTS) and the hunt group has the CFGDA feature and datafill the following subfield. Enter N if the switching unit has software package NTX806AA and the hunt group does not have the CFGDA feature or if software package NTX806AA is not in the load.
	LINETYPE	MDC or POTS	Line type. Enter MDC if CFGDA applies to an MDC hunt group. Enter POTS if CFGDA applies to a POTS hunt group.

LINETYPE = POTS

Datafill the SCRNCCL, NUMCALLS, TIME, and FDN subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	SCRNCCL	alphanumeric (1 to 4 characters)	Class of service screening name. Enter the name assigned in field SCRNCSEL in the CLSVSCRC.CLSVSCR subtable that specifies the screening used if calls are forwarded from a hunt line that does not answer.
	NUMCALLS	1 to 1024	Number of calls. Enter the maximum number of simultaneous calls that can be forwarded through the hunt group.
	TIME	0 to 325	Time. Enter the time in seconds that the base station rings before the call is forwarded.
	FDN	1 to 30 digits	Forwarding directory number. Enter the 1 to 30-digit number to which an unanswered call is routed.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	CFGDA	Y or N	Call forwarding group don't answer. Enter Y if the switching unit has software package NTX806AA (Enhanced Call Forwarding- POTS) and the hunt group has the CFGDA feature and datafill the following subfield. Enter N if the switching unit has software package NTX806AA and the hunt group does not have the CFGDA feature or if software package NTX806AA is not in the load.
	LINETYPE	MDC or POTS	Line type. Enter MDC if CFGDA applies to an MDC hunt group. Enter POTS if CFGDA applies to a POTS hunt group.

LINETYPE = MDC

Datafill the INTERNAL, SPECTIME, and CFGTYPE subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	INTERNAL	Y or N	
	CFGDN	numeric (up to 30 digits)	Extended digit register. Enter the DN to which the unanswered hunt group station is routed.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	SPECTIME	Y or N	Special Time. If a special time-out value applies, then enter Y and datafill the TIMEOUT subfield. If the time-out value is taken from information in the CUSTSTN table (the OPTION field is set to CFDATIM), enter N.
	TIMEOUT	12 to 325	Time-out. Enter the number of seconds that the base station rings before the call is forwarded.
	CFGTYPE	N, CFGDI, or CFGDE	Call forward group type.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill the OFROPT subfield as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	OFROPT		Overflow options. Datafill the OFR subfield and subfields.
	OFR	Y or N	Overflow. If Y datafill overflow signal distributor point (OFR) otherwise enter N.
	OFRSD	see subfields	Line overflow operates a signal distributor point. This field consists of subfields TMTYPE, TMNO, TMCKTNO, POINT, and NORMALST.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	TMTYPE	MTM, RMM, or RSM	Trunk module type. Enter the trunk module type, MTM (maintenance trunk module), RMM (remote maintenance module), RSM (remote service module), that the signal distributor (SD) card is mounted on.
	TMNO	0 to 2047	Trunk module number. Enter the number assigned to the MTM, RMM, or RSM that the SD card is mounted on.
	TMCKTNO	0 to 29	Trunk module circuit number. Enter the trunk module circuit number on the MTM, RMM, or RSM to which the SD point is assigned.
	POINT	0 to 6	Point. Enter the SD point number within the trunk module circuit number.
	NORMALST	0 or 1	Normal state. Enter the normal state of the SD point. Enter 0 (zero), if the SD point is normally off or open. Enter 1 if the SD point is normally on or closed.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill the OFSOPT subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OSOPT		Overflow software options. Datafill the OFR subfield and subfields.
	OFS	Y or N	Line overflow increments a software register. If the hunt group is arranged to increment a software register every time a call cannot find an idle line in the hunt group, enter Y. Otherwise, enter N.

OFS = Y

Datafill the SWREG subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SWREG	0 to 255	Software register number. If the OFS subfield is set to N, leave this field blank. Enter 0 (zero) to indicate the number to which the software register is initialized. Any entry outside the range of indicated values for this field is invalid.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill the LDTLNOPT subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	LDTLNOPT		Datafill E911PSAP and PSAPTYPE subfields.
	E911PSAP	Y or N	E911PSAP. If option LDTPSAP or LINEPSAP is added to the hunt group, enter Y. Otherwise, enter N. The default value for this field is N.
	PSAPTYPE	LDTPSAP or LINEPSAP	Public safety answering point type. Enter the option that is added to the hunt group.

PSAPTYPE = LDTPSAP

Datafill the ANONCALL, ANISPILL, OVFLFLSH, ENHDISP, NUMIDIGS, NPD_MAPS, NPD, SNPA, PSAPNAME, MNALMPCT, MJALMPCT, CRALMPCT, BSYOTPCT and NATLXLA subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 6)

Field	Subfield	Entry	Explanation and action
	ANONCALL	Y or N	Anonymous call. Enter Y if the PSAP allows calls to terminate to it, other than through E911 translations. Calls are allowed to the PSAP by dialing the seven-digit PSAP DN. Otherwise, enter N to indicate that the PSAP can be reached only by dialing 911.
	ANISPILL	Y or N	Automatic number identification spill. Enter Y if the PSAP receives automatic number identification (ANI) from the E911 tandem. Otherwise, enter N.
	OVFLFLSH	Y or N	Overflow Flash. Enter Y to turn on the ANI flash bit for calls which overflow to the terminating PSAP. Otherwise, enter N. Note: If the ANISPILL option is set to Y, the user receives the prompt for the OVFLFLSH option.

Field descriptions for conditional datafill (Sheet 2 of 6)

Field	Subfield	Entry	Explanation and action
	ENHDISP	Y or N	Enhanced display. Enter Y to turn on the wireless protocol two-line display for PSAPs. Otherwise, enter N. Note: If the ANISPILL option is set to Y, the user receives the prompt for the ENHDISP option. If the ENHDISP option is set to Y, the NUMIDIGS option is turned off.
	NUMIDIGS	1 or 3	Number of ANI information digits. Enter the number of ANI information digits (1 or 3) the PSAP expects with ANI. Note: The system does not prompt for NUMIDIGS if ENHDISP is set to Y.
	SNGLSANI	Y or N	Single stream ANI. Enter Y to send a single ANI spill to an LDTPSAP with ENHDISP. Note: The system prompts for SNGLSANI when ENHDISP is set to Y.

Field descriptions for conditional datafill (Sheet 3 of 6)

Field	Subfield	Entry	Explanation and action
	WANITYPE	CALLBACK LOCATION GENERATED	Wireless ANI type. Enter a value to configure the single stream ANI source. Enter CALLBACK for the mobile directory number. Enter LOCATION for the pseudo ANI. Enter GENERATED to support the WLS911 feature. Note: The WANITYPE prompt occurs when or after the NUMIDIGS prompt when ENHDISP = Y. • SNGLSANI = Y • ENHDISP = N and NUMIDIGS = 1 or 3
	NPD_MAPS	Vector of <NPD, SNPA	Numbering plan digit mapping. Enter up to four mappings for each LDT PSAP. Terminate the entry any time before entering the fourth pair by entering a nil vector (\$). If the user enters the nil vector for the first pair, the LDT PSAP has no individual mappings. In this case, the LDT PSAP uses table E911NPD when an NPD is needed. If no pairs are present, this option is off. Note 1: Do not enter an NPD more than once for a PSAP. Do not map an SNPA to more than one NPD for each PSAP. Note 2: If NUMIDIGS is not set to 1, the system does not prompt for NPD_MAPS.

Field descriptions for conditional datafill (Sheet 4 of 6)

Field	Subfield	Entry	Explanation and action
	NPD	0, 1, 2, 3	Numbering plan digit. Enter the NPDs in any order.
	SNPA	SERVING_ NUMBERING_ PLAN_ AREA	Serving numbering plan area. Assign the SNPAs to any of the first set of NPDs (0 through 3). Note: Invalid NPD or SNPA entries cause errors. Do not map an SNPA to more than one NPD for each PSAP. A PSAP has to have all four NPD mappings defined.
	PSAPNAME	alphanumeric (up to 16 characters)	Public safety answering point name. Enter the name of the PSAP.
	MNALMPCT	0 to 100	Minor alarm percentage. Enter the percentage of LDT PSAP hunt group members required to be busy (in a state other than CPB, IDL, or INB) for the E911_LDTBSY_MINOR alarm to be raised. Note: If this alarm percentage is set to zero, the minor alarm will not be raised on behalf of the PSAP.

Field descriptions for conditional datafill (Sheet 5 of 6)

Field	Subfield	Entry	Explanation and action
	MJALMPCT	0 to 100	Major alarm percentage. Enter the percentage of LDT PSAP hunt group members that must be busy (in a state other than CPB, IDL, or INB) for the E911_LDTBSY_MAJOR alarm to be raised. Note: If this alarm percentage is set to zero, the major alarm will not be raised on behalf of the PSAP.
	CRALMPCT	0 to 100	Critical alarm percentage. Enter the percentage of LDT PSAP hunt group members required to be busy (in a state other than CPB, IDL, or INB) for the E911_LDTBSY_CRITICAL alarm to be raised. Note: If this alarm percentage is set to zero, the critical alarm will not be raised on behalf of the PSAP.

Field descriptions for conditional datafill (Sheet 6 of 6)

Field	Subfield	Entry	Explanation and action
	BSYOTPCT	0 to 100	Busy out percentage. Enter the percentage of hunt group members in an LDT PSAP that can busy out automatically after two consecutive wink failures. Note: Set this percentage for each PSAP on an individual basis.
	NATLXLA	Y or N	If the entry is 'Y', call translations to the PSAP are based on 10 digits (with NPA) and the PSAPDN field in table E911PSAP is datafilled with 10 digits. If the entry is 'N', call translations to the PSAP are based on 7 digits (without NPA) and the PSAPDN field is datafilled with 7 digits.

PSAPTYPE = LINEPSAP

Datafill the ANONCALL, ENHDISP, NPD_MAPS, NPD, SNPA, PSAPNAME and NATLXLA subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	ANONCALL	Y or N	Anonymous call. Enter Y if the PSAP chooses to allow calls to terminate to it, other than through E911 translations. Calls are allowed to the PSAP by dialing the seven-digit PSAP DN. Otherwise, enter N to indicate that the PSAP can only be reached by dialing 911.
	ENHDISP	Y or N	Enhanced display. Enter Y to turn on the wireless protocol two-line display for PSAPs. Otherwise, enter N.
	NPD_MAPS	Vector of <NPD, SNPA>	Numbering plan digit mapping. Enter up to four mappings for each Line PSAP. Terminate the entry any time before entering the fourth pair by entering a nil vector ('\$'). If the user enters the nil vector for the first pair, the Line PSAP has no individual mappings. In this case, the Line PSAP uses table E911NPD when an NPD is needed. If no pairs are present, this option is off. Note: Do not enter an NPD more than once for a PSAP. Do not map an SNPA to more than one NPD for each PSAP.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	NPD	0, 1, 2, 3	Numbering plan digit. Enter the NPDs in any order.
	SNPA	SERVING_ NUMBERING_ PLAN_AREA	Serving numbering plan area. Assign the SNPAs to any of the first set of NPDs (0 through 3). Note: Invalid NPD or SNPA entries cause errors. Do not map an SNPA to more than one NPD for each PSAP. A PSAP does have to have all four NPD mappings defined.
	PSAPNAME	alphanumeric (up to 16 characters)	Public safety answering point name. Enter the name of the PSAP.
	NATLXLA	Y or N	If the entry is 'Y', call translations to the PSAP are based on 10 digits (with NPA) and the PSAPDN field in table E911PSAP is datafilled with 10 digits. If the entry is 'N', call translations to the PSAP are based on 7 digits (without NPA) and the PSAPDN field is datafilled with 7 digits.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill the SIZE subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SIZE	0 to 1024	Size. Enter the expected maximum number of members assigned to the hunt group. If a switching unit has feature Hunt Group Size Expansion for a DNH, DNH, or MLH group, the range is 0 to 1024. For switching units without this feature, the range is 0 to 256. For a BNN hunt group, the range is from 0 to 210.

GRPTYPE = BNN, DLH, DNH, MLH, or PRH

Datafill the OPTION subfield as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	OPTION	BCLID, SMDI, SMDICND, TBO, or CT	Option. Enter BCLID if an incoming call to a DNH or PRH group generates a bulk calling line identification (BCLID) message with a seven-digit DN of the member that was terminated on within field CALLED_DN in the BCLID message. An incoming call to a DLH, MLH, or BNN hunt group with the BCLID option generates a BCLID message with an eight-digit hunt group or hunt member number of the member that was terminated on within field CALLED_DN.
			If no idle members are found in the group, then field CALLED_DN of the BCLID message contains the group and member number of the pilot for DLH and MLH groups. For BNN hunt groups, field CALLED_DN contains the group and member number of the member that was dialed if there are no idle members in the group. In each of the above cases, if there are no idle members in a group, the called line status field of the BCLID message contains B.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
			Enter SMDI if the DMS-100 switch can support various Customer Premise Equipment (CPE), such as Non-Data-Link Consoles (NDLC), Voice Messaging (VMS), and Text Messaging (TMS) systems by providing the user a choice of configuring a simplified message desk interface (SMDI)-based system using hunt groups. Enter SMDICND and datafill the subfields for simplified message desk interface (SMDI)-calling number delivery based system using hunt groups.
			If the operating company generates AMA records for calls terminating to lines, enter TBO. If a call terminates to a line assigned option TBO, an AMA record with a call code between 800 and 999 is generated for each call terminating to that line. The call code is assigned if the TBO option is added to the line. Enter CT to assign two ISDN hunt groups with different call types to the same directory number (DN). If OPTION CT is selected datafill refinement CALLTYPE.

OPTION = BCLID

Datafill the BCGRPNUM subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	BCGRPNUM	0 to 2047	Bulk calling line identification group number. Enter the BCLID number assigned to the particular hunt group.

OPTION = SMDI

Datafill the SMDIDESK and SMDILINK subfields as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SMDIDESK	1 to 63	Simplified message desk interface desk. Enter the message desk number associated with the specified hunt group.
	SMDILINK	alphanumeric	Simplified message desk interface link. Enter the datalink name associated with the message desk.

OPTION = SMDICND

Datafill the CGN_FOR_RES_DIRECT, CGN_FOR_RES_INDIRECT, CGN_FOR_IBN_DIRECT, and CGN_FOR_IBN_INDIRECT subfields as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CGN_FOR_RES_DIRECT	block, deliver, compare_CG	Calling number for RES direct. Specifies delivery of the calling party information given a direct call to SMDI from a RES agent. Enter block, deliver, or compare_CG.
	CGN_FOR_RES_INDIRECT	block, deliver, compare_CG, compare_CG_ALL	Calling number for RES indirect. Specifies delivery of the calling party information given an indirect call to SMDI when the SMDI subscriber (forward-from party) is a RES agent. Enter block, deliver, compare_CG, or compare_CG_ALL.
	CGN_FOR_IBN_DIRECT	block, deliver, compare_CG	Calling number for IBN direct. Specifies delivery of the calling party information given a direct call to SMDI from an IBN agent. Enter block, deliver, or compare_CG.
	CGN_FOR_IBN_INDIRECT	block, deliver, compare_CG, compare_CG_ALL	Calling number for IBN indirect. Specifies delivery of the calling party information given an indirect call to SMDI when the SMDI subscriber (forward-from party) is an IBN agent. Enter block, deliver, compare_CG, or compare_CG_ALL.

OPTION = TBO

Datafill the TBOVARS subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CALLCODE	800 to 999	Call code. Enter the call code for the AMA record.
	SFPRSNT	Y or N	Service feature code presentation. Enter Y if a service code is associated with the feature and is printed on the AMA record. Otherwise, enter N.

SFPRSNT = Y

Datafill the SFVAL subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SFVAL	800 to 999	Service feature value. Enter the code associated with the feature.

OPTION = CT

Datafill the CALLTYPE subfield as follows.

Note: The packet mode data (PMD) call type can only be assigned to hunt group types DLH or DNH. Call type VI_CMD can be assigned to GRPTYPE BNN, DLH, DNH, MLH, or PRH.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CALLTYPE	VI_CMD, or PMD	Call type. Enter the call type for ISDN terminals. Voice interface circuit mode data (VI_CMD) or packet mode data (PMD) to apply to an ISDN DN. Hunt groups of both call types can be applied to the same DN.

GRPTYPE = MPH

Datafill the MPHGRP, CALLTYPE, SIZE, and OPTIONS subfields as follows.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield	Entry	Explanation and action
	MPHGRP	0 to 31	Multiple position hunt console group. Enter the MPH console group the hunt group belongs to.
	CALLTYPE	0 to 31	Call type. Enter the call type that the MPH hunt group handles. The call type is an arbitrary numeric value used to differentiate between, for instance, Listed Directory Number calls, Dial 0 calls, and other call types.
	SIZE	0 to 1024	Size. Enter the number of members in the hunt group. The maximum acceptable value for this field is 512, even though the range of the type indicates a maximum value of 1024.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	OPTIONS	see subfield	Options. This subfield consists of subfield OPTION.
	OPTION	NSDN or SMDI	For night service, enter NSDN. Enter SMDI if the DMS-100 can support various Customer Premise Equipment (CPE), such as Non-Data-Link Consoles (NDLC), Voice Messaging (VMS), and Text Messaging (TMS) systems by providing the user a choice of configuring an SMDI-based system using hunt groups.

OPTION = NSDN

Datafill the NSDN subfield as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	NSDN	numeric (up to 11 digits)	Night service directory number. Enter the 11-digit DN for NSDN.

OPTION = SMDI

Datafill the SMDIDESK and SMDILINK subfields as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SMDIDESK	1 to 63	Simplified message desk interface desk. Enter the message desk number associated with the specified hunt group.
	SMDILINK	SLLN	Simplified message desk interface link. Enter the datalink name associated with the message desk.

Additional information**Error messages**

If an attempt is made to datafill this table using the table editor, the following error message appears:

```
Protected table, use SERVORD to change.
```

This error message was added for the NA005 release in accordance with feature AN1653 (Enforcement of SERVORD).

All additions, deletions and changes must be entered using SERVORD. For additional information, refer to the *SERVORD Reference Manual*.

If a system error occurs from data corruption, while processing table control commands with DN call type (DNCT), the following error message will be issued:

```
ERROR: FAILED TO READ FROM DNCT PROTECTED DATA.
```

The recommended action is to reissue the command.

If the CALLTYPE option of a group being added in table HUNTGRP to a DN, is the same as the existing CALLTYPE, the following table control error will be reported:

```
ERROR: A HUNT GROUP ALREADY PROVISIONED ON THIS DN  
CALLTYPE.
```

Table history**SN07**

Table HUNTGRP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

IBNFEAT feature SimRing

Simultaneous Ringing

The Residential Enhanced Services (RES) Simultaneous Ringing (SimRing) feature introduces the SIMRING line option. The SimRing feature allows simultaneous alerting of a user-defined group of up to five directory numbers (DN). This simultaneous alert occurs when the pilot DN (PDN) of the group receives a call. The first alerted DN that answers the call connects to the calling party. At the same time, the calls to the other alerted DNs are released.

SimRing group members other than the PDN are referred to as non-pilot member DNs (NPMDN). A SimRing group consists of a single PDN and up to four NPMDNs.

A SimRing subscriber can do the following through the SimRing user interface:

- activate or deactivate the SimRing feature on a line
- edit the NPMDN list

The SimRing subscriber can perform these tasks either locally from the PDN or remotely from any other DN. During remote access to the SimRing user interface, the switch prompts the subscriber to enter a personal identification number (PIN) for security reasons.

Datafill sequence and meaning

Refer to table IBNFEAT for more information.

Table size

Refer to table IBNFEAT for more information.

Datafill

The following table lists the datafill for table IBNFEAT feature SimRing.

Field, subfield, and refinement descriptions for table IBNFEAT feature SimRing (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DF		SIMRING	Data feature. Enter SIMRING for the Simultaneous Ringing feature.
FEATURE		SIMRING	Feature. Enter SIMRING for the Simultaneous Ringing feature.
DATA		see subfield	Data. This field consists of subfields GRPKEY, STATE, and PIN.
	GRPKEY	numeric (0 to 9999)	Group key. This subfield specifies the value for the index of the SimRing group. It allows mapping into table PILOTGRP. Note: Table PILOTGRP contains the information that defines all SimRing groups on a switch. This information includes the NPMDNs for each group.
	STATE	ACT or INACT	State. This subfield specifies the state of the SimRing feature (active or inactive). If the SimRing feature is active, the switch alerts the SimRing group when the PDN receives an incoming call.

**Field, subfield, and refinement descriptions for table IBNFEAT feature SimRing
(Sheet 2 of 2)**

Field	Subfield or refinement	Entry	Explanation and action
	PIN	numeric (2 to 10 characters)	Personal identification number. This field specifies the SimRing PIN value. Note: The value of subfield PIN does not display. The value appears as a dollar sign (\$) character.

Table history

IBNLINES

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

IBN Line Assignment

Table IBNLINES contains the line assignments for each 500/2500 set assigned to an Integrated Business Network (IBN), Residential Enhanced Services (RES), and Multiple Appearance Directory Number (MADN) station number. This table also contains the line assignments for the IBN attendant consoles (AC).

This table contains the line assignments for data channel links for the Bulk Calling Line Identification (BCLID) feature under the format name of BL.

The line assignments for stations with 500/2500 sets that are not assigned to an IBN or RES customer group are assigned in table LENLINES. For line assignments for business sets and data units, see table KSETLINE.

Four input data formats are provided for this table:

- The first format supports IBN ACs and has a format name of AC.
- The second format supports the BCLID data channel links and has a format name of BL.
- The third format supports IBN and RES station numbers and has a format name of STN.
- A fourth format supports IBN and RES MADN lines and has a format name of MDN.

Listed directory numbers (DN) for a customer group that do not have line appearances are not assigned in this table. Listed DNs for a customer group are assigned in table WRDN. Table WRDN was replaced by table DNROUTE in BCS33.

If customer data change is permitted on a line, its line equipment number (LEN) also appears in table CDCLENS. If a LEN appears in both table IBNLINES and CDCLENS, the customer group assigned in both tables must be the same. Any attempt to change the customer group in either table is not allowed.

The input is forwarded to Nortel Networks for production of an input data tape.

Test lines and AC line assignments are required for the initial input data tape.

The IBN line assignments are required for the final line data tape.

Option SCWID (Spontaneous Call Waiting Identification) must be entered using SERVORD.

A LEN for an IPE analog line must be datafilled in table LNINV with an analog card code prior to being datafilled in table IBNLINES.

A remote digital terminal (RDT) related tuple can only be added in this table if field CARDCODE in table LNINV is either RDTLS or RDTLSG.

The product of the SHELF and SLOT for an RDT entry cannot exceed 1022.

As of NA007, Software Optionality Control (SOC) MDC00058 specifies the maximum number of IBN lines that can be assigned in this table.

Office parameter MAX_RES_LINES in table OFCOPT specifies the maximum number of RES lines that can be assigned in this table.

Office parameter MAX_BCLID_DATA_LINKS in table OFCOPT specifies the maximum number of BCLID data links that can be assigned in this table.

When a tuple is added to IBNLINES for MADN on a line already assigned Call Screening, Monitoring, and Intercept (CSMI), there is a check performed to see if MDN is being added as the primary member. If the check fails, the following error message is generated:

```
CSMI is present, it is compatible only with primary MDN members.
```

The following error message appears if an attempt is made to datafill this table using the table editor:

```
Protected table, use SERVORD to change.
```

This error message was added for the NA005 release in accordance with feature AN1653 (Enforcement of SERVORD).

MIGRATE is available in OPTLIST and must be assigned in conjunction with the conditional routing selector MIGRATE. For information, refer to the Translations Guide.

All additions, deletions, and changes must be entered using the Service Order System (SERVORD). For information, refer to the *SERVORD Reference Manual*.

Formats

The following are IBNLINES formats:

- FormatAC
- FormatBL
- FormatSTN
- FormatMDN

Datavill sequence and meaning

The following tables must be datavilled before table IBNLINES:

- CUSTENG
- CUSTHEAD
- LNINV
- OPTCTL

Note: When a tuple is added to table IBNLINES for a new hunt group member, add a corresponding tuple to table HUNTMEM.

Table size

The maximum number of IBN lines is 100 000.

Table history

SN07

Table IBNLINES migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Development activity 00001207 introduces changes to the IBNLINES table to support MIGRATE.

SN04 (DMS)

Conversion of RES lines to IBN lines (59037976) performed on the INACTIVE CPU during the One Night Process (ONP). The converted RES line tuples are updated (see IBNLINES option STN).

IBNRTE

IBN Route Table

In BCS31, route indices for Meridian Digital Centrex (MDC) routing were quadrupled by duplicating IBNRTE in three tables: IBNRT2, IBNRT3, and IBNRT4. These tables have fields and functions identical to table IBNRTE.

With this approach, customer data administration is improved by segregating routing schemes to different tables according to their function. For example, private network translations are served by one table, on-net or equal access occupy a second table, and special services such as wide area telephone service (WATS) or data services occupy a third table.

To avoid unnecessary duplication of table descriptions for route tables IBNRT2, IBNRT3, and IBNRT4, a full table description is provided only for table IBNRTE. Refer to table IBNRTE for all IBN route table descriptions.

Table IBNRTE consists of route lists identified by route reference index numbers.

Digit translation from 1 to 18 digits in table IBNXLA results in a route reference index into a pool of route lists. A route list consists of up to eight elements that are linked together, for example element 1 to element 2 to element 3. In most cases, the ultimate termination of a route element is a directory number (DN) that terminates on the switching unit or a trunk group from which an idle outgoing trunk is selected. If the DN is busy or no idle trunk is available, the system advances to the next element in the list. If the end of the list is reached and no idle trunk or idle DN is found, the call originator's controlling software is notified. For example, a line to local outgoing trunk is often given reorder tone.

Note: The DN selector must only be used as the last route list element or as the only route list element.

If expensive route warning tone (ERWT) is applied to one or more route elements, circuits are required in table STN (Special Tone) with the fixed pseudocode ERWT. ERWT applies only to routes terminating on trunks. Although routes terminating on lines can prompt for expensive (EXP) during datafill, ERWT is not given if datafilled.

If off-hook queuing applies to one or more route elements, circuits are required in table STN with a fixed pseudocode OHQT for the off-hook queuing tone.

Partitioned Table Editor feature

In DMS switch offices with the Partitioned Table Editor (PTE), the operating company can authorize a client to use PTE to edit specified tuples of table IBNRTE. Refer to the Basic Translations Tools Guide for more information on the PTE.

To access a tuple in table IBNRTE, the IBN route index (RTE) must be owned by the user.

has access to the tuple that has a RTE (the key) of 4. No other tuple can be viewed by user CARLING unless tuples owned by other users are classified as public in table OWNER.

KEY	OWNER
IBNRTE4	CARLING

Restrictions

The following restrictions apply:

- Operating company clients can only enter T or SK in field RTETYPE when specifying conditional type routes (IBNRTESEL = CND).
- Operating company clients can only enter IBNRTE in field TABNAME when specifying T type routes (IBNRTESEL = T).

Access to this table by operating company clients is only allowed if the table privilege class assigned in table CUSTPROT matches the command class of the user defined by the PERMIT command.

Because addition of new tuples to this table creates new data, table access rights are read-only or change-only for operating company clients.

Refer to table OWNER for more information on the customer data change tables.

Note: It is possible to create an infinite loop through the datafill, which can cause call deaths and traps.

Unlike line translations, circular hunt configurations should not be set up in trunk routing. The following figure shows an example of the type of datafill to be avoided.

Note: The NA010 ISP Even Call Distribution feature allows use of super-group translations for ISDN primary rate interface (PRI) circular hunting. Refer to “ISP Even Call Distribution” in the ISDN translations section of the Translations Guide for more information on this feature.

Example of infinite loop in table IBNRTE

RTE RTELIST

5 (S N N N N IBNTRK1) (T IBNRTE 6) \$

6 (S N N N N IBNTRK2) (T IBNRTE 5) \$

Wideband routing strategy

A wideband routing strategy handles routes selections for glare avoidance and seizure time minimization through table IBNRTE.

Two additional validation checks are imposed on selecting a route choice. Glare occurs when two simultaneous N X 64 call events originated from two end-to-end switch offices happen to choose at least one common DS-0 of a T1 in a wideband trunk group. For the DMS-100 switch, only ISDN PRA, IT-ISUP, and ATC-FGD-ISUP trunks are allowed to route N X 64 calls.

The WBBF data structure of a trunk group is searched only if the trunk group contains at least one T1 with enough idle DS-0s to accommodate a specific call.

Datafill sequence and meaning

Table SUPERTKG must be data-filled prior to this table.

If the entry for subfield IBNRTSEL is ARS, tables IBNRT2, IBNRT3, IBNRT4, OFRT, OFR2, OFR3, and OFR4 must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is AFR, table TRIGINFO must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is CFT, tables CLLI and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is EOW, tables WATSAUTH, VIRTGRPS, DIGMAN, BANDSETS, and OCCINFO must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is DN, tables HNPACONT and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is IW, table VIRTGRPS must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is ISA, tables CLLI and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is LINE, tables HNPACONT and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is LOC, table LINEATTR must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is N, tables CLLI and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is OW and the RTETYPE is S, tables VIRTGRPS, ZONEORDR, CLLI, and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is OW and the RTETYPE is T, tables VIRTGRPS, ZONEORDR, IBNRT2, IBNRT3, IBNRT4, OFRT, OFR2, OFR3, and OFR4 must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is OW and the RTETYPE is V, tables VIRTGRPS, ZONEORDR, and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is RX, tables NCOS, CUSTENG, DIGMAN, and RCNAME must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is S, table CLLI must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is SG, tables SUPERTKG and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is T, tables IBNRT2, IBNRT3, IBNRT4, OFRT, OFR2, OFR3, OFR4, RRTE, TOPS, TOPSAMA, AOSS, and AOSSAMA must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is VFG, tables VIRTGRPS and DIGMAN must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is CND or NOT with subfield CNDSEL, tables COSMAP, TODHEAD, HNPACONT, CALLCHR, NARDATA, and SITE must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is CND or NOT with subfield RTETYPE T, tables IBNRT2, IBNRT3, IBNRT4, OFRT, OFR2, OFR3, and OFR4 must be datafilled before table IBNRTE.

If the entry for subfield IBNRTSEL is CND or NOT with subfield RTETYPE IRTE, tables CTHEAD, PXHEAD, FAHEAD, OFCHEAD, ACHEAD, FTHEAD, AMHEAD, and NSCHEAD must be datafilled before table IBNRTE. These tables need to be datafilled if the value of subfield XLASYS is one of the following values: CT, PX, FA, OFC, AC, FT, AM, or NSC.

Note: For information about datafilling this table, see *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual*, 297-8021-351.09.03.

Table size

The maximum number of route lists is 1024.

Elements within a route list can consist of one or all the variations defined in the route list selector.

Route selectors

The available route selectors follow. They are detailed in separate subtables according to feature, for example, IBNRTE feature AC.

- AC
- ARS
- ATGS
- CFT
- CND
- DN
- EOW
- GBL
- IBNRX
- INS

- ISA
- IW
- LINE
- LOC
- N
- NCLI
- NIL
- NOT
- NS
- OW
- QH
- RX
- S
- SG
- T
- TRMT
- VFG

Route options

The available route option is ATGS (alternate trunk group selection).

Additional information

This section provides information on datafilling table IBNRTE for specific applications, and product descriptive information related to table IBNRTE.

Route selection procedure

The information in an EOW route element determines whether the route is allowed. A number of decisions jointly determine whether a route is selected, as follows.

1: Is RS enabled?

The field RSENABLE in selector EOW is checked to see if automatic route selection (RS) is enabled. If route selection is enabled for this route, this route continues with the route selection procedure. If route selection is not enabled, this route is selected regardless.

2: Is the EOW WIC allowed?

In all cases where route selection is enabled, WIC screening is performed. A check is made to verify that the WIC given in the current EOW route is also in the WIC list in table WATSAUTH. (The key into table WATSAUTH is provided by entry EWAUTH in the NET/GEN selector of table IBNXLA.) If WIC is found in table WATSAUTH, this route continues with the procedure. If table WATSAUTH has a WIC list datafilled, but the WIC is not found, the route fails. (When a route fails, an attempt is made to continue to the next route element in the route list, if one is available.)

If no WIC list is found in table WATSAUTH, the WIC in the EOW route is assumed. This occurs if the EWAUTH option is not used in table IBNXLA, or if no WIC list is specified for a WATSAUTH entry that has field CHOICE set to N.

Note: This check is done regardless of whether CHOICE is allowed.

3. Is CHOICE allowed?

Because it is not logical to perform route selection prior to routing to a facility that permits 10XXX dialing, this route succeeds if the CHOICE field in table WATSAUTH is equal to Y. If field CHOICE equals N, the selection procedure continues to try to verify the called band.

4: Does band screening pass?

The called band needs verification against the BANDSET that is listed in the route element. The STS in the line attributes of the listed VFG is used in determining the called band in table WATSBAND. Then, table BANDSETS determines if the called band is allowed for the bandset listed in the EOW route.

If an entry in table WATSAUTH is associated with the call, the referenced bandset checks the validity of the route. This means that both table BANDSET in EOW and the BANDSET in WATSAUTH are used to determine the route taken. If either check fails, this route fails.

5: This route succeeds enhanced outward WATS route selection

If this route does not fail for any other reason (such as all the VFG resources are busy), the call continues into the retranslation procedure out of the VFG.

Table history

IBNRT2

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

IBN Second Route Table

For a description of table IBNRT2, refer to table IBNRTE.

Datafill sequence and meaning

Refer to table IBNRTE for more information.

Table size

Refer to table IBNRTE for more information.

Datafill

Refer to table IBNRTE for more information.

Table history

SN07

Table IBNRT2 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

IBNRT3

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

IBN Third Route Table

For a description of table IBNRT3, refer to table IBNRTE.

Datafill sequence and meaning

Refer to table IBNRTE for more information.

Table size

Refer to table IBNRTE for more information.

Datafill

Refer to table IBNRTE for more information.

Table history

SN07

Table IBNRT3 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

IBNRT4

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

IBN Forth Route Table

For a description of table IBNRT4, refer to table IBNRTE.

Datafill sequence and meaning

Refer to table IBNRTE for more information.

Table size

Refer to table IBNRTE for more information.

Datafill

Refer to table IBNRTE for more information.

Table history

SN07

Table IBNRT4 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

ILRCLASS

International Line Restriction Class

Table International Line Restriction Class (ILRCLASS) contains the barring programs for the ILR line option.

Datafill sequence and meaning

There is no specific datafill sequence required for table ILRCLASS.

Table size

0 to 100 tuples.

Datafill

The following table lists the datafill for table ILRCLASS.

Field, subfield, and refinement descriptions for table ILRCLASS

Field	Subfield or refinement	Entry	Explanation and action
KEY		vector, up to 16 characters	ILR_CLASS ILR_CLASS is the name of the barring program. It is used by the ILR line option.
RCODE		vector, up to 2 characters	The RCODE identifies the barring program to the subscriber. It is unique in the table or empty.
IXLAOPT		vector, up to 32 IXLA_CLAS entries	International translation class options. Contains a list of international translation classes to be barred by this program.
DNOPT	STNCODE	vector, up to 10 vectors each of up to 15 digits.	A list of DNs which are barred additionally to the international translation classes.

Additional information

Barring classes in this table can only be deleted if there is no line with ILR in the office referencing this tuple.

Table history**SN07**

Table ILRCLASS was added in SN07 by feature A00002641.

IOC

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Input/Output Controller

Table IOC contains assignment data for input/output controller (IOC) and message. This table contains assignment data for device controller (MDC) modules with:

- product engineering code (PEC) NT2X76AA or NT2X76BA
- IOC modules NT1X61AA or NT1X61AB
- input/output modules (IOM) NTFX30AA

Datafill sequence and meaning

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

Enter data in the following tables after you enter data in table IOC:

- DDU
- DLCDEV
- DPACDEV
- MPC
- MTD
- NX25
- TERMDEV

Table size

0 to 13 tuples

Datafill

The following table lists the datafill for table IOC.

Field, subfield, and refinement descriptions for table IOC (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
IOCNO		0 to 19	Input/output controller number. Enter the number assigned to the input/output controller (IOC) or message and device controller (MDC) module.
			The following two factors determine the maximum number of IOCs in a DMS-100: • The configuration of a system. The configuration includes the number of networks and the number of central message controller (CMC)/message switch (MS) interface cards provisioned. • Limit for software to support maintenance functions for IOCs and connected devices without impacting the performance of the system.

Field, subfield, and refinement descriptions for table IOC (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
FRTYPE		CCC, IOE, MCCM, MCEX, MCGM, or MTC	<i>Frame type.</i> Enter the frame type of the module. Enter CCC (central control complex) if the module is an MDC. Enter MTC (magnetic tape center) or IOE (input/output equipment) if the module is an IOC. Enter IOE (input/output equipment) if the module is an IOM. Enter MCCM (Meridian cabinet core module) for the cabinetized Meridian 1 (options 111-211) if the module is a central message controller IOC (CMC/IOC). Enter MCGM (Meridian cabinet general module) for the cabinetized Meridian 1 (options 111-211) if the module is an IOC. Enter MCEX for the Meridian cabinet EIOC extension module.

Field, subfield, and refinement descriptions for table IOC (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
FRTYPE		CCC, IOE, MCCM, MCEX, MCGM, or MTC	Frame type. Enter the frame type of the module. Enter CCC (central control complex) if the module is an MDC. Enter MTC (magnetic tape center) or IOE (input/output equipment) if the module is an IOC. Enter IOE (input/output equipment) if the module is an IOM. Enter MCCM (Meridian cabinet core module) for the cabinetized Meridian 1 (options 111-211) if the module is a central message controller IOC (CMC/IOC). Enter MCGM (Meridian cabinet general module) for the cabinetized Meridian 1 (options 111-211) if the module is an IOC. Enter MCEX for the Meridian cabinet EIOC extension module.
FRNO		0 to 2	<i>Frame number</i> Enter the frame number of the MTC or CCC frame that the IOC or MDC is on. Entries outside this range are not correct.

Field, subfield, and refinement descriptions for table IOC (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
SHPOS		04, 18, 32, or 65	<i>Shelf position</i> Enter shelf position 04, 18, or 32 for the IOC. Enter 65 for the MDC module.
FLOOR		0 to 99	<i>Floor</i> Enter the number assigned to the floor or remote location of the MTC or CCC frame equipped with the IOC or MDC module.
ROW		A to Z, AA to ZZ except I, O, II, or OO	<i>Row</i> Enter the row designation on the floor of the location of the MTC or CCC frame that mounts the IOC or MDC module.
FRPOS		0 to 99	<i>Frame position</i> Enter the position number in the row, of the MTC or CCC frame that has the IOC or MDC module.

NT40 switch

If the switch type is NT40, enter data in fields CMCCARD and CMCPORT. This datafill appears in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	CMCCARD	0 to 13	<i>Central message controller card</i> Enter the number of the central message controller card assigned to the IOC.
	CMCPORT	0 to 4	<i>Central message controller port</i> Enter the central message controller port number assigned to the IOC. Proceed to field PECINFO on the following page.

SuperNode switch

If the switch type is SuperNode, enter data in fields MSCARD and MSPORT. This datafill appears in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	MSCARD	6 to 23	<i>Message switch controller card</i> Enter the number of the message switch controller card assigned to the IOC.
	MSPORT	0 to 15	<i>Message switch controller port</i> Enter the number of the message switch controller port number assigned to the IOC. Proceed to field PECINFo on the following page.

NT40 and SuperNode switches

For both NT40 and SuperNode switches, enter data in field PECINFO.
This datafill appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PECINFO	1X6106 1X61AA 1X61AB 2X7606 2X76AA 2X76BA 7X28 NX34AA NX3401 FX30AA	<i>Product engineering code</i> Enter the product engineering code (PEC) that corresponds to the module. All PECs normally begin with the letters NT. When you enter data, omit these first two letters. The default value is 1X61AA. Enter 1X6106 (IOC shelf assembly) for the Meridian cabinet general module. Enter 1X61AA or 1X61AB (IOC shelf) for the IOC module.
			Note: NT1X61AB replaces NT1X61AA. Enter 2X7606 (central message and I/O device controller shelf assembly) for the Meridian cabinet core module. Enter 2X76AA or 2X76BA (central message and I/O device shelf) for the MDC module.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
			Note: NT2X76BA replaces NT2X76AA. Enter 7X28 (central message device controller and memory (MDC) shelf assembly) for the combined CMC IOC and DS shelf memory. Enter NX3401 (dual IOC shelf assembly) for the Meridian cabinet EIOC extension module.
			Note: NTN38BA replaces NTN34AA. Enter data in the two PECs as NX3401. Enter FX30AA for the IOM peripheral.

PECINFO = FX30AA

If the entry in field PECINFO is FX30AA, enter data in refinements. This datafill appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PMTYPE	alphanumeric (a maximum of 8 characters)	<i>Peripheral module type</i> Enter the type of peripheral module.
	PMNO	0 to 2047	<i>Peripheral module number</i> Enter the number of the peripheral module.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CARD_POSITION	0 to 37	<i>Card position</i> Enter the location of the card field PECINFO identifies.
	DFILE	alphanumeric (a maximum of 8 characters)	<i>Download file</i> Enter the name of the file downloaded to the IOM.
	DVNAME	alphanumeric (a maximum of 12 characters)	<i>Device name</i> Enter the device name.

Table history**SN07**

Table IOC migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 6 of 12*, 297-8021-351.09.03.

ISDNPARM

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

ISDN Trunk Subgroup Parameter

Table ISDN Trunk Subgroup Parameter (ISDNPARM) allows the operating company to specify the optional information element handling routine for each primary rate interface (PRI) for certain Q931 messages.

Information elements can be used three ways:

- transported in an access transport parameter (ATP) of an ISDN user part (ISUP) message
- mapped to a non-ATP in an ISUP message
- blocked

The transport of information elements using ATP and the mapping of these elements to a non-ATP ISUP parameter apply only to messages arriving at a PRI end user on a PRI-to-ISUP call.

Table ISDNPARM uses a three-part key consisting of a name, message type, and message direction. The name associates ISDNPARM tuples with a PRI defined in table TRKSGRP.

Datafill sequence and meaning

There is no specific datafill sequence required for table ISDNPARM.

Table size

3 to 384 tuples.

The maximum size of table ISDNPARM is calculated using the following equation:

$$N = n \times m \times d$$

N is the maximum number of tuples.

n is the maximum number of unique names allowed (64).

m is the maximum number of different message types (3).

d is the maximum number of message directions (2).

Note: The current values for n, m, and d are shown in brackets. The minimum number of tuples results from the three default tuples associated with this table.

Datafill

The following table lists the datafill for table ISDNPARM.

Field, subfield, and refinement descriptions for table ISDNPARM (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
NAME		alphabetic (1 to 8 characters)	Parameter name. Enter the parameter name to link each primary rate interface (PRI) to a list of messages, optional information elements, and actions that apply to a particular PRI. If one PRI needs to handle optional information elements differently than another PRI, a separate name must be used.
MSGTYPE		ALERT, CONNECT, NOTIFY, PROGRESS, or SETUP	Q.931 message type. Enter the Q931 message type to which the specific information elements and actions apply. Both NOTIFY and SETUP tuples can be required for certain functionality such as suppression of SL1 Primary Rate Interface (PRI) Calling Name.

Field, subfield, and refinement descriptions for table ISDNPARM (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
MSGDIR		BOTH, IN, or OUT	Q931 message direction. Enter the Q931 message direction for which the specific information elements and actions apply, as follows: Enter BOTH for incoming and outgoing messages. Enter IN for incoming messages only. Enter OUT for outgoing messages only. Note: Enter OUT if PROGRESS has been entered in the MSGTYPE field.

Field, subfield, and refinement descriptions for table ISDNPARM (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DFLTACT		ATP, BLK, or MAP	Default action This field contains the default action that applies to all optional information elements that are not explicitly listed in field PARMACT. Datafill this field as described below. Enter ATP to transport in an ISDN user part (ISUP) access transfer parameter (ATP). Enter BLK to block (remove and ignore) node messages. Enter MAP to map to a non-ATP ISUP message. Note 1: If MAP is datafilled in this parameter Note: and the message type is CONNECT, entries for CNS, PI, and LLC must be made in the PARMACT field. Note 2: If PROGRESS was entered in the MSGTYPE field, enter either BLK or MAP in this field. ATP is not a valid entry. Note 3: Entry ATP does not appear in the table when the DMS switch is used in certain markets.

Field, subfield, and refinement descriptions for table ISDNPARM (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
PARMACT		see subfields	Parameter action This field consists of subfields PARM and ACTION. You can enter up to 20 multiples of fields PARM and ACTION.
	PARM (refer to the Default PARMNAME values on the following page)	CDS, CGS, CN, CNS, CSE, DIE, FAC, HLC, IRQ, LLC, OCN, PI, SH5, SH6, SH7, or UNK	Q931 parameter. Enter the Q931 parameter that is modified. Each PARM field must have an associated ACTION field. The listed entries are the current information element values supported by the DMS-100 switch. Note 1: If the MSGTYPE field is datafilled with CONNECT and the DFLTACT field is datafilled with MAP, entries for CNS, PI, and LLC must be entered with an associated action of either ATP or BLK in the PARM and ACTION subfields. Note 2: If PROGRESS is entered in the MSGTYPE field, enter CSE in this field.

Field, subfield, and refinement descriptions for table ISDNPARM (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	ACTION	ATP, BLK, or MAP	Action. This field contains the default action that applies to all optional information elements that are not explicitly listed in field PARMACT. Datafill this field as follows: Enter ATP to transport in an ISUP ATP. Enter BLK to block (remove and ignore) node messages. Enter MAP to map to a non-ATP ISUP message. Note 1: The MAP option cannot be datafilled when the entry for the PARM subfield is CNS, PI, or LLC. Note 2: If PROGRESS was entered in the MSGTYPE field, enter either BLK or MAP in this field. ATP is not a valid entry. Note 3: Entry ATP does not appear in the table when the DMS switch is used in certain markets.

Table history**SN07**

Table ISDNPARM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 6 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Updated for SN06 (DMS) Standard release. Added default PARMNAME values table as per CR Q00665623

ISDNPROT

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

ISDN Protocol Variant Timer

Applies to new or modified content for NA015 that is valid through the current release.

Table ISDN Protocol Variant Timer (ISDNPROT) holds timer interval data for primary rate interface (PRI) protocol variants. To access a location in the table, a two-part key is used. The key consists of the protocol variant (field PROTVAR) that defines the PRI protocol being used, and the changed protocol variant timer (field PVCAPPL) that specifies the set of timers to access. The timer interval values are passed to the extended multi-processor system (XMS)-based peripheral module (XPM) in a series of messages. The XPM receives all the information on protocol variant timer interval values, whether they are used by an XPM or not.

Datafill sequence and meaning

There is no specific datafill sequence required for table ISDNPROT.

Table size

2 to 8 tuples.

Memory is statically allocated for eight tuples at initial program load (IPL).

The minimum size is obtained by assuming an XPM uses only one protocol. Only two tuples need to be downloaded, one for the user side and one for the network side.

The maximum size is obtained by assuming that an XPM uses all the protocol variants. In this case there are four protocol variants and two changed protocol variant timer applications. Therefore, the maximum number of tuples is eight (4 x 2).

Datafill

The following table lists the datafill for table ISDNPROT.

Field, subfield, and refinement descriptions for table ISDNPROT (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
PROTVAR		ETSIPRI, EVN4PRI, INSPRI, N449PRI, NTM1PRI, NTNAPRI, NIPRI, QSIGPRI, U449PRI, or U459PRI	Protocol variant. Enter a primary rate interface (PRI) protocol variant. Field PROTVAR depends on the PRI protocol variant software packages ordered by the operating company. The listed values consist of all the PRI variants supported by the DMS-100 switch. Refer to switch printout of table ranges for the particular switch in question before datafilling field PROTVAR. Note: USRTIMER must be used if the protocol variant is QSIGPRI.
PVCAPPL		NETTIMER or USRTIMER	Changed protocol variant timer. Enter the changed protocol variant timer. Enter NETTIMER to change the network timer. Enter USRTIMER to change the user timer. Each PRI protocol defines two sets of timers. This field identifies the timer that the operating company needs to change.
APPLDATA		PRITIMER	Application data Enter PRITIMER for the primary rate interface timer.
TMR_OPT		see subfields	Timer options. This field consists of subfields TIMER_NAME and TIMER_VALUE. A maximum of 15 multiples of field TMR_OPT can be entered in table ISDNPROT. If less than 15 multiples are required, end the list with a \$(dollar sign).

Field, subfield, and refinement descriptions for table ISDNPROT (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TIMER_NAME	T301, T302, T303, T304, T305, T306, T308, T309, T310, T313, T314, T316, T317, T321, T322, T323	Timer names. Enter the required PRI timer used with the selected protocol variant in table PROTVAR. This field stores the timer names. 16 timers are specified; all protocol variants use the same timer names. Note 1: Although 16 timers are specified, some of the protocol variants use a subset of these timers. Unused timers are set to 0 (zero) at initialization time. The operating company has access to the unused timers, but any change made to the unused timers for a particular protocol variant has no effect on call processing for that variant. Note 2: Protocol variant QSIGPRI uses all timers except T306, T317, and T323. The central control (CC) of the DMS-100E switch stores the default values for all timers. At initialization, the CC checks which PRI software packages are loaded. The CC loads table ISDNPROT with the default timer interval values for all the PRI protocol variants used on the switch. If packages for Japan PRI and North American PRI are loaded, default timer interval values for these protocol variants (for both user and network side) are loaded in table ISDNPROT.

Field, subfield, and refinement descriptions for table ISDNPROT (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
			Note 1: Timer T323 is used when the B-channel availability feature is activated in table LTDATA. T323 is started when a B-channel availability SERV message is sent and reset when a SERV ACK message is received. If T323 times out, the network side resends the SERV message once. T323 has a range of 30 to 120 seconds in 10 second intervals, set by a stored integer value. The default value is 12, which is equivalent to the maximum time, 120 seconds. B-channel availability is activated in table LTDATA by field NO_BCH_SERV. Note 2: Timer T323 can be added only as a network timer for the NI-2 protocol variant. Note 3: Timer T314 can be used for the QSIG PRI protocol variant. The default value is set to 4 seconds. The value range is 4 to 6 seconds. T314 prevents the message reassembly function in the DMS-100E switch from waiting indefinitely for the next segment of a segmented message from the sending switch or PBX. The DMS-100E switch starts or restarts T314 when it receives a non-final SEGMENT message from the D-channel. If T314 times out, all the SEGMENT messages that relate to the affected reassembly process are discarded, and the DMS-100E switch generates an ISDN log.
	TIMER_VALUE	0 to 1023	Timer value. Enter the required timer value. The timer interval value is specified in seconds.

Additional information

The following error messages can be incurred when datatfilling T323 for NI-2:

- Addition of Timer T323 with protocol variant other than NI-2.
TIMER 323 CAN BE PROVISIONED ONLY FOR NI-2PRI
- Addition of Timer T323 as a user timer with protocol variant of NI-2.
TIMER 323 CAN BE PROVISIONED ONLY FOR NI-2PRI
- Addition of Timer T323 with a timeout value more than the maximum.
INVALID TIMER T323: TIMER T323 MUST BE LESS THAN OR EQUAL TO 180 SEC
- Addition of Timer T323 with a timeout value of 0 restores the default time setting.
RESTORING DEFAULT TIMER VALUE

Table history

SN07

Table ISDNPROT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 6 of 12*, 297-8021-351.09.03.

ISERVOPT

International Service Option

Operating company personnel use table ISERVOPT to configure switch information for service-related features. This table groups multiple related pieces of data in a single entry.

Each service that uses this table provides a subfield related to that service. Each subfield asks for information in a format relevant to the service. This table accepts an entry if operating company personnel enter a service that is in the load.

Each tuple in table ISERVOPT puts related office parameters in a group. The tuple shows the association between the office parameters.

Note: Services Push-Button Music On Hold (PBMOH) and Ring Again (RAG) are available in North American (SN) releases. The other features are for international (ISN) releases only.

Datafill sequence and meaning

Enter datafill in table IBNXLA before activating the Call Forward to Announcement (CFTANN)/Call Forward to Operator (CFO) option.

Enter the translator name in table XLANAME before entering the same data in table ISERVOPT for CFO_XLA and CFTAN_XLA.

There is no requirement to datafill tables in a specific order for the implementation of the CCBS (Call Completion to Busy Subscriber) activity.

Table size

Up to 100 tuples

Datafill

The following table lists the datafill for table ISERVOPT.

Field, subfield, and refinement descriptions for table ISERVOPT (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		alphanumeric string	<i>Service options key</i> This field contains the feature name. The string accepts only feature names that are part of the software load.
SOPTSVAR		alphanumeric string	<i>Service options variable</i> This field contains subfields to control switch-wide performance of the feature. Enter data for each selected option and related subfields. Possible entries for field SOPTSVAR are: ACBAR_TLR, ACCTCODE, ACRJ, AR, CCBS, CEPT_CFX, CFO_XLA, CFTAN_XLA, CND, CNDDISP, CRSP, ECMDNFMT, FNT, ICONF, ICT, ILRCLS, INTNI1, ISUPUTR, IWUC, MCTBYDP2, MCTVAR, MODDN, MONA, NOCOLL, PBMOH, PDDCHANG, PPRIOUTP, RAG, RCODE, RCTL, REVCSE, RMV04ALL, SCRNDN, SFICHK, SLEOPT, UTRCHK, VERDDN and VMLON.

Field, subfield, and refinement descriptions for table ISERVOPT (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)		FNT	This field provides a way to configure the switch behavior either to suppress the Answer message or to send a No-charge indication to the originating switch. The default value is OFF.
		CRSP, RAG, or NOCOLL	This field provides a way to disable the feature without removing the option from all the affected lines. The default value of this is ON.
	SUPANSTR	ON or OFF	This field provides a way to configure the switch behavior either to suppress the Answer message or to send a No-charge indication to the originating switch. The default value is OFF.
	STATE	ON or OFF	This field provides a way to disable the NOCOLL feature without removing the option from all the affected lines. The default value of this is ON.

KEY = ACBAR_TLR

If the entry in field SOPTSKEY is ACBAR_TLR (TLR CLASS ACB/AR functionality), the BRILINE and SOPTSVAR fields contain the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
BRILINE		ACCEPT< DENY	Set BRILINE to ACCEPT for the calling party to activate ACB to a given BRI line. Set BRILINE to DENY to attempt a BRI line result in long term denial.
SOPTSVAR	OPTION ACBAR_TLR	ACBAR_TLR Y or N	ACBAR_TLR controls activation of the TLR CLASS ACB/AR functionality. When ACBAR_TLR is set to N, the TLR CLASS ACB/AR feature functionality has no impact. When ACBAR_TLR is set to Y, the TLR CLASS ACB/AR feature functionality is activated. The default is N.

KEY = ACRJ

If the entry in field SOPTSKEY is ACRJ (Anonymous Call Rejection), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ACRJ	
SOPTSVAR	OPTION	ACRJ	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	CHKCAUSE	Y or N	<i>Check cause</i> This field determines if the ACRJ feature checks the cause of no information in the caller identification. If the cause is "user_requested", the feature does not reject the anonymous caller. For Japan, enter Y, otherwise enter N.
	ACRJ_CRG	JPN or OFF	<i>Call charge option</i> Enter JPN for Japan market activation. Enter OFF (the default value) to deactivate the feature.

KEY = AR

If the entry in field SOPTSKEY is AR (Automatic Recall), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		AR	
SOPTSKEY	OPTION	AR	<i>Automatic recall</i> Enter AR to activate the AR option.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	CALLQ	OFF, ON, or no datafill	<i>Call queuing</i> When the terminating line is busy, setting the option to OFF applies busy treatment. When the terminating line is busy, setting the option to ON, or entering no datafill, automatically puts the caller into a queue and then informs the caller, by a special ring, when the dialed line becomes free.
	ARVAR	0, 1, or 2	<i>AR variant</i> This field determines the variant of AR in use. The functionalities that vary according to this value are: • AR Busy Call Queueing protocol • Blocking of AR calls to Private Numbers • AR Last Number Announcement • Last Caller ID Disabling • Language specific announcements • AR support for generic numbers • Restricting AR by Nature of Address and Numbering Plan Enter 0 for Australia, 1 for Europe or 2 for Japan.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ACTDIG	0 to 9	This subfield captures the digit used for AR recall activation. The default ACTDIG values are 1 for CEU (except UK) and ABSM, and 3 for ABSK and UK.
	PRIVBLK	NOBLK, ALL, or CARSCRN	This subfield indicates whether blockage of AR recall calls to Private DNs can occur. This subfield is a mirror of the AR_BLOCK_PRIVATE_C TX office parameter, as they both control the same behavior and always have identical values. For Japan and Europe, enter ALL. Otherwise, enter NOBLK.
	DACTOPT	Y or N	
	CANCDIG	0 to 9	When DACTOPT is datafilled as Y, DACTOPT prompts for datafill in the CANCDIG subfield.

KEY = CCBS

If the entry in field SOPTSKEY is CCBS, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CCBS	
SOPTSVAR	OPTION	CCBS	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	DISTINCT_RECALL_RING	Y or N	<i>Distinctive recall ringing</i> This field specifies whether the distinctive recall ringing service is available. A value of 'Y' indicates that the Distinctive Recall Ringing is activated. A value of 'N' indicates that the Distinctive Recall Ringing is deactivated, resulting in the CCBS recall appearing like a normal call.
	SINGLE_DIGIT_AND_ANNOUNCEMENT	Y or N	<i>Single digit activation and announcement</i> This field specifies whether the single digit activation and announcements service is available. A value of 'Y' indicates that the Single Digit Activation and Announcements is activated. When set to 'Y', the additional field DIGIT has to be datafilled. A value of 'N' indicates that the Single Digit Activation and Announcements is deactivated.
	DIGIT	0-9	<i>Digit</i> Specifies which digit has to be dialed for the single digit activation and announcements service to become available (see subfield SINGLE_DIGIT_AND_ANNOUNCEMENT).

Distinctive recall ringing

This aspect of CCBS operation applies to MMP lines only, and not to Succession lines.

CCBS recall ringing pattern is similar to the Ring AGain (RAG) service V5.2 support, that is, ftr_dist_ringing_04. Only the ringing can be switched on or off, the ringing pattern cannot be changed.

- For IBN lines

The ringing pattern for the CCBS recall (when the destination user becomes free and the originator is rung back) may be different to the regular ringing pattern as applied for normal calls. This change is dependent on the datafill of table ISERVOPT.

- For EBS lines

To indicate the CCBS recall for EBS sets, the lamp for the CCBS key on the handset will change from solid to blinking. This facility is additional to the distinctive ringing pattern. This change is dependent of the datafill of table ISERVOPT.

Activation - SINGLE_DIGIT_AND_ANN = Y

CCBS can be activated by pressing the number associated with DIGIT during a CCBSACT announcement (the announcement will stop) or afterwards within a specified period of time (20 seconds). After this timer expires the calling CCBS user hears the busy tone and CCBS activation is no longer possible.

Activation - SINGLE_DIGIT_AND_ANN = N

When single digit activation is not enabled, the method of activation varies for Bellcore and CEPT operation.

- for Bellcore, the user activates CCBS by first performing Hook-Flash (typically using the 'R' button). A special tone is applied. The user then selects key sequence *37
- for CEPT, the user activates CCBS with key sequence *37#

Note: 37 is a commonly used code for CCBS activation and deactivation, but it is not mandatory. This code is datafilled in translations.

Deactivation

The method of deactivation varies for Bellcore and CEPT operation.

- for Bellcore, the user deactivates CCBS by first performing Hook-Flash (typically using the 'R' button). A special tone is applied. The user then selects key sequence #37
- for CEPT, CCBS is deactivated with key sequence #37#

Interrogation

For CEPT operation only, it is possible to interrogate CCBS to see if there are any pending CCBS requests. Interrogation is activated with key sequence *#37#

Announcements

If SINGLE_DIGIT_AND_ANN = Y, the following announcements are made during CCBS operation:

- CCBSACT:
“The user you called is busy. For CCBS activation press digit 5.”
This announcement is made when the caller connects to a busy subscriber. The digit can be pressed during the announcement (the announcement will stop) or within a period of 20 seconds after. After this timer expires, the caller hears the busy tone and CCBS activation is no longer possible.
- CCBSCONFIRM:
“Your order was successful”
- CCBSHORTDENY:
“Your order is not possible now”
- CCBSLONGDENY:
“Your order is not possible”
- CCBSINTERON:
“You have pending CCBS requests”
This announcement applies to CCBS interrogation for CEPT only.
- CCBSINTEROFF:
“You do not have pending CCBS requests”
This announcement applies to CCBS interrogation for CEPT only.

Tones

If SINGLE_DIGIT_AND_ANN = N, the following tones are generated during CCBS operation:

- CCBSACT: User busy tone when reaching busy destination.
- CCBSCONFIRM: Positive acknowledge tone.
- CCBSHORTDENY: Negative acknowledge tone.
- CCBSLONGDENY: Negative acknowledge tone.
- CCBSINTERON: Positive acknowledge tone.

This tone instance applies to CCBS interrogation for CEPT only.

- CCBSINTEROFF: Negative acknowledge tone.

This tone instance applies to CCBS interrogation for CEPT only.

If a user calls a busy destination and already has an active CCBS request, no announcement will be played because a user can only have one request. The user will hear a busy tone even when announcements are datafilled to be played.

KEY = CEPT_CFX

If the entry in field SOPTSKEY is CEPT_CFX, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CEPT_CFX	
SOPTSVAR	OPTION	CEPT_CFX	<i>Option</i>
	OPTIONAL_HASH	Y or N	<i>Optional hash</i> This field is used for allowing the last hash (#) digit in the CEPT dialing sequence to be optional. Enter 'Y' (Yes) to indicate that the # is optional. Enter 'N' (No) to make the use of the last # mandatory. If this field is not datafilled, the default will be interpreted as 'N'. This field should be set to 'Y' for the Papua New Guinea market.

Field descriptions for conditional datafill (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	FROM_RANGE	integer in the range: 0 - 18	<i>From Range</i> Indicates the start of the forward directory number digit range. If this field is not datafilled, there will be no digit range check. This field should be set to '4' for the Papua New Guinea market.
	TO_RANGE	integer in the range: 0 - 18	<i>To Range</i> Indicates the end of the forward directory number digit range. If this field is not datafilled, there will be no digit range check. This field should be set to '15' for the Papua New Guinea market.
	PRG_OVERRIDE	Y or N	<i>Programme override</i> This field allows reactivation of CEPT Call Forwarding to be programmed. Enter 'Y' to allow reactivation of CEPT Call Forwarding by programming a forward directory number. Deactivation is not required beforehand. If this field is not datafilled, the default will be interpreted as 'Y'. Enter 'N' to ensure that the user cannot override activation.

Field descriptions for conditional datafill (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ACTIVATE_ WITHOUT_ PRG	Y or N	<i>Activate without programming</i> This field is used to cause activation of the feature without programming a forward directory number. Enter 'Y' to activate CEPT Call Forwarding. Activation without number programming can be done via a control procedure. Enter 'N' to disable CEPT Call Forwarding, meaning activation without programming is not permitted. This field should be set to 'N' for the Papua New Guinea market.

Field descriptions for conditional datafill (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ISUP_ RESTRICTION	Y or N	<i>ISUP restriction</i> This field is used for diversion restriction from ISUP trunks. Enter 'Y' to allow diversion restriction from ISUP trunks. Enter 'N' to disable diversion restriction from ISUP trunks.

Field descriptions for conditional datafill (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	CDND_BSY_ TRTMT_SUPP	Y or N	<i>CDND Busy Treatment Supplementary</i> Specifies if the CDND option is assigned. If a call is terminating on a line with active CDND and the announcement code is not in data schema table CDANNS, the subscriber will receive either a busy treatment tone (CEPT version) or a NACK tone (Papua New Guinea market). A value of 'Y' indicates that the CDND option is assigned. A value of 'N' indicates that the active CDND feature is not assigned to the subscriber when "00" key does not exist in data schema table CDANNS, but the inactive CDND feature can be assigned to the subscriber in this state. Note: The administrator is not allowed to assign the CDND option in an active state to a subscriber in the Papua New Guinea (PNG) market if the "00" key does not exist in data schema table CDANNS. Therefore this boolean will always be set to 'N' for the PNG market.

KEY = CFO_XLA

If the entry in field SOPTSKEY is CFO_XLA, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CFO_XLA	
SOPTSVAR	OPTION	CFO_XLA	
	CFO_XLA_NAME	IBN_XLA_NAME	<i>Call forward to operator translator</i> This field specifies the CFO translator name for routing through normal translation tables.

KEY = CFTAN_XLA

If the entry in field SOPTSKEY is CFTAN_XLA, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CFTAN_XLA	
SOPTSVAR	OPTION	CFTAN_XLA	
	CFTAN_XLA_NAME	IBN_XLA_NAME	<i>Call forward to announcement translator</i> This field specifies the CFTANN translator name for routing through normal translation tables.

KEY = CFWON

If the entry in field SOPTSKEY is CFWON (TLR CFW functionalities), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CFWON	<i>Short interdigit timing</i>
SOPTSVAR	OPTION		
	RCNTACT	Y or N	<i>Redirect count timing active</i> This field determines if the TLR CFW redirection count option is active. The default is N.
	AMAON	Y or N	<i>Automatic message accounting active</i> This field determines if the TLR CFW AMA option is active. The default is N.
	TRMNT	Y or N	This field determines if the TLR CFWV to NACK for call forward double activation is active. The default is N.

KEY = CND

If the entry in field SOPTSKEY is CND (Calling Number Delivery), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CND	<i>Short interdigit timing</i>
SOPTSVAR	OPTION	CND	<i>Calling number delivery</i>

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	RNGSPLSH	rs5-rs45	<i>Ring splash timer</i> Operating company personnel use this field to enter the required duration of ring splash in units of ten milliseconds.
	CND_LANG	DEFAULT, TURKISH	This field defines the language of choice for the CND exception messages.
	ASK_STATUS	Y or N	This field toggles CND status prompting.
	VARIANT	BELLCORE, ETSI, or NTT	<i>Calling number delivery variable</i> Operating company personnel use this parameter to control the message format and signaling protocol for the CND feature.
	ACCESS_CODE	Y or N	<i>Access code</i> Enter Y or N to indicate if access code is to be activated. This parameter is only available for variants ETSI and BELLCORE.

KEY = CNDDISP

If the entry in field SOPTSKEY is CNDDISP (Calling Number Delivery Display), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CNDDISP	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	CNDDISP	<i>Calling number delivery</i>
	CLIDOPT	Y or N	CLIDOPT controls whether to fill up the DN parameter or send a 0 or a P to the display. CLIDOPT also enables a check of the network and TCAP option before the number is displayed. If CLIDOPT is set to Y and the calling number is available, the digits are displayed. If CLIDOPT is set to N, TCAP options are checked in table CUSTSTN. For Australia, enter Y, otherwise enter N.

KEY = CRSP

If the entry in field SOPTSKEY is CRSP (change ring shift pattern), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CRSP	
SOPTSVAR	OPTION	CRSP	
	CRSP	Y or N	<i>Change ring shift pattern</i> This field determines if the switch modifies the ring shift pattern on Meridian Business Set (MBS) conference calls. For Australia, enter Y, otherwise enter N.

KEY = FNT

If the entry in field SOPTSKEY is FNT (Free Number Termination), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY	FNT		
SOPTSVAR	OPTION	FNT	This field provides a way to configure the switch behavior either to suppress the answer message or to send a No-charge indication to the originating switch. The default value is OFF.

KEY = FTRACT

If the entry in field SOPTSKEY FTRACT, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY	FTRACT		
SOPTSVAR	OPTION	FTRACT	
	ASSIGN, DEASSIGN, ADMACT, ADMDEACT, ADMPROG, SUBACT, SUBDEACT, SUBPROG, USAGE, INTERROG	00 to 99	The corresponding entry is published in MTR156 log for the related feature.

KEY = ICONF

f the entry in field SOPTSKEY is ICONF (International Conference), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ICONF	
SOPTSVAR	OPTION	ICONF	

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ALLOW_ICT_ IN_I3WC	Y or N	<i>Allow International Call Transfer (ICT) in I3WC</i> Offers a choice to whether ICT will be included in CEPT I3WC option or not, for the Papua New Guinea (PNG) market. Call transfer is included in I3WC option for PNG market. But in CEPT version, there is a separate ICT option to handle call transfer functionality. Enter 'Y' to allow ICT in I3WC. This means that the call transfer is a default in CEPT I3WC and there is no need for a separate call transfer option. But if the ICT option is also assigned, call transfer will work. Enter 'N' to disallow ICT in I3WC. This means that the subscriber who has I3WC option can't transfer the call until it has a separate ICT option. This field is mandatory.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	CLF_FLASH_IGNORE	Y or N	Offers a choice to whether Calling Line Identity by Flash (CLF) will be ignored or not, during CLF and ENQ/I3WC interactions for the Papua New Guinea (PNG) market. A PNG I3WC/ENQ subscriber can't flash during a call with a CLF terminator subscriber. Enter 'Y' causes the controller's flash to be ignored. This means that a CEPT ENQ/I3WC subscriber can't flash during a call with a CLF subscriber. Also, if the second leg destination is a CLF subscriber, the call will be rejected. Enter 'N' to accept Flash during CLF and ENQ/I3WC interactions. This means that a CLF feature is allowed during an enquiry or conference call. This field is mandatory.

KEY = ICT

If the entry in field SOPTSKEY is ICT (International Call Transfer), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ICT	
SOPTSVAR	OPTION	ICT	

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	FIRST_LEG	ALLOW_IC ALLOW_OG ALLOW_BOTH	This field allows call transfer by checking, if first leg is incoming to the controller or outgoing from the controller. Call transfer for Papua New Guinea (PNG) is only allowed, if the controller is the terminator in the first leg of enquiry. But in the CEPT version, the calls should be terminating or originating from the controller. When the FIRST_LEG field is datafilled as ALLOW_IC; the first leg of the enquiry call will be checked; if the controller is the terminator in this call, it means that call transfer will be allowed for this leg. Then the SECOND_LEG field is checked in the same way. This field is mandatory.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	SECOND_LEG	ALLOW_IC ALLOW_OG ALLOW_BOTH	This field allows call transfer by checking if the second leg is an incoming call to the controller or an outgoing call from the controller. When the SECOND_LEG field is datafilled as ALLOW_OG; the second leg of the enquiry call will be checked; if the controller is the originator in this call, it means that call transfer will be allowed for this leg. When the SECOND_LEG field is datafilled as ALLOW_BOTH; the controller can be the originator or terminator in the second leg. The SECOND_LEG field can also be datafilled as ALLOW_IC. This field is mandatory.

KEY = ILRCLS

If the entry in field SOPTSKEY is ILRCLS (International Line Restriction Classes), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ILRCLS	
SOPTSVAR	OPTION	ILRCLS	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ILR_PROG	Y or N	<i>International line restriction programmable</i> This boolean indicates whether a restriction class (see ILRCLASS) could be programmed by the subscriber or not. Enter "Y" for YES and "N" for NO. The Papua New Guinea (PNG) market does not support the subscriber programming part of a restriction class. Therefore this boolean is datafilled as "N" for the PNG market.
	ILRCLASS	DABE, DNID, DIDD, DNI, DAI, DSSV, DANID, DABLE, DNIC, DAIC, DANI	Enter one of these restriction classes to this field. A class cannot be datafilled more than once to ILRCLASS field. If this is applied by an administrator, an error message 'Multiple ilr_class is not allowed for ilrclass tuple' is printed. Enter \$ to terminate.
	ILE_DIGIT	00 to 99 digits	Enter call restriction programming digits for each ILRCLASS that are valid to that market. A digit cannot be datafilled more than once to a restriction class, otherwise an error message 'Multiple digit is not allowed for ilr_digit tuple' is displayed.

KEY = ISUPUTR

If the entry in field SOPTSKEY is ISUPUTR (ISUP Universal Tone Receiver), the SOPTSVAR option field contains the following subfields:

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ISUPUTR	The 'UTR for digit collection' key in ISERVOPT
SOPTSVAR	OPTION	ISUPUTR	The ISERV option name
	ISUPUTRACT	Y or N	<i>ISUP UTR active</i> Enter 'Y' to make available 'UTR for digit collection'. This should only be done if UTR is available for the ISUP and allowed in the market. Otherwise the loopback trunk for digit collection should be used. Enter 'N' to disable UTR being used for digit collection. Default value = 'N'.

KEY = IWUC

If the entry in field SOPTSKEY is IWUC (Wake Up Call), the SOPTSVAR option field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		IWUC	<i>The Wake Up Call key in ISERVOPT</i>
SOPTSVAR	OPTION	IWUC	<i>The ISERV option name</i>

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	NUMBER_OF_REQUEST	Symbolic number (one - ten)	<i>Number of requests</i> Enter the number of requests (symbolic) that a subscriber can order at a time. The default is “five”. For the Papua New Guinea market, its value is “one”.
	OVERWRITE_LAST	Y or N	<i>Overwrite the last request</i> Enter whether the last request is to be overwritten. If this boolean is set to true (Y) when a new request is ordered, and if the maximum NUMBER_OF_REQUEST was datafilled, the new request will be overwritten to the last request. Enter “N” to deny overwriting of requests. OVERWRITE_LAST can only be datafilled if NUMBER_OF_REQUEST was set to “ONE”. For the Papua New Guinea market, its value is “Y”.
	MIN_AHEAD_TIME	integer 1 - 30	<i>Minutes ahead of the current time</i> Enter a time period between the current time and the request time. For the Wake-up Call to operate, the time difference between the request time and the current time must be bigger than the value of this subfield.

KEY = MCTBYDP2

f the entry in field SOPTSKEY is MCTBYDP2 (MCT activation by DP2), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY	SOPTNAME	MCTBYDP2	<i>MCT activation by DP2 digit on DP phones</i>
SOPTSVAR	OPTION	MCTBYDP2	MCT (Malicious Call Trace) or CLF (Calling Line Identification with Flash) allows IBN line agents to activate a trace on incoming calls for the purpose of malicious caller identification. This option enhances MCT by enabling identification of malicious call originators on DP IBN phone sets. Dialpulse digit 2 is dialled if the line has both CEPT & CLF line options, MCTVAR is EMCT and MCTBYDP2 is set to 'Y'.
	MCTBYDP2	Y or N	If MCTBYDP2 = Y, MCT activation by DP2 digit is enabled on DP phone sets (in this case, MCT activation can also be done by double flashing instead of DP2 but not both flash and digit). If MCTBYDP2 =N, MCT activation by DP2 digit on DP phone sets is disabled and only double flash can be used to activate the MCT feature.

KEY = MCTVAR

If the entry in field SOPTSKEY is MCTVAR (Malicious Call Trace Variant), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		MCTVAR	
SOPTSVAR	OPTION	MCTVAR	
	VARIANT	STD	STD enables standard malicious call trace functionality. This is the default value.
		EMCT	EMCT enables ETSI malicious call trace for analog lines.
		TLRMCT	TLRMCT enables Telrad malicious call trace functionality.

KEY = MODDN

If the entry in field SOPTSKEY is MODDN (Modify DN), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		MODDN	<i>MCT activation by DP2 digit on DP phones</i>

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	MODDN	
	MODDNOK	Y or N	MODDNOK controls the length of the input DN. It sets it to 10 digits in length. If MODDNOK is set to Y and the number of digits of the DN is greater than 10, the leading digits are removed to make the DN 10 digits long. If MODDNOK is set to N and the number of digits is greater than 10, no check is performed and leading digits are not removed. For DNs with fewer than 10 digits or with exactly 10 digits, no modification of the digits is performed.

KEY = MONA

If the entry in field SOPTSKEY is MONA (Meridian Off-Net Access), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		MONA	
SOPTSVAR	OPTION	MONA	
	ENDDIGIT	Y or N	<i>End digit</i> If the trunk is 3J and the last digit dialled is * or #, the switch reverses the meaning of these two characters. For Europe, enter Y, otherwise enter N.

KEY = OCBPROG

If the entry in field SOPTSKEY is OCBPROG (Outgoing Call Barring), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		OCBPROG	
SOPTSVAR	OPTION	OCBPROG	
	BARRPROG	DABE, DNID, DIDD, DNI, DAI, DSSV, DANID, DABLE, DNIC, DAIC, DANI, NIL	<i>Outgoing call barring programmes</i> For each OCBPROG, enter the barring program(s) that are supported by the market.
	BARRDIGITS	00 to 99	Enter the Call Barring Programming Digits corresponding to each BARR_PROG.

KEY = PBMOH

If the entry in field SOPTSKEY is PBMOH (Push-Button Music On Hold), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		PBMOH	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	PBMOH	
	PBMOH_OK	Y or N	<i>PBMOH okay</i> This field determines if International Business Network (IBN) lines that use the Key Set Music On Hold (KSMOH) customer group option can have the Music On Hold option. For Japan, enter Y, otherwise enter N.

KEY = PDDCHANG

If the entry is field SOPTSKEY is PDDCHANG (Post Dial Delay Change), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		PDDCHANG	
SOPTSVAR	OPTION	PDDCHANG	PDDCHANG controls EUR specific POST DIAL DELAY(PDD) being assigned to other markets.
	PDD_CLEANUP	Y or N	Y maintains European-specific PDD in the European market. N means that PDD is not affected in non-European markets.

KEY = PPRIOUTP

If the entry is field SOPTSKEY is PPRIOUTP (Real Outpulser Target Control), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		PPRIOUTP	
SOPTSVAR	OPTION	PPRIOUTP	PPRIOUTP controls the real outpulser target to bound to different markets.
	PPRIOUTPOK	Y or N	Y initiates functionality for outpulser targets. Y must be set for Europe and Australia. N deactivates this functionality, and is the required value for Japan.

KEY = RAG

If the entry in field SOPTSKEY is RAG (Single-digit activation of call back when free), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR		RAG	<i>Service options variable</i> This field contains subfields to control switch-wide performance of the feature. Enter RAG and datafill subfields ANNC_CONF, SINGLE_DIGIT_RAG, RAG_DIGIT and ANNC_PROMPT.
	ANNC_CONF	Y or N	This controls the application of announcements on successful registration of RAG request. If set to Y, announcements or tones can be applied to indicate the successful registration of a RAG request. Table TMTCNTL, tuple RAGC must then be datafilled to provide the optionality. If set to N, only a confirmation tone is applied. Note: For international (ISN) releases, this field can be set to Y or N. For North American (SN) releases it must be set to N.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	SINGLE_DIGIT_R AG	Y or N	This controls the single digit activation of ring back when free. If set to Y, single digit activation of RAG is possible. If set to N, single digit activation of RAG is not possible.
	RAG_DIGIT	0 to 9	This field can be datafilled only if the SINGLE_DIGIT_RAG field is set to Y. This field can be datafilled with any digit in the range 0 to 9. The digit entered activates the RAG request.
	ANNC_PROMPT	Y or N	This determines whether announcements should be played to prompt for RAG activation.

KEY = RCODE

If the entry in field SOPTSKEY is RCODE (Register Recall), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		RCODE	Enter RCODE.
SOPTSVAR	OPTIONS	RCODE	Enter RCODE and datafill subfield RCODEX.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	RCODEX	RCODE0 RCODE1 RCODE2 RCODE3 RCODE4 RCODE5 RCODE6 RCODE7 RCODE8 RCODE9	RCODE provides the corresponding actions for defined R-codes. Enter the R-code, RCODE0 to RCODE9 after flash to perform the corresponding action.
	ACTIONS	DISC_ACT, DISC_HOLD, TOGGLE, XFER, CON_3WC, CON_6WC	The actions will terminate active call or holding call, toggling between legs, establishing call transfer, initiating three or six-way call.

KEY = RCTL

If the entry in field SOPTSKEY is RCTL (Ring Control), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		RCTL	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	RCTL	
	RCTLIBN	Y or N	<i>Ring control IBN</i> This field determines if Servord prompts for the RINGCTRL field of the Call Forward Don't Answer Variable Timer (CFDVT) Servord option. This Servord option allows the subscriber to specify the number of rings before the switch forwards the call. For Japan, enter Y, otherwise enter N.

KEY = REVCSE

If the entry in field SOPTSKEY is REVCSE, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		REVCSE	
SOPTSVAR	OPTION	REVCSE	
	CASE	CASEC	<i>Case C transfer mode</i> Allows the called user to request Reverse Charging for the entire call during the active phase of the call.
	DIGIT	nn	<i>Case Programming digit, e.g. 01</i> Specifies the correct provisioning for the intended market. Enter one digit only.

KEY = SCRNDN

If the entry in field SOPTSKEY is SCRNDN, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SCRNDN	
SOPTSVAR	OPTION	SCRNDN	
	SCRNDNOK	Y or N	SCRNDNOK controls checking to be done on the digits used for Calling Number Displayed (CND) and Dialable Directory Number (DDN). If SCRNDNOK is set to Y, the DN is displayed if available, no other check is required. If SCRNDNOK is set to N, the network ID is checked before checking the availability of the DN. For Europe, the value of SCRNDNOK is Y. The value of SCRNDNOK in the Japan and Australia is N.

KEY = SFICHK

If the entry in field SOPTSKEY is SFICHK, the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SFICHK	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	SFICHK	
	SFICHKOK	CALL_FWD_FAX_TERMINATION, CHECK_FOR_CBWF_IFAM, or NONE	SFICHK controls call-forwarding control for No_Ring_Fax_Termination in NCCI ISUP (when the datafill for SFICHKOK subfield is CALL_FWD_FAX_TERMINATION) and CBWF for BTUP (when the datafill for SFICHKOK subfield is CHECK_FOR_CBWF_IFAM). The value of SFICHKOK in Japan is CALL_FWD_FAX_TERMINATION. The value for SFICHK OK in Europe is CHECK_FOR_CBWF_IFAM. The value for SFICHKOK in Australia is NONE.

KEY = SIDIGTON

If the entry in field SOPTSKEY is SIDIGTON (Short Interdigit Timing), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SIDIGTON	<i>Short interdigit timing</i>

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	SITACT	
	SITACT	Y or N	<i>Short interdigit timing active</i> This field determines if the TLR Short Interdigit Timing option is active. If set to Y, there is no 10 second delay between digits dialed and the second dial tone for IBN lines with one of the following features: CFW, CWT, WML and SC. The default is N.

KEY = SLEOPT

If the entry in field SOPTSKEY is SLEOPT (SLE Optionality), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SLEOPT	
SOPTSVAR	OPTION	SLEOPT	<i>SLE optionality</i>

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	PADDNON	Y or N	Subfield PADDNON controls whether to alter the directory number (DN) to meet a specific dial plan (7,8, 9, 10 dial plans). If PADDNON is set to Y, the DN is altered to meet the specifications of the respective dial plan. If PADDNON is set to N, no padding is allowed and only 7 and 10-digit dial plans are supported. For Australia, the value of PADDNON is Y to allow for the CLI to be padded with 1's, whereas the value of PADDNON in other loads is N to avoid adding extra 1's to the CLI.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	VBCHKON	Y or N	This subfield controls whether to give the markets the ability to alter the voice back count when a user enters a DN that is not in a 7 or 10-digit dial plan to a SLE list. If VBCHKON is set to Y, a check is performed on the number of digits to set the correct voice back count. If VBCHKON is set to N, only 7 and 10-digit dial plans are supported. For Australia, the value of VBCHKON is Y to allow alteration of the voice back count, whereas the value of VBCHKON in Japan and Europe is N, since these markets do not change the voice back count.
	ADDACON	Y or N	ADDACON adds the national access code to the unpadded directory number (DN) in the Belgian market to enable a dialable number to be voiced back.

KEY = TWCON

If the entry in field SOPTSKEY is TWCON (TLR Three Way Call), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		TWCON	
SOPTSVAR	OPTION	TWCON	<i>Three way call</i>

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	TWCACT	Y or N	<i>Three way call active</i> This field renames the TWC line option to the 3WC name for the Israel market. The default is N.
	HTON	Y or N	<i>Holding tone</i> This field determines if the holding tone in the 3WC feature is active. The default is N.
	CTR_RRNG	Y or N	<i>Controller re-ring</i> This field determines if the 3WC controller gets re-ring, or if all legs of the call must be released. The default is N.
	SFLASH	Y or N	<i>Single flash drop</i> This field determines if the single flash drop feature is active for 3WC. The default is N.

Note: Changing the TWCON fields to Y has impact only after executing a restart reload.

KEY = UTRCHK

If the entry in field SOPTSKEY is UTRCHK, the SOPTSVAR field contains the following subfields

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		UTRCHK	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	UTRCHK	
	UTRCHKOK	Y or N	UTRCHKOK controls whether the line being datafilled subtends an XPM that is both an XPM+ and has a CMR and UTR card datafilled. If UTRCHKOK is set to TRUE, the XPM is checked for a CMR or an UTR card datafilled. If UTRCHKOK is set to FALSE, the check is not performed. For Europe and Australia, the value of UTRCHKOK is Y. In Japan, the value is N. This field renames the TWC line option to the 3WC name for the Israel market. The default is N.

KEY = VERDDN

If the entry in field SOPTSKEY is VERDDN (Verify Digit Length), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		VERDDN	

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR	OPTION	VERDDN	
	VERDDN	Y or N	VERDDN controls digit length verification. When VERDDN is set to N, no digit length verification is done in table REVXLA. When VERDDN is set to Y, a warning message is printed if a CLI of more than 10 digits is used in REVXLA.

KEY = VMLON

If the entry in field SOPTSKEY is VMLON (Israeli Voice Mail), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		VMLON	
SOPTSVAR	OPTION	VMLON	
	VMLON	Y or N	VMLON controls activation of the Israeli Voice Mail feature. When VMLON is set to N, the feature has no impact. When VMLON is set to Y, the Israeli Voice Mail feature is activated. The default is N.

KEY = WUCRON

If the entry in field SOPTSKEY is WUCRON (TLR Wake Up Call Request), the SOPTSVAR field contains the following subfields.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		WUCRON	
SOPTSVAR	OPTION	WUCRON	<i>Wake up call request</i>
	ATTNUM	-0 to 3	<i>Wakeup attempts number</i> This field determines the number of attempts for a wake up call request. The default is 0.
	RNGTMODIG	0 to 2	<i>Timeout digits</i> This field determines the number of timeout digits for a wake up call request. The default is 0.
	ACTTRTM	Extended Treatment	<i>Wakeup success treatment</i> This field determines the treatment given to a successful wake up call.
	ALWALLDN	Y or N	<i>Wakeup allowed on every directory number</i> This field determines if a wake up call request is allowed on every DN. The default is N.
	COLLDIG	Y or N	<i>Collection digit</i> This field determines if all digits are collected in one report. The default is N.
	SECREG	Y or N	<i>Second activation</i> This field determines if a second activation is active. The default is N.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	RNGTMO	Y or N	<i>Ringing timeout</i> This field determines if the special calculation for ringing time-out is required. If set to Y, each unit in the WUCR_RINGING_TIMEOUT office parameter is calculated as two seconds. The default is N.
	WUCRISDN	Y or N	<i>WUCR for ISDN</i> This field determines if the WUCR feature for ISDN is allowed. The default is N.
	M RTPULSE	0 to 255	<i>MTR pulses</i> If this field contains a value greater than zero, and the subscriber has the MTR feature, the value determines the number of MTR pulses as a result of wakeup call activation. The default is 0.

Additional information

This table does not contain initial datafill. The operating company using this table provides datafill that refers to indicated services.

The default values of parameters CFO_XLA and CFTAN_XLA are CFOXLA and CFTANXLA respectively.

CFTAN_XLA and CFO_XLA require no restarts.

When CFTAN_XLA and CFO_XLA are changed, there is no memory allocation or de-allocation.

The default state of the NOCOLL parameter in table ISERVOPT is ON. Even if the tuple does not exist in ISERVOPT, the state is considered to be ON. If the state is ON, the functionality of the NOCOLL feature is available officewide and the tone is provided to all applicable calls. If the

state is OFF, the functionality of the NOCOLL feature is suppressed and the payphone recognition tone is not provided.

The ring splash duration value is only effective for a global peripheral platform (GPP) Mel channel-associated signaling (CAS) peripheral configuration.

Restriction classes

The restriction classes are described as follows.

- DABE: Deny all but emergency calls. All calls are restricted except emergency calls such as police, fire department, ambulance.
- DNID: Deny national and international direct dial calls. All calls except local and international operator assisted calls are restricted.
- DIDD: Deny international direct dial calls. All international except international operator assisted calls are restricted.
- DNI: Deny national and all international direct calls. All calls except local calls are restricted.
- DAI: Deny all international calls. All calls except local and national calls are restricted.
- DSSV: Deny special service calls. Only special service calls are restricted.
- DANID: Deny all national and international direct dial calls.
- DABLE: Deny all but local and emergency calls. All calls except local and emergency calls are restricted.
- DNIC: Deny national, international, national, and international operator-assisted and cellular calls.
- DAIC: Deny international, international operator-assisted and cellular calls.
- DANI: Deny national, international, national operator-assisted, and international operator-assisted calls.
- NIL: No calls are restricted. This is the case that ILR is not assigned to the line or ILR is assigned to the line but not activated.
- DAT: Deny All Timed calls. All calls except Local Unit-Fee calls are barred.
- DOC: Deny Only Cellular call. Only cellular calls are restricted.

Table history

ISUPDEST

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

CCS7 ISDN User Part Destination

Applies to new or modified content for NA015 that is valid through the current release.

Table CCS7 ISDN User Part Destination (ISUPDEST) enables the user to datafill the portion of a signaling network identifier (SNID) that is logically associated with tables TRKGRP and TRKSGRP, separately from the entries in table C7TRKMEM. This reduces the effort required to datafill ISUP (CCS7 ISDN user part), BTUP (the United Kingdom [UK] variant of national user part), and MBTUP (a user-specific version of BTUP) trunks.

Table ISUPDEST contains a key field, DESTKEY, and one result field, ISUPROUT (the ISUP routeset name). The ISUP routeset name is used to access table C7RTESET to obtain the network and point code information that specifies the portion of a SNID logically associated with a trunk group or subgroup. The ISUP routeset name is used to enhance the interface to this table. Actual network and point code values are retrieved at datafill time from the routeset table. These values are stored along with the trunk group common language location identifiers (CLLI) in table ISUPDEST, but are transparent to the user.

Modification or deletion of data in this table is restricted. An ISUPDEST tuple can be modified or deleted only if no C7TRKMEM table entries are associated with the tuple.

Datafill sequence and meaning

The following tables must be datafilled before table ISUPDEST.

- IPMLINV
- C7NETWRK
- TRKSGRP
- TRKMEM
- C7LKSET
- C7LINK

- C7RTESET
- CLLI

Table size

0 to 16 384 tuples.

Memory allocation is the same as table TRKSGRP.

Datafill

The following table lists the datafill for table ISUPDEST.

Field, subfield, and refinement descriptions for table ISUPDEST

Field	Subfield or refinement	Entry	Explanation and action
DESTKEY		see subfields	Destination key. This field consists of subfields CLLI and SGRP.
	CLLI	alphanumeric (up to 16 characters)	Common language location identifier. Enter the code assigned to the ISUP, BTUP, or MBTUP trunk group in table CLLI.
	SGRP	0 or 1	Subgroup number. Enter the number assigned to the ISUP, BTUP, or MBTUP trunk subgroup.
ISUPROUT		alphanumeric (up to 16 characters)	CCS7 ISDN user part routeset name. Enter the routeset name that provides the network and point code information from table C7RTESET. This specifies the portion of the SNID that is logically associated with this trunk group. The routeset name entered here must already be datafilled in table C7RTESET.

Table history**SN07**

Table ISUPDEST migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 6 of 12*, 297-8021-351.09.03.

LGRPINV

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Logical Group Inventory

Table Logical Group Inventory (LGRPINV) contains the logical groups of gateway lines and their associated gateway controller (GWC) for lines provisioning in the CS2000 network configuration.

Provision this table with the table editor ADD command. Delete entries from this table with the table editor DELETE command.

Note: Alpha 2 release does not support the table editor CHG command to change this table.

Datafill sequence and meaning

Enter datafill into tables SERVRINV and SITE before table LGRPINV.

Enter datafill into table LNINV after you enter datafill into table LGRPINV.

Table size

Maximum of 1000 tuples. Allocation is dynamic.

Datafill

The following table lists the datafill for table LGRPINV.

Field, subfield, and refinement descriptions for table LGRPINV (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
GRPNO		site name (4 characters) and frame number (0 to 511) and unit number (0 to 1)	Group Number. Enter the logical group number.
SRVRNAME		GWC and a number 0 to 255	Server Name. Server Name field consists of the PM type, which is GWC, and the PM number that correspond to a GWC number that is present in table SERVINV.
GRPTYPE		S, M, C	Group Type. The Group Type field specifies the group type. S means that the logical group name is derived from the MG9K VMG name. M means that the logical group has multiple GWs. C means that the logical group is combined with other logical groups.

Field, subfield, and refinement descriptions for table LGRPINV (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LGRPOPTS		see refinement	
	LGRPLOC	FRAME_TYPE FLOOR_POSITION ROW_POSITION FRAME_POSITION SHELF_POSITION	Logical Groups Locations. FRAME_NAME: The unique frame type. MG9Ks have a frame type of 'MG9F' FLOOR_POS: The unique floor with a unique Site (generally a building). Enter 0 to 99. ROW_POS: The unique row within a floor. Enter A,B,C...X,Y,Z,AA, to BB,CC...XX,YY,ZZ. FRAME_POS: The unique frame position within a row. Enter 0 to 99. SHELF_POS: Traditionally, this is the bolt hole position as measured in inches from the floor up. For MG9K shelves, it will be equal to the Shelf Number as specified in the Lgrp Key. The unique shelf position within a specific frame. Enter 0 to 77.

Additional information

The LGRPLOC optional data should be datafilled against MG9K LGRPs, LGRPs with a GRPTYPE of S and shelf number greater than 4. This requirement will be enforced by the table control software and if not provided a warning will be issued. For other LGRP types, datafilling of this data is optional.

The table transfer step of the one-night process (ONP) is supported for this table.

Table history

SN07

Table LGRPINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

Added new field LGRPOPTS and refinement LGRPLOC as described in feature A00002607.

SN06 (DMS)

Feature 89008025 increases line provisioning by reducing the average transaction time through pre-provisioning.

LINEATTR

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Line Attribute

Line attributes are assigned to regular lines in table LENLINES, to Meridian stations and attendant consoles in Meridian Digital Centrex (MDC) translation tables, to residential enhanced services (RES) lines in table IBNLINES, to single-line basic rate interface (SLBRI) lines in table KSETLINE, and to wireless lines in table CELLCUST.

NA011 feature AU3279, LINEATTR SERVORD Enhancements, split table LINEATTR (Line Attribute) into three tables to make data management easier:

- LINEATTR
- RATEAREA
- XLAPLAN

The LINEATTR Compression Tool feature (59017776) checks for duplicate tuples during the ADD, CHA, and REP commands. A warning message appears before the confirmation to provide an alert of a duplicate tuple. The message only generates when table OFCVAR parameter XLAPLAN_RATEAREA_SERVORD_ENABLED (XRSE) is set to MANDATORY_PROMPTS. This warning does not prevent datafill validation.

For switches using North American translations, all changes to translations fields are made in table XLAPLAN, and all changes to billing fields are made in table RATEAREA.

Partitioned table editor

In DMS switch offices with the Partitioned Table Editor (PTE) feature, the operating company can authorize a non-operating company user to use PTE to edit specified tuples of table LINEATTR.

To access a tuple in table LINEATTR, the tuple must be owned by the end user. Ownership of tuples is defined in field OWNER of table DATAOWNER.

PTE enables the operating company to limit edit access to a table for a specified end user. Access can be set to denied, read-only, change-only, or add and delete tuples. It is recommended that PTE access for non-operating company users be limited to change-only access.

For additional information on PTE and customer data change (CDC), refer to tables OWNER and DATAOWNR.

Datafill sequence and meaning

The following tables must be datafilled before table LINEATTR:

- AMAGRPID
- RATEAREA
- XLAPLAN

The following tables must be datafilled before table LINEATTR:

- DGHEAD
- FEATCHG
- PXHEAD

Table size

0 to 32 000 tuples.

Memory is automatically allocated for the maximum number of tuples.

Operating company personnel can delete tuples in this table if the tuple is not referenced in other tables.

Datafill

The following table lists the datafill for table LINEATTR.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
LNATTIDX		alphanumeric (up to 16 characters)	Line attribute index. Enter the index into table LINEATTR.
LCC		alphanumeric (up to 8 characters) or NLCC	Line class code. Enter the line class code (LCC) assigned to the line attribute index. The LCC of an existing tuple cannot be changed. If there is no LCC, enter NLCC. See the line class code table in the Additional information section for a description of the LCCs.
CHGCLSS		CAM0, CAM CAM2, CAM3 CSD0, DAT0 DAT1, DAT2 DAT3, DIHS DLHS, DLLS INW0, LAM0, LCDR, MBG, RCFW, SPCL TRMB, TWX0 WAT0, or NONE	Charge class. If the switching unit is configured for local automatic message accounting (LAMA), enter the charge class assigned to the line attribute index. Otherwise, enter NONE. Note: With Bellcore CDE format, the entry is NONE except in offices with the OOC: AMA Modernization feature.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
COST		HI, LO, or NT	Class of service tone. Enter the class of service tone required: HI (high tone), LO (low tone), or NT (no tone). The class of service tone forwarded to the operator depends on the type of originator and on the values in field COST of table LINEATTR and fields CSTHTONE and CSTLTONE of table OFRT. The resulting tone for each combination of these factors is shown in the class of service tones table, see Additional information.
LTG		numeric (0 to 9998)	Line treatment group. Enter the line treatment group LTG number assigned to the line attribute index. The LTG number discriminates between customer lines assigned to the same LCC but with different routing or screening patterns. If more than one LTG number is assigned, office parameter SO_PROMPT_FOR_LTG in table OFCVAR must be set to Y.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
TRAFSNO		numeric (0 to 127)	Traffic separation number. Enter the source and destination traffic separation number (1 to 127) assigned to the line attribute index. If a traffic separation number is not required, enter 0 (zero). Traffic separation enables a peg count of direct dial (DD), operator assisted (OA), or no prefix (NP) calls to be accumulated between an incoming source (incoming trunk or originating line attribute) and an outgoing source (outgoing trunk, terminating line attribute, tone, or announcement). For switching units with feature package NTX085AA (Traffic Separation Peg Count), the range of values for the traffic separation number is dependent on the value of office parameters TFAN_IN_MAX_NUMBER and TFAN_OUT_MAX_NUMBER in table OFCENG. For switching units without feature package NTX085AA, the range of values for the traffic separation number is 0 to 5. Refer to table TFANINT for more information on traffic separation numbers.
SFC		alphanumeric (up to 6 characters) or NILSFC	International subscriber feature class. If the switching unit has an international load, enter an international subscriber feature class. The feature class entered here must appear in table FEATCHG. For loads other than international ones, enter NILSFC.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MDI		numeric (0 to 1023)	Metering data index. If the switching unit has an international load, enter the metering data index assigned to the line attribute index. For loads that are not international, enter 0 (zero).
IXNAME		see subfields	International translations system start. This field consists of subfield XLASYS and refinement XLANAME.
	XLASYS	AC, AM, CT, DN, FA, FT, OFC, NSC, PX, or NIL	International translations system. If the switching unit has an international load, enter the head table name where translation starts, and datafill refinement XLANAME. For loads that are not international, enter NIL and leave refinement XLANAME blank. For an MDC equipped with the feature Open Number Translations, enter PX to direct the call to the translator name specified in refinement XLANAME. (Translation selector NET, network type DOD must be datafilled in table IBNXLA.) If the entry is other than PX or NIL, a DFIL117 log is generated and the call is sent to call not accepted (CNAC) treatment.
	XLANAME	alphanumeric (1 to 8 characters)	International translations name. Enter the index into the head table referenced by field XLASYS.
DGCLNAME		alphanumeric (up to 8 characters) or NIL	Digit analysis tables entry point. If the switching unit has an international load, enter a digit analysis name to serve as the entry point into the universal digit analysis tables DGHEAD and DGCODE.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
FANIDIGS		numeric (00 to 99)	Flexible ANI information digit pairs. If the switching unit is equipped with feature BR0713 (Flexible ANI Information Digit Assignment), enter the flexible automatic number identification (FANI) information digit pair assigned to the line attribute index. Otherwise, enter 00. This digit pair is transmitted to an inter-LATA carrier (IC) or an operations support system (OSS) as part of the ANI spill (provided the IC or OSS is equipped to receive the FANI information digit pair, as indicated in field FANI of table OCCINFO).
DFLTXLP		alphanumeric (up to 16 characters)	The DFLTXLP field is a key into table XLAPLAN. The key entered must exist in table XLAPLAN.
DFLTRA		alphanumeric (up to 16 characters)	The DFLTRA field is a key into table RATEAREA. The key entered must exist in table RATEAREA.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		ADMININF, AMAGRPID, HOT, LCABILL, or LDSV	Line attribute options. This field is a vector consisting of up to three options. Enter ADMININF to create a short explanation or note regarding the use of the LINEATTR tuple, and datafill subfield ADMININF. Enter AMAGRPID if a group identity for subscription basis tariff is required, and datafill subfield AMAGRPID. Enter HOT if identification of hotel lines to the TOPS operator for time and charge is required or if the outgoing trunk group type is OP. Enter LCABILL if a non-interexchange carrier call is billable. Enter LDSV if Long Distance Signal valid (LDS) is required on a line-group basis, and datafill subfield LDSV_STATE. The LDS feature automatically provisions the LDS option (LDSO) and the LDS activate (LDSA) options on all lines in the same line group if LDSV is assigned against the line group and the office parameter LDS_AUTO_PROV_ENABLED is set to Y. The LDSO and LDSA options are removed if LDSV is not provisioned against the line group. This autoprovisioning occurs after either an incoming local or toll call terminates on the line or the end user enters the LDSA feature access code.

Field, subfield, and refinement descriptions for table LINEATTR (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	LDSV_STAT E	ACT or DEACT	Long distance signal valid status. Enter ACT to indicate that LDSV is activated for the line group.
	AMAGRPID	alphanumeric (up to 8 characters)	AMA group identity. Enter a group identifier defined in table AMAGRPID.
	ADMININF	alphanumeric (up to 32 characters)	Administration information. Enter any string containing alphabetic characters, numeric characters, or underscores up to 32 characters. This entry provides a short explanation or note regarding the use of the LINEATTR tuple. The operating company defines the content of this entry.
CONTMARK		+ or \$	Continuation mark. Enter + if additional information for this tuple is in the next record. Otherwise, enter \$ to indicate the end of the tuple.

Additional information

The following table describes class of service tones. Fields CSTHTONE and CSTLTONE are in table OFRT, and other lines refer to nonparty lines.

CSTHTONE	CSTLTONE	Type of originator	Table LINEATTR COST	Resulting tone
N	N	line or trunk	don't care	none
N	Y	line or trunk	don't care	low
Y	N	line or trunk	don't care	high
Y	Y	trunk	not applicable	none
Y	Y	party line	don't care	none
Y	Y	other lines	NT	none
Y	Y	other lines	LO	low
Y	Y	other lines	HI	high

The following table lists and describes line class codes.

Line class codes (Sheet 1 of 9)

LCC	Description
ADATA1	Meridian ARIES set option. Do not use in this table; refer to table IVDINV.
A2008	Meridian ARIES 2008 8-key set. Do not use in this table; refer to table IVDINV.
A2016	Meridian ARIES 2016 16-key set. Do not use in this table; refer to table IVDINV.
A2016S	Meridian ARIES 2016 secure set. Do not use in this table; refer to table IVDINV.
A2216A	Meridian ARIES 2016 Automatic Call Distribution (ACD) set. Do not use in this table; refer to table IVDINV.

Line class codes (Sheet 2 of 9)

LCC	Description
A2216B	Meridian ARIES 2016 ACD set. Do not use in this table; refer to table IVDINV.
CCF	Coin first service. Assign an LCC of CCF to prepay coin lines. To define a RES CCF line, enter Y (yes) in field RESINFO. If the switching unit is not configured for 0+ dialing, set the call type in subtable STDPRTCT.STDPRT to operator assisted (OA) for digit zero (0) if the coin is returned to the subscriber on 0- calls. If the switching unit is configured for 0+ dialing, set the call type in subtable STDPRTCT.STDPRT to OA for digits 01 to 09 if the coin is returned to the subscriber on 0+ calls. The coin is automatically returned to the subscriber on 0- calls if field ZEROMPOS is other than NONE. For calls other than 0+ or 0- that route directly from the standard pretranslator, set the type of call to OA if the coin is returned to the subscriber.

Line class codes (Sheet 3 of 9)

LCC	Description
CDF	Coin dial-tone first service. Assign an LCC of CDF to dial-tone first coin lines. To define a RES CDF line, enter Y in field RESINFO. If the switching unit is not configured for 0+ dialing, set the type of call in the standard pretranslator subtable to OA for digit 0 if a deposited coin is returned on 0- calls. If the switching unit is configured for 0+ dialing, set the call type in subtable STDPRTCT.STDPRT to OA for digits 01 to 09 if the coin is returned to the subscriber on 0+ calls. The deposited coin is returned automatically to the subscriber on 0- calls if field ZEROMPOS is other than NONE. For calls other than 0+ or 0- that route directly from the standard pretranslator subtable, set the type of call to OA if the coin is returned to the subscriber. For calls that route through the route reference subtables, specify the N selector and the set the cancel normal charge (CANCNORC) field to Y if the coin is returned to the subscriber.
CFD	Coin free dialing service. Assign an LCC of CFD to coinless pay station (restricted sent paid) lines. To define a RES CFD line, enter Y in field RESINFO.
COIN	International coin line. In a switch with an international load, assign an LCC of COIN to international coin lines.
CSD	Circuit switched digital data service. Assign an LCC of CSD to circuit switched digital data service lines.
CSP	Coin semi-postpay service. Assign an LCC of CSP to semi-postpay coin lines. To define a RES CSP line, enter Y in field RESINFO.
DATA	Data unit. Do not use in this table; refer to table KSETINV.

Line class codes (Sheet 4 of 9)

LCC	Description
DISP	Electronic business set with display. Do not use in this table; refer to table KSETINV.
EOW	Enhanced outward WATS. Assign an LCC of EOW to lines with enhanced outward wide area telephone service (OUTWATS) in offices with feature packages NTX186AA/AB (Equal Access End Office) and NTXA16AA [Enhanced WATS Operation (POTS)]. EOW is similar to an LCC of OWT (OUTWATS service), except that EOW can be used with or without a hunt group, and EOW can be used in conjunction with the enhanced WATS access line (EWAL) option. To define a RES EOW line, enter Y in field RESINFO.
ETW	Enhanced two-way WATS. Assign an LCC of ETW to lines with enhanced OUTWATS service in offices with feature packages NTX186AA/AB (Equal Access End Office) and NTXA16AA (Enhanced WATS Operation (POTS)). ETW is similar to an LCC of 2WW (two-way WATS), except that ETW can be used with or without a hunt group, and ETW can be used in conjunction with the enhanced WATS access line (EWAL) option. ETW is a combination of the capabilities of inward WATS (INW) and enhanced outward WATS (EOW). To define a RES ETW line, enter Y in field RESINFO.
IBN	Integrated Business Network station. Assign an LCC of IBN to Meridian Digital Centrex (MDC) stations. The line attributes for these lines are assigned in table IBNXLA tuples that have direct outward dial (DOD) access codes.
INW	INWATS service. Assign an LCC of INW to subscribers enabled to receive calls, from within specified areas, that have been placed without charge to the originating party. To define a RES INW line, enter Y in field RESINFO.

Line class codes (Sheet 5 of 9)

LCC	Description
MOB	Mobile cellular service. Assign an LCC of MOB to mobile cellular subscribers.
M5008	Meridian set (8 keys). Do not use in this table; refer to table KSETINV.
M5009	Meridian set (9 keys). Do not use in this table; refer to table KSETINV.
M5018	Meridian set (18 keys). Do not use in this table; refer to table KSETINV.
M5112	Meridian set (12 keys). Do not use in this table; refer to table KSETINV.
M5208	Meridian set (8 keys, built-in display). Do not use in this table; refer to table KSETINV.
M5209	Meridian set (9 keys, built-in display). Do not use in this table; refer to table KSETINV.
M5212	Meridian set (12 keys, built-in display, handsfree). Do not use in this table; refer to table KSETINV.
M5216	Meridian set (16 keys, built-in display, headset). Do not use in this table; refer to table KSETINV.
M5312	Meridian set (12 keys, built-in display, handsfree). Do not use in this table; refer to table KSETINV.
M5316	Meridian set (16 keys, built-in display, handsfree). Do not use in this table; refer to table KSETINV.
M5317	Meridian set (17 keys, handsfree). Do not use in this table; refer to table KSETINV.
M6310	Meridian set (10 keys, built-in display, handsfree). Do not use in this table; refer to table KSETINV.
M6320	Meridian set (20 keys, built-in display, handsfree). Do not use in this table; refer to table KSETINV.

Line class codes (Sheet 6 of 9)

LCC	Description
OWT	OUTWATS service. Assign an LCC of OWT to lines with OUTWATS service. Line class code OWT is restricted to non-hunt type lines. To define a RES OWT line, enter Y in field RESINFO.
PBM	PBX message rate service. Assign an LCC of PBM to private branch exchange (PBX) message rate lines.
PBX	PBX flat rate service. Assign an LCC of PBX to PBX flat rate lines.
PDATA	Data unit. Do not use in this table; refer to table KSETINV.
PSET	Electronic business set without liquid crystal display. Do not use in this table; refer to table KSETINV.
RES	Residential Enhanced Services. Line class code RES is automatically assigned to lines with an LCC of 1FR, 1MR, OWT, EOW, INW, 2WW, ETW, CCF, CDF, CFD, CSP, ZMD, or ZMZPA whenever an option from the MDC custom calling feature set is added to the line. Conversely, if all options from the MDC custom calling feature set are removed from a line that has an LCC of RES, the LCC automatically reverts to 1FR, 1MR, OWT, EOW, INW, 2WW, ETW, CCF, CDF, CFD, CSP, ZMD, or ZMZPA.

Line class codes (Sheet 7 of 9)

LCC	Description
SPC	Semipermanent connection. In a switch with an international load, assign an LCC of SPC to lines that are used to set up semipermanent connections. An SPC is one that can be set up or taken down by operating company personnel in a DMS-100 international switch. A semipermanent connection has two members. Each of the two members of the connection can be a line with an LCC of SPC or a trunk of trunk group type SPC. The subscriber can use the speech/data path for the duration of the connection. Refer to table SPECCONN for more information on semipermanent connections.
STD	Standard international POTS line. In a switch with an international load, assign an LCC of STD to standard international POTS lines.
TWX	TWX service. Assign an LCC of TWX to lines with teletypewriter exchange (TWX) service.

Line class codes (Sheet 8 of 9)

LCC	Description
VLN	Virtual line. Assign an LCC of VLN to remote call forwarding (RCF) lines. Remote call forwarding enables a subscriber to establish a directory number (DN) in one local calling area that translates to a phone in another local calling area. A remote call forwarding DN has no hardware associated with it. Calls placed to RCF DNs are automatically forwarded to the call forwarding number. RCF DNs are defined in table CFW. Field LINEATTR in table CFW indexes table LINEATTR, pointing to lines with an LCC of VLN. These lines are called virtual because no physical equipment is associated with the DN. If MUMR billing is required for an RCF line, the RCF-to-terminator leg of the call is of type no prefix (NP), and field MRSA in the associated LINEATTR tuple is datafilled with a valid multiunit message rate area (MRSA) name. Direct dial (DD) or equal access (EA) billing records are produced instead of MUMR records if the second leg of the call is not of type NP. If MUMR billing is not required for an RCF line, field MRSA in the associated LINEATTR tuple is set to nil.
ZMD	Zero minus zero plus allowed service. Assign an LCC of ZMZPA to an individual line using a pretranslator different from the pretranslator provided for 1FR lines. The pretranslator for ZMZPA lines must be datafilled to enable only 0- and 0+ calls and to block 011 calls. This LCC can be assigned only if the switching unit is equipped to support coinless pay station lines. ZMZPA lines appear as ZMA when posted by the MAP terminal. To define a RES ZMZPA line, enter Y in field RESINFO.
1FR	Individual flat rate service. Assign an LCC of 1FR to individual flat rate lines. To define a RES 1FR line, enter Y in field RESINFO.

Line class codes (Sheet 9 of 9)

LCC	Description
1MR	Individual message rate service. Assign an LCC of 1MR to individual message rate lines.
2FR	Two-party flat rate service. Assign an LCC of 2FR to two-party flat rate lines.
2WW	Two-way WATS. Assign an LCC of 2WW to lines that have both INWATS and OUTWATS service on the same line. Line class code 2WW is restricted to hunt-type lines.
4FR	Four-party flat rate service. Assign an LCC of 4FR to four-party flat rate lines.
8FR	Eight-party flat rate service. Assign an LCC of 8FR to eight-party flat rate lines.
10FR	Ten-party flat rate service. Assign an LCC of 10FR to ten-party flat rate lines.

Automatic Message Accounting identities

If different tariff arrangements are provided by an operating company on a subscription basis, the different subscriptions can be equated to different AMA group identities. Table AMAGRPID is used to create AMA group identifiers that can then be datafilled in field OPTIONS of table LINEATTR.

Table history**SN07**

Table LINEATTR migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

LIUINV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Link Interface Unit Inventory

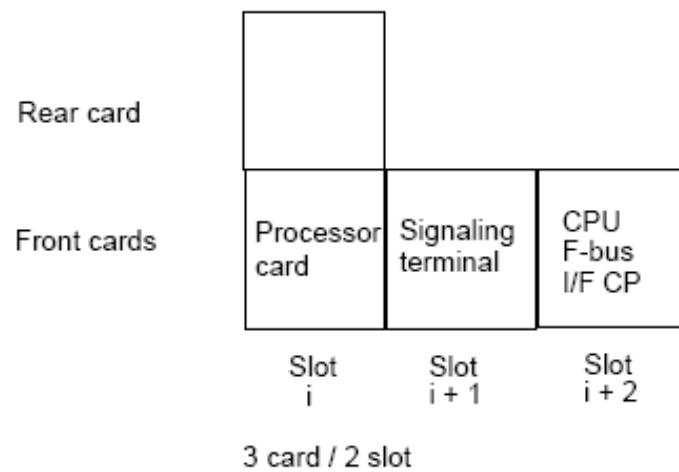
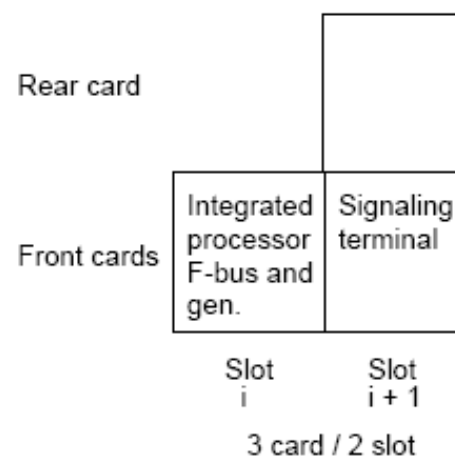
Table Link Interface Unit Inventory (LIUINV) allows the specification of either the message switch (MS) or a link interface module (LIM) as the controlling entity to which the link interface unit (LIU) or multiple link interface unit (MLIU) is connected. An LIU-type node (for example, an LIU7) can be datafilled on either an LMS or MS. If the CCS7 link interface unit (LIU7) is datafilled on an LMS, datafill field LIMNUM; if it datafilled on an MS, datafill fields MSCARD and MSPORT.

LIUs and MLIUs can be provisioned on a LIM in a link interface shelf (LIS) or in a single shelf link peripheral processor (SSLPP).

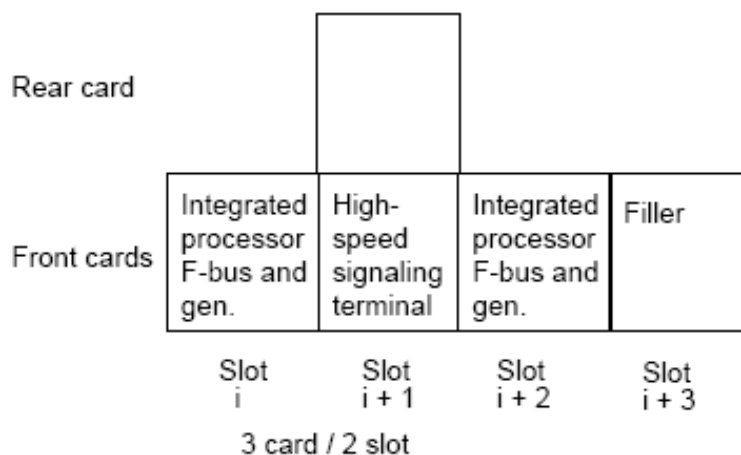
Because an office contains up to 36 LIUs on each of 17 LIMs, in addition to the 24 LIUs subtending the MS, the maximum number of LIUs datafilled in a single office is 636. The maximum number of LIUs of the same LIU type is 511.

The MLIU increases SS7 link density without adding another LPP to an office. One LPP houses up to 30 MLIUs which in turn can support up to 120 SS7 MLIU based links. One MLIU provides the same connectivity as four LIUs.

The LIU consists of either three or four cards, as shown in the following 3 figures.

Link interface unit configuration (24-link LIM cabinet)**Link interface unit configuration (36-link LIM cabinet)**

Link interface unit configuration (12-link LIM cabinet)



For related information, refer to tables LIMINV and NIUINV.

Datafill sequence and meaning

The following tables must be datafilled before table LIUINV:

- LIMINV
- PMLOADS
- SUSHELF
- LIMPTINV (LIM-based LIU)
- MSCDINV (MS-based LIU)

An application processing unit (APU) must be datafilled in table LIUINV before it is datafilled in tables IPHOST, SNIXINFO, SNIXVOLS, and SNIXAPPL.

Table size

0 to 511 tuples.

Memory requirements

Maximum datastore allocated for tuples of table LIUINV is:

$3 \times 408 \times 35 = 42\,840$ words of protected datastore

$3 \times 408 \times 25 = 30\,600$ words of permanent datastore

Previous LIUINV data remains unchanged on BCS application.

Datafill

The following table lists the datafill for table LIUINV.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
LIUNAME		see subfields	Link interface unit name. This is the key field, which consists of subfields LIUTYPE and LIUNO. This field uniquely identifies the type of LIU that is present in the LPP, fiberized LPP, or enhanced LPP (ELPP).
	LIUTYPE	APU, EIU, ELIU, FRIU, LIU7, VPU, HLIU, HSLR, XLIU, SVR7, or MLIU	Link interface unit type. Enter the LIU type. Enter ELIU if the application specific unit (ASU) type is Ethernet link interface unit. Enter MLIU as a permitted entry in the case of a multiple link interface unit. The LIU type APU is the application processing unit card with UNIX (NT9X14DB). The Ethernet interface unit (EIU) replaces the data communication processor (DCP). The frame relay interface unit (FRIU) requires the frame relay access processor card (NTEX31AA) along with a T1 analog paddle board (NTEX30AA). Though it is possible to specify an LIU7 STPEC with its associated PBINFO as an FRIU, the following error message appears: INVALID STPEC FOR AN FRIU

Field, subfield, and refinement descriptions for table LIUINV (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
LIUNAME (continued)	LIUTYPE (continued)		Similarly, an LIU7 can be incorrectly datafilled with an FRIU STPEC and PBINFO, but the following error message appears: INVALID STPEC FOR AN LIU7 The voice processing unit (VPU) requires a recording and announcement processor card (NTMX97AA) and a 512-channel bus interface paddle board (NTMX99AA). The X.25 and X.75 link interface unit (XLIU) requires the HDLC frame processor card (NTFX10AA) and the channel bus interface paddle board (NTFX09AA). The high speed link interface unit (HLIU) requires the high speed signaling terminal (HST) NTEX76AA and the DS-1 PB (NTEX78AA). The high-speed link router (HSLR) requires the 32-Mbyte processor and F-bus controller card (NTEX22CA). The CCS7 server (SVR7) requires the 32-Mbyte (NTEX22CA) or the 128-Mbyte (NTEX22FA) integrated processor and F-bus controller card. The card occupies the first slot of a two-slot group. The second slot remains empty. Note: The NTEX22FA card is available for the Global System for Mobile Communications release 11 (GSM11) SVR7 peripheral only.
	LIUNO	0 to 511	Link interface unit number. Enter the number assigned to the LIU.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
LOCATION		see subfields	Location. Enter the location of the LIU on the host link interface module. This field consists of subfields CTRL, SHELFNUM, and LIUSLOT.
	CTRL	see subfield	Control information. This field consists of subfield CONTROL.
	CONTROL	LIM or MS	Controlling host entity. Enter MS if the host is a message switch and datafill subfields MSCARD and MSPORT. Enter LIM if the controlling host is a link interface module and datafill field LIMNUM.
	MSCARD	5 to 23	Message switch card If the entry in field CONTROL is MS, enter the message switch card number. Any entries outside the range indicated for this field are invalid.
	MSPORT	0 to 3	Message switch port. If the entry in field CONTROL is MS, enter the message switch port number.
	LIMNUM	0 to 16	Link interface module number. If the entry in field CONTROL is LIM, enter the host LIM number on which the LIU resides. Otherwise, leave this field blank.
	SHELFNUM	0 to 3	Shelf number. Enter the shelf number, at the host LIM, on which the LIU is located.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	CTRL	see subfield	Control information. This field consists of subfield CONTROL.
	CONTROL	LIM or MS	Controlling host entity. Enter MS if the host is a message switch and datafill subfields MSCARD and MSPORT. Enter LIM if the controlling host is a link interface module and datafill field LIMNUM.
	MSCARD	5 to 23	Message switch card. If the entry in field CONTROL is MS, enter the message switch card number. Any entries outside the range indicated for this field are invalid.
	MSPORT	0 to 3	Message switch port. If the entry in field CONTROL is MS, enter the message switch port number.
	LIMNUM	0 to 16	Link interface module number. If the entry in field CONTROL is LIM, enter the host LIM number on which the LIU resides. Otherwise, leave this field blank.
	SHELFNUM	0 to 3	Shelf number. Enter the shelf number, at the host LIM, on which the LIU is located.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	LIUSLOT	8 to 31	Link interface slot. Enter the slot number, at the host LIM, on which the LIU resides. The LIU can occupy two or three slots. In both configurations, the leftmost card is chosen to represent the logical location of the card. That is, the link general processor (LGP) card for the four-card/three-slot configuration, and the integrated processor and frame bus (IPF) card for the three-card/two-slot configuration. All the shelves that are datafilled on a particular controller must be of the same type (two or three-slot).
LOAD		alphanumeric (vector, up to 8 characters)	Software load name. Enter the table software load name applicable to the LIU. Prefix the load name with MCA in the case of an MLIU eg. MCA11AQ. This load is found in table PMLOADS.
PROCINFO		see subfield	Processor information. This field specifies the product engineering code (PEC) of the processors used in the LIU. This field consists of subfield PROCPEC.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
	PROCPEC		Processor product engineering code. Enter the PEC of the processor card used in the LIU as follows: NTEX22BA and NTEX22BB are the PECs for the 8-Mbyte integrated processor and F-bus interface cards. The difference between the NTEX22BA and NTEX22BB cards is in firmware only, the hardware is identical. Enter NTEX22CA for the 32-Mbyte integrated processor and F-bus interface card. Enter NTEX22DA for the 64-Mbyte integrated processor and F-bus interface card. Enter NTEX22EA for the 96-Mbyte integrated processor and F-bus interface card. Enter NTEX22FA for the 128-Mbyte integrated processor and F-bus interface card. Note: NTEX22DA and NTEX22EA are reserved in the software for future use. NTEX22FA is available for the GSM11 SVR7 peripheral only.

Field, subfield, and refinement descriptions for table LIUINV (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
CARDINFO		see subfields	Card information. This field specifies the card data and consists of subfield APPLPEC.
	APPLPEC	NTEX31AA NTEX31BA NTEX76AA NT9X76AA NT9X76CA NTFX10AA NT9X84AA NT9X14DBN TMX97AANIL STPEC	Application product engineering code. Enter the PEC of the application card. Cards NTEX31AA and NTEX31BA are used with FRIU applications. Card NTEX76AA is used with HLIU applications. Card NT9X76AA is used with LIU7 applications. Card NT9X76CA is used with Japan ISDN user part (ISUP) LIU7 applications. Card NTFX10AA is used with XLIU applications. Card NT9X84AA is used with EIU and Ethernet link interface unit (ELIU) applications. Card NT9X14DB is used with APUX applications. Card NTMX97AA is used for VPU applications. NILSTPEC is used with SVR7 and HSLR applications.

APPLPEC = NTEX31AA or NTEX31BA

If the entry in field APPLPEC is NTEX31AA or NTEX31BA, datafill subfield PBINFO as described in the following table.

If NTEX31AA is datafilled for an FRIU, the carrier template used must be defined as SF-T1 format and not ESF.

Field descriptions for conditional datafill (Sheet 1 of 2)

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfield PBPEC.
PBPEC	NTEX30AA	Paddle board product engineering code. Enter the PEC of the paddle board and datafill the following subfields as described below.
CLKSRCE	FBUS or EXTERNAL	Clock source. Enter the clock source if the entry in field LIUTYPE is FRIU.
T1_FRAMING	CHAN, FRACT, or UNCHAN	T1 framing. Enter the T1 framing value if the entry in field LIUTYPE is FRIU. If the entry in this field is FRACT, datafill field NUMCHANS; otherwise continue datafill at field PB_LLEQ.
NUMCHANS	4	Number of channels. If the entry in field T1_FRAMING is FRACT, enter the number of channels on the fractional T1.
PB_LLEQ	DS1_LLEQ_110 DS1_LLEQ_220 DS1_LLEQ_330 DS1_LLEQ_440 DS1_LLEQ_550 or DS1_LLEQ_660	Line length equalization. Enter the line length equalization in feet used by the T1 paddle board.

Field descriptions for conditional datafill (Sheet 2 of 2)

Subfield or refinement	Entry	Explanation and action
PB_CARRIDX	DEFAULT or see table CARRMTC	Carrier index. This is the index to table CARRMTC. This field must be one of the template names (field TMPLTNM) already datafilled in table CARRMTC.
PB_OSACTION	Y or N	Out-of-service action. Enter Y (yes) if the T1 carrier is to be put out-of-service if the out-of-service threshold for any performance parameters is reached. Otherwise, enter N (no).
ZLG	ZCS or B8ZS	Zero logic. This field is used for the reset of the R8070 chip. B8ZS is normally used.

APPLPEC = NTEX76AA and PBPEC = NTEX78AA

If the entry in field APPLPEC is NTEX76AA, and the entry in field PBPEC is NTEX78AA datafill subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfield PBPEC.
PBPEC	NTEX78AA	Paddle board product engineering code. Enter the PEC for the new DS-1 paddleboard.
CLKSRCE	FBUS	Clock source. The clock source is always FBUS.
CLKRATE	1536	Clock rate. Enter the clock rate: 1536 kbits/s.
PB_LLEQ	0_35, 36_65, 66_95, 96_125, 126_155, 156_185, 186_210	Paddle board line length equalization. These values represent the range of paddle board line lengths. The line lengths are measured in meters from the bulkhead to the terminating equipment. Enter the range that includes the appropriate paddle board line length. Note: Under certain conditions, an incorrect value may cause errors due to inadequate signal-to-noise ratios.

APPLPEC = NTEX76AA and PBPEC = NTEX26BA

If the entry in field APPLPEC is NTEX76AA and the entry in field PBPEC is NTEX26BA, then datafill the subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfields BPPEC, CLKRATE, and PB_BIT_INV.
PBPEC	NTEX26BA	Paddle board product engineering code. NTEX26BA is a permitted entry for the PB PEC of the MLIU. Enter the PEC of the paddle board and datafill subfields CLKRATE and PB_BIT_INV as described below.
CLKRATE	64000, 56000	Clock rate. Enter the clock rate at which the paddle board operates.
PB_BIT_INV	NBI	Paddle board bit inversion. Enter the bit inversion (BI) mode value to match the BI mode characteristic of the associated network.

APPLPEC = NT9X76AA or NT9X76CA and PBPEC = NT9X77AA or NT9X77AB

If the entry in field APPLPEC is NT9X76AA or NT9X76CA, and the entry in field PBPEC is NT9X77AA or NT9X77AB (DMS-100 V.35 PB type), then datafill subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfield PBPEC.
PBPEC	NT9X77AA or NT9X77AB	Paddle board product engineering code. Enter the PEC of the paddle board and datafill subfields CLKRATE and CLKCONFIG as described below.
CLKRATE	2400, 4800, 9600, 19200, 56000, or 64000	Clock rate. Enter the clock rate at which the paddle board operates. The default for this field is 56 000 (56 kbit/s).
CLKCONFIG	DTE or DCE	Clock configuration. Enter the clock configuration for the paddle board if the LIU7 is specific to the V.35 PB type.

APPLPEC = NT9X76AA or NT9X76CA and PBPEC = NT9X78AA

If the entry in field APPLPEC is NT9X76AA or NT9X76CA, and the entry in field PBPEC is NT9X78AA (DS-0A PB type), then datafill subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfield PBPEC.
PBPEC	NT9X78AA	Paddle board product engineering code. Enter the PEC of the paddle board and datafill subfield CLKSRC as described below.
CLKSRC	EXTERNAL or FBUS	Clock source. Enter the clock source for the paddle board if the LIU7 is specific to the DS-0A PB type.

APPLPEC = NT9X76AA or NT9X76CA and PBPEC = NT9X78BA, NT9X78CA, NT9X78DA, or NT9X78DB

If the entry in field APPLPEC is NT9X76AA or NT9X76CA, and the entry in field PBPEC is NT9X78BA, NT9X78CA, NT9X78DA (DS-0A PB type), or NT9X78DB then datafill subfield PBINFO as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfield PBPEC.
PBPEC	NT9X78BA NT9X78CA NT9X78DA or NT9X78DB	Paddle board product engineering code. Paddle board product engineering code Enter the PEC of the paddle board and datafill the following subfields: The NT9X78BA is for 56-kbit/s applications. The NT9X78CA is for 56- and 64-kbit/s applications. The NT9X78DA provides 56- and 64-kbit/s applications and can generate a Link Fault Sectionalization (LFS) control code sequence. The NT9X78DB provides 56- and 64-kbit/s applications and supports LFS enhancements.
CLKSRCE	EXTERNAL or FBUS	Clock source. Enter the clock source for the paddle board if the LIU7 is specific to DS-0A PB type.
CLKRATE	56000 or 64000	Clock rate. Enter the clock rate at which the paddle board operates. The default is 56000 (56 kbit/s). The 64000 clock rate only works with the NT9X78CA paddle board.

Field descriptions for conditional datafill (Sheet 2 of 2)

Subfield or refinement	Entry	Explanation and action
DS0TYP	DS0TRK or NIL	DS-0 type. Enter the DS-0 type. DS0TRK is valid only if the office has channelized access on LPP/LIS. If the entry in this field is DS0TRK, datafill field DS0TRK.
DS0TRK	see subfields	DS-0 trunk. This field consists of subfields CLLI and EXTRKNM.
CLLI	DS0TRK or NIL	Common language location identifier. Enter DS0TRK for a DS-0 LIU7; enter NIL for a V.35 LIU7. These are psuedo CLLIs that are needed to satisfy the table editor.
EXTRKNM	0 to 9999	External trunk number. Enter a numerical value to represent the external trunk number.

APPLPEC = NT9X76AA or NT9X76CA and PBPEC = NTEX26AA

If the entry in field APPLPEC is NT9X76AA or NT9X76CA, and the entry in field PBPEC is NTEX26AA, then datafill the subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfields OPTIONS, CLKRATE, and PB_BIT_INV.
PBPEC	NTEX26AA	Paddle board product engineering code. Enter the PEC of the paddle board and datafill subfields OPTIONS, CLKRATE, and PB_BIT_INV as described below.
OPTIONS	blank	Option vector. This field cannot be datafilled at this time, leave the entry blank.
CLKRATE	48000, 56000, or 64000	Clock rate. Enter the clock rate at which the paddle board operates.
PB_BIT_INV	NBI, EBI, ABI, or OBI	Paddle board bit inversion Enter a bit inversion (BI) mode value to match the BI mode characteristic of the associated network.

APPLPEC = NT9X76AA or NT9X76CA and PBPEC = NTEX26AA

If the entry in field APPLPEC is NT9X76AA or NT9X76CA, and the entry in field PBPEC is NTEX26AA, then datafill the subfield PBINFO as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBINFO	see subfield	Paddle board information. This field specifies the paddle board information and consists of subfields OPTIONS, CLKRATE, and PB_BIT_INV.
PBPEC	NTEX26AA	Paddle board product engineering code. Enter the PEC of the paddle board and datafill subfields OPTIONS, CLKRATE, and PB_BIT_INV as described below.
OPTIONS	blank	Option vector. This field cannot be datafilled at this time, leave the entry blank.
CLKRATE	48000, 56000, or 64000	Clock rate. Enter the clock rate at which the paddle board operates.
PB_BIT_INV	NBI, EBI, ABI, or OBI	Paddle board bit inversion Enter a bit inversion (BI) mode value to match the BI mode characteristic of the associated network.

APPLPEC = NTFX10AA

If the entry in field APPLPEC is NTFX10AA, datafill field PBPEC as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBPEC	NTFX09AA	Paddle board product engineering code. Enter the PEC of the paddle board. The only card code supported is NTFX09AA.

APPLPEC = NTMX97AA

If the entry in field APPLPEC is NTMX97AA, datafill subfield PBPEC as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBPEC	NTMX99AA	Paddle board product engineering code. Enter NTMX99AA, the paddle board for LIUTYPE VPU.

APPLPEC = NT9X14DB

If the entry in field APPLPEC is NT9X14DB, datafill subfield SNIX_FILENAME as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
SNIX_FILE-NAME	SNIX_FILE-NAME	SuperNode UNIX filename. Enter the name of the SNIX image load file. If SNIX_FILENAME is SOSONL, this entry defines an APU running Support Operating System (SOS) only. If SNIX_FILENAM is SOSNIX, this entry defines an APU running both SOS and SuperNode UNIX (SNIX) Systems.

APPLPEC = NT9X84AA

If the entry for field APPLPEC is NT9X84AA, datafill the subfields in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PBPEC	NT9X85AA or NT9X85BA	Paddle board product engineering code. Enter one of the PECs. Enter NT9X85AA for EIU coax applications. Enter NT9X85BA for EIU unshielded twisted pair applications. Enter NT9X85AA or NT9X85BA for ELIU applications.
HEARTBEAT	YES or NO	Heartbeat. Enter YES if the EIU or ELIU expects a heartbeat indication signal from the media access unit (MAU) connected to it; otherwise, enter NO.
MAC_ADDRESS	000075F00000 to 000075FFFFFF	Media access control address. Enter a 12-character hex string representing the MAC address.

Table history**SN07**

Table LIUINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

LTCALLS

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Logical Terminal Calls

Table Logical Terminal Calls (LTCALLS) stores service-related data, such as translations, that the DMS switch associates with the call type. The DMS switch uses a key and logical terminal identifier (LTID) in field LTID to access table LTCALLS. There are three parts to an LTID. The following lists the parts:

- logical terminal group (field LTGRP)
- logical terminal number (field LTNUM)
- call type (field CALLTYPE)

Datafill sequence and implications

The following tables must be datafilled before table LTCALLS:

- LINEATTR
- OFRT
- IBNRTE
- LTDEF

Note 1: When the option is SIDXLA, enter data in table ISAXLA before table LTCALLS.

Note 2: If the option in field LTCOPT is EA, first enter the carrier name in tables OCCNAME and OCCINFO before you enter the carrier name in refinement PIC. If the option in field LTCOPT is LPIC, enter the carrier name in tables OCCNAME and OCCINFO before you enter the carrier name in refinement LCARRIER.

Table size

0 to 196 224 tuples.

Datafill

The following table lists the datafill for table LTCALLS.

Field, subfield, and refinement descriptions for table LTCALLS (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
LTID		see subfields	Logical terminal identifier. This field consists of subfields LTGRP, LTNUM, and CALLTYPE.
	LTGRP	alphanumeric (up to 8 characters)	Logical terminal group. Enter the logical terminal group.
	LTNUM	1 to 1022	Logical terminal number. Enter the logical terminal number within the group.
	CALLTYPE	ASDS, LDS, FX, INWATS, PUB, TIE, WATS, PVT, HM, SCOCS	Call type. Enter the call type associated with the LTID. The DMS switch can associate more than one call type with the same identifier. ASDS (Accunet Switched Digital Service) is an integrated services access (ISA) route selector used to route AT&T Accunet calls. LDS (long distance service) is an ISA route selector used to route AT&T World Connect (international) calls. LDS (long distance service) is an ISA route selector used to route AT&T World Connect (international) calls. FX (foreign exchange) provides a customer's location with the equivalent of local service from a distant exchange.

Field, subfield, and refinement descriptions for table LTCALLS (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CALLTYPE (continued)		INWATS (Inward Wide Area Telecommunications Service) is a form of long distance service that allows a subscriber to receive calls originating within specified service areas, without a charge to the caller. PUB (public). A carrier can provide this call type for many customers. TIE is a type of call that occurs on private lines between private branch exchanges (PBXs). WATS (Wide Area Telecommunications Service) is provided by telephone companies to permit customers to make calls over an access line to telephones in a specific zone. Note: Only, HM, SCOCS, PUB, TIE, FX, INWATS, and WATS are valid CALLTYPES for Call-by-CALL (CBC) features on NIPRI interfaces. The following message is generated if in the corresponding tuple in table LTDEF, field LTCLASS = PRA, subfield VARIANT = NIPRI, and a change to CALLTYPE = PVT is attempted. ERROR: Private service type is not supported nor defined for NI Call-by-Call.

Field, subfield, and refinement descriptions for table LTCALLS (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	CALLTYPE (continued)		PVT (private) provides private telephone services to a particular organization. Note: See the preceding note before attempting to change field CALLTYPE to PVT if the corresponding tuple in table LTDEF field LTCLASS = PRA and VARIANT = NIPRI. HM (Hotel/Motel) provides for hotel and motel services. SCOCS (Selective Class of Call Screening) is an originating-only service that allows several distinct classes of service to be associated with a single PRI.

Field, subfield, and refinement descriptions for table LTCALLS (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
XLARTSEL		see subfield	Translation route selector. This field consists of subfield XLARTE.
	XLARTE	RTEREF, IBNRTE, XLAIBN, XLALEC	Translation route. Enter the translation route selector as follows: Enter RTEREF if translation is done by a specific table and index, such as OFRT, IBNRTE, and other routing tables. Enter IBNRTE to indicate the IBN route. Enter XLAIBN for integrated business network (IBN) translations. This selection is used only in PBX or Centrex offices. Enter XLALEC for local exchange carrier translations, such as POTS (plain ordinary telephone service), or in PBX or Centrex type offices. If the entry in this field is XLALEC, and the entry in subfield CALLTYPE is PVT, INWATS, or TIE, the switch requires no other datafill.
Note 1: NIPRI supports only CALLTYPEs HM, PUB, SCOCs, TIE, FX, INWATS, and WATS. Note 2: NIPRI on MSL-100 system supports CALLTYPEs PUB, TIE, FX, INWATS, and WATS. Note 3: Table LTCALLS accepts CALLTYPE PVT as a valid entry but it is not supported by the NI-2 standard, and an error message is generated.			

XLARTE = RTEREF

If the entry in subfield XLARTE is RTEREF, datafill refinements RTEID and INDEX as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
RTEID	IBNRTE, IBNRT2, IBNRT3, IBNRT4, OFR2, OFR3, OFR4, OFRT, SERVICE, TOPS	Route index. Enter the routing table. Any entry outside the range indicated for this field is invalid.
INDEX	0 to 1023 or alphanumeric (up to 6 digits)	Index. Enter the number that is assigned to the route list in the table or tables to which translations routes. If the entry in refinement RTEID is SERVICE, enter a value between 1 and 99. If the entry in refinement RTEID is TOPS, enter the call origination. Refer to table TOPS.

XLARTE = XLAIBN

If the entry in subfield XLARTE is XLAIBN, datafill refinements LINEATTR, CUSTGRP, SUBGRP, and NCOS as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
LINEATTR	alphanumeric (up to 16 characters)	Line attributes index. Enter the index into table LINEATTR for service-related data.
CUSTGRP	alphanumeric (up to 16 characters)	Customer group name. Enter the customer name that is associated with an IBN station.
SUBGRP	0 to 7	Subgroup number. Enter the subgroup number that further defines the selection of the CUSTGRP.
NCOS	0 to 511	Network class of service. Enter the network class of service (NCOS) that determines the facilities to which each network user has access.

XLARTE = XLALEC

If the entry in subfield XLARTE is XLALEC, datafill refinement LINEATTR as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
LINEATTR	alphanumeric (up to 16 characters)	Line attributes index. Enter the index into table LINEATTR for service-related data.

XLARTE = RTEREF

If the entry in subfield XLARTE is RTEREF, datafill refinements RTEID and INDEX as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
RTEID	IBNRTE, IBNRT2, IBNRT3, IBNRT4, OFR2, OFR3, OFR4, OFRT, SERVICE, TOPS	Route index. Enter the routing table. Any entry outside the range indicated for this field is invalid.
INDEX	0 to 1023 or alphanumeric (up to 6 digits)	Index. Enter the number that is assigned to the route list in the table or tables to which translations routes. If the entry in refinement RTEID is SERVICE, enter a value between 1 and 99. If the entry in refinement RTEID is TOPS, enter the call origination. Refer to table TOPS.

XLARTE = all entries

For all entries in subfield XLARTE, datafill refinement OPTIONS as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
OPTIONS	see subfield	Option. This field consists of subfield LTCOPT.
LTCOPT	EA,INCLID, LPIC,SIDXLA	Logical terminal option. Enter EA to allow equal access for all connected inter-LATA and international carriers, and datafill refinements PIC and CHOICE. EA is valid if the entry in field CALLTYP is PUB. Enter INCLID to allow ISDN primary rate interface (PRI) calling number delivery (CND) screening capabilities. Enter LPIC, and datafill refinements LCARRIER and LCHOICE, to implement the enhancement Intra-LATA Competition. LTCOPT = LPIC allows equal access for all connected intra-LATA calls. LPIC is valid if the entry in field CALLTYP is PUB and the entry in field XLARTE is XLALEC or XLAIBN. Enter SIDXLA to allow service identifier (SID) routing on a specific PRI ISA call type. Any entry outside the range indicated for this field is invalid.

LTCOPT = EA

If the entry in subfield LTCOPT is EA, datafill refinements PIC and CHOICE as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
PIC	IC_INC_CAR RIER_NAME	Primary inter-LATA carrier. Enter the primary inter-LATA carrier name, which must first be datafilled in tables OCCNAME and OCCINFO.
CHOICE	Y or N	Choice. Enter Y (yes) to indicate whether a 10XXX equal access plan (EAP) prefix can be used to specify an alternate other common carrier (OCC). Otherwise, enter N (no).
Note: See LTCOPT = LPIC for more information about LCHOICE for LTCOPT = EA. If SOC EQA00015 is IDLE and LTCOPT = EA, the CHOICE data option will reference the PIC not the correct option LCHOICE.		

LTCOPT = INCLID

If the entry in subfield LTCOPT is INCLID, datafill refinement CLIDFEAT as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Subfield or refinement	Entry	Explanation and action
CLIDFEAT	NTWKOVRD or SUPPRESS	Calling line identifier display feature. This field specifies which CND service enhancement is activated. Enter NTWKOVRD to override calling line identifier (CLID) restrictions imposed by table CUSTNTWK. This capability only applies if the PRI trunk terminates directly to a line agent with display capability. The following options are not affected: - option SUPPRESS in tables DNATTRS, DNGRPS, and NETNAMES - option CNDBO (calling number delivery blocking override) in table CUSTSTN - the PRI CND screening through option CGNDELV in table LTDATA The entry SUPPRESS restricts the presentation of the calling party number. Note 1: This capability does not affect presentation of the calling party name. Note 2: The presentation indicator (PI) for the calling party number (CGN) is set to presentation restricted. The switch does not discard the digits from the CGN information element (IE). Note 3: The SUPPRESS capability is active only if the call is incoming on the PRI. To prevent CND for the outgoing direction, see option CGNDELV in table LTDATA.

Field descriptions for conditional datafill (Sheet 2 of 2)

Subfield or refinement	Entry	Explanation and action
CLIDFEAT (continued)		Note 1: The NTKWKOVRD and SUPPRESS capabilities are not compatible with the following options: • attendant console interworking • non-call-associative options, such as network executive message waiting (NEMW) Note 2: SUPPRESS and NTKWKOVRD cannot both be present in the same tuple because option INCLID can only be specified once for each key.

LTCOPT = LPIC

If the entry in subfield LTCOPT is LPIC, datafill refinements LCARRIER and LCHOICE as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
LCARRIER	alphanumeric carrier name	Primary intraLATA carrier name. Enter the prescribed carrier name. The carrier name must be datafilled in table OCCNAME and OCCINFO.
LCHOICE	Y or N	IntraLATA choice. Enter Y (yes) to indicate if the prescribed carrier can be overridden by the specified carrier. Otherwise, enter N (no).
Note 1: If subfield CALLTYPE=WATS (OUTWATS) the LPIC option is invoked through Virtual Terminal Group (VTG). Note 2: Option LPIC is SOC controlled (EQA00015). See the following table for more information about route selection controlled by this feature.		

SOC control for LTCOPT=LPIC

SOC #	STATE	Option data referenced
EQA00015	ON	LCHOICE of LPIC
EQA00015	IDLE	CHOICE of PIC (see LTCOPT = EA)

LTCOPT=SIDXLA

If the entry in subfield LTCOPT is SIDXLA, datafill refinements RTRNAME, TREAT_NO_SID, NO_CALL_SCREEN, and ROUTE_ON_XLARTE as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
RTRNAME	alphanumeric (vector of up to 8 characters)	Router name. This field is the first part of the key that indexes table ISAXLA. Enter the router name.
TREAT_NO_SID	Y or N	Treatment with no service identifier. This field determines whether calls that do not have an associated SID are sent to treatment. Enter Y (yes) to indicate that the call is sent to treatment. Enter N (no) to route the call using the numbering plan indicator (NPI), network specific facility (NSF), and the called digits.
NO_CALL_SCREEN	Y or N	No call screen. This field allows the operating company to avoid call screening on the line attribute index. Enter Y to indicate that validation is not done on the directory number. Enter N to indicate that call screening is done using the line attribute index defined in field LINEATTR.

Table history**SN07**

Table LTCALLS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

LTCINV

Line Trunk Controller Inventory

Table LTCINV contains the inventory data, except P-side link assignments, for various host peripheral module (PM) types. The host Line Trunk controller (LTC) PMs datafilled in table LTCINV support a maximum of 63 remote and local peripheral nodes.

The MSG MX76 card needs to be datafilled in the DTCL if that DTCL has the integrated gateway card NT7X07.

Table LTCINV lists the following data assignment for each bay associated with a PM:

- the PM type and number
- the type and number of the frame in which the PM is physically mounted
- the floor, row, and bay position of each PM
- the equipment product engineering code (PEC) of the PM
- the load name of the PM software
- the terminal type required for the type of telephone or data lines, or both, and the executive programs required for the PM specified in the terminal type entry
- the C-side links on which the PM is assigned
- the optional cards equipped in the PM
- the tone set used for the PM
- the processor card for each unit of the PM
- the EEPROM load name
- the optional attribute for the PM
- the PEC for processor cards (PROCPEC field)
- extension shelf information for Common Peripheral Module (CPM)-based host peripherals equipped with an extension shelf. An extension shelf is available on the CMVI (cabinetized multi-vendor interface) and the MVIE (multi-vendor interface equipment frame). The MVDD (multi-vendor double density) version does not support an extension shelf.

Peripheral module types

The following table lists the PM types that are supported by table LTCINV.

PM type (Sheet 1 of 2)

PM	Meaning
ADTC	Austrian digital trunk controller
DFI	direct fiber interface
DTC	digital trunk controller
DTC7	digital trunk controller for CCS7 ISUP call processing (datafilled as DTC)
DTCI	ISDN digital trunk controller
DTCO	offshore digital trunk controller (datafilled as PDTC)
DTCO+	XPM PLUS offshore digital trunk controller (DTCO) equipped with card NTMX77 (unified processor) datafilled as PDTC
DTCO2	based on CPM datafilled as PDTC EQPEC MX85AA
GPP	General Peripheral Platform, CPM-based host peripheral for generic access nodes
IDTC	international digital trunk controller (pulse code modulation [PCM] 30 trunks)
ILGC	international line group controller
ILTC	international line trunk controller
LGC	line group controller
LGCI	ISDN line group controller (datafilled as LGC with ISP OPTCARD)
LGCO	line group controller offshore (datafilled as PLGC)
LGCOi+	line group controller offshore (datafilled as PLGC) with ISDN functionality and an NTMX77 unified processor

PM type (Sheet 2 of 2)

PM	Meaning
LTC	line trunk controller
LTCI	ISDN line trunk controller (datafilled as LGC with ISP OPTCARD)
LTC+	line trunk controller PLUS (LTC equipped with an MTMX77 unified processor card, datafilled as LTC)
P2LGC	two-processor PCM30 line group controller (datafilled as PLGC)
P2LGCi	ISDN two-processor PCM30 line group controller (datafilled as PLGC)
P3LGCi	three-processor PCM30 line group controller (datafilled as PLGC)
PDTC	PCM30 digital trunk controller (datafilled as PDTC)
PDTC+	XPM PLUS PCM30 digital trunk controller (PDTC equipped with card NTMX77 unified processor datafilled as PDTC)
PLGC	PCM30 line group controller
SMA	subscriber carrier module-100 access
SMA2	expanded subscriber module-100 access
SMS	subscriber carrier module-100S (SLC-96) (controls subscriber loop carrier [SLC] remote)
SMU	subscriber carrier module-100 Urban (controls remote concentrator terminal [RCT] of the DMS-1U system)
TMS	Traffic Operator Position System (TOPS) message switch

The following table lists the combinations of PM types that are supported by table LTCINV.

Combination of PM types

Module	Compatibles	Compatibles
LTC_LTC	LTC_LGC	LTC_DTC
LTC_ILTC	LTC_ILGC	LTC_IDTC
	LTC_ALGC	LTC_ADTC
	LTC_PLGC	LTC_PDTC
LTC_TLTC	LTC_TLGC	LTC_TDTC
		LTC_DFI
LTC_SMU	LTC_SMS	LTC_SMA
	LTC_ICP	LTC_TMS

When a PM is added to table LTCINV, an entry is automatically added to table LTCPSINV. All the corresponding P-side links in table LTCPSINV initially default to NILTYPE. P-side links that do not have hardware assigned must remain as NILTYPE. Unequipped software-assigned P-side links in an inventory table cause service-affecting problems.

For more information, refer to the section on table LTCPSINV.

Datafill sequence and meaning

The following tables must be datafilled before table LTCINV:

- PMLOADS
- NETWORK
- ECHINV (if an echo canceler [EC] optional card is required)

Note: Changes to fields with multiple entries must be made in the PROMPT mode only.

Table size

Memory is allocated as required to allow a maximum of 210 tuples in tables LTCINV and LTCRINV combined.

Note: From SN06 (in certain markets) the maximum number of active tuples in LTCINV can be limited by software optionality control.

Datafill

The following table lists the datafill for table LTCINV.

Field and subfield descriptions for table LTCINV (Sheet 1 of 11)

Field	Subfield	Entry	Explanation and action
LTCNAME		see subfields	<i>Line trunk controller name</i> This field consists of subfields XPMTYPE and XPMNO.
	XPMTYPE	ADTC, DFI, DTC, DTCI, GPP, IDTC, ILGC, ILTC, LGC, LTC, PDTC, PLGC, SMA, SMA2, SMS, SMU or TMS	<i>68K peripheral module type</i> Enter the extended multiprocessor system PM type. See previous tables for descriptions of PM types. Note: Entry PDTC is not valid if 8-bit SLS load balancing is active or if CCS7 routing tables exist in the XPM. Deactivate 8-bit SLS and activate LIU7 routing before entering PDC.
	XPMNO	0 to 255	<i>68K peripheral module number</i> Enter the PM number. A maximum of 210 series II peripherals are supported. When used with external routers (table C7ROUTERS), any type of series II peripheral can be entered. Without external routers, a maximum of 140 DTC7s is supported. Note: Operating company personnel can number the XPMs from 0 to 255, but the total number of tuples in tables LTCINV and LTCRINV combined cannot exceed 210 XPMs. The XPM types can be any combination of types accepted by the two tables.

Field and subfield descriptions for table LTCINV (Sheet 2 of 11)

Field	Subfield	Entry	Explanation and action
ADNUM		0 to 4095	<i>External administrative number</i> Enter a unique external administrative number associated with the PM. The ADNUM value is used as the index into operational measurements (OM) data for OM groups line traffic (LMD) and universal tone receivers (UTR). Field ADNUM cannot be changed if the OM counts for that PM are included in an engineering and administrative data acquisition system/data collection (EADAS/DC) section associated with LMD or UTR. Any entry outside the range indicated for this field is invalid.
FRTYPE		CMVI, DTE, IDTE, LGE, LTE, LTEI, MCTM, MLNK, MNET, SME, MVDD	<i>Frame type</i> Enter the frame type on which the PM equipment is mounted. Enter LTEI for an SMA XPM DTCO2 type or a GPP. Enter MCTM for a cabinetized Meridian SL-100 switch. Enter MLNK for a Meridian CCS7 link module. Enter MNET for a Meridian network controller module. Enter CMVI for SMA2 (includes the MVIE version of the CMVI). Enter MVDD for a multi-vendor double density frame (four SMA2 shelves, no extension shelf). Any entries outside the range indicated for this field are invalid.
FRNO		0 to 511	<i>Frame number</i> Enter the frame number of the frame type on which the PM is mounted.

Field and subfield descriptions for table LTCINV (Sheet 3 of 11)

Field	Subfield	Entry	Explanation and action
SHPOS		18, 32, 51 or 65	<i>Shelf position</i> Position numbers given are for example only. Check the hardware specifications of your PM to determine the correct numbers. Enter the shelf position where the PM is located. Any entry outside the range of indicated values for this field is invalid.
FLOOR		0 to 99	<i>Floor</i> Enter the floor on which the PM frame is located.
ROW		A to Z, AA to ZZ, except I, II, O and OO	<i>Row</i> Enter the row on the floor where the PM equipment frame is located.
FRPOS		0 to 99	<i>Frame position</i> Enter the bay position of the PM equipment frame.

Field and subfield descriptions for table LTCINV (Sheet 4 of 11)

Field	Subfield	Entry	Explanation and action
EQPEC		2P_PEC	<i>Equipment product engineering code</i>
		3P_PEC	
		6R02AK	Enter the product engineering code (PEC) of the appropriate piece of equipment as described in the following paragraphs.
		6R02AR	
		6R81AC	
		6R81AD	
		6R81IC	
		6R81ID	For Telrad PLGC or PDTC, with the MSG6X69 message card, and with the ISRL69AD or ISRLADSI toneset, enter 6R61AC or 6R61AD.
		6T02AA	
		6X02AA	
		6X02AC	
		6X02AD	
		6X02AE	For Telrad PLGC or PDTC, with the ISP card in slot 15, enter 6R81IC or 6R81ID.
		6X02AF	
		6X02AG	
		6X02AH	
		6X02AQ	For Telrad PLGC with the CMR card in slot 11, enter 6R02AK.
		6X02BA	
		6X02B	If the entry in field XPMTYPE is ADTC, enter 6102SA, 6102SE, or 6102UA.
		6X02BD	
		6X02BE	
		6X02BF	
		6X02BG	If the entry in field XPMTYPE is an ALGC_ADTC, enter 6102SG, 6102SI, or 6102UG.
		6X02BK	
		6X02BS	
		6X02BT	
		6X02DG	If the entry in field XPMTYPE is ALGC, enter 6102NA, 6102SB, 6102SF, or 6102UA.
		6X02EB	
		6X02EE	
		6X02EL	If the entry in field XPMTYPE is BDTC, enter 6X02BC.
		6X02FA	
		6X02GA	If the entry in field XPMTYPE is DFI or GPP, enter MX85AA.
		6X02HA	
		6X02IA	If the entry in field XPMTYPE is SMA2, enter MX85AB.
		6X02IE	
		6X02IF	If the entry in field XPMTYPE is DTC, enter 6X02AF, 6X02AQ, 6X02BS, 6X02BT, 6X02IA, 6X02IE, or 6X02IF.
		6X02JA	
		6X02KA	
		6X02KB	
		6X02LA	
		6X02LD	
		6X02MA	
		6X02MD	
		6X02NA	
		6X02P2	
		6X02P3	
		6X02UA	

Field and subfield descriptions for table LTCINV (Sheet 5 of 11)

Field	Subfield	Entry	Explanation and action
EQPEC (continued)		6X02UC	If the entry in field XPMTYPE is DTC7 or DTCL, enter NX33GC or FX33CB to provide tones for PMs used in Japan. NX33GC or FX33CB must be datafilled in this field to allow the datafilling of RAM6X69 as an optional card.
		6X02UI	
		6X0201	
		6X0211	
		6X0215	
		6102NA	If the entry in field XPMTYPE is IDTC, enter 6X03BA, 6X02HA, or 6X02KA.
		6102SA	
		6102SB	
		6102SE	
		6102SF	
		6102SG	For single-card new message IDTC/Caribbean expansion program (IDTC/CEP), enter 6X02HA. For tone card 6X69KA for China, enter 6X02KA.
		6102SI	
		6102UA	
		6102UB	
		6102UG	
		7X3304	If the entry in field XPMTYPE is ILGC, enter 6X02BF, 6X02BK, 6X02GA, 6X02KB, or 6X0211.
		FX33CB	
		FX3304	
		AK31AA	
		AK31AT	
		AK81AD	For dual-card messaging ILGC for Turkey, enter 6X02BF.
		AK81AT	
		MK8505	For single-card messaging ILGC for Turkey, enter 6X02BK.
		MX85AA	
		MX85AB	For single-card new message ILGC/CEP, enter 6X02FA or 6X02GA.
		NX33GC	
			For tone card 6X69KA for China, enter 6X02KB.
			If the entry in field XPMTYPE is LGC, enter FX33CB, NX33GC, 6X02AA, 6X02AC, 6X02AE, 6X02AH, 6X02LA, 6X02LD, 6X02NA, 6X0201, or 6X0215.
			For LGC using the North American RAM-based tone set, enter 6X02P2.
			If the entry in field FRTPY is LTEI, enter 6X02NA.

Field and subfield descriptions for table LTCINV (Sheet 6 of 11)

Field	Subfield	Entry	Explanation and action
EQPEC (continued)			If the entry in field XPMTYPE is LTC, enter 2P_PEC for a two-processor LTC, 3P_PEC for a 3-processor LTC; 6X02AD, 6X02AG, 6X02MA, 6X02MD, or 7X3304. For LTC using the North American RAM-based tone set, enter 6X02P2. To provide tones for PMs used in Japan, enter NX33GC or FX33CB. NX33GC or FX33CB cards must be datafilled in this field to allow the datafilling of RAM6X69 as an optional card. If the entry in field FRTYPE is MCTM, enter FX3304. If the entry in field XPMTYPE is PDTC, enter 6X02BD, 6X02BE, or 6X02JA. For Turkish tones with R2 signaling, enter 6X02JA. For two-processor PDTC with frame type LTEI, enter 6X02UA. For PDTC with frame type LTEI, if the PDTC is XPM-based (DTCO+), enter 6X02UC. If the PDTC is CPM-based (DTCO2), enter MX85AA. For PDTC for frame type IDTC, enter 6X02UI. If the entry in field XPMTYPE is PLGC, enter 6X02BG. For two-processor PLGC with frame type LTEI, enter 6X02UA. For PLGC with frame type LTEI, enter 6X02UC.

Field and subfield descriptions for table LTCINV (Sheet 7 of 11)

Field	Subfield	Entry	Explanation and action
EQPEC (continued)			If the entry in field XPMTYPE is PDTC or PDTC+, enter 6X02UC (XPM-based frame) or MX85AA (CPM-based) or 6X02UI (XPM-based frame IDTC). If the entry in field XPMTYPE is PDTC or PDTC+, enter 6X02UC (XPM-based frame) or MX85AA (CPM-based) or 6X02UI (XPM-based frame IDTC). If the entry in field XPMTYPE is P2LGC, enter 6X02UA. If the entry in field XPMTYPE is P3LGC, enter 6X02UI. If the entry in field XPMTYPE is SMA, enter 6X02AA. If the entry in field XPMTYPE is SMS, enter 6X02DG. If the entry in field XPMTYPE is SMU, enter 6X02DG, 6X02EB, 6X02EE, or 6X02EL. If the entry in field XPMTYPE is TMS and the entry in field FRTYPE is LTEI, enter 6X02UA. This enables the TMS to use PCM30 signaling. For a two-processor XPM equipped with NT6X69LA, enter 6X02P2. For Israeli DTCO, enter AK81AD or AK81AT. For Israeli ICPO, enter AK31AA or AK31AT.

Field and subfield descriptions for table LTCINV (Sheet 8 of 11)

Field	Subfield	Entry	Explanation and action
LOAD		alphanumeric (8 characters maximum)	<i>Load</i> Enter the name of the load required for the PM. Note: Enter the load file name in table PMLOADS before datafilling field LOAD in table LTCINV.
EXECTAB		see subfields	Executive table This field consists of subfields TRMTYPE and EXEC. This field is a vector of one to eight programs. Note: There must be at least one entry in subfields TRMTYPE and EXEC for a given PM, except for IDTC (frame type IDTE), which has none. The maximum number of executive programs is 8, but due to memory constraints of a particular load, the number can be less than 8. The exact number depends on the size of the executive programs and the memory load.

Field and subfield descriptions for table LTCINV (Sheet 9 of 11)

Field	Subfield	Entry	Explanation and action
EXECTAB (continued)	TRMTYPE	ABTRK, AB250, CCIS, ISDN_UP, KEYSET, MAINT, M200, N5_TERM, N6_TERM, POTS, PRAB, P2018, P2112, RMM_TERM, R1_TERM, R2_TERM, or UNEQUUD	<i>Terminal type</i> Enter the type of PM terminal. For regular, FX, and DS1FXSLS trunks, enter ABTRK. The ABTRK terminal uses the DTCEX set of executive programs to adapt existing nailed-up connections between a DMS-200 and a DMS-300 on digital PMs. ABTRK (DTCEX) is required for Integrated Business Network (IBN) outgoing trunks supporting BT3J type II/IV and DC5/AC15 loop disconnect signaling, and for foreign exchange signaling trunks with loop start (DS1FXSLS). Enter AB250 for DMS-250 trunks. AB250 is required for SOCPLEX and UKPDTC executive programs. For CCIS digital trunks, enter CCIS. For P-phone/data lines, enter KEYSET. Prior to BCS35, enter M200 for voice and data lines. This entry is not valid for BCS35 and later. Enter N5_TERM for digital N5 trunks on a PDTC. For DTC-300 trunks, enter N6_TERM and R1_TERM. For R2 trunks in a DMS-300, enter R2_TERM. For regular lines, enter POTS (plain ordinary telephone service). For an ISDN ADTC, enter PRAB.

Field and subfield descriptions for table LTCINV (Sheet 10 of 11)

Field	Subfield	Entry	Explanation and action
EXECTAB (continued)	EXEC	ADTCIX DCM250 DTC300 DTCEX DTCFX FXODCM FXODTC JDTCEX KSADTC KSETEX N5DEX POTSEX RSMEX R2GWEX SOCPEX or UKPDTC	<i>Executive programs</i> Enter the set of executive programs that are required for the PM specified in the TRMTYPE entry. To support the DLYFWDXMT option in table TRKOPTS, the executive program for the PM must be specified as DTCEX, DTCFX, or FXODTC. For Japan, enter JDTCEX instead of DTCEX. Use the KSETEX executable for ETSI ISDN V5.2 access to the GPP. For the N5 digital executive program line, enter N5DEX. N5DEX is valid only in table LTCINV. To support the BT3J types III and IV loop disconnect trunks, enter UKPDTC. The valid executive programs for ISDN LTC are also valid for the SMA PM.

Field and subfield descriptions for table LTCINV (Sheet 11 of 11)

Field	Subfield	Entry	Explanation and action
CSLNKTAB		see subfields	<i>C-side link table</i> The subfields for this field depend on whether switches are equipped with the junctored network (JNET), the enhanced network (ENET), or the external network. If the switch is equipped with JNET, datafill subfields NMPAIR and NMPORT, then go to field OPTCARD. If the switch is equipped with ENET, datafill subfields ENSHELF, ENSLOT, ENLINK, and ENDS30, then go to field OPTCARD. If the XPM is connected to an external network, the datafill is system-derived.

JNET switches

If the office is equipped with JNET, datafill subfields NMPAIR and NMPORT as described in the following table, then go to field OPTCARD.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
CSLNKTAB	NMPAIR	0 to 31	<i>Network module pair number</i> Enter the network link to which the PM is assigned, corresponding to C-side links 0 to 15 of the PM.
	NMPORT	0 to 63	<i>Network port</i> Enter the network port corresponding to the network link. Go to field OPTCARD.

ENET switches

If the office is equipped with ENET, datafill subfields ENSHELF, ENSLOT, ENLINK, and ENDS30 as described in the following table, then go to field OPTCARD.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
CSLNKTAB	ENSHELF	0 to 7	<i>Enhanced network shelf number</i> Enter the shelf number to which the PM is assigned.
	ENSLOT	10 to 16, 25 to 32, or 13 to 19	<i>Enhanced network slot number</i> Enter the crosspoint slot number to which the PM is assigned, corresponding to C-side links. Enter a value between 10 and 16, or between 25 and 32. For a SuperNode SE switching unit, enter a value between 13 and 19.
	ENLINK	0 to 18	<i>Enhanced network link number</i> Enter the link on the crosspoint to which the PM is assigned, corresponding to C-side links 0 to 18 of the PM.
	ENDS30	0 to 15	<i>Enhanced network DS30</i> All entries must be contiguous from 0. No entry can be duplicated. If the link is a DS30, this field defaults to 0.

External networks

If the XPM is connected to external networks, simply enter a \$ in XPM_NET_CS LINK_TC_TAB.

This is not visible via a RANGE command on the field because there is no change in the range of the field. Entry of this special type of cslink is not allowed, and is blocked by the table control software. It is only visible via a listing of a tuple which defines an external DS512 XPM.

All switches

For all offices, continue datafill as described in the following table.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD		AX69AA, CMR5, CMR6, CMR7, CMR8, CMR9, CMR11, CMR13, CMR15, CMR16, CMR17, CMR18, CMR19	<i>Optional card</i> This field is a vector that can have up to ten entries. Unless otherwise directed, when all optional cards are entered, go to field TONESET to continue datafill for table LTCINV. Note: Changes to fields with multiple entries must be made in the PROMPT mode only. For PDTC+ (PEC 6X02UC in field EQPEC), optional cards include the CONTINUITY cards (NT6X70), UTR15, UTR16, and UTR17 (NT6X92 in slots 15, 16 and 17), NT6X69 RAM card, MX76_MSG, NT6X79 tone card, NT6X44EA, and NT6X28 signaling interface card. The NT6X69 card (ROM tone card [TONE6X69]) is not supported. Therefore, if the entry in field EQPEC is 6X02UC, the required optional cards are the STR16IC and STR17IC (NT6X62 in slots 16 and 17), and ECC300, ECC600, ECC1200, ECC2400, ECC4800 or ECC9600.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)		CONTINUITY, CPA17, DCTAX78, ECC300, ECC600, ECC1200, ECC2400, ECC4800, ECC9600, ETSBX69, FDLAX69, ISP, MSG6X69, MSGMX76, NE2X10AA, NT6X28BA, NT6X69AA, NTAX78AB, NTAX78BA, NTCS50, NT6X28, NT6X44CA, NT6X44EA, NT6X62, NT6X69, NT6X79, NT6X92, NT7X05AA, RAM6X69, SCPM_MK76 _MSG, STR5IC, STR8,STR11, STR16IC, STR16OG, STR17IC, STR17OG, TONE6X79	For PDTC+ (PEC MX85AA in field EQPEC), optional cards include STR5IC (NT6X62AB in slots 5 and 23), UTR6 (NT6X92CA or NT6X92EA in slot 6 and 21) and UTR7 (NT6X92CA or NT6X92EA in slot 7 and 22), NT6X70CA continuity tone detector card, NTCX50BA external echo canceller in slots 6 and 22 behind UTR card, and NTB01BA enhanced ISDN signaling processor. The NT6X69 RAM card, NT6X28 and NT6X44EA signaling cards are not compatible with DT02 (MX85AA EQPEC). To enable DT0+ (6X02UI) to be datafilled the same as a PDTC+, the same optional cards as listed for PDTC+ are valid, as well as NT6X69 MSG card (ROM), STR8, UTR8, UTR9, UTR11 (NT6X92 in slot 8, 9 or 11), and STR11 (NT6X62 in slots 8 and 11), and the baud echo canceler controllers NTCX50 (ECC) cards. The MSG MX76 card can be datafilled for a DT0. Datafill the MX76 card in the DT0 if the DT0 is integrated gateway card NT7X07. For LGC, LTC, SMA, SMS and SMU PMs, datafill the CMR cards. CMR (CLASS modem resource) cards handle the monitoring of the ringing line and the insertion of the modem transmission to provide the Calling Number Delivery (CND) feature for CLASS. CMR can be equipped in one of the spare slots in the LTC frame (slot 13, 16 or 17).

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)		UTR4, UTR6, UTR7, UTR8, UTR9, UTR10, UTR11, UTR12, UTR14, UTR15, UTR16, UTR17, UTR18, XPM_UTR4	Note: A maximum combination of two UTR and/or STR line cards are permitted at any one time. For example, a combination of UTR15 and UTR17 or STR15 and UTR16 is permitted. The CMR load name must be datafilled in table PMLOADS before being datafilled in field LOAD of table LTCINV. If a CMR card is entered, datafill refinement CMRLOAD. For C6, N6, or CCS7 applications, datafill the CONTINUITY (NT6X70) cards. The CONTINUITY card, NT6X70, is used for CCIS (common channel interface signaling). For DTCs or LTCs that are datafilled with the C6, N6, or CCS7 applications, table LTCINV must be datafilled with the optional CONTINUITY card to allow diagnostic testing on the NT6X70 card. The datafill of this option does not affect the continuity functionality performed by the card during in-service operation. A PDTC with German 1TR7 ISDN user part (ISUP) trunks must be datafilled with the CONTINUITY optional card. DCTAX78 is the required value for the NTAX78AA time switch card in the ISUP DTC (DTC7) and the ISDN DTC (DTCI).

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)			For ADTCs and PDTCs that control echo canceler (EC) modules, datafill the optional baud echo canceler cards (ECCs). EC modules provide echo cancellation for calls using international trunks. Note: Table ECHINV must be datafilled before datafilling an ECC optional card in table LTCINV. All optional cards that are valid for ISDN LTC are valid for the SMA PM type (except NTAX78BA). For ISDN?MBS SMU, the ISDN signaling processor (ISP) card is required. On a PLGC PM with a frame type of LTEI and an EQPEC of 6X02UA, the ISP optional card can be datafilled. If the entry in field OPTCARD is ISP, datafill subfield SLOT_NUMBER as described below, then go to field TONESET to continue datafill for table LTCINV. For all Global Peripheral Platform (GPP) types, the MSGMX76 card must be datafilled in field OPTCARD. For GPPs with V5.2 interfaces, the ISP card must also be datafilled in field OPTCARD.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)			ISP can be datafilled on PMs LTC, LGC, PLGC, and PDTC if the central control (CC) is equipped with the ISDN subsystem. If the operating company personnel are required to configure and ISDN LTC, LGC, PLGC or PDTC, PEC and frame type checking are enforced. In this case field EQPEC must be 6X02NA, 6X02UC or MX85AA (DTCO2) and field FRTYPE must be LTEI. NTAX78AB is an optional enhanced time switch (ETS) card used only with the SMU XPM using the ISP optional card. NTAX78AB replaces NT6X44CA and is required to provide digital test access (DTA) on the enhanced subscriber module urban (ESMU). The ESMU is an SMU equipped with the ISP optional card, which supports ISDN and Meridian business set (MBS) capabilities. LTC ISDN and LGC ISDN peripherals that use the NT6X44CA time switch require no entry in field OPTCARD. If you datafill these peripherals with the NTAX78BA time switch, the ISDN capacity will be expanded. The NTAX78BA doubles the P-side ports (from 20 to 40) and removes the C-side channel usage for TDM hairpin connections. (The NTAX78BA makes TDM hairpin connections on the P-side of the peripheral.)

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)			Table LTCINV only allows operating company personnel to specify NTAX78BA in field OPTCARD through the ADD command (that is, the initial assignment of the peripheral). To add or remove NTAX78BA to or from an existing peripheral requires the use of a CM software tool. For information about the tool, refer to Installation Method, IM 65-0261 or your next level of support. Note: NT6X44CA is the default time switch for the ESMU and does not require an entry in field OPTCARD. NTAX78AB operates in NT6X44CA mode until it is datafilled as an optional card and the ESMU is initialized. To provide ISDN BRI services on an LTC or LGC, the PM must be datafilled with an ISP optional card. To provide ISDN PRI services on a PDTC or PLGC, the PDTC or PLGC must be datafilled with an ISP optional card. NT7X05AA is a peripheral remote loader (PRL) card. Refer to subfield SLOT_NUMBER. Card MSGMX76AA replaces the NT6X69 message card in CPM and XPM Plus shelves. If MSGMX76AA is entered, datafill refinement MX76LOC.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
			Card MSGMX76BA replaces the MSGMX76AA message card, for Japan only, in LTC+ shelves supporting high data link controller (HDLC) protocol and link access protocol on the D channel (LAPD) messaging. If NTMX76BA is entered, the datafill refinement MX76LOC must be set to HOST. Note: MSGMX76 messaging interface card is used for HDLC protocol and EDC. MSG6X69 is used for DMS-X protocol and does not allow EDC. The PLGC and PDTTC PMs (XPM-based) require the NT6X28 card for PCM30 signaling. This card is not supported for DTCCO2 (CPM-based). To enable the TMS to use PCM30, enter NT6X28, RAM6X69, and NT6X44EA. Either NT6X28AA or NT6X28AB must be datafilled in field OPTCARD for PMs P2LGC, P2LGCI, and P2DTC. Card NT6X28 replaces NT6X28AB when either the NT6X28AA or NT6X28AB version is in the PM. Datafilling NT6X28AB changes the default trunk mapping to that outlined by the PCM30 time slot flexibility feature. The PCM30 time slot flexibility feature is implemented only if one of the following software packages is present: NTXB58AA, NTX472AA, NTX913AA, NTXK56AA, NTXK05AA, or NTX937AA.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)			The NT6X28AB card is functional in table LTCINV even if it is not datafilled infield OPTCARD. Therefore, unless the PCM30 time slot flexibility feature is required, NT6X28AB must not be datafilled in field OPTCARD. Card NT6X28 must not be added for IDTC PMs in table LTCINV. If it is added, trunks cannot be assigned to the PM in table TRKMEM. For any PLGC hosting an RC02, the NT6X44 card must be datafilled as NT6X28 to prevent the generation of PM189 logs. For DTC, IDTC, PDTC (XPM-based) LGC, ILGC, and PLGC PMs, as well as TMS, enter NT6X44EA to apply conversions to both voice and data in the connections that are made across the NT6X44EA time switch. Card 6X44EA is not supported for DTCO2 (CPM-based). The universal message protocol and tones card, RAM6X69, cannot be added unless PEC 6X02P2, 6X02P3, 6X12AA, NX33GC, or FX33CB has been added to field EQPEC. This card is also used for TMS. If a special tone receiver is situated in PM slot 16 or 17, enter STR16 and STR17. If a special tone receiver is situated in slot 5, 8, 9, 11 or in a PDTC, enter STR5IC, STR8, STR9, and STR11.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD (continued)			The TONE6X79 tone card cannot be added unless the MSG6X69 messaging card has already been added. The presence of tone card NT6X79 is not a valid configuration without an MSG6X69 messaging card. If an NT6X92 universal tone receiver card (UTR_n) is datafilled, it means that a universal tone receiver card is equipped in slot <i>n</i>, where <i>n</i>=8 to 11, and 14 to 18. For example, if field OPTCARD contains UTR8, the UTR card is located in slot 8. To indicate that a UTR is installed on a PDTC, UTR6, UTR7, UTR8, UTR9, UTR11, UTR15, UTR16 and UTR17 or a combination of these can be datafilled. For Telrad PLGC with the CMR card, there is a maximum of two UTR cards, one in slot 8 and one in slot 12. The ISDN/MBS SMU is supported by UTR15 and UTR17. If two UTRs are required, both UTR15 and UTR17 must be datafilled. If only one UTR is required, either card can be datafilled as long as the same slot is populated in both units of the ISDN/MBS SMU. UTR17 supports the UTR card on a subscriber carrier module-100S (SMS). If an SMS is equipped with a UTR, the message card must be NT6X69AC (ASIC version), the MP memory card must be NT6X47AC, and the CLASS modem resource card must be NT6X78AB (ASIC). If other cards are used, the SMS can exceed the power rating of the shelf.

OPTCARD = CMR

If the entry in field OPTCARD contains any of the CMR values CMR5, CMR13, CMR15, CMR16, CMR17, or CMR19, datafill refinement CMRLOAD as described in the following table, then go to field TONESET to continue datafill for table LTCINV.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD	CMRLOAD	alphanumeric (vector of maximum 8 characters)	<i>Custom local area signaling service modem resource load</i> Enter the appropriate CMR software load name. Go to field TONESET.

OPTCARD = ISP

If the entry in field OPTCARD is ISP, datafill subfield SLOT_NUMBER as described in the following table, then go to field TONESET to continue datafill for table LTCINV.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD	SLOT_NUMBER	3 to 19	<i>Slot number</i> The recommended optional slot number for most North American XPMs is 16. SMA2 is the exception, and uses slot number 4. On international XPMs, PDTCs, and PLGCs, with ISDN capability and an entry of 6R81IC or 6R81ID, the slot number is 15. On PDTC (MX85AA) the slot number is 4.

OPTCARD = MSGMX76

If the entry in field OPTCARD is MSGMX76, datafill refinements MX76LOC and PROTOCOL as described in the following table, then go to field TONESET to continue datafill for table LTCINV.

Note 1: This card is not optional for GPP, even though it appears in the OPTCARD list.

Note 2: This card is not optional for LTC+ when it supports HDLC protocol, even though it appears in the OPTCARD list.

Note 3: This card is not optional for PDTG (MX85AA EQPEC).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD	MX76LOC	HOST or REM	<i>NTMX76 location</i> If the card is located on a host PM, enter HOST. REM is not a valid entry. Any attempt to enter REM generates an error message on the screen and the system returns to the default of HOST.
	PROTOCOL	DMSX or HDLC	<i>Host remote communication protocol</i> If the entry in refinement MX76LOC is HOST, datafill this refinement. Go to field TONESET.

OPTCARD = NT7X05AA

If the entry in field OPTCARD is NT7X05AA, datafill subfield SLOT_NUMBER as described in the following table, then go to field TONESET to continue datafill for table LTCINV.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD	SLOT_NUMBER	3 to 19	<i>Slot number</i> The recommended optional slot number for most North American XPMs is slot 16. SMS is an exception using slot 15. The full range of supported slot numbers for North American XPMs is 13, 15, 16, 17, and 19. The default value is 17. On international XPMs with three-processor backplanes and an EQPEC field entry of 6X02BA, 6X02BC, 6X02BD, 6X02BE, 6X02BG, 6X02BF, 6X02BK, 6X02BS, 6X02BT, 6X02GA, 6X02HA, 6X02JA, 6X02KA, 6X02KB, or 6X02UI, the full range of supported slot numbers is 8, 9, and 11. On international XPMs PDTCs and PLGCs, with ISDN capability and an EQPEC field entry of 6R81IC or 6R81ID, the slot number is 15.

All cards

For all optional cards, continue datafill for table LTCINV as described in the following table. NT6X69LX refers to any version L option card.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESSET		AUSMF, AUSTRIA, AUS100, AUS300, AUTMF, AUTMFC, BELMF, BELMFC, BOLIVMF, BOLIVMFC, BRASMF, BRASMFC, CEP, CEP100, CHILEMF, CHILEMFC, CHINA, CHINA100, CLMDTC, CLMLG, CWAPCLCG, CWAPCDTC, CWCHILGC, CWCHIDTC, CZECHMF, CZECHMFC, DENMARKMF, DENMARKMFC, DUTCHMF, DUTCHMFC, EGMF, EGMFC, FDAUS300, FDAUS100, FDMEXMF, FDMXDTMF, FDNZLGC, FDNZLTC, FDNZDTC, HKMFC, HONGKONG, HUNDTC, HUNLGC, INDIA, IRISHMF	<i>Tone set</i> Enter the name of the tone set for the switch that is being datafilled. Note: Values FDAUS300, FDAUS100, FDMEXMF, FDMXDTMF, FDNZLGC, and FDNZDTC are not supported and should not be used. Enter AUSMF for Australian tone set with DTMF, MF, supervisory, test and diagnostic and COT tones. The NT6X69LX Downloadable Tone Card or NTMX76 Message and Channel Supervision Card must be installed. Enter AUSTRIA, AUS100 and AUS300 for Austrian tone sets. AUS100 and AUS300 are used with a PDTC PM. The NT6X69LA MPDT card or the MSGMX76 (for GPP) must be quipped. Note: GPP uses MSGMX76 instead of NT6X69LA. Enter AUTMF for Austrian toneset with Dual-tone Multi-frequency (DTMF), Multi-frequency (MF), supervisory, test and diagnostic, and Continuity Tone (COT) tones. Enter AUTMFC for Austrian tone set with DTMF, Multi-frequency Compelled (MFC), supervisory, test and diagnostic, and COT tones. Enter BELMF for the Belgium tone set on the DMS-100E switch. The tone set includes the DTMF, MF, supervisory, and test and diagnostic tones. The NT6X69LX Tone Card must be installed.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESET (continued)		ITALYMF ITALYMFC JAPAN1 JAPAN3 KOREA KOREANMF MALAYSIA MALAYDSI MCLMEXDTMF MEXMF MOROCCO NA_RAM NORTHAA NORTHAM NORWMF NORWMFC NZLGC PERUDTC PHILADSI PHILTONE NZDTC PLDDTC PLDLGC PNGMFC POLDTC POLLGC SAUDIDTC SAUDILGC SINGMF SINGMFC SPAIN SPAINMF SPAINMFC SRILADSI SRILANKA SWDDTC SWDLGC SWISSMF SWISSMFC TONFRMF TONFRMFC TURKEY TURK100 TURK300	<i>Tone set</i> Enter the name of the tone set for the switch that is being datafilled. Enter BELMFC for the Belgium tone set on the DMS-100E switch. The tone set includes the Multi-Frequency Compelled (MFC), supervisory, and test and diagnostic tones. The NT6X69LX Tone Card must be installed. Enter BOLIVMF for Bolivian tone set Multi-Frequency. Enter BOLIVMFC for Bolivian tone set Multi-Frequency Compelled. Enter BRASMF for Brazilian tone set Multi-Frequency. Enter BRASMF for Brazilian tone set Multi-Frequency. Enter CEP and CEP100 for Caribbean expansion program tone set. Enter CHILEMF for Chilean tone set Multi-Frequency. Enter CHILEMFC for Chilean tone set Multi-Frequency. Enter CHINA and CHINA100 for Chinese tone sets. Enter CLMDTC for Colombian trunk peripherals. Enter CLMLGC for Colombian line peripherals. Enter CWAPCLGC for a customer specific tone set for LGCO and LGCI type peripherals. The tone set includes DTMF, supervisory, and test and diagnostic tones.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
 TONESET (continued)		UK, UK100, UK300 or UKADSI	Enter CWAPCDTC for a customer specific tone set for DTCO type peripherals. The tone set includes R2 MFC tones for Voice Mail connectivity, R1 MF, audible, COT, MBS Distinctive Ringing Tones, and test and diagnostic tones. Enter CWCHILGC for Modified China tone set for LGCO and LGCI type peripherals. The Caribbean and Belize markets use the tone set. The tone set includes DTMF, R1 MF, warble, audible, COT, MBS Distinctive Ringing Tones, and test and diagnostic tones. Enter CWCHDTC for Modified China tone set for DTCO type peripherals. The Caribbean and Belize markets use the tone set. The tone set includes R2 MFC tones for Voice Mail connectivity, R1 MF, audible, COT, and test and diagnostic tones. Enter CZECHMF for Czech Multi-Frequency toneset, or CZECHMFC for Czech Multi-Frequency Compelled toneset. Enter DENMARKMF for Danish tone set, which includes Simple Supervisory Tones, MF, DTMF, ADSI, Periodic Supervisory, and test and diagnostic tones. The NT6X69LX Tone card must be installed. Enter DENMARKMFC for Danish tone set, which includes Simple Supervisory Tones, MFC, DTMF, Periodic Supervisory, and test and diagnostic tones. The NT6X69LX Tone card must be installed.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESSET (continued)			Enter DUTCHMF for the Dutch tone set on the DMS-100E switch. The tone set includes the DTMF, MF, supervisory, and test and diagnostic tones. The NT6X69LX Tone card must be installed. Enter EGMF for the Egyptian tone set which includes the DTMF, MF, supervisory, COT, and test and diagnostic tones. Enter EGMFC for the Egyptian tone set which includes the MFC, supervisory, COT, and test and diagnostic tones. Enter HONGKONG for the Hong Kong MF tones. Enter HKMFC for Hong Kong MFC tones. Enter HUNDTC for Hungarian supervisory, diagnostic, and MFC tones. Enter HUNLGC for the Hungarian supervisory, diagnostic, and DTMF tones. Enter INDIA for the Indian tone set. The tone set includes DTMF, MFC, supervisory, subscriber services, and test tones. Enter IRISHMF or Irish tone set. The tone set includes MF, DTMF, supervisory, and test and diagnostic tones. The NT6X69LX MPDT card must be installed. Enter ISRDADSI for the ISRAEL RAM-tones ADSI tone set. This tone set is valid for PLGCs only. Enter ISRLADSI for the ISRAEL ROM-tones ADSI tone set. This tone set is valid for PLGCs only.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESET (continued)			Enter ITALYMF for the Italian tone set on the DMS-100E switch. The tone set includes the DTMF, MF, supervisory, and test and diagnostic tones. The NT6X69LX Tone Card must be present. Enter ITALYMFC for the Italian tone set on the DMS-100E switch. The tone set includes the MFC, supervisory, and test and diagnostic tones. The NT6X69LX Tone Card must be present. Enter Japan1 for the Japan tone set used with a PDTC PM. This tone set requires the operating company to have the following cards installed: • an NT6X69LA MPDT card, or a later version of the NT6X69 MPDT card • an NT6X92CA card (tone receiver) or a later version of the NT6X92 tone receiver card Enter Japan3 for the Japan tone set used with a PLGC PM. This tone set requires the operating company to have the following cards installed: • an NT6X69LA MPDT card, or a later version of the NT6X69 MPDT card • an NT6X92CA card (tone receiver) or a later version of the NT6X92 tone receiver card Enter KOREA for the Korean MFC tone set. Enter KOREANMF for the Korean MF tone set. Enter MALAYSIA for the Malaysian tone set.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESSET (continued)			Enter MALYADSI for the Malaysian tone set and the analog display services interface (ADSI) tone set. This tone parameter is used to generate the tones for CLASS ADSI application. MEXDTMF contains standard supervisory, MF, DTMF, and continuity tones. R1 signaling is supported. MEXMF contains standard supervisory, MF, MFC, and continuity tones. R1 and R2 signaling are supported by the MF and MFC tones respectively. MOROCCO is used with an IDTC PM. The NT6X69LA MPDT card must be equipped. Enter NORTHAA for North American analog display services interface (ADSI) toneset. Enter NORTHAM for North American tone set. Enter NORWMF for Norway tone set with DTMF, MF, supervisory, COT, and test and diagnostic tones. the NT6X69 tone card must be installed. Enter NORWMFC for Norway tone set with MFC, supervisory, COT, and test and diagnostic tones. the NT6X69 tone card must be installed. Enter NZDTC or NZLGC for New Zealand tone sets. NZLGC and NZDTC require the NT6X69LA card.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESET (continued)			Enter NA_RAM for North American RAM-based tone set. Tones that can be downloaded with this tone set are only supported on LGCs, LTCs, and RCCs. Enter PERUDTC for the Peruvian tone set which includes simple supervisory, MFC, periodic supervisory, and test and diagnostic tones. Enter PERULGC for the Peruvian tone set which includes simple supervisory, DTMF, periodic supervisory, and test and diagnostic tones. Enter PHILADSI for the PHILTONE tone set and the ADSI tone set. This tone parameter is used to generate the tone for CLASS ADSI applications. Enter the Papua New Guinea tone set PNGMFC for PLGC and PDTC peripheral modules. Enter PLDDTC for the IDTC and PLDLGC for the ILGC Polish tone sets on the DMS-100I switch. Note: The SMA unit must be offline (offl) or manual busy (ManB) to remove the NTAX69 from table LTCINV. Enter POLDTC or POLLGC for Polish tone sets. POLDTC and POLLGC require the NT6X69LX card. Enter SAUDIDTC for the Saudi Arabian R2 Multi-frequency Code (MFC) tones, or SAUDILGC for the Saudi Arabian Dual-tone multi-frequency (DTMF) and line tones.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TOESET (continued)			Enter SWISSMFC for the Swiss tone set that includes DTMF, MFC, supervisory, COT, and test and diagnostic tones. Enter TONFRMF for the French tone set on the DMS-100E switch. The tone set includes DTMF, MF, supervisory, and test and diagnostic tones. The NT6X69LX tone card must be present. Enter TONFRMFC for the French tone set on the DMS-100E switch. The tone set includes MFC, supervisory, and test and diagnostic tones. The NT6X69LX tone card must be present. Enter TURKEY and TURK100 for Turkish tone sets. TURK300 (Turkish international tone set) is used with a PDTC PM. The NT6X69LA MPDT card must be equipped. Enter UK for the tone set used in the United Kingdom. Enter UK100 for the United Kingdom DMS-100 tone set. Enter UK300 for United Kingdom DMS-300 tone set used in PMs equipped with the NT6X69LA MPDT card. Enter UKADSI for the UK100 and the ADSI tone set. This tone parameter is used to generate the tones for CLASS ADSI applications. Enter PHILTONE for the Philippine tone set.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PROCPEC		6X45AA 6X45AB 6X45AC 6X45AD 6X45AE 6X45AF 6X45BA 6X45BB 6X45CA 6X45AD AX74AA MX77AA SX05AA	<i>Processor equipment product engineering codes</i> Enter the two PECs of the processor card. One PEC is required for each unit of the XPM. This field has the PEC corresponding to the processor card provided in the XPM unit. For the DFI unified processor (UP), enter MX77AA or AX74AA. For DTC7 with UP and DTCL with UP, enter MX77AA or AX74AA. For compact PMs (CPM), ADTC and DTCL, enter MX77AA or AX74AA. To support the UP on an ISDN/MBS SMU, field PROCPEC must be datafilled with MX77AA. To support the TMX76AA/BA HDLC messaging card, field PROCPEC must be datafilled with MX77AA. Enter SX05AA to replace MX77AA or AX74AA after first removing the NT7X05 circuit pack. The NT7X05 is not compatible with the SX05AA card; therefore, it must not be datafilled in the OPTCARD field. Mount the SX05AA processor card in the same slot as the MX77AA/AX74AA. If the frame type is GX02UI, you must remove the backplane strap used for the old 6X45 as the SX05AA processor is not compatible with the 6X45 processor. Enter data into subfield PACKLET when you enter SX05AA.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PROCPEC (continued)			Subfield PACKLET is the SX05AA packetlet functionality. PACKLET is a vector of up to 4 entries: PRL, SPAREA, SPAREB, and SPAREC. PRL is currently the only valid entry if PRL functionality is required. Otherwise, the entry is \$ to indicate no PRL functionality. Note: The values SPAREA, SPAREB, SPAREC are for future use and currently have no functionality. The following are data entry examples for the SX05AA and subfield PACKLET: • SX05AA \$ SX05AA \$ - no PRL functionality • SX05AA PRL \$ SX05AA PRL \$ - when one or two SX06BA (60-Mbyte PRL packetlets) or SX06CA (120-Mbyte PRL packetlets) are installed in each SX05AA Note: If an SX05AA processor is datafilled in both units, an NT7X05AA is not allowed in the OPTCARD field.
EXTLINKS		0 to 6	<i>Number of extended links</i> Enter the number of pairs of extended links.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
E2LOAD		alphanumeric (maximum of 8 characters)	<i>Electrically erasable PROM load name</i> Enter the EEPROM load name. If the shelf is equipped with a processor that is different from NTMX77, field E2LOAD is automatically datafilled with NILLOAD. Note: Datafill the PMLOAD file name in table PMLOADS before datafilling field E2LOAD in table LTCINV.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTATTR		CCS7, FSTR2, NX64, OC, PCM30, STRBBF, STRDTRE, STRN5, FDCP, EXTDS512, or \$	<i>Optional attributes</i> This field is a vector of up to ten optional attributes. <i>CCS7:</i> • If the DTC is used for CCS7 ISUP call processing and the value in field XPMTYPE is DTC, enter CCS7. Do not enter the CCS7 option for DTCs not associated with CCS7. • The CCS7 attribute cannot be deleted from a DTC if ISUP trunks are datafilled and assigned to that PM. The ISUP trunks must be deleted before proceeding with the change to table LTCINV. • Each ISUP DTC7 must be identified by this attribute whether the Multi-MSB7 feature (MMSB) is enabled or disabled. <i>FSTR2:</i> To identify a PDTC that supports generic R2 signaling, enter FSTR2. This value is valid only for the 3-processor version of the PDTC. It is not supported on the 2-processor version of the DTCO. <i>NX64:</i> To indicate that the PM can be used for NX64 kbit/s semi-permanent connections on a PDTC, enter NX64. The NX64 optional attribute means that a new channel mapping is used across the PM providing uniform delay for all time slots. The NX64 optional attribute is valid only for PDTCs and can be used only if field OPTCARD contains card NT6X28.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTATTR (continued)			<i>OC</i>: This value is only permitted under the following conditions: - Field PMTYPE is datafilled as TMS. - Field PROCPEC is datafilled as MX77AA. - There are no EDCHs (BX02BA) defined in a corresponding tuple of table LTCPSINV. - The SOC for ETMS OC (ENSV0008) is in the IDLE or ON state. - There are no carriers of type REMOTE defined on the TMS. This is determined by tables TPCINV and TMSPSDEV where this restriction is automatically enforced. Refer to these tables for further information. Also, the OC OPTATTR cannot be added or removed from an existing tuple. If a TMS is to be converted from and OC OMS to a position server TMS, or vice versa, the TMS tuple in table LTCINV must be deleted and re-added. <i>PCM30</i>: To indicate that a PCM30 type carrier can be assigned to the PM node, enter PCM30. For TMSs that use PCM30 as their carrier, enter PCM30. <i>STRDTRE</i>: This option defines the STR card to be used with DTMF "#" and "*" tone detection. <i>\$</i>: For SMA or GPP, enter \$.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
			<i>FDCP</i>: Used to flag a peripheral as being capable of supporting FDCP trunks and so requiring download of FDCP data. <i>EXTDS512</i>: This field is used to indicate the XPM that is configured in the Access Bridge Interface (ABI) configuration. An ABI configuration has an XPM connected to an MG9000 gateway via a DS512 interface. The refinements are the IP address of the DS512 interface and the Host GWC ID. Note: This feature introduces the following limitations to the datafill: - Each LTCINV tuple is restricted to either ENET-based or IP DS512 interface CSLNKTAB datafill, but not both. There can be multiple tuples of each type but each tuple has either ENET-based CSLNKTAB datafill or the EXTDS512 optional attribute assigned, but not both. - The IP DS512 interface provisioning supports only the LTC XPM types LGC and SMA2. - The ability to change the derived CSLINKs is not allowed. - The ability to change the Host GWC of the external XPM is not allowed. - The ability to change the device from ENET-based to External DS512-based, or vice versa, is not allowed.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PEC6X40		6X40AA 6X40AB 6X40AC 6X40AD 6X40BA 6X40CA 6X40FA 6X40FB 6X40FC	<i>6X40 equipment product engineering code</i> This field ensures that the correct 6X40 card version is sent as static data to the PM. Enter the version of the 6X40 card in the PM. For ISDN, enter 6X40AC. Note: NT6X40AD, NT6X40FB, and NT6X40FC cards provide enhanced diagnostic capabilities. If PEC6X40 datafill is set to the NT6X40AC or NT6X40FA version of the card, the new diagnostics capabilities are not initiated. The CM treats the interface as NT6X40AC/NT6X40FA regardless of the card installed.
EXTINFO (CSP02-)		see subfields	<i>Extension shelf information</i> An extension shelf is available in a CMVI and MVIE frame or cabinet. The MVDD frame does not contain an extension shelf. This field consists of subfields EXTSHelf, EXTFRTYP, EXTFRNO, EXTSHPOS, EXTFLOOR, EXTROW, EXTFRPOS, EXTEQPEC, and EXTSIDE.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	EXTSHELF (CSP02-)	Y or N	<i>Extension shelf</i> If the PM is a CPM-based host peripheral (for example, GPP), and is equipped with an extension shelf, enter Y (Yes) and datafill the fields below; otherwise, enter N (No). No other datafill is required. DTCO2 does not support EXTSHELF. For DTCO2, enter N (No). The default value for this field is N.
	EXTFRTyp (CSP02-)	MVIE, CEXT or NIL	<i>Extension frame type</i> Enter the type of frame in which the extension shelf is housed. For GPP, enter CEXT. For SMA2, enter MVIE.
	EXTFRNO (CSP02-)	0 to 511	<i>Extension frame number</i> Enter the number of the frame in which the extension shelf is housed.
	EXTSHPOS (CSP02-)	0 to 77	<i>Extension shelf position number</i> Enter the extension shelf position number.
	EXTFLOOR (CSP02-)	0 to 99	<i>Extension shelf floor number</i> Enter the number of the floor on which the extension shelf is located.
	EXTROW (CSP02-)	0 to 39, A to Z, AA to ZZ; except I, II, O and OO	<i>Extension shelf row number</i> Enter the number of the row in which the extension shelf is located.
	EXTFRPOS (CSP02-)	0 to 99	<i>Extension shelf frame number</i> Enter the number of the frame position in which the shelf is housed.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	EXTEQPEC (CSP02-)	MX86AA, MZ86AB	<i>Extension shelf equipment PEC</i> Enter the extension shelf equipment PEC. For SMA2, enter MX86AB. For GPP, enter MX86AA.
	EXTSIDE (CSP02-)	L or R	<i>Extension shelf side</i> Enter the extension side of the shelf: L (left) or R (right).

Table history**SN07****A00004978**

Added MG9000 ABI support for LGCO and LGCI.

SN06 (DMS)**A00001150**

SOC option SBAS0003 allows the maximum number of tuples in use to be limited. If the option is active, and an attempt is made to add more tuples than the current limit allows, an error message is generated.

CSP18/SN05**59038361**

Added optional attribute EXTDS512 to field LTCINV_OPT_ATTR to allow data to be captured when an XPM is connected to a DS512 interface. When this attribute is added, the table control software prompts the user for the IP address of the DS512 interface and the Host GWC.

SN04**59022865**

Added toneset PNGMFC used for PLGCs and PDTCs in the Papua New Guinea market.

59033657

Added datafill example for activation of the Brazil toneset.

Additional information

Much of the information previously described in the general section of table LTCINV is now contained in the section on Field descriptions.

PLGC is the XPM used to datafill line group controllers with PCM30 running North American call processing software. This applies whether the PM is a P3LGC, a P2LGC, or a P2LGCI. PM types P3LGC, P2LGC, P2LGCI, and PLGC are differentiated by frame type, equipment PEC (shelf code), and the presence of an ISP optional card.

The following table shows the values used in fields FRTYPE and EQPEC for PLGC and PDTC. It also contains the format of the software load for that type of peripheral. Field OPTCARD shows possible UTR, ISP, and NT6X28 cards.

PLGC/PDTC datafill

PM type					
Field name	P3LGC	P2LGC	P2LGCI	P3DTC	P2DTC
XPMTYPE	PLGC	PLGC	PLGC	PDTC	PDTC
FRTYPE	ILGE	LTEI	LTEI	IDTE	IDTE
EQPEC	6X02P3	6X02UA	6X02UA	6X02P3	6X02P3
OPTCARD	UTR8	UTR15	UTR15	UTR8	UTR15
	UTR9	UTR16	UTR17	UTR9	UTR16
	UTR10	UTR17		UTR10	UTR17
	UTR11		ISP	UTR11	
	NT6X28	NT6X28	NT6X28	NT6X28	NT6X28
	NT6X28AB	NT6X28AB	NT6X28AB	NT6X28AB	NT6X28AB
LOAD	NPLxxyy	NPLxxyy	ULIxxyy	NPDxxyy	UDTxxyy

Adding, changing or removing links in table LTCINV

Dynamic C-side link reconfiguration of a PDTC and a PLGC is not supported if table SPECCONN has connections throughout the network. If a user attempts to alter a C-side link in table LTCINV when at least one network SPECCONN connection uses that XPM, the tuple change is not permitted and the following error message is displayed

```
ERROR: DELETE NETWORK SPECCONN CONNECTIONS BEFORE
CHANGING CSLINKS
```


If a time-division multiplex (TDM) connection uses an equipped C-side port off a PLGC, a tuple change is not allowed on that C-side link in table LTCINV. The corresponding ISDN line must be deleted before altering the related C-side link. The following error message is displayed:

```
ERROR: TDM CONNECTIONS ON THIS LINK. CANNOT CHANGE
CSLINKS. USE QSCONN TO FIND THE ISDN LINES TO BE
REMOVED. RE-DATAFILL THESE LINES ONCE CSLINKS CHANGE
IS OVER.
```

Adding the value NTAX78AB to field OPTCARD for an SMU without the ISP1 optional card datafilled is not valid. An SMU without ISDN and MBS does not support the NTAX78AB time switch. The following error message is displayed:

```
ERROR: MUST HAVE ISP TO PROVISION NTAX78AB ON SMU.
```

Deleting the value ISP from field OPTCARD for an SMU that has the NTAX78AB optional card datafilled is not valid. An SMU without ISDN and MBS does not support the NTAX78AB time switch. The following error message is displayed:

```
ERROR: MUST REMOVE NTAX78AB OPTCARD BEFORE REMOVING
ISP.
```

If an ISP card is already datafilled for a specific GPP and a V5.2 interface is attached, the operating company personnel cannot delete the card from the list of optional cards. The following error message is displayed:

```
ERROR: The ISP OPTCARD cannot be removed, since there
is a V5.2 AN attached.
```

Conversely, operating company personnel cannot attach a V5.2 interface to a specific GPP if the GPP is not datafilled with an ISP card in field OPTCARD.

Adding the value NTAX78AB to field OPTCARD for an SMU that cannot support it is not valid. Feature package NTX387AE is not present in the CC load. The following error message is displayed:

```
ERROR: NTAX78AB IS NOT A VALID OPTCARD FOR THIS TYPE
OF PERIPHERAL.
```

Mapping of links from an RCO2 through the PLGC takes precedence over any requirements for channels for call processing in the PLGC.

If the data change affects link information to a PLGC hosting an RCO2, the result can be static data changes to the PLGC. Such changes affect call processing to both the PLGC and the RCO2, and must be done during low traffic periods. If a static data mismatch condition occurs on the PLGC, two WARMSWACTs must be done to update the static data in both units of the PLGC. Care must be taken when making any changes in the C-side or P-side links. The user must ensure that enough call processing C-side capacity remains in the PLGC.

PDTCs cannot be added to table LTCINV if 8-bit SLS load balancing is active and CCS7 routing tables exist in the XPM. If PDTCs are not allowed, the following error message is displayed:

```
ERROR: PDTC type peripherals are not allowed in table
LTCINV when 8-bit SLS load balancing is enabled and
routing tables are downloaded in the XPMs. Please
activate LIU7 routing and remove the routing tables
before adding a PDTC to the LTCINV table.
```

A value of ECL12 or later in field LOAD produces an error under the following conditions:

- the PM is an NTMX77-based LTC/LGC
- the PM has subtending ILD drawers and/or RLD ISDN LENS

These conditions produce the following error message:

```
Warning: ECL12/13/14 load will cause ILD drawers and
RLD ISDN LENS to stop working on MX77-based LTC/LGC
peripheral. (Note: RLD POTS and P-phone will be OK)
User should upgrade the LTC/LGC to SX05 processor, or
delete the ILD/RLD datafill, or move ILD/RLD to a
supporting peripheral.
```

Note: If operating company personnel continue with this datafill but do not delete or move the ILD/RLD lines, an E1 outage can occur.

Dump and restore

If the load is for Japan, replace all occurrences of DTCEX with JDTCEX.

If the load is not for Japan, transfer the LTCINV tuple without changes.

LTDEF

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Logical Terminal Definition

The logical terminal tables identify logical terminals and both the associated line equipment number (LEN) and the associated terminal equipment identifier (TEI). The logical terminal tables consist of tables TAKGAP, LTCALLS, LTDATA, LTDEF, LTGRP, and LTMAP

Table LTDEF defines the service profile of an ISDN logical terminal identifier (LTID). The key to this table is an LTID. An LTID consists of a logical terminal group (LTGRP) from table LTGRP and a logical terminal number (LTNUM) in the range of 1 to 1022.

Table LTDEF defines the service profile of an ISDN logical terminal identifier (LTID). The key to this table is an LTID. An LTID consists of a logical terminal group (LTGRP) from table LTGRP and a logical terminal number (LTNUM) in the range of 1 to 1022.

The option supports the RES Translations Simplification feature.

Datafill sequence and meaning

Datafill tables SVPRIGRP and LTGRP before table LTDEF.

Table size

0 to 32 704 tuples.

Datafill

The following table lists the datafill for table LTDEF.

Field, subfield, and refinement descriptions for table LTDEF (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LTKEY		see subfields	Logical terminal key. This field consists of subfields LTGRP and LTNUM.
	LTGRP	alphanumeric (up to 8 characters)	Logical terminal group. Enter the name of a group of logical terminals. Valid group names are in field GROUP of table LTGRP.
	LTNUM	1 to 1022	Logical terminal number. Enter a number to identify the logical terminal within the group.
LTAP		B, D, PB, BD, 2B, 2BD	Logical terminal access privilege. Enter the access privilege of the logical terminal. For circuit switching or for ISDN MFT terminals, enter B. For D-channel packet switching, enter D. For provisioned B-channel packet switching, enter PB. For combined circuit switching, enter BD. For two B-channel circuit switching, enter 2B. For D-channel packet switching and circuit switching on the same NI-2 terminal, enter 2BD. A terminal with the 2BD option must also have CLASSREF subfield LTCLASS = BRAFS, BRAFS subfield OPTION = PVC, DTEI, and PVC subfields VERSION = FUNCTIONAL and ISSUE = 2. The NITYPE option must be specified with a value of NI2.

Field, subfield, and refinement descriptions for table LTDEF (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LTAP (continued)		B, D, PB, BD, 2B, 2BD	Note: If the PVC option is not specified, it will be added by default as PVC FUNCTIONAL 2. You cannot change an existing access privilege to 2BD.
CLASSREF		see subfield	
	LTCLASS	BRAFS, BRAMFT, PRA	The logical terminal class field identifies the set of services that are allowed for a logical terminal. For basic rate access (BRA) functional sets, enter BRAFS. For BRA Meridian feature transparency (MFT) terminals, enter BRAMFT. For primary rate access, enter PRA.

LTCLASS = BRAFS

If the entry in subfield LTCLASS is BRAFS, datafill subfield OPTION as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 3)

Subfield or refinement	Entry	Explanation and action
OPTION	AGA, CACH, CMD, DEFLTERM, DTEI, EKTS, ELN, NITYPE, NOCMD, NOPMD, NOVBD, NOVOICE, NO OCT, OML, PMD, PVC, SCAI, SLBRI, SPIDSFX, TERML, TSPID, UATEI, UNATEI, USRCLI, VBD, VOICE	Option. Enter up to 18 options. Enter AGA to enable the associated group feature. Datafill subfields AG_GROUP and AG_CT. Enter CACH to enable the call appearance handling feature on a terminal. This option cannot be assigned without option EKTS. Enter CMD to indicate that circuit mode data calls are allowed (ISDN BRI only). Enter DEFLTERM (for example, non-initializing terminal) to indicate that the option defines a default logical terminal and thus, a default service profile for the loop. Enter DTEI for a dynamic TEI. DTEI must be entered if SPIDSFX or EKTS is required. Enter EKTS to indicate electronic key telephone service. Enter ELN to indicate that the BRA is handled as an essential access. Enter NITYPE to specify whether the terminal is National ISDN 1 (NI-1) or National ISDN 2 (NI-2) compliant. Datafill subfield NITYPE.

Field descriptions for conditional datafill (Sheet 2 of 3)

Subfield or refinement	Entry	Explanation and action
OPTION (continued)		Enter NOCMD to indicate that circuit mode data calls are not allowed for ISDN PRI. Enter NOPMD to indicate that packet mode data calls are not allowed for ISDN PRI. Enter NOVBD to indicate that voice band data calls are not allowed for ISDN PRI. Enter NOVOICE to indicate that voice calls are not allowed for ISDN PRI. Enter OCT to indicate an overload condition treatment. OCT dictates the type of control applied to terminals in a rapid messaging (RM) state. Valid values are REONLY (report only) or REPCTRL (report and control). Enter OML to indicate an overload messaging limit for D-channel messages allowed on an LTID before activating RM controls. OML is valid for BRAFS circuit-switched (CS) LTIDs. Valid values are 0 to 150 messages per minute with increments of 15. If OML is set to zero, RM is turned off for the LTID. If OML is assigned a value other than zero, the OML overrides the DEFOML value. Enter PMD to indicate that packet mode data calls are allowed (ISDN BRI only). Enter PVC to indicate that the terminal has protocol selectivity through protocol version control. Datafill subfields VERSION and ISSUE. Enter SCAI to indicate that the logical terminal has access to the switch computer application signaling interface. Note: Option SCAI is not a valid entry for table LTDEF forBCS34 and up. Enter SLBRI for ISDN single line BRI.

Field descriptions for conditional datafill (Sheet 3 of 3)

Subfield or refinement	Entry	Explanation and action
OPTION (continued)		Enter SPIDSFX for a service profile identifier suffix. Datafill subfield SPID_SUFFIX. Enter TERML to specify the number of non-initializing terminals (NIT) that the LTID can support. Datafill subfield TERML. Enter TSPID to define the Free Format Terminal Service Profile Identifier (TSPID) value. TSPID is required for datafilling new BRAFS sets and for initializing Basic Rate Interface Functional Signaling (BRIFS) LTIDs. Enter UATEI to indicate user-assigned dynamic TEI terminals. Enter UNATEI to indicate a user- or network-assigned TEI. For a BRI line, enter USRCLI to indicate that for a call originating from an ETSI BRI or VN4 BRI line, the CLI of the originating call is captured and stored in the Orig Open Digits (OOD) field in module 046. Enter VBD to indicate that voiceband data calls are allowed (ISDN BRI only). Enter VOICE to indicate that voice calls are allowed (ISDN BRI only). Note: Options DTEI, UATEI, UNATEI, EKTS, SPIDSFX, and TSPID are incompatible with option DEFLTERM. By default, NITs use UNATEI TEI assignment procedures.

LTCLASS = BRAFS, OPTION = AGA

If the entry in subfield OPTION is AGA, datafill subfields AG_GROUP and AG_CT as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
AG_GROUP	1 to 9	Associated group number. Enter the number of the associated group.
AG_CT	AG_VI, AG_CMD, AG_ALL, AG_UNASSIGNED	Associated group call type. Enter AG_VI (voiceband information) for voice call type. Enter AG_CMD (circuit mode digital information) for data call type. Enter AG_ALL for all call types. Enter AG_UNASSIGNED to indicate that no call types are assigned.

LTCLASS = BRAFS, OPTION = NITYPE

If the entry in subfield OPTION is NITYPE, datafill subfield NITYPE as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
NITYPE	NI1, NI2, or NIL_TERM	Terminal type. Enter NI1 or NI2 to specify whether the terminal is National ISDN 1 (NI-1) or National ISDN 2 (NI-2) compliant. The default value for this field is NIL_TERM. Note: Entry NI3 for this field is reserved for future use.

LTCLASS = BRAFS, OPTION = PVC

If the entry in subfield OPTION is PVC, datafill subfields VERSION and ISSUE as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Subfield or refinement	Entry	Explanation and action
VERSION	AUSTEL, ETSI, FUNCTIONAL, MFT, VN4	Protocol version. Enter AUSTEL for the signaling protocol for Australian BRA. AUSTEL can only be datafilled for ISDN loops subtending peripheral module (PM) types PRCC or PLGC. AUSTEL cannot be datafilled for ISDN loops subtending other types of PMs that are ISDN equipped. Enter ETSI (European Telecommunications Standards Institute ISDN) for the signaling protocol for European basic rate interface (BRI). Enter FUNCTIONAL for the signaling protocol based on Q.931 messaging protocol or 2BD service. For further information, refer to <i>Integrated Services Digital Network Service Orders for ISDN Terminals Reference Manual</i>. Enter MFT using the SLT prompt in the Service Order System (SERVORD). For more information on SERVORD, refer to SERVORD Reference Manual. The default value for this field is MFT. Enter VN4 (French ISDN protocol variant) for the possible selection of VN4 for the logical terminal.

Field descriptions for conditional datafill (Sheet 2 of 2)

Subfield or refinement	Entry	Explanation and action
ISSUE	0 to 2	Protocol issue. Enter the protocol issue designated for the particular logical terminal. Enter 0 (zero) for stimulus and MFT protocols. Enter 0 (zero) to support the ETSI BRI protocol. Enter 0 (zero) if the protocol version specified is AUSTEL or VN4. Enter 1 for BellCore functional protocol. Enter 2 if feature Protocol Variant Control is provisioned.

LTCLASS = BRAFS, OPTION = SCAI

If the entry in subfield OPTION is SCAI, datafill subfield SCAIGRP as described in the following table.

Note: Option SCAI is not a valid entry for table LTDEF for BCS34 and up.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
SCAIGRP	alphanumeric (up to 8 characters)	Switch computer application interface group. Enter a valid SCAI group name.

LTCLASS = BRAFS, OPTION = SPIDSFX

If the entry in subfield OPTION is SPIDSFX, datafill subfield SPID_SUFFIX as described in the following table.

Note: Option SCAI is not a valid entry for table LTDEF for BCS34 and up.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
SPID_SUFFIX	numeric (up to 8 digits)	Service profile identifier suffix. Enter the name that uniquely identifies a particular subscriber on a dynamic TEI terminal. Note: Prior to BCS35, the entry for field SUFFIX was up to eight alphanumeric characters.

LTCLASS = BRAFS, OPTION = TERML

LTCLASS = BRAFS, OPTION = TERML

If the entry in subfield OPTION is TERML, datafill subfield TERML as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
TERML	1 to 8	This is the number of NITs. Enter the number of NITs that can be associated with an NI-2 default LTID. A maximum of eight terminals can be associated with an NI-2 default LTID. Note 1: The TERML value is the number of terminals that can associate with the LTID and that can therefore receive service. The TERML parameter does not restrict the number of TEIs that can exist on the loop in a layer 2 mode. Note 2: For a D-channel packet-only NIT, a value of 1 is enforced. The default value for this field is 1.

LTCLASS = BRAFS, OPTION = TSPID

If the entry in subfield OPTION is TSPID, datafill subfield TSPID as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
TSPID	1 to 18 digits	This is the TSPID value for initializing BRAFS LTIDs. Enter a value from 1 to 18 digits to specify the Free Format SPID value to be used for layer 3 provisioning. The SPID value is composed of the TSPID plus a 2-digit TID.

LTCLASS = BRAMFT

If the entry in subfield LTCLASS is BRAMFT, datafill subfield OPTION as described in the following table. This selector enables datafilling of ISDN MFT terminals. PVC enables specification of the layer 3 protocol that is used for a given ISDN BRI terminal.

Note: Enter the PVC version MFT using the SLT prompt in SERVORD.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
OPTION	DTEI, PVC, SPIDSFX, UATEI	Enter up to four options. Enter DTEI for a dynamic TEI. Note: DTEI must be entered if SPIDSFX is required. Enter PVC for protocol version control. Note: This option allows operating company personnel to datafill the protocol version and issue that the ISDN BRI terminals support. Enter SPIDSFX for a service profile identifier suffix.

LTCLASS = BRAMFT, OPTION = PVC

If the entry in subfield OPTION is PVC, datafill subfield ISSUE as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
ISSUE	0 or 1	Enter the valid issue for PVC.

LTCLASS = BRAMFT, OPTION = SPIDSFX

LTCLASS = BRAMFT, OPTION = SPIDSFX

If the entry in subfield OPTION is SPIDSFX, datafill subfield SPID_SUFFIX as described in the following table.

Field descriptions for conditional datafill

Subfield or refinement	Entry	Explanation and action
SPID_SUFFIX	numeric (1 to 8 digits)	Enter the service profile identifier suffix. This is the name that uniquely identifies a particular subscriber on a dynamic TEI terminal. Note: Prior to BCS35, the entry for field SPID_SUFFIX was up to eight alphanumeric characters.

LTCLASS = PRA

If the entry in subfield LTCLASS is PRA, datafill subfields NUMBCHNL and OPTION as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 4)

Subfield or refinement	Entry	Explanation and action
NUMBCHNL	1 to 479	Enter the number of B-channels that this logical terminal is allowed to use at any time. The sum of this field over all logical terminal identifier (LTID) on an interface must not exceed the number of B-channels on the interface. Note: Field NUMBCHNL is not used at this time and is reserved for future use.
VARISSUE	see subfields	This field consists of subfields VARIANT and ISSUE.

Field descriptions for conditional datafill (Sheet 2 of 4)

Subfield or refinement	Entry	Explanation and action
VARIANT	AUSTPRI, ETSIPRI, EVN4PRI, INSPRI, NTNAPRI, NIPRI, N449PRI, QSIGPRI, U449PRI, or U459PRI	This is the variant type. Enter the PRI protocol being used for the LTID as follows: • AUSTPRI - Australian PRI • ETSIPRI - ETSI PRI (Europe) • EVN4PRI - French PRI (Number is VN4) • INSPRI-Japan INS-1500 PRI • NTNAPRI-Northern Telecom (Nortel) PRI • NIPRI-NI-2 PRI Note 1: If the corresponding LTID tuple in table LTDATA has field DATATYPE = SERV and subfield OPTION =TBCT, attempts to change VARIANT from NIPRI are rejected with the following error message: Cannot change VARIANT: TBCT provisioned on LTID in Table LTDATA. Delete TBCT from the tuple in LTDATA first. Note 2: If the corresponding tuple in table LTCALLS has field CALLTYPE = PVT, an attempt to change the PRA VARIANT to NIPRI fails with the following message: ERROR: delete Private service type ENTRY from table LTCALLS for this INTERFACE BEFORE changing the LTDEF variant to NIPRI. • N449PRI-AT&T SYS85 • QSIGPRI-QSIG PRI • U449PRI-AT&T 4ESS • U459PRI-AT&T 5ESS

Field descriptions for conditional datafill (Sheet 3 of 4)

Subfield or refinement	Entry	Explanation and action
ISSUE	1990, ETSI1993, EVN4V1, FR_VN6, HOLLAND1, ISO1996, NET3, NI2V1, SPAIN1, SWISS3, TS141990, V1, X11	Enter the issue of the PRI variant used as follows: If ECT is provisioned in table LTDATA, an attempt to change ISSUE to any other value except 1990 displays the message: The ECT option is only supported for ETSI PRI issue 1990 If the entry in field VARIANT is ETSIPRI, enter 1990, FR_VN6, HOLLAND1, ISRAEL, NET3, SPAIN1, SPAP_PRI, SWISS3, STDETS11, STDETS12, STDETS13, STDETS14, STDETS15 or X11. If the entry in field VARIANT is INSPRI, N449PRI, NTNAPRI, U449PRI, or U459PRI, enter V1 or V2. If the entry in field VARIANT is NIPRI, enter NI2V1 and datafill subfield PGRPID. If the entry in field VARIANT is EVN4PRI, enter EVN4V1 or FR_VN6. If the entry in field VARIANT is QSIGPRI, enter ETSI1993 or ISO1996. This value is dependent on the choice of the VARIANT.
PROFNAME	alphanumeric (up to 8 characters), NIL	The profile name field is the key to table PRIPROF. Enter a profile name linking a profile (set of function switches) to an interface. This name must first be datafilled in table PRIPROF. The default for this field is NIL and disables all available function switches. Entries correspond with entries for VARIANT and ISSUE in table PRIPROF.

Field descriptions for conditional datafill (Sheet 4 of 4)

Subfield or refinement	Entry	Explanation and action
OPTION	CMD, ONEPLNC, PGRPID, PMD, SZGRDTM, VBD, VOICE	Option. Enter up to six options. Enter CMD to indicate that circuit mode data calls are allowed. Enter ONEPLNC to allow 1+10 digits for non-AIN translations. Enter PGRPID followed by the name of the Serving PRI group, to indicate a Serving PRI group. This name is the key to table SVPRIGRP, and must first be datafilled in table SVPRIGRP. The default for this field is NIL. If the value is NIL, then PGRPID does not appear in the options list for the tuple. Enter PMD to indicate that packet mode data calls are allowed. Enter SZGRDTM to specify the minimum amount of time the DMS will wait after a call completion before seizing that same trunk for another call. The default value, without this option, is 750 ms. This option is valid for PRA, IBNT2 and PRA250 Trunk Types (as datafilled in table TRKSGRP). Enter VBD to indicate that voiceband calls are allowed. Enter VOICE to indicate that voice calls are allowed.

Table history

SN07

Table LTDEF migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

SN04 (DMS)

Added option USRCLI to field BRAFS subfield OPTION as per feature A59035533.

LTMAP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Logical Terminal Mapping

Table Logical Terminal Mapping (LTMAP) maps logical terminals to a line equipment number (LEN) or trunk span DS-0 location and the terminal equipment interface, depending on the logical terminal access privilege (LTAP).

The key to this table is LTKEY (LTGRP, LTNUM).

Datafill sequence and meaning

The following tables must be datafilled before table LTMAP:

- LTGRP
- LNINV
- LTDEF
- SPECCONN
- TRKGRP
- TRKSGRP
- TRKMEM
- DCHINV
- DNCTINFO
- DNCHNL
- LIDINFO

Datafill sequence and meaning for PRI with Semipermanent Packet

The following tables must be datafilled in the following sequence:

- LTGRP, LTDEF, KSETINV, KSETLINE, DNCTINFO, DNCHNL
- LTCINV, LTCPSINV
- CLLI, TRKGRP, TRKSGRP, TRKMEM
- XSGDEF, SPECCONN
- LTMAP

Table size

No data store is required for this table. It uses the data store of table LTDEF.

Datafill

The following table lists the datafill for table LTMAP.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
LTKEY		see subfields	Logical terminal key. This field consists of subfields LTGRP and LTNUM.
	LTGRP	alphanumeric (maximum 8 characters)	Logical terminal group. Enter the group of the logical terminal.
	LTNUM	1 to 1022	Logical terminal number. Enter the logical terminal number within the group.
MAPPING		see subfield	Logical terminal mapping. This field consists of subfield MAPTYPE.
	MAPTYPE	CLLI, LEN or XSG	Logical terminal mapping type. Enter the type of mapping being used. Enter CLLI and datafill refinement CLLI. Enter LEN and datafill refinement LEN. Enter XSG and datafill refinement XSG. For primary rate access (PRA), the logical terminal identifier must be mapped to a CLLI.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
MAPPING (continued)	CLLI	alphanumeric (maximum 16 characters)	Common language location identifier. Enter the CLLI of the PRA trunk to which the logical terminal is assigned. Note: If the mapped CLLI has the IP option provisioned in table TRKGRP, then the variant of the LTID must be NI2.
	LEN	see subfields	Line equipment number. This field defines the physical location of the equipment that is connected to a specific telephone line. Because field LEN is common to more than 60 tables, it is documented in a single section to avoid unnecessary duplication. Refer to section "Common entry field LEN" for a complete description of field LEN and associated subfields. For integrated services data network (ISDN) lines, field LEN consists of subfield logicalterminal identifier (LTID). For non-ISDN lines, field LEN consists of subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT, and CIRCUIT.
	XSG	0 to 749	X.25/X.75 service group. This field associates an echo station LTID to an XSG for user loop back testing. Identify the XSG by an X.25 link interface unit (XLIU) in the range of 0 through 749.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
OPTION		BCH, DCHCHNL, ILDCHNL, LTBYTE, MEM, PHI, TEI, or XSG	Option. This field is a vector of maximum two entries. If less than two entries are required, end the list with a \$(dollar sign). Enter the option that is based on the terminal access privilege chosen. Option B-channel (BCH) is used for BRI packet data (that is, for PB [high-speed packet-switched data] type terminals only). Datafill refinement BCH. Note: TEI is disallowed for packet-only and integrated NITs with dynamic TEI. If the member (MEM) option is checked, then the specified LTID is packet on PRI LTID and a member number must be provided which corresponds to the member number in table TRKMEM.
	BCH	B1 or B2	BRI B-channel. Enter the B-channel that is selected for packet data. This is specified for PB type terminals only. Option D-channel (DCHCHNL) is valid for D (low-speed packet data), BD circuit-switched (CS) voice, or 2BD (two B-channel voice and low-speed packet mode data) LTIDs that are associated with loops on an ISDN LTC or LGC. This option is also valid for all V5.2 ISDN lines.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	DCHCHNL	0 to 31	D-channel handler (DCH) channel. Enter the DCH to which the loop is connected. NI-2 D-channels can only be datafilled on the 24th channel of a carrier. This option is also valid for all V5.2 ISDN lines. DCHCHNL must be specified for 2BD type terminals. Option ISDN line drawer channel (ILDCHNL) is defined for D-packet switching on ISDN line drawer for remote (ILDR) terminals. Datafill refinement ILDCHNL.
	BCH	B1 or B2	BRI B-channel. Enter the B-channel that is selected for packet data. This is specified for PB type terminals only. Option D-channel (DCHCHNL) is valid for D (low-speed packet data), BD circuit-switched (CS) voice, or 2BD (two B-channel voice and low-speed packet mode data) LTIDs that are associated with loops on an ISDN LTC or LGC. This option is also valid for all V5.2 ISDN lines.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	DCHCHNL	0 to 31	D-channel handler (DCH) channel. Enter the DCH to which the loop is connected. NI-2 D-channels can only be datafilled on the 24th channel of a carrier. This option is also valid for all V5.2 ISDN lines. DCHCHNL must be specified for 2BD type terminals. Option ISDN line drawer channel (ILDCHNL) is defined for D-packet switching on ISDN line drawer for remote (ILDR) terminals. Datafill refinement ILDCHNL.
	ILDCHNL	BD1 or BD2	ILD channel. Enter the Bd-channel number to identify the channel for D-packet switching Option logical terminal byte (LTBYTE) is used to examine or set the internal LTID BYTE value. Datafill refinement LTBYTE.
	LTBYTE	0 to 255	Logical terminal identifier type. Enter the value used internally to identify the terminal on the loop. This option is required during a batch change supplement (BCS) switch of activity (SWACT) to ensure the LTID BYTE does not change. Any entry outside the range indicated for this field is invalid. Option packet handler interface (PHI) is used for D and BD type terminals. Datafill refinement PHI.
	MEM	0 to 32767	Member. Enter the member number of the trunk group for PRI with Semipermanent Packet.

Field, subfield, and refinement descriptions for table LTMAP (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	PHI	0 to 1023	Packet handler interface. Enter the PHI that is selected for D and DB type terminals. Option terminal endpoint identifier (TEI) is used for static TEI terminals to indicate the value of the static TEI. Datafill refinement TEI.
	TEI	0 to 63	Terminal endpoint identifier. Enter the terminal endpoint identifier that is specified for static TEI terminals.
	XSG	0 to 749	X.25/X.75 service group. Enter the number of the X.25 or X.75 XSG to which the provisioned LTID with D-channel packet service is being assigned.

Additional information

This section explains the error messages that can occur if you incorrectly datafill table LTMAP.

Error messages specific to PRI with Semipermanent Packet

Reason: Primary Rate Interface (PRI) with Semipermanent Packet LTID supports option MEM only.

Only MEM option should be present for Packet on PRI.

Action: Perform the LTMAP datafill with only option MEM present.

Reason: The following error message displays if the MAP type is not CLLI for PRI with Semipermanent Packet.

The map type should be CLLI for Packet on PRI LTIDs.

Action: Use CLLI instead of LEN as the datafill for MAP types.

Reason: The following error message displays if table TRKMEM does not datafill to map the CLLI and MEMBER to DS-0 datafill in table SPECCONN.

Table TRKMEM should be datafilled before LTMAP.

Action: Datafill table TRKMEM for a member other than 24.

Reason: The following error message displays if the trunk group type is not PRA.

The trunk group should be PRA for Packet on PRI trunk.

Action: Use CLLI. CLLI has a PRA trunk group type.

Reason: The following error message displays if the signaling type of the subgroup is not X.25 for Packet on PRI CLLI MEM.

The signaling type of subgroup should be X25 for Packet on PRI CLLI MEM.

Action: Enter X25. X25 is the signaling type of subgroup for the packet on PRI CLLI MEM.

Reason: The following error message displays if CLLI and MEMBER already map in table LTMAP.

The CLLI & MEMBER are already in use.

Action: The same CLLI and MEMBER cannot map to another LTID.

Reason: The following error message displays if the terminal class of an LTID is not a basic rate access functional set (BRAFS).

The terminal class of the LTID is not BRAFS.

Action: The terminal class of an LTID is BRAFS for PRI with Semipermanent Packet.

Reason: The following error message displays if the access privilege for the LTID is D.

The access privilege of LTID must be PB.

Action: The access privileges for the LTID is PB for PRI with Semipermanent Packet.

Reason: The following error message displays if table KSETINV does not datafill for the correct LTID.

The LTID is not datafilled in KSETINV.

Action: The LTID datafills in table KSETINV.

Reason: The following error message displays if table KSETLINE does not datafill.

Table KSETLINE not datafilled.

Action: The LTID datafills in table KSETLINE.

Reason: The following error message displays if the LTID does not datafill in table DNCHNL.

Table DNCHNL not datafilled.

Action: The LTID datafills in table DNCTINFO.

Reason: The following error message displays if the LTID maps to a LEN and operating company personnel try to map the LTID to CLLI with MEM option using the CHANGE command.

Cannot change map type. Please delete and add the tuple.

Action: Detach the LEN from the LTID and then map this LTID to CLLI.

Reason: The following error message displays if the trunk member to change is not in the installation busy (INB) state.

The trunk member must be INB.

Action: Change the trunk member to the INB state.

Reason: The following error message displays if operating company personnel use the table control CHANGE command for a PRI with semipermanent packet LTID and try to assign the LTID to a BRI LEN.

Cannot change Packet PRI to Packet BRI. Please delete & add the tuple.

Action: Delete and then re-add the tuple.

Error message specific to PRI Location Indicators

The following error message appears on the MAP display if the protocol variant in table LTDEF is non-Northern Telecom North America (NTNA) or non-Northern Telecom National ISDN (NTNI), and its corresponding LTID attempts to map to a common language location identifier (CLLI) whose location datafill in table TRKSGRP is LOC_MAP.

LOCATION LOC_MAP is only supported for NTNA and NTNI protocol variants. Change the protocol variant in table LTDEF.

The following error message appears on the MAP display if operating company personnel attempt to delete a tuple that table AINPRI references.

*** Delete the AINPRI entry before deleting LTMAP ***

The following error message appears if an attempt to MAP an NI-2 LTID to a CLLI datafilled as user side in Table TRKSGRP (subfield IFCLASS).

*** User IFCLASS is not supported on NIPRI ***

The following error message appears on the MAP display if a B2-channel is assigned to the last card in an integrated services line card carrier (ISLCC) and it is an ISDN line.

Only the B1-channel can be assigned on the last card in the line card carrier.

The following error message appears on the MAP display if a 2B non-initializing terminal (NIT) or fully initializing terminal (FIT) is assigned to an ISDN interface while the NI000050_SOC_state = IDLE.

ERROR: 2B terminals cannot be assigned to an ISDN interface. Option NI000050 must be turned ON.

For North American offices, the following error message appears on the MAP display if a 1B NIT is assigned to an ISDN interface while the NI000050_SOC_state = IDLE.

ERROR: Default terminals cannot be assigned to an ISDN interface. Option NI000050 must be turned ON.

Table history

Table LTMAP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MNCKTPAK

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Management Network Circuit Pack

Table MNCKTPAK is one of seven DMS-Spectrum Peripheral Module (SPM) configuration tables. In this table, each tuple identifies 1 of 15 circuit packs on a shelf. The data maintained in this table includes the circuit pack type, product engineering code (PEC), load name, and slot number.

Datafill sequence and meaning

Datafill tables in the following order:

1. table PMLOADS

Note: Table PMLOADS specifies the location of a particular load file. Datafill PMLOADS only once. There is no need to datafill PMLOADS for each SPM added to the system unless a new load file entry has to be added to table PMLOADS.

2. table MNPRTGRP

3. table MNNODE

4. table MNSHELF

5. table MNCKTPAK

Note: Table TRKMEM is datafilled after table MNCKTPAK when the office is configured with SPMs with ISUP or per-trunk signaling (PTS) trunks.

6. table MNLINK

7. table MNHSCARR

8. table MNPRIID

Note: Table MNPRIID is datafilled only when configuring an office with SPMs with PRI trunks.

ATTENTION

Some resource modules mentioned in the following discussion do not apply to all markets.

If the protection group specified by the OC3, DLC, DSP, ATM, or VSP group identifier has not been added to table MNPRTGRP, one of the following messages display:

Can not find the corresponding OC3_GRP in table MNPRTGRP

Can not find the corresponding DLC_GRP in table MNPRTGRP

Can not find the corresponding DSP_GRP in table MNPRTGRP

Can not find the corresponding ATM_GRP in table MNPRTGRP

Can not find the corresponding VSP_GRP in table MNPRTGRP

If the shelf specified by SHELFID has not been added to table MNSHELF, the following message displays:

Can not find the shelf MNPRTGRP

If the load specified by field LOAD has not been added to table PMLOADS, one of these messages display:

Can not load file xxxxx

Please datafill load file in table PMLOADS first

Table size

The maximum number of tuples in the table is 1,662.

Datafill

The following tables list the datafill for table MNCKTPAK.

CPKTYPE = CEM

When CPKTYPE equals CEM (common equipment module), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		CEM	<i>Common equipment module</i> The subfields are UNITNO and ALRMCTRL.
	UNITNO	0-1	<i>Unit number</i> Enter the CEM unit number. There are a maximum of two CEMs per SPM. Unit number 0 is assigned to the CEM residing on shelf 0 slot 7. Unit number 1 is assigned to the CEM residing on shelf 0 slot 8. The default is 0.
	ALRMCTRL	see subfields)	<i>Alarm control</i> The field is a vector of up to 10 entries. Each entry in the vector controls a particular alarm for the CEM circuit pack. To accept the system defaults, enter \$. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, SYSBNA, MANBNA, HOLDOVR, HLDQVR24, VCXO70, VCXO90, CLKOOS	<i>Alarm name</i> The alarms are described as follows: SYSB (system busy) The alarm generates when the CEM is in system busy state. The default alarm severity is CR. The default action is RPT. MANB (manual busy) The alarm generates when the CEM is in manual busy state. The default alarm severity is MJ. The default action is RPT. ISTB (in-service-trouble) The alarm generates when the CEM is in-service and it is experiencing non-service-affecting faults. The default alarm severity is MN. The default action is RPT. SYSBNA (system busy and not accessible) The alarm generates when the CEM is in SYSB state and a network error (for example, ENET or MS) has caused it to be isolated. The default alarm severity is CR. The default action is RPT. MANBNA (manual busy and not accessible) The alarm generates when the CEM is in MANB state and a network error (for example, ENET or MS) has caused it to be isolated. The default alarm severity is MJ. The default action is RPT.

Field descriptions for conditional datafill (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)			HLDOVR (hold-over) The alarm generates when synchronization circuitry loses all its available timing references and goes into hold-over state. The default alarm severity is MJ. The default action is RPT. HLDOVR24 (hold-over-24) The alarm generates when synchronization circuitry has remained in hold-over state for more than 24 hours. The default alarm severity is MJ. The default action is RPT. VCXO70 (voltage-controlled-oscillat or 70% threshold crossed) The alarm generates when the voltage controller must exceed 70% threshold of its dynamically adjustable range in order to keep the CEM synchronized to a timing reference. This is an indication that the circuit pack should be replaced. The default alarm severity is MN. The default action is RPT.

Field descriptions for conditional datafill (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)			VCXO90 (voltage-controlled-crystal oscillator 90% threshold crossed) The alarm generates when the voltage controller must exceed 90% threshold of its dynamically adjustable range in order to keep the CEM synchronized to a timing reference. This is an indication that the circuit pack should be replaced; otherwise, a synchronization failure may occur. The default alarm severity is MJ. The default action is RPT. CLKOOS (clock out-of-specification) The alarm generates when the synchronization circuitry cannot meet standard performance specifications for its applications. Typically, this happens when the message switch (MS) has lost its synchronization or no adequate SONET (synchronous optical network) synchronization reference is available. The default alarm severity is MJ. The default action is RPT.
	ATTR	see subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, MJ, CR	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • MJ (major) • CR (critical)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX63AA, NTLX82AA, NTLX82BA, NTLX82EA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX63AA for CEM circuit packs Note: The NTLX63AA CEM is not compatible with SP15. • NTLX82AA or NTLX82BA for enhanced CEM circuit packs • MG 4000 nodes require NTLX82EA.

Field descriptions for conditional datafill (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: • For a Nortel product, valid values include 01 to 99. • For a non-Nortel Networks (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file xxxxx" and "Please datafill load file in table PMLOADS first" display.

CPKTYPE = OC3**ATTENTION**

In the case of an SPM, a circuit pack is datafilled as a sync source in table SYNCLK. Because this circuit pack is datafilled through table MNCKTPAK, a dependency exists between table SYNCLK and table MNCKTPAK. A circuit pack cannot be deleted from table MNCKTPAK if it is in use by table SYNCLK. If an attempt is made to delete the tuple in table MNCKTPAK, the deletion is blocked and the following message displays: "This circuit pack is specified as clock sync source in SYNCLK."

If CPKTYPE equals OC3 (optical carrier 3), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		OC3	<i>Optical carrier 3</i> The subfields are UNITNO, OC3GRPID, WKRSRPR, and ALRMCTRL.
	UNITNO	0-1	<i>Unit number</i> NUMBER. Enter the OC-3 unit number. There is a maximum of two OC-3s per SPM. Assign unit number 0 to the OC-3 residing on shelf 0, slot 9. Assign unit number 1 to the OC-3 residing on shelf 0, slot 10.

Field descriptions for conditional datafill (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	OC3GRPID	1-28	<i>OC3 group identifier</i> Enter the OC-3 protection group identifier in table MNPRTGRP. Note: An OC3_GRP protection group must be added to table MNPRTGRP before datafilling the OC-3 circuit pack. If not, the message "Can not find the corresponding OC3_GRP in table MNPRTGRP" displays. The two OC-3s must belong to the same protection group.
	WRKSPR	WORKING, SPARE	<i>Working, Spare</i> Enter the OC-3 protection role designation as follows: • WORKING indicates the circuit pack is designated to provide service. • SPARE indicates the circuit pack is designated to standby and take over the service if the WORKING circuit pack fails. Note: There is a maximum of two OC-3s per SPM. Datafill one OC-3 as WORKING and datafill the other one as SPARE.

Field descriptions for conditional datafill (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALRMCTRL	See subfields	<i>Alarm control information</i> The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the OC-3 circuit pack. To accept the default values, enter \$. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm type</i> Enter one of the following alarm types: • SYSB (system busy) The alarm generates when the OC-3 is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the OC-3 is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the OC-3 is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, CR, MJ	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX71AA, NTLX71BA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX71AA for OC-3 circuit pack • NTLX71BA for OC-3 circuit packs bearing the PEC code suffix "BA."

Field descriptions for conditional datafill (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: - For a Nortel product, valid values include 01 to 99. - For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file <xxxxxx>" and "Please datafill load file in table PMLOADS first" display.

CPKTYPE = DSP

If CPKTYPE equals DSP (digital signal processor), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		DSP	<i>Digital signal processor</i> The subfields are UNITNO, DSPGRPID, and RSRINFO.
	UNITNO	0-27	<i>Unit number</i> Enter the DSP unit number. The default is 0.

Field descriptions for conditional datafill (Sheet 2 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	DSPGRPID	1-28	<i>DSP group identifier</i> Enter the corresponding DSP_GRP protection group in table MNPRTGRP. The DSP_GRP protection group must be added to table MNPRTGRP before datafilling the DSP circuit pack; otherwise, message "Can not find the corresponding DSP_GRP in table MNPRTGRP" displays. Typically, the DSP circuit packs on the SPM are partitioned into different protection groups. Within each protection group, some are designated as WORKING to provide service, and others are designated as SPARE to standby. The default is 1.
	RSPINFO	See subfields	RSRINFO indicates the type of the resource and the number of the resource to be provided by the DSP circuit pack. Circuit packs can be configured as spares or working devices. Each working entry consists of a vector of up to six multiples of subfields RSRTYPE and NUM.

Field descriptions for conditional datafill (Sheet 3 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	WRKSPR	SPARE or WORKING	<i>DSP Resource configuration</i> This field is refined based on whether the DSP is designated as SPARE or WORKING. The default value is WORKING. If the entry is WORKING, datafill refinements RSRTYPE and NUM.
	RSTYPE	COT, DTMF, TONESYN, ABBIT, MF, UKTONE, GERTONE, FRATONE, HOLtone, BELTONE, BRATONE, ITATONE, SPATONE	<i>Resource type</i> This field specifies the SPM service resources that require threshold control. Valid resources are • COT (continuity test resource) • DTMF (dual tone multifrequency receiver resource) • TONESYN (tone synthesizer resource) • ABBIT (A- and B-bit signaling resource) Note: See “Supplementary information” for more detail about changing or deleting a tuple.

Field descriptions for conditional datafill (Sheet 4 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)			• MF (multifrequency signaling resource) • UKTONE (UK tone synthesizer resource) • GERTONE (German tone synthesizer resource) • FRATONE (French tone synthesizer resource) • HOLTONE (Holland tone synthesizer resource) • BELTONE (Belgian tone synthesizer resource) • BRATONE (Brazilian tone synthesizer resource) • ITATONE (Italian tone synthesizer resource) • SPATONE (Spanish tone synthesizer resource) Note: Only one type of tone synthesizer resource is to be datafilled on all RMs on a given SPM; that is, only one type per node is allowable.

Field descriptions for conditional datafill (Sheet 5 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	NUM	0 to 736(0 to 28 for ABBIT)	<i>Number of resources</i> Enter the total number of resources datafilled on the DSP circuit pack. Note: If field RSRTYPE is datafilled with ABBIT, the range for field NUM is 0 to 28.
	ALRMCTRL	See subfields	<i>Alarm control information</i> To accept the system defaults, enter \$. The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the DSP circuit pack. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 6 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm name</i> Enter one of the following alarms: • SYSB (system busy) The alarm generates when the DSP is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the DSP is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the DSP is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 7 of 8)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, MJ, CR	<i>Severity</i> This subfield defines the relative importance of an alarm. Valid values are • NA (no alarm severity) • CR (critical) • MJ (major) • MN (minor)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX65AA, NTLX65BA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX65AA for DSP circuit pack (the default) • NTLX65BA for DSP circuit packs bearing the PEC code suffix "BA."

Field descriptions for conditional datafill (Sheet 8 of 8)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99, 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: - For a Nortel product, valid values include 01 to 99. - For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file <xxxxxx>" and "Please datafill load file in table PMLOADS first" display.

CPKTYPE = VSP

If CPKTYPE equals VSP (voice services processor), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		VSP	<i>Voice services processor</i> The subfields are UNITNO, VSPGRPID, and RSRINFO.
	UNITNO	0-27	<i>Unit number</i> Enter the VSP unit number. The default is 0.

Field descriptions for conditional datafill (Sheet 2 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	VSPGRPID	1-28	<i>VSP_GRP identification</i> This field indicates the identification of the corresponding VSP_GRP protection group in table MNPRTGRP. The VSP_GRP protection group must be added to table MNPRTGRP before datafilling the VSP circuit packs. If not, the message "Can not find the corresponding VSP_GRP in table MNPRTGRP" displays. Typically, the VSP circuit packs on a SPM are partitioned into different protection groups. Within each protection group, some are designated as WORKING to provide service and others are designated as SPARE to standby. The default is 1.
	RSRINFO	See subfields	RSRINFO indicates the type of the resource and the number of the resource to be provided by the VSP circuit pack. Circuit packs can be configured as spares or working devices. Each working entry consists of a vector of up to six multiples of subfields RSRTYPE and NUM.

Field descriptions for conditional datafill (Sheet 3 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	WRKSPR	SPARE or WORKING	<i>VSP resource configuration</i> This field is refined based on whether the VSP is designated as SPARE or WORKING. The default value is WORKING. If the entry is WORKING, datafill refinements RSRTYPE and NUM.

Field descriptions for conditional datafill (Sheet 4 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	RSRTYPE	COT, DTMF, ECAN, TONESYN, ABBIT, MF, UKTONE, GERTONE, FRATONE, HOLTONE, BELTONE, BRATONE, ITATONE, SPATONE	<i>Resource type</i> This field specifies the SPM service resources that require threshold control. Valid resources are • COT (continuity test resource) • DTMF (dual tone multifrequency receiver resource) • ECAN (echo cancellation resource) • TONESYN (tone synthesizer resource) • ABBIT (A- and B-bit signaling resource) Note: See “Supplementary information” for more detail about changing or deleting a tuple. • MF (multifrequency signaling resource) • UKTONE (UK tone synthesizer resource) • GERTONE (German tone synthesizer resource) • FRATONE (French tone synthesizer resource) • HOLTONE (Holland tone synthesizer resource) • BELTONE (Belgian tone synthesizer resource)

Field descriptions for conditional datafill (Sheet 5 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)			• BRATONE (Brazilian tone synthesizer resource) • ITATONE (Italian tone synthesizer resource) • SPATONE (Spanish tone synthesizer resource) Note: Only one type of tone synthesizer resource is to be datafilled on all RMs on a given SPM; that is, only one type per node is allowable.
	NUM	0-736	<i>Number of resources</i> Edit checks during datafill allow a value of 0 to 736. However, various circuit packs may impose their own lower limits. For example, PEC codes NTLX66AA and NTLX66BA allow a maximum of 260 echo cancellation resources, and PEC codes NTLX85AA and NTLX86AA allow a maximum of 336 echo cancellation resources. The actual maximum number of resources depends on the mix of applications configured.

Field descriptions for conditional datafill (Sheet 6 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALMCTRL	See subfield	<i>Alarm control information</i> To accept the system defaults, enter \$. The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the VSP circuit pack. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 7 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm type</i> Enter one of the following alarm types: • SYSB (system busy) The alarm generates when the VSP is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the VSP is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the VSP is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 8 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, CR, MJ	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)

Field descriptions for conditional datafill (Sheet 9 of 10)

Field	Subfield or refinement	Entry	Explanation and action
PEC		NTLX66AA, NTLX66BA, NTLX85AA, NTLX86AA	<i>Product engineering code</i> This field indicates the PEC of the circuit pack. Select an entry as follows: • NTLX66AA for VSP circuit packs manufactured by Nortel Networks; a string of 8 characters for non-NORTEL (third-party vendor) VSP circuit packs • NTLX66BA for VSP circuit packs bearing the PEC code suffix "BA." • NTLX85AA or NTLX86AA for third party VSP circuit packs. Note: The NTLX85AA and NTLX86AA VSP RMs are OEM products sometimes referred to as echo canceller resource modules, or ECRMs.

Field descriptions for conditional datafill (Sheet 10 of 10)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: • For a Nortel product, valid values include 01 to 99. • For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file <xxxxxx>" and "Please datafill load file in table PMLOADS first" display.

CPKTYPE = ATM**ATTENTION**

ATM is not applicable to all markets.

If CPKTYPE equals ATM (asynchronous transfer mode), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		ATM	<i>Asynchronous transfer mode</i> The subfields are UNITNO, ATMGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-1	<i>Unit number</i> Enter the ATM unit number. The default is 0.
	ATMGRPID	1-28	<i>ATM group identifier</i>
	WRKSPR	SPARE or WORKING	<i>ATM Resource configuration</i> This field is refined based on whether the ATM is designated as SPARE or WORKING.
	ALRMCTRL	See subfields	<i>Alarm control information</i> To accept the system defaults, enter \$. The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the ATM circuit pack. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm type</i> Enter one of the following alarm types: • SYSB (system busy) The alarm generates when the ATM is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the ATM is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the ATM is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, CR, MJ	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX73AA, NTLX73BA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX73AA for ATM circuit pack • NTLX73BA for ATM circuit packs bearing the PEC code suffix "BA."

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: • For a Nortel product, valid values include 01 to 99. • For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file <xxxxxx>" and "Please datafill load file in table PMLOADS first" display.

CPKTYPE = ALM**ATTENTION**

ATM is not applicable to all markets.

If CPKTYPE equals ALM (alarm), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		ALM	<i>Alarm</i> The subfields are UNITNO, ALMGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-1	<i>Unit number</i> Enter the ALM unit number. The default is 0.
	ATMGRPID	1-28	<i>ALM group identifier</i>
	WRKSPR	SPARE or WORKING	<i>ALM Resource configuration</i> This field is refined based on whether the ALM is designated as SPARE or WORKING.
	ALRMCTRL	See subfields	<i>Alarm control information</i> To accept the system defaults, enter \$. The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the ALM circuit pack. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm type</i> Enter one of the following alarm types: • SYSB (system busy) The alarm generates when the ALM is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the ALM is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the ALM is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, CR, MJ	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX83AA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX83AA for ALM circuit pack

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: - For a Nortel product, valid values include 01 to 99. - For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		NILLOAD	The ALM circuit pack does not require a software load. Datafill "NILLOAD" for the load name.

CPKTYPE = DLC

If CPKTYPE equals DLC (data link controller), the datafill is as shown in the following table.

Field descriptions for conditional datafill (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE		DLC	<i>Data link controller</i> The subfields are UNITNO, DLCGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-27	<i>Unit number</i> Enter the DLC unit number. The default is 0.

Field descriptions for conditional datafill (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	DLCGRPID	1-28	<i>DLC group identifier</i> Enter the DLC protection group identifier in table MNPRTGRP. Add the DLC_GRP protection group to table MNPRTGRP before datafilling the DLC circuit pack; otherwise, the message "Can not find the corresponding DLC_GRP in table MNPRTGRP" displays.
	WRKSPR	WORKING or SPARE	<i>Working, Spare</i> Enter the protection role designation as follows: • WORKING indicates the circuit pack is designated to provide service. • SPARE indicates the circuit pack is designated to standby and take over the service if the WORKING circuit pack fails. Note: There is a maximum of two DLCs for each SPM. Datafill one DLC as WORKING and datafill the other one as SPARE.

Field descriptions for conditional datafill (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALRMCTRL	See subfields	<i>Alarm control information</i> The field is a vector of up to 4 entries. Each entry in the vector controls a particular alarm for the DLC circuit pack. To accept the default values, enter \$. For each entry, the subfields are ALARM and ATTR.

Field descriptions for conditional datafill (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	ALARM	SYSB, MANB, ISTB, PROTFail	<i>Alarm type</i> Enter one of the following alarm types: • SYSB (system busy) The alarm generates when the DLC is in system busy state. The default alarm severity is CR. The default action is RPT. • MANB (manual busy) The alarm generates when the DLC is in manual busy state. The default alarm severity is MJ. The default action is RPT. • ISTB (in-service trouble) The alarm generates when the DLC is in service and is experience non-service-affecting faults. The default alarm severity is MN. The default action is RPT. • PROTFail (protection failure) The alarm generates when protection switching fails. The default alarm severity is NA. The default action is RPT.
	ATTR	See subfields	<i>Alarm attribute</i> The subfields are SEVERITY and ACTION.

Field descriptions for conditional datafill (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CPKTYPE (continued)	SEVERITY	NA, MN, CR, MJ	<i>Severity</i> Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	<i>Action</i> Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX72AA	<i>Product engineering code</i> This field indicates the product engineering code (PEC) of the circuit pack. Select an entry as follows: • NTLX72AA for DLC circuit pack

Field descriptions for conditional datafill (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
RELEASE		01-99 or 01-ZZ	<i>Release</i> This field indicates the release of the circuit pack. The default is 01. Select an entry as follows: - For a Nortel product, valid values include 01 to 99. - For a non-Nortel (third-party vendor) product, valid values include 01 to ZZ.
LOAD		up to 8 alphanumeric characters	This field indicates the default software load for the circuit pack. The default load name entry must be added to table PMLOADS first; otherwise, messages "Can not find load file <xxxxxx>" and "Please datafill load file in table PMLOADS first" display.

Additional information

The impact of a request to modify a tuple is described in the following paragraphs.

Procedure for modifying a tuple in table MNCKTPAK

Sparing actions between multiple RMs may have occurred since the original data download from the computing module (CM) to the common equipment module (CEM). Also, the services being provided by the RM may or may not be the same as the provisioned services for that RM. Therefore, to change provisioning data for an RM, perform the following steps.

1. Busy (BSY) the RM.
2. Return to service (RTS) the RM.
3. Busy (BSY) the RM that protects the services of the first RM.

4. Return to service (RTS) the RM.

These steps synchronize the provisioned and actual data.

The RM whose datafill is to be changed belongs to a particular protection group. The SPMRESMAN command displays all RMs that are in the same protection group as the RM to be modified. The procedure that follows uses the SPMRESMAN command to provide you with enhanced visibility into the activity status and protection information for the RMs in a protection group.

Note 1: “Provisioned data” is the set of required resources in table MNCKTPAK. This is also referred to by resource management as the “desired configuration” of the RM.

Note 2: “Configured data” is the set of resources that the RM is actually providing. This is also referred to by resource management as the “actual configuration” of the RM. When an RM takes over for another because of a protection switch, it acquires the configured data of the RM it protects. Thus, configured data and provisioned data for a particular RM may differ because of protection switch actions.

Note 3: “Inactive” is the state of the RM when it is not providing service. The RM can be in service when it is inactive.

Note 4: “Active” is the state of the RM when it is providing service. An RM only provides service when it is active and in service.

Note 5: The “RMID” (resource module ID) is a number that is formed by the combination of the shelf number and the slot numbers. $RMID = (shelf\ number \times 14) + slot\ number$.

Note 6: “ProtWhomID” is a second RMID associated with a specific RM. This number identifies the RM whose services are being protected by this specific RM.

To perform the datafill modification procedure, use the instructions in the step-action procedure that follows.

Procedure to modify datafill in table MNCKTPAK

At the MAP terminal

- 1 Ensure you have access to both the CM and the CEM.
- 2 Determine the initial conditions of the RMs in the protection group of the RM whose datafill you need to modify.

Cl> spmresman spm <spm#> [DSPIVSPIDLC] <rm#>

where

spm#

is the SPM number of the SPM housing the RM whose datafill is to be changed

rm#

is the number of the RM whose datafill is to be changed

Note: The SPMRESMAN command is available on loads SP12, SP11, or SP10 only if patch DCW25 has been applied. If patch DCW25 has not been applied, you must apply it, then begin this procedure again.

Example

The following is an example of an initial SPMRESMAN command and results.

```
>spmresman spm 5 dsp 1
SPM 5
ProtGroup: 2
      RMID  Activity ProtWhomID ProtGrp  Safe to Change?
-----
DSP 0    23    ACTIVE           24        2            NO
DSP 1    24    ACTIVE           25        2            NO
DSP 2    25  INACTIVE           23        2            NO
DSP 3    26    ACTIVE           26        2            NO
DSP 4    27    ACTIVE           27        2            NO
```

For the RM whose datafill needs to be changed, note the values of the RMID, activity state, and ProtWhomID.

If	Do
ProtWhomID is the same as the RM's own RMID, regardless of its activity state	step 6
ProtWhomID is not the same as the RM's own RMID, regardless of its activity state	step 3

- Determine which RM currently has its ProtWhomID set to the RMID of the RM whose datafill is to be changed.

Example

Assume you want to change the datafill for DSP 1 in the SPMRESMAN output illustrated in step 2. DSP 1 has an RMID of 24. Look for RMID=24 in the ProtWhomID column; you see that DSP 0 has this value. This means DSP 0 is protecting DSP 1.

- 4 Using the SPMRESMAN results from step 2, note the activity status of the RM whose datafill you need to change.

If the activity status is ACTIVE, then spare the RM to an INACTIVE RM.

Example

As before, assume you want to change the datafill for DSP 1. Note that its activity status is ACTIVE in the output example in step 2. DSP 2 is INACTIVE, so spare DSP 1 to DSP 2. The following command sequence accomplishes this.

mapci; mtc; pm; post spm 5

-->select dsp 1

-->prot

-->manual 1 2

-->y

Note: Do not type this example verbatim; remember to substitute appropriate values for your system.

SPMRESMAN command updated results:

```
>spmresman spm 5 dsp 1
```

```
SPM 5
```

```
ProtGroup: 2
```

	RMID	Activity	ProtWhomID	ProtGrp	Safe to Change?
DSP 0	23	ACTIVE	24	2	NO
DSP 1	24	INACTIVE	23	2	NO
DSP 2	25	ACTIVE	25	2	NO
DSP 3	26	ACTIVE	26	2	NO
DSP 4	27	ACTIVE	27	2	NO

Observe that DSP 1, the one whose Datafill you wish to change, is now INACTIVE.

- 5 Spare the RM (found in step 3) that is protecting the RM whose datafill you want to change. Spare it to the INACTIVE RM from step 4.

Example

Based on the SPMRESMAN output in the preceding step, perform a SPARE operation of DSP 0 to DSP1 (since DSP 0 is currently protecting DSP1, and DSP 1 is INACTIVE). The follow command sequence illustrates this action.

```
mapci; mtc; pm; post spm5; select dsp 0;
```

```
-->listres
```

```
-->prot
```

```
-->manual 0 1
```

```
-->y
```

Issue the SPMRESMAN command again. In the sample output that follows, note that DSP 0 is inactive and protecting itself (the RMID and ProtWhomID field are the same), and DSP 1 is active and protecting itself.

SPMRESMAN command updated results

```
>spmresman spm 5 dsp 1
```

```
SPM 5
```

```
ProtGroup: 2
```

	RMID	Activity	ProtWhomID	ProtGrp	Safe to Change?
DSP 0	23	INACTIVE	23	2	NO
DSP 1	24	ACTIVE	24	2	NO
DSP 2	25	ACTIVE	25	2	NO
DSP 3	26	ACTIVE	26	2	NO
DSP 4	27	ACTIVE	27	2	NO

6 BSY all inactive RMs by entering the following for each one:

```
Cl> mapci;mtc;pm;post spm <#>;select [DSPIVSPIDLC]
<#>;bsy force
```

Example

In the SPMRESMAN output in the preceding step, there is one inactive RM, DSP 0. So you would enter the command

```
Cl> mapci;mtc;pm;post spm 5;select DSP 0; bsy force
```

SPMRESMAN command updated results

```
>spmresman spm 5 dsp 1
```

```
SPM 5
```

```
ProtGroup: 2
```

	RMID	Activity	ProtWhomID	ProtGrp	Safe to Change?
DSP 0	23	INACTIVE	23	2	YES
DSP 1	24	ACTIVE	24	2	NO
DSP 2	25	ACTIVE	25	2	NO
DSP 3	26	ACTIVE	26	2	NO

```
DSP 4 27 ACTIVE 27 2 NO
```

In the example printout, note that DSP 0 is inactive and the “safe to change” field is YES.

- 7 BSY FORCE the RM whose datafill is to be modified by entering the following:

```
Cl> mapci;mtc;pm;post spm <#>;select [DSPIVSPIDSP]
<#>;bsy force
```

Example

Continuing with the example used throughout this procedure:

SPMRESMAN command updated results

```
>spmresman spm 5 dsp 1
SPM 5
ProtGroup: 2
      RMID Activity ProtWhomID ProtGrp Safe to Change?
-----
DSP 0 23 INACTIVE 23 2 YES
DSP 1 24 ACTIVE 24 2 YES
DSP 2 25 ACTIVE 25 2 NO
DSP 3 26 ACTIVE 26 2 NO
DSP 4 27 ACTIVE 27 2 NO
```

Note that the “safe to change” field for the RM whose datafill you wish to change, DSP 1 in the example, now is YES.

- 8 Change the resource datafill for the RM in table MNCKTPAK.

```
Cl> table mncktpak
```

TABLE: MNCKTPAK

```
>rwok on
```

WRITE ACCESS ENABLED FOR RESTRICTED DATA

```
>pos spm <#> <shelf#> <slot#>
```

```
> change
```

Continue to provide the new datafill as prompted by the system.

- 9 RTS the RM whose datafill you modified in the preceding step.

```
Cl> mapci;mtc;pm;post spm <#>;select [DSPIVSPIDLC]
<#>;bsy rts
```

- 10 RTS the remaining inactive RMs that you busied in step 6 by entering the following command:

```
Cl> mapci;mtc;pm;post spm <#>;select [DSPIVSPIDLC]
<#>;bsy rts
```

The modification to the provisioned data is complete.

Removing a tuple from table MNCKTPAK

Use the following procedure to remove a data tuple from table MNCKTPAK.

Procedure for removing a tuple from table MNCKTPAK

At the MAP display

- 1 Perform steps 1-7 of the preceding procedure, "Procedure to modify datafill in table MNCKTPAK."
- 2 Take offline the RM whose datafill you wish to delete.
- 3 Delete the tuple for the RM.
- 4 Perform steps 10 and thereafter in the preceding procedure, "Procedure to modify datafill in table MNCKTPAK."

Modify an AB-bit resource count

An AB-bit resource is assigned to each DS-1 carrier containing a PTS trunk. When the count of AB-bit resources in the DSP tuple being modified is decreased, a check is made to determine if the new number of AB-bit resources in the SPM where the DSP being modified is located corresponds to the number of DS-1 carriers with PTS trunks. The change is rejected if the total count per SPM falls below the number of DS1 carriers with PTS trunks. The following message displays in such a case:

```
Failed to change count of ABBIT resources for this
DSP. This new count of AB bit resources for its SPM
is less than the number of AB bit resources in use by
PTS trunks configured in table TRKMEM for this SPM.
```

Modify an MF/DTMF resource count

For MF resources, if there are any MF trunks provisioned in table TRKMEM, table MNCKTPAK must contain provisioning for at least one MF resource. When the count for MF resources in the tuple being modified decreases, the system checks to determine if any MF resources remain on the given SPM. The system rejects the change if it does not find at least one MF resource for the SPM while MF trunks are provisioned in table TRKMEM. The following message displays in such a case:

```
ERROR: Cannot delete all remaining MF resources while
in use. You must first delete the SPM PTS trunks in
table TRKMEM whose associated IPULSTYP = MF in table
TRKSGRP.
```


The same is true for DTMF resources. The following message displays if DTMF resources are not available:

```
ERROR: Cannot delete all remaining DTMF resources
while in use. You must first delete the SPM PTS trunks
in table TRKMEM whose associated IPULSTYP = DT in
table TRKSGRP.
```

Delete a tuple that contains AB-bit resources

The count for AB-bit resources on the DSP is deleted from the total AB-bit resources count for the SPM where the DSP is located. The system compares the new count for AB-bit resources with the number of DS-1 carriers with PTS trunks. If the counts do not correspond, the system rejects the change and displays the following message:

```
Failed to delete this DSP.
```

```
The new count of AB bit resources for its SPM is less
than the number of AB bit resources in use by PTS
trunks configured in table TRKMEM for this SPM
```

Delete a tuple containing MF/DTMF resources

The count for MF resources on a given SPM is deleted from the total MF resource count on the SPM. The system compares the new count for MF resources with the number of MF resources on the SPM. If the new count for MF resources = 0 and table TRKMEM contains provisioning for MF trunks, the system rejects the change and displays the following message:

```
ERROR: Cannot delete all remaining MF resources while
in use. You must first delete the SPM PTS trunks in
table TRKMEM whose associated IPULSTYP = MF in table
TRKSGRP.
```

The same check is made for DTMF resources. If all DTMF resources are deleted, the system displays the following message:

```
ERROR: Cannot delete all remaining DTMF resources
while in use. You must first delete the SPM PTS trunks
in table TRKMEM whose associated IPULSTYP = DT in
table TRKSGRP.
```

Table history**SN07**

Table MNCKTPAK migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Voice Services Processor (VSP) cards may now be provisioned on BRDG_ONLY interworking (IW) SPMs.

MNIP

ATTENTION

This table applies to new or modified content for NA018 (SN05) that is valid through the current release.

Management Network Internet Protocol

Table Management Network Internet Protocol (MNIP) is used to hold the Subnet masks, IP addresses, and the Gateway IP addresses for the SMG4 Variant SPMs. The IP address fields as per CEM for the variant are provisioned.

Datafill sequence and meaning

This table is used to hold the Subnet masks, IP addresses, and the Gateway IP addresses for the SMG4 Variant SPMs. The IP address fields as per CEM for the variant are provisioned.

Table size

Up to 86 tuples.

Datafill

The following table lists the datafill for table MNIP.

Field, subfield, and refinement descriptions for table MNIP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
MNIPKEY		0 to 85	Key field. Enter the SPM number.
SUBNET0		IP address with four numbers from 0 to 255	Enter the number of the subnet for CEM 0. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.

Field, subfield, and refinement descriptions for table MNIP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CEM0IP		IP address with four numbers from 0 to 255	Enter the number of the IP address for CEM 0. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.
GATEWAY0		IP address with four numbers from 0 to 255	Enter the number of the Gateway IP address for CEM 0. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.
SUBNET1		IP address with four numbers from 0 to 255	Enter the number of the subnet for CEM 1. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.
CEM1IP		IP address with four numbers from 0 to 255	Enter the number of the IP address for CEM 1. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.
GATEWAY1		IP address with four numbers from 0 to 255	Enter the number of the Gateway IP address for CEM 1. Separate each number in the address with a single space. For example, 47 2 11 109 is equivalent to an IP address of 47.2.11.109.

Table history**SN07**

Table MNIP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MNLINK

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Management Network Internet Protocol

Table MNLINK (Management Network Link) is one of six tables used to configure the DMS-Spectrum Peripheral Module (SPM). The data maintained in this table includes the link identifier and end-points of the link. Each tuple in the table identifies the C-side host link set for an SPM. The term host link refers to the DS-512 fiber links between the common equipment module (CEM) and the enhanced network (ENET) card.

Datafill sequence and meaning

Datafill new link information in table MNLINK before putting new ENET cards or SPM modules on line. Before making changes to table MNLINK, set the ENET cards, which are connected to the SPM node specified in field NODEID, to the offline (OFFL) state.

After the links are datafilled in table MNLINK, use command TRNSL at the CEM level of the MAP terminal to view the ENET link assignments. Refer to the DMS-Spectrum Peripheral Module Commands Reference Manual (297-1771-819) for additional information about command TRNSL. Refer to the appropriate DMS-100 or DMS-250 Commands Reference Manual for information on ENET commands.

Datafill tables in the following order:

- PMLOADS

Note: Table PMLOADS specifies the location of a particular load file. Datafill PMLOADS only once. There is no need to datafill PMLOADS for each SPM added to the system, unless a new load file entry must be added to table PMLOADS.

- MNPRTGRP
- MNNODE
- MNSHELF
- MNCKTPAK

- ENCDINV
- MNLINK
- MNHSCARR

If the ENET XPT card terminating SPM host links has not been added to table ENCDINV, the following message displays:

```
Addition verification failed at ENET end,...
```

If CEM circuit packs of the SPM has not been added to table MNCKTPAK, the following message displays:

```
Cannot find the circuit pack
```

Table size

0 to 64 tuples.

Datafill

The following table lists the datafill for table MNLINK.

Field, subfield, and refinement descriptions for table MNLINK (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LKSETKEY		See subfields	LINKSET KEY. This field consists of subfields NODETYPE and NODEID. This is the key field to table MNLINK.
	NODETYPE	SPM	NODE TYPE. Enter SPM.
	NODEID	0 to 63	NODE IDENTIFIER. Enter the SPM node identifier. The default value is 0 (zero).

Field, subfield, and refinement descriptions for table MNLINK (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CSLNKSET		See subfields	C-SIDE HOST LINK SET. This is a vector consisting of 4 entries. Each entry defines a paired connection between one of the two SPM CEMs and the ENET. The subfields are LKPAIRID, ENSHELF, ENSLOT, and ENLINK. Note: There are four optical fiber cables for each CEM. Enter four entries for each CSLNKSET vector. See below.
	LKPAIRID	1 to 4	LINK PAIR IDENTITY. Enter the identity of the host link pair at the SPM end. The default value is 1.
	ENSHELF	0 to 3	ENET SHELF. Enter the ENET shelf where the link pair terminates. The default value is 0 (zero).
	ENSLOT	9 to 32	ENET SLOT. Enter the ENET crosspoint (XPT) card slot where the link terminates. The default value is 32.
	ENLINK	0 to 18	ENET LINK. Enter the ENET port (link) on the XPT card where the link terminates. The default value is 0 (zero).

Table history**SN07**

Table MNLINK migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MNNODE

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Management Network Node

Table Management Network Node (MNNODE) is one of six tables used to configure a DMS-Spectrum Peripheral Module (SPM) node. The data maintained in this table includes:

- The node identifier and the node location
- The class and variant of the SPM
- The clock reference details for the SPM
- The resource information that the SPM can provide
- The alarm information for SPM failure modes
- The name of the EXEC for the call processing (CallP)

Datafill sequence and meaning

Datafill tables in the following order:

- PMLOADS

Note: Table PMLOADS specifies the location of a particular load file. Datafill PMLOADS only once. There is no need to datafill PMLOADS for each SPM added to the system, unless a new load file entry must be added to table PMLOADS.

- MNPRTGRP
- MNIP
- MNNODE
- MNSHELF
- MNCKTPAK
- MNLINK
- MNHSCARR

In a DMS-250 switch load, there is no change to the existing datafill sequence. Table MNNODE does not depend on any other tables being datafilled.

Tables must be datafilled in the following sequence if the SPMECIDX option is added to BRDG_ONLY IW class SPMs:

- SPMECAN
- MNNODE

Table size

0 to 86 tuples. The memory is allocated dynamically when the tuple is added from the OAM database pool.

Datafill

The following table lists the datafill for table MNNODE.

Field, subfield, and refinement descriptions for table MNNODE (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NODEKEY		See subfields	Node key. Subfields are NODETYPE and NODEID.
	NODETYPE	Text	Node type. Enter node type.
	NODEID	0 to 85	Node identifier. Enter the node identifier. The default value is 0 (zero).
ALIAS		1 to 12 alphanumeric characters	Alias. Enter an alias for the node.

Field, subfield, and refinement descriptions for table MNNODE (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
CLASS		SMG4, DMSCP, IW	This field serves as the data selector (or refinement tag) for an SPM's datafill. Enter the class associated with each SPM's datafill to indicate its intended functionality. For example, for DMSCP (DMS call processing). Assign SPMs deployed as DMS call processing peripherals to this class. For all software releases before SP12, the ONP automatically converts SPMs to this class. See the following for further datafill: Conditional datafill when CLASS=DMSCP Conditional datafill when CLASS=SMG4 Conditional datafill when CLASS=IW

Conditional datafill when CLASS=DMSCP

The table that follows lists conditional datafill when you enter DMSCP in field CLASS.

Field descriptions when CLASS=DMSCP (Sheet 1 of 10)

Field	Subfield or refinement	Entry	Explanation and action
FLOOR		0 to 99	Floor. Enter the floor where the node is located.
CLKMODE		SYNC	Clock mode. Enter SYNC, the only valid entry for field CLKMODE.

Field descriptions when CLASS=DMSCP (Sheet 2 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CLKREF		INTERNAL, EXTERNAL, LINE, or LOOP	Clock reference. A newly added SPM should be datafilled as LINE. Enter a clock synchronization reference from the following list: INTERNAL (The clock synchronizes to the DMS message switch. This is the default value.) EXTERNAL (The clock synchronizes to the SRM.) LINE (The clock synchronizes to the ATM RM.) LOOP (The clock synchronizes to the local OC-3 network.) At initial program loading (IPL), field CLKREF is datafilled with the default value INTERNAL. If an SPM is datafilled in table SYNCLK as a sync source, table control prevents a change from INTERNAL to LOOP. An attempt to make such a change from INTERNAL to LOOP results in the following message: "SPM is datafilled in table SYNCLK as a SYNC SOURCE." When SPM OC-3 line timing is not employed and an SPM node is connected to an OC-3 SONET network, enter LOOP into field CLKREF to ensure correct OC-3 network timing.

Field descriptions when CLASS=DMSCP (Sheet 3 of 10)

Field	Subfield or refinement	Entry	Explanation and action
LEDTIMER		0 to 1440	LED time-out period. Enter the LED timeout period in minutes. If the SPM detects no critical faults during the timeout period, the alarm LEDs turn off in order to extend their life. Enter 0 (zero) if the LEDs are to stay on at all times. The default value is 15.
RSRUTLIM		See subfields	Resource utilization. This field consists of a vector of up to five entries in subfields RESTYPE and THRESHLD. Each entry sets a low water mark use threshold, as a percent, for a resource type. If the use exceeds the threshold, alarms or logs generate. Enter \$ to select default values.
	RESTYPE	COT, DTMF, ECAN, TONESYN, MF	Resource type. Enter the resources type: COT (continuity test) DTMF (dual-tone multi-frequency) ECAN (echo cancellation) TONESYN (tone synthesizer) MF (multi-frequency signaling)
	THRESHLD	10 to 100	Utilization threshold. Enter the low water threshold as a percent of total resource. The default values are 60% for COT, DTMF, ECAN, TONESYN, and MF.
ALRMCTRL		See subfields	Alarm control information. This field consists of a vector of up to ten entries in subfields ALARM and ATTR. Each entry controls a particular alarm. Enter \$ to select the system default values.

Field descriptions when CLASS=DMSCP (Sheet 4 of 10)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM	SYSB, MANB,ISTB, SYSBNA, MANBNA, COTLOW, DTMFLOW, ECANLOW, TONESLO, MFLOW	Alarm name. Enter an alarm name: SYSB (system busy) This alarm generates when the node is in system busy state. The default alarm severity is CR. The default action is RPT. MANB (manual busy) This alarm generates when the node is in manual busy state. The default alarm severity is MJ. The default action is RPT. ISTB (in-service-trouble) This alarm generates when the node is in-service and it is experiencing non-service-affecting faults. The default alarm severity is MN. The default action is RPT. SYSBNA (system busy and not accessible) This alarm generates when the node is in SYSB state and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is CR. The default action is RPT. MANBNA (manual busy and not accessible) This alarm generates when the node is in MANB state, and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is MJ. The default action is RPT.

Field descriptions when CLASS=DMSCP (Sheet 5 of 10)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		COTLOW (low water mark threshold for COT has been crossed) This alarm generates when use of the COT resource exceeds the threshold previously set, which means that the COT resource is in short supply. The default alarm severity is MN. The default action is RPT. DTMFLOW (low water mark threshold for DTMF has been crossed) This alarm generates when use of DTMF resources exceeds the threshold previously set, meaning that DTMF resources are in short supply. The default alarm severity is MN. The default action is RPT. TONESLOW (low water mark threshold for TONESYN has been crossed). This alarm generates when use of the TONESYN resources exceeds the threshold previously set, meaning that TONESYN resource is in short supply. The default alarm severity is MN. The default action is RPT. The “configdata all verbose” command displays the list of RMs that were provisioned, as well as other information pertaining to each RM, including the ProtWhomId. This number is found in the line that reads “This RM is currently protecting the services provisioned on RM X”. “X” represents the ProtWhomId of that particular RM. Find the RMid whose associated ProtWhomId is the RMid of the RM to have its datafill changed.

Field descriptions when CLASS=DMSCP (Sheet 6 of 10)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		MFLOW (low water mark threshold for MF has been crossed). This alarm generates when use of the MF resource exceeds the threshold previously set, meaning that MF resources are in short supply. The default alarm severity is MN. The default action is RPT. ECANLOW (low water mark threshold for ECAN has been crossed) This alarm generates when use ECAN resources exceeds the threshold previously set, meaning that ECAN resources are in short supply. The default alarm severity is MN. The default action is RPT.
ATTR		See subfields	Alarm attributes. This field consists of subfields SEVERITY and ACTION.
	SEVERITY	NA, MN, MJ, CR	Severity. The severity of the alarm defines its relative importance. Enter the severity: NA (no alarm) MN (minor alarm) MJ (major alarm) CR (critical alarm)
	ACTION	NRPT, RPT	Action. This subfield indicates the action to be taken when a fault is detected. Enter the action from the following list: NRPT (no report generated) RPT (report generated)

Field descriptions when CLASS=DMSCP (Sheet 7 of 10)

Field	Subfield or refinement	Entry	Explanation and action
EXECTAB		See subfields	Executables table. This field is a vector of up to eight entries (one for each terminal type) in subfields EXEC and TRMTYPE. Each entry defines an executable lineup to be downloaded for a particular terminal type. If a node supports ISUP trunks only (no PTS or PRI trunks), enter \$ in the subfields. If a node supports PTS or PRI trunks, datafill subfields EXEC and TRMTYPE.
	TRMTYPE	AB250, ABSPX, ABTRK, PRAB, PRAB500, POTS, or KEYSET	Terminal type. Enter one of the following values for PTS trunks: AB250 (PTS trunk configuration specific to the DMS-250 switch) ABSPX (for PX FX trunks on an SPM that already has provisioned DAL trunks). This value must accompany an EXEC value of PXSPMX. Note: Only one instance of terminal type ABSPX may exist at a time. ABTRK (standard PTS trunk configuration) PRAB (Primary Rate Access B channels). PRAB500 (Primary Rate Access B channels). This value must accompany an EXEC value of SPM250. Note: For PRI 100 and PRI 250 trunks to coexist on the same SPM, PRAB should be used for PRI 100 trunks and PRAB500 for PRI 250 trunks.

Field descriptions when CLASS=DMSCP (Sheet 8 of 10)

Field	Subfield or refinement	Entry	Explanation and action
	TRMTYPE (continued)		POTS (for POTS lines). This value must accompany a value of SPMPEX in the EXEC field. KEYSET (for keyset lines). This value must accompany a value of SPMKEY in the EXEC field. Entries outside the range indicated for this field are invalid. ISUP (or SS7) trunks do not require datafill in the EXECTAB field of table MNNODE. They are provisioned similar to how they are done with DTCs.

Field descriptions when CLASS=DMSCP (Sheet 9 of 10)

Field	Subfield or refinement	Entry	Explanation and action
	EXEC	SPM250, SPMEX, SPMFX, FXOSPM, PXDTCX, PXSPMX, SPMPEX, or SPMKEX	Exec lineup name. Enter the following values for SPM nodes supporting PTS trunks: SPM250 SPMEX. For DT, DP, or MF signalling, all 12 trunk types use ABTRK in the TRMTYPE field. For 100 PRA trunks, SPMEX should be used with a value PRAB in the TRMTYPE field. SPMFX. FXOSPM. PXDTCX (for PX trunks that use FX signalling on the DTC). This value must accompany a value of AB250 in the TRMTYPE field. PXSPMX (for PX FX trunks on an SPM that already has provisioned DAL trunks). This value must accompany a value of ABSPX in the TRMTYPE field. SPMPEX (for POTS lines). This value must accompany a value of POTS in the TRMTYPE field. For any trunk type that can use FX signalling, you must enter SPMFX or FXOSPM. Entries outside the range indicated for this field are invalid.

Field descriptions when CLASS=DMSCP (Sheet 10 of 10)

Field	Subfield or refinement	Entry	Explanation and action
CAPINDX		STANDARD ENHANCED PREMIUM	STANDARD is the default value. During tuple addition in table MNNODE, when using ENHANCED or PREMIUM values, the respective SOC options must have its RTU set to Y and the Usage count must be less than its limit. Also when using ENHANCED capacity, the number of DMSCP SPMs provisioned with ENHANCED capacity must be less than the limit of SPMS0020 SOC option. For using PREMIUM capacity, number of DMSCP SPMs provisioned with Premium capacity must be less than the limit of SPMS0028 SOC option. While changing the CAPINDX field to ENHANCED or PREMIUM values, the PEC codes of the CEM units provisioned in table MNCKTPAK for this node are also verified for NTLX82BA, in addition to the SOC check. If the checks pass, the appropriate SOC usage value is incremented. For CAPINDX field changes from ENHANCED or PREMIUM values to STANDARD, appropriate SOC usage counts are decremented if both the CEM tuples are present in table MNCKTPAK. Tuple change with No change to the CAPINDX field is not validated. For tuple deletion, there are no restrictions enforced on this field.

Conditional datafill when CLASS=SMG4

The table that follows lists conditional datafill when you enter SMG4 in field CLASS.

Field descriptions when CLASS=SMG4 (Sheet 1 of 9)

Field	Subfield or refinement	Entry	Explanation and action
FLOOR		0 to 99	Floor. Enter the floor where the node is located.
CLKMODE		SYNC	Clock mode. Enter SYNC. SYNC (synchronization mode) is the only valid entry for field CLKMODE.
CLKREF		INTERNAL, EXTERNAL , LINE or LOOP	Clock reference. Enter the clock synchronization reference: INTERNAL (The clock synchronizes to the DMS message switch. This is the default value.) EXTERNAL (The clock synchronizes to the SRM) LINE (The clock synchronizes to the ATM RM) LOOP (The clock synchronizes to the local OC-3 network.) Note: At initial program loading (IPL), field CLKREF is datafilled with the default value INTERNAL. If an SPM is datafilled in table SYNCLK as a sync source, table control prevents a change from INTERNAL to LOOP. An attempt to make such a change from INTERNAL to LOOP results in the following message: "SPM is datafilled in table SYNCLK as a SYNC SOURCE." When SPM OC-3 line timing is not employed and an SPM node is connected to an OC-3 SONET network, enter LOOP into field CLKREF to ensure correct OC-3 network timing.

Field descriptions when CLASS=SMG4 (Sheet 2 of 9)

Field	Subfield or refinement	Entry	Explanation and action
LEDTIMER		0 to 1440	LED time-out period. Enter the LED timeout period in minutes. If the SPM detects no critical faults during the timeout period, the alarm LEDs turn off in order to extend their life. Enter 0 (zero) if the LEDs are to stay on at all times. The default value is 15.
RSRUTLIM		See subfields	Resource utilization. This field consists of a vector of up to five entries in subfields RESTYPE and THRESHLD. Each entry sets a low water mark use threshold, as a percent, for a resource type. If the use exceeds the threshold, alarms or logs generate. Enter \$ to select default values.
	RESTYPE	COT, DTMF, ECAN, TONESYN, MF	Resource type. Enter the resources type from the following list: COT (continuity test) DTMF (dual-tone multi-frequency) ECAN (echo cancellation) TONESYN (tone synthesizer) MF (multi-frequency signaling)
	THRESHLD	10 to 100	Utilization threshold. Enter the low water threshold as a percent of total resource. The default values are 60% for COT, DTMF, ECAN, TONESYN, and MF.
ALRMCTRL		See subfields	Alarm control information. This field consists of a vector of up to ten entries in subfields ALARM and ATTR. Each entry controls a particular alarm. Enter \$ to select the system default values.

Field descriptions when CLASS=SMG4 (Sheet 3 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM	ISTB, SYSBNA, MANBNA, COTLOW, DTMFLOW, ECANLOW, TONESLO W, MFLOW	ALARM NAME. Enter an alarm name from the following list: SYSB (system busy) This alarm generates when the node is in system busy state. The default alarm severity is CR. The default action is RPT. MANB (manual busy) This alarm generates when the node is in manual busy state. The default alarm severity is MJ. The default action is RPT. ISTB (in-service-trouble) This alarm generates when the node is in-service and it is experiencing non-service affecting faults. The default alarm severity is MN. The default action is RPT. SYSBNA (system busy and not accessible) This alarm generates when the node is in SYSB state and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is CR. The default action is RPT. MANBNA (manual busy and not accessible) This alarm generates when the node is in MANB state, and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is MJ. The default action is RPT.

Field descriptions when CLASS=SMG4 (Sheet 4 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		COTFLOW (low water mark threshold for COT has been crossed) This alarm generates when use of the COT resource exceeds the threshold previously set, which means that the COT resource is in short supply. The default alarm severity is MN. The default action is RPT. DTMFLOW (low water mark threshold for DTMF has been crossed) This alarm generates when use of DTMF resources exceeds the threshold previously set, meaning that DTMF resources are in short supply. The default alarm severity is MN. The default action is RPT. TONESLOW (low water mark threshold for TONESYN has been crossed). This alarm generates when use of the TONESYN resources exceeds the threshold previously set, meaning that TONESYN resource is in short supply. The default alarm severity is MN. The default action is RPT. The “configdata all verbose” command displays the list of RMs that were provisioned, as well as other information pertaining to each RM, including the ProtWhomId. This number is found in the line that reads “This RM is currently protecting the services provisioned on RM X”. “X” represents the ProtWhomId of that particular RM. Find the RMid whose associated ProtWhomId is the RMid of the RM to have its datafill changed.

Field descriptions when CLASS=SMG4 (Sheet 5 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		MFLOW (low water mark threshold for MF has been crossed). This alarm generates when use of the MF resource exceeds the threshold previously set, meaning that MF resources are in short supply. The default alarm severity is MN. The default action is RPT. ECANLOW (low water mark threshold for ECAN has been crossed) This alarm generates when use ECAN resources exceeds the threshold previously set, meaning that ECAN resources are in short supply. The default alarm severity is MN. The default action is RPT.
	ATTR	See subfields	ALARM ATTRIBUTES. This field consists of subfields SEVERITY and ACTION.
	SEVERITY	NA, MN, MJ, CR	SEVERITY. The severity of the alarm defines its relative importance. Enter a severity from the following list: NA (no alarm) MN (minor alarm) MJ (major alarm) CR (critical alarm)
	ACTION	NRPT, RPT	ACTION. This subfield indicates the action to be taken when a fault is detected. Enter an action from the following list: NRPT (no report generated) RPT (report generated)

Field descriptions when CLASS=SMG4 (Sheet 6 of 9)

Field	Subfield or refinement	Entry	Explanation and action
EXEC TAB		See subfields	Executables table. This field is a vector of up to eight entries (one for each terminal type) in subfields EXEC and TRM TYPE. Each entry defines an executable lineup to be downloaded for a particular terminal type. If a node supports ISUP trunks only (no PTS or PRI trunks), enter \$ in the subfields. If a node supports PTS or PRI trunks, datafill subfields EXEC and TRM TYPE.
	TRM TYPE	AB250, ABSPX, ABTRK, PRAB, PRAB500, POTS, or KEYSET	TERMINAL TYPE. Enter one of the following values for PTS trunks: AB250 (PTS trunk configuration specific to the DMS-250 switch) ABSPX (for PX FX trunks on an SPM that already has provisioned DAL trunks). This value must accompany an EXEC value of PXSPMX. Note: Only one instance of terminal type ABSPX may exist at a time. ABTRK (standard PTS trunk configuration) PRAB (Primary Rate Access B channels). PRAB500 (Primary Rate Access B channels). This value must accompany an EXEC value of SPM250. For PRI 100 and PRI 250 trunks to coexist on the same SPM, PRAB should be used for PRI 100 trunks and PRAB500 for PRI 250 trunks.

Field descriptions when CLASS=SMG4 (Sheet 7 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	TRMTYPE (continued)		POTS (for POTS lines). This value must accompany a value of SPMPEX in the EXEC field. KEYSET (for keyset lines). This value must accompany a value of SPMKEY in the EXEC field. Entries outside the range indicated for this field are invalid. Note: ISUP (or SS7) trunks do not require datafill in the EXECTAB field of table MNNODE. They are provisioned similar to how they are done with DTCs.

Field descriptions when CLASS=SMG4 (Sheet 8 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	EXEC	SPM250, SPMEX, SPMFX, FXOSPM, PXDTCX, PXSPMX, SPMPEX, or SPMKEX	EXEC LINEUP NAME. Enter the following values for SPM nodes supporting PTS trunks: SPM250 SPMEX. For DT, DP, or MF signalling, all 12 trunk types use ABTRK in the TRMTYPE field. For 100 PRA trunks, SPMEX should be used with a value PRAB in the TRMTYPE field. SPMFX FXOSPM PXDTCX (for PX trunks that use FX signalling on the DTC). This value must accompany a value of AB250 in the TRMTYPE field. PXSPMX (for PX FX trunks on an SPM that already has provisioned DAL trunks). This value must accompany a value of ABSPX in the TRMTYPE field. SPMPEX (for POTS lines). This value must accompany a value of POTS in the TRMTYPE field. SPMKEX (for keyset lines). This value must accompany a value of KEYSET in the TRMTYPE field. Note: For any trunk type that can use FX signalling, you must enter SPMFX or FXOSPM. Entries outside the range indicated for this field are invalid.
DPT		Y or N	Set DPT to Y to represent the SPM as a DPT terminal. The default value is N.
	DPT_NUM_ REQ	0 to 2016	This field represents the range value for the DPT SPM.
SLINK_TH RESHOLD_ DATA		table of 3 1 to 3, 0 to 3, 0 to 3	This field represents the signalling link threshold data for the SPM.

Field descriptions when CLASS=SMG4 (Sheet 9 of 9)

Field	Subfield or refinement	Entry	Explanation and action
BOOTP_SU PPRESS		Y or N	Y suppresses the BootP and TFTP messages on the Multi-service Gateway 4000 (MG4000) OAMP network. N is the default value.
REMOTE		Y or N	Y indicates that the particular MG4000 is remotely located. N indicates that the MG4000 node is located at the host office (CS2K office). N is the default value. Note 1: Changing REMOTE from N to Y raises all existing faults (SIM A/ SIM B/ PCIU/ FAN) of the particular MG4K within 15 minutes. EXT MAP banner is updated (incremented) and SPM619 & EXT102 fault logs are generated. Note 2: Changing REMOTE from Y to N clears all existing faults (SIM A/ SIM B/ PCIU/ FAN) of the particular remote MG4K within 15 minutes. EXT MAP banner is updated (decremented) and SPM619 & EXT102 clear logs are generated.

Conditional datafill when CLASS=IW

The table that follows lists conditional datafill when you enter IW in field CLASS.

Field descriptions when CLASS=IW (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
FLOOR		0 to 99	Floor. Enter the floor where the node is located.
CLKMODE		SYNC	Clock mode. Enter SYNC. SYNC (synchronization mode) is the only valid entry for field CLKMODE.
CLKREF		INTERNAL, EXTERNAL, LINE or LOOP	CLOCK REFERENCE. Enter a clock synchronization reference from the following list: INTERNAL (The clock synchronizes to the DMS message switch. This is the default value.) EXTERNAL (The clock synchronizes to the SRM) LINE (The clock synchronizes to the ATM RM) LOOP (The clock synchronizes to the local OC-3 network.) Note: At initial program loading (IPL), field CLKREF is datafilled with the default value INTERNAL. If an SPM is datafilled in table SYNCLK as a sync source, table control prevents a change from INTERNAL to LOOP. An attempt to make such a change from INTERNAL to LOOP results in the following message: "SPM is datafilled in table SYNCLK as a SYNC SOURCE." When SPM OC-3 line timing is not employed and an SPM node is connected to an OC-3 SONET network, enter LOOP into field CLKREF to ensure correct OC-3 network timing.

Field descriptions when CLASS=IW (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
LEDTIMER		0 to 1440	LED time-out period. Enter the LED timeout period in minutes. If the SPM detects no critical faults during the timeout period, the alarm LEDs turn off in order to extend their life. Enter 0 (zero) if the LEDs are to stay on at all times. The default value is 15.
RSRUTLIM		See subfields	Resource utilization. This field consists of a vector of up to five entries in subfields RESTYPE and THRESHLD. Each entry sets a low water mark use threshold, as a percent, for a resource type. If the use exceeds the threshold, alarms or logs generate. Enter \$ to select default values.
	RESTYPE	DTMF, ECAN, TONESYN	Resource type. Enter a resources type from the following list: DTMF (dual-tone multi-frequency) ECAN (echo cancellation) TONESYN (tone synthesizer)
	THRESHLD	10 to 100	Utilization threshold. Enter the low water threshold as a percent of total resource. The default values are 60% for DTMF, ECAN and TONESYN.
ALRMCTRL		See subfields	Alarm control information. This field consists of a vector of up to ten entries in subfields ALARM and ATTR. Each entry controls a particular alarm. Enter \$ to select the system default values.

Field descriptions when CLASS=IW (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM	SYSB, MANB, ISTB, SYSBNA, MANBNA, COTFLOW, DTMFLOW, ECANFLOW, TONESLOW, MFLOW	Alarm name. Enter an alarm name from the following list: SYSB (system busy) This alarm generates when the node is in system busy state. The default alarm severity is CR. The default action is RPT. MANB (manual busy) This alarm generates when the node is in manual busy state. The default alarm severity is MJ. The default action is RPT. ISTB (in-service-trouble) This alarm generates when the node is in-service and it is experiencing non-service affecting faults. The default alarm severity is MN. The default action is RPT. SYSBNA (system busy and not accessible) This alarm generates when the node is in SYSB state and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is CR. The default action is RPT. MANBNA (manual busy and not accessible) This alarm generates when the node is in MANB state, and a network (for example, ENET or MS) error has caused it to be isolated. The default alarm severity is MJ. The default action is RPT.

Field descriptions when CLASS=IW (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		COTFLOW (low water mark threshold for COT has been crossed) This alarm generates when use of the COT resource exceeds the threshold previously set, which means that the COT resource is in short supply. The default alarm severity is MN. The default action is RPT. DTMFLOW (low water mark threshold for DTMF has been crossed) This alarm generates when use of DTMF resources exceeds the threshold previously set, meaning that DTMF resources are in short supply. The default alarm severity is MN. The default action is RPT. TONESLOW (low water mark threshold for TONESYN has been crossed). This alarm generates when use of the TONESYN resources exceeds the threshold previously set, meaning that TONESYN resource is in short supply. The default alarm severity is MN. The default action is RPT. The “configdata all verbose” command displays the list of RMs that were provisioned, as well as other information pertaining to each RM, including the ProtWhomId. This number is found in the line that reads “This RM is currently protecting the services provisioned on RM X”. “X” represents the ProtWhomId of that particular RM. Find the RMid whose associated ProtWhomId is the RMid of the RM to have its datafill changed.

Field descriptions when CLASS=IW (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
	ALARM (continued)		MFLOW (low water mark threshold for MF has been crossed). This alarm generates when use of the MF resource exceeds the threshold previously set, meaning that MF resources are in short supply. The default alarm severity is MN. The default action is RPT. ECANLOW (low water mark threshold for ECAN has been crossed) This alarm generates when use ECAN resources exceeds the threshold previously set, meaning that ECAN resources are in short supply. The default alarm severity is MN. The default action is RPT.
	ATTR	See subfields	Alarm attributes. This field consists of subfields SEVERITY and ACTION.
	SEVERITY	NA, MN, MJ, CR	Severity. The severity of the alarm defines its relative importance. Enter a severity from the following list: NA (no alarm) MN (minor alarm) MJ (major alarm) CR (critical alarm)
	ACTION	NRPT, RPT	Action. This subfield indicates the action to be taken when a fault is detected. Enter an action from the following list: NRPT (no report generated) RPT (report generated)

Field descriptions when CLASS=IW (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
DPT_INFO			DPT_INFO. This field contains a vector of up to two entries.
	CONN	DPT_ONLY , BRDG_ONL Y	CONN. Enter a CONN type from the following list: DPT_ONLY BRDG_ONLY
OPTIONS	OPT_ATTR	SPMECIDX	OPT_ATTR. Enter the option SPMECIDX.
	EC_IDX	0 to 255	EC_IDX. Enter an index to the SPMECAN tuple

Additional information

This section gives information on implementing BootP suppression on existing MG4000 nodes.

The BOOTP_SUPPRESS field can be changed for a datafilled MG4000 node if it is in one of the following states with no maintenance in progress (MIP) flag on either of the common equipment modules (CEMs).

- In service (INSV) or in service trouble (ISTB)
- Manual-busy (MANB)
- Offline (OFFL)

In some circumstances, the BOOTP_SUPPRESS field cannot be changed. The error messages and the conditions under which the BOOTP_SUPPRESS field is not accepted are listed below

Error messages during attempts to change the BOOTP_SUPPRESS field on an MG4000

Error	Mtc running on unit 0. Try again later.
Explanation	Unit 0 (CEM 0) of the MG4000 has maintenance in progress (MIP flag raised). BOOTP_SUPPRESSION cannot be changed.
Error	Mtc running on unit 1. Try again later.
Explanation	Unit 1 (CEM 1) of the MG4000 has maintenance in progress (MIP flag raised). BOOTP_SUPPRESSION cannot be changed.
Error	Unit 0 is in SYSB state. Unit should be in either INSV, MANB or OFFL state.
Explanation	Unit 0 (CEM 0) of the MG4000 is in system busy state (SYSB). BOOTP_SUPPRESSION cannot be changed.
Error	Unit 1 is in SYSB state. Unit should be in either INSV, MANB or OFFL state.
Explanation	Unit 1 (CEM 1) of the MG4000 is in system busy state (SYSB). BOOTP_SUPPRESSION cannot be changed.
Error	Invalid node
Explanation	The table control has failed to retrieve the node details for the MG4000 requested.
Error	Internal Error
Explanation	The table control is unable to read or write to the node details because they are protected data.

Supplementary information for field REMOTE

The field REMOTE can be changed for a datafilled MG4000 node irrespective of the NODE state.

Dump and restore

Over the one night process (ONP), SPMs defined in releases before the MSH12 table change are automatically converted to DMSCP class

SPMs. The field by field conversions from existing tuples to new tuples follows.

Conversion of existing tuples to new tuples

Existing tuple field name	New tuple field name	Comment
NODEKEY	NODEKEY	No change
ALIAS	ALIAS	No change
	NODEINFO.CLASS	Set to DMSCP automatically over an ONP.
FLOOR	NODEINFO{DMSCP}.FLOOR	
CLKMODE	NODEINFO{DMSCP}.CLKMODE	
CLKREF	NODEINFO{DMSCP}.CLKREF	
LEDTIMER	NODEINFO{DMSCP}.LEDTIMER	
RSRUTLIM	NODEINFO{DMSCP}.RSRUTLIM	
ALRMCTRL	NODEINFO{DMSCP}.ALRMCTRL	
EXECTAB	NODEINFO{DMSCP}.EXECTAB	

Table history

SN07

Table MNNODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

Field CAPINDX was added as per feature A00002431.

SN06 (DMS)

The field BOOTP_SUPPRESS was introduced by feature 89009380. This field is defined as a BOOLEAN. If it is set to Y, the XA-Core does not expect the BootP and TFTP messages from the MG4000. If it is set to N, the XA-Core expects the BootP and TFTP messages for its Node maintenance operations.

Added field REMOTE for MG4000 variant SPM in support of activity 89007540.

Added IW class SPMs datafill resource alarm thresholds.

MNPRIID

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

PRI Interface Identification

Table PRI Interface Identification (MNPRIID) is a read/write table that is provisioned through table control. It is used to provision a PRI interface ID against the carrier in table MNHSCARR. This table is used only for SPM nodetype used for all supported trunk types.

This table uses a three-part key (node type, node number and circuit number). To optimize access time, this table internally hashes the key as a single field for look-ups.

Datafill sequence and meaning

Table MNHSCARR must be datafilled before table MNPRIID.

Table size

0 to 5376 tuples.

Datafill

The following table lists the datafill for table MNPRIID.

Field, subfield, and refinement descriptions for table MNPRIID (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NODETYPE		SPM	Peripheral type is always SPM.
NODEID		0-63	Enter the SPM number.
CCTNO		0-181	Enter the physical port number. Note: The actual range for this field is dependant on the range of the CCTNO field datafilled in table MNHSCARR.

Field, subfield, and refinement descriptions for table MNPRIID (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
INTID		0-127	PRI interface identification. For PRI, a single D (or Data) channel can control multiple B (or Bearer) channels (DS0s) across multiple DS1 interfaces. The interface ID is used to indicate which DS1 interface the PRI signalling is addressing. The interface ID is part of the channel ID in PRI messaging. The interface ID maps to a unique DS1 span controlled by the Dchannel. Another part of the interface ID indicates which timeslot or DS0 of the DS1 is in use by the call. For example, the DMS attempts to set up a call on timeslot 5 of DS1 span 3. The information sent to the user is channel 5 INTID 3.

Table history**SN07**

Table MNPRIID migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MNPRTGRP

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Management Network Protection Group

Table Management Network Protection Group (MNPRTGRP) is one of six DMS-Spectrum Peripheral Module (SPM) configuration tables. Each tuple in this table identifies a protection group within a switch.

A protection group is a group of objects that form protecting-protected relationships from a functional or service perspective. Members of the protection group can be peripherals, circuit packs, or links. Each group defines the protection relationship between entities. A maximum of 28 protection groups can be defined for each SPM. Typical maintenance data includes group types and related group attributes, such as protection switching mode and direction.

Datafill sequence and meaning

External routing must be supported on the DMS switch before SPM nodes can be datafilled. Routing is set to external by using the C7RTR command. For more information on the C7RTR command, refer to the appropriate NTP.

For the IW SPM IP component of the Full Featured Long Distance (FFLD) Voice Trunking over Internet Protocol (VToIP) solution, the correct see the DMS-100 Family LIU7 External Routing Activation Guide, 297-8991-030.

Datafill order tables for ISUP trunks

Datafill the tables in the order listed for ISUP trunks:

- PMLOADS

Note: Table PMLOADS specifies the location of a particular load file. Datafill PMLOADS only once. There is no need to datafill

PMLOADS for each SPM added to the system unless a new load file entry has to be added to table PMLOADS.

- LOGCLASS

Note: Feature BV1572 automatically suppresses the generation and reporting of selected trunk logs. To unsuppress a log, datafill the log in table LOGCLASS. Datafill N in field SUPPRESS to ensure log generation and reporting. Refer to table LOGCLASS in NTP 297-8021-351 for more information.

The following logs are affected:

- TRK110 through TRK123
- TRK162
- TRK182
- TRK183

- MNPRTGRP
- MNNODE
- MNSHELF
- MNCKTPAK
- MNLINK
- MNHSCARR
- CLLI
- MCLLICDR
- TRKGRP
- TRKSGRP
- TRKMEM
- ISUPDEST
- C7TRKMEM

Datafill order for PTS trunks

Datafill tables in the following order for PTS trunks:

- PMLOADS
- LOGCLASS
- MNPRTGRP
- MNNODE
- MNSHELF

- MNHSCARR
- CLLI
- MCLLICDR
- TRKGRP
- TRKSGRP
- TRKMEM

Table size

0 to 1 792 tuples.

Datafill

The following table lists the datafill for table MNPRTGRP.

Field, subfield, and refinement descriptions for table MNPRTGRP (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		See subfields	Group key. The subfields are NODETYPE, NODEID, GRPTYPE, and GRPID.
	NODETYPE	SPM	Node type. Enter SPM.
	NODEID	0-63	Node Identifier. Enter the SPM node identifier. The default entry is 0.

Field, subfield, and refinement descriptions for table MNPRTGRP (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	GRPTYPE	OC3_GRP, DSP_GRP, VSP_GRP, STS3L_GRP, ATM_GRP, DLC_GRP, IEM_GRP, STM_GRP, CARR_GRP	Group type. Enter the protection group type as follows: OC3_GRP (protection group for OC-3 circuit pack) DSP_GRP (protection group for DSP circuit pack) VSP_GRP (protection group for VSP circuit pack) STS3L_GRP (protection group for STS-3 line carrier) ATM_GRP (protection group for ATM circuit pack) Note: ATM is not applicable to all markets. DLC_GRP (protection group for Data Link Controller circuit pack)
			IEM_GRP (protection group for IEM RM on the MG4000) Note: Provisioning and maintenance of the LSA devices is done through the element manager. Do not manually provision this value. STM_GRP (protection group for the STM-1 circuit pack) CARR_GRP (protection group for protection switching at a carrier level)
	GRPID	1-28	Group identifier. Enter the protection group identifier. The default value is 1.

Field, subfield, and refinement descriptions for table MNPRTGRP (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
GRPINFO	SELECTOR	STM_GRP, ATM_GRP, VSP_GRP, OC3_GRP, IEM_GRP, DLC_GRP, DSP_GRP, CARR_GRP, STS3L_GRP	Group information. This protection group information area is refined for each group type: STM_GRP ATM_GRP VSP_GRP OC3_GRP IEM_GRP DLC_GRP DSP_GRP CARR_GRP or STS3L_GRP. Refer to the following refinements, below.

SELECTOR = OC3_GRP, DSP_GRP, VSP_GRP, ATM_GRP, STM_GRP, or IEM_GRP

If the value in field SELECTOR is OC3_GRP, DSP_GRP, VSP_GRP, ATM_GRP, STM_GRP, or IEM_GRP datafill subfields MODE and ALRMCTRL as described in the following table.

Datafill for conditional datafill (Sheet 1 of 2)

Subfield or refinement	Entry	Explanation and action
MODE	See refinement	Protection switching mode. This field consists of subfield SWCHMODE.
SWCHMODE	NRVTV	Non-revertive protection switching mode. Enter NRVTV
ALRMCTRL	See refinement	Alarm control. Each entry controls a particular alarm for the protection group. To accept the system default values, enter \$. The subfields are ALARM and ATTR.
ALARM	NOSPARE	Alarm name. The valid alarm is NOSPARE (no sparing capability). The NOSPARE alarm generates when the protection group has lost its sparing capability. This alarm occurs when no spare circuit pack is provisioned for the protection group or inactive circuit packs are out of service.
ATTR	See subfields	Alarm attributes. The subfields are SEVERITY and ACTION.

Datafill for conditional datafill (Sheet 2 of 2)

Subfield or refinement	Entry	Explanation and action
SEVERITY	NA, MN, MJ, CR	Severity. This field indicates the severity of the alarm. Valid severities are NA (no alarm severity) MN (minor alarm) MJ (major alarm, the default value) CR (critical alarm)
ACTION	RPT, NRPT	Action. This field indicates the action to take when an alarm is detected. Valid entries are: RPT (report the alarm, the default value) NRPT (do not report the alarm)

SELECTOR = STS3L_GRP

If the value in field SELECTOR is STS3L_GRP, datafill subfields APSCFG, MODE and SWCHDIR as described in the following table.

Datafill for conditional datafill

Subfield or refinement	Entry	Explanation and action
APSCFG	1PLUS1	Automatic protection switching configuration. Enter 1PLUS1.
MODE	See refinement	Protection switching mode. This field consists of subfield SWCHMODE.
SWCHMODE	NRVTV	Non-revertive protection switching mode. Enter NRVTV
SWCHDIR	UNI_DIR	Protection switching direction. Enter UNI_DIR (uni-directional) switching.

SELECTOR = CARR_GRP

If the value in field SELECTOR is CARR_GRP, datafill subfields APSCFG, MODE, SWCH_DIR, SIMPLEX_ALM, and SIMPLEX_LOG as described in the following table.

Datafill for conditional datafill

Subfield or refinement	Entry	Explanation and action
APSCFG	1PLUS1	Automatic protection switching configuration. Enter 1PLUS1.
MODE	See refinement	Protection switching mode. This field consists of subfield SWCHMODE.
SWCHMODE	NRVTV	Non-revertive protection switching mode. Enter NRVTV
SWCHDIR	UNI_DIR	Protection switching direction. Enter UNI_DIR (uni-directional) switching.
SIMPLEX_ALM	N,Y	Simplex alarm. This boolean value indicates whether the protection group generates simplex alarms. A simplex condition exists when no protection switching is possible. Note: This facility is not supported for STM-1.
SIMPLEX_LOG	N,Y	Simplex log. This boolean value indicates whether this protection group generates simplex logs. A simplex condition exists when no protection switching is possible.

Table history**SN07**

Table MNPRTGRP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MNSHELF

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Management Network Shelf

Table Management Network Shelf (MNSHELF) is one of six DMS-Spectrum Peripheral Module (SPM) configuration tables. An SPM consists of two shelves. Each tuple in this table identifies a shelf on a particular node. The data maintained in this table includes the shelf identifier and physical shelf location.

Datafill sequence and meaning

Datafill these tables in the following order:

- PMLOADS

Note: Table PMLOADS specifies the location of a particular load file. Datafill PMLOADS only once. There is no need to datafill PMLOADS for each SPM added to the system unless a new load file entry has to be added to table PMLOADS.

- MNPRTGRP
- MNNODE
- MNSHELF
- MNCKTPAK
- MNLINK
- MNHSCARR

If the SPM referenced by field NODETYPE and NODEID of table MNSHELF tuple has not been added to table MNNODE, the following message displays:

```
Failed to find the specified SPM
```

Table size

0 to 128 tuples.

Datafill

The following table lists the datafill for table MNSHELF.

Field, subfield, and refinement descriptions for table MNSHELF (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SHLFKEY		See subfields	Shelf key. Subfields are NODETYPE, NODEID, and SHELFID.
	NODETYPE	SPM	Node type. Enter SPM.
	NODEID	0 to 63	Node identifier. Enter the SPM node identifier. The default is 0.
	SHELFID	0 or 1	Shelf identifier. Enter the shelf identifier. The lower shelf is shelf 0; the upper shelf is shelf 1. The default is 0.
FRTYPE		SPME, SMGE	Frame type. Enter SPME or SMGE. SMGE (Successive Media Gateway Equipment) frametype required for SMG4KD (Succession Media Gateway 4000 Distributed Access) class SPM indicated as the intended functionality of the SPM's datafill. SPME (SPM equipment) frametype required for DMSCP (DMS call processing) and IW (interworking) class. SPM indicated as the intended functionality of the SPM's datafill.
FRNO		0-511	Frame number. Enter the frame number.

Field, subfield, and refinement descriptions for table MNSHELF (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ROW		A-H, J-N, P-Z, AA-HH, JJ-NN, PP-ZZ	Row. Enter the row where the frame is located.
FRPOS		0 to 99	Frame position. Enter the frame position.
SHPOS		0 to 77	Shelf position. Enter the shelf position in inches. The recommended positions are 6, 21, 43, and 59. Note: In each SPM frame, there are a maximum of two SPMs—upper and lower SPM. Each SPM has a maximum of two shelves—bottom and upper shelf. The frame mounting positions of each shelf are “6” for lower SPM bottom shelf; “21” for lower SPM upper shelf; “43” for upper SPM lower shelf, and “59” for upper SPM upper shelf. The shelf position is specified in terms of the count of shelf mounting holes from the bottom of the frame.

Field, subfield, and refinement descriptions for table MNSHELF (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FRPEC	NTLX91AA, NTLX50AA, NTLX91BA		Frame product engineering code. Enter the frame product engineering code (PEC). NTLX91AA Frame PEC required when installing a new DMSCP class SPM. NTLX50AA is no longer used for new SPM deployment. It is still valid for SPMs deployed before this software release. NTLX91BA Frame PEC is required when you install a new IW and SMG4KDA class SPM.
SHPEC		NTLX51AA, NTLX53AA, NTLX51BA	Shelf product engineering code. Enter the shelf PEC. Valid values are: NTLX51AA (two high-speed slots, double-height shelf, the default). This is the shelf PEC required for DMSCP- class SPMs. NTLX53AA (two high-speed slots, single-height shelf). This is no longer used. NTLX51BA (four high-speed slots, double-height shelf. This is the shelf PEC required for IW- and SMG4KDA-class SPMs.

Table history**SN07**

Table MNSHELF migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MPC

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Multiprotocol Controller

Table MPC contains the values required to implement the multiprotocol controller (MPC) in the DMS switch. Table MPC identifies the MPC card hardware to the DMS central control (CC). Table MPC requires one entry or tuple for each MPC.

Each entry contains the following:

- an index number for the MPC
- the number of the input/output controller (IOC) shelf where the card resides
- the card circuit number
- the product engineering code (PEC)
- the identification (ID) for the preferred download file

The device that contains the download file can appear before tuple entry in table MPC. The device can appear in a list before the first manual download. In these occurrences, a subsequent download or return to service (RTS) normally succeeds and does not list the download file.

Datafill sequence and meaning

Enter data in table IOC before table MPC.

Enter data in table MPC before table MPCLINK. Table MPCLINK provides protocol support and link information for cards configured in table MPC.

Table size

0 to 256 tuples

Datafill

The following table lists the datafill for table MPC.

Field, subfield, and refinement descriptions for table MPC (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
MPCNO		see subfield	<i>Multiprotocol controller number</i> This field contains subfield K.
	K	0 to 255	<i>Multiprotocol controller number key</i> Enter the number of one multiprotocol controller (MPC). Number the MPC cards as desired. This subfield does not have a default value.
MPCIOC		0 to 19	<i>Multiprotocol controller input/output controller</i> Enter the number of the input/output (IOC) shelf on which the MPC card sits. This subfield does not have a default value.
IOCCCT		0, 4, 8, 12, 16, 20, 24, 28, 32	<i>Input/output circuit number</i> Enter the slot position on the IOC shelf multiplied by 4, from 0 (zero) to 32. Entries out of this range are not correct. This subfield does not have a default value.

Field, subfield, and refinement descriptions for table MPC (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
EQ		1X89AA, 1X89BA, 1X89BB FX30AA FX30BA	<i>Equipment code</i> Enter the Northern Telecom (NT) product engineering code (PEC): 1X89AA for the MPC card or 1X89BA/BB for the enhanced MPC (EMPC) card. Enter FX30AA if the specified IOC is an IOM. Entries out of this range are not correct. This subfield does not have a default value.
DLDFILE		alphanumeric (8 characters)	<i>Download file</i> Enter a file name that begins with MPC. Enter an X for X25ORIG, 0 (zero) for X2580), 4 for X.25, or A for asynchronous protocol software. Enter four alphanumeric characters that designate the Telecom software release cycle and the load designation. An example of a file name is MPCX33AB. Software download files are interchangeable between MPC and EMPC.

Field, subfield, and refinement descriptions for table MPC (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
			For IOM MPC, use default name IOM\$LOAD. This subfield does not have a default value.
			Note: For automatic location identification (ALI), the system enters data in field DLDFILE. The system enters data to specify the asynchronous protocol software download files for the current MPC load. The fourth character of the download filename is the letter A.

Additional information

Information on how to enter data in table MPC from a maintenance and administration position (MAP) terminal appears in this section.

When you enter data in table MPC from a MAP position complete the following steps. Complete these steps to identify the MPC (NT1X89AA) and EMPC (NT1X89BA/BB) cards to the CC:

1. List the device directories of the download files to place the files in the user directory. The CC recognizes the download files in the user directory. If the device directories for the download files do not appear, a warning message appears. The warning message appears when the system writes the tuple to table MPC.

2. Add the following information in table MPC:

- the MPC numbers
- the IOC shelves and circuit positions where the MPC and EMPC cards are configured
- the NT PECs for the cards
- the download file names for the MPC and EMPC cards

The following limits apply when you enter data in table MPC from a MAP terminal:

- You can delete tuples in table MPC under the following conditions:
 - the MPCs that correspond are offline
 - you delete the associated tuples in table MPCLINK
- You can change field DLDFILE in a tuple of table MPC. To change other fields, delete the tuple and enter the tuple again. The file name in field DLDFILE can change to a file name of the same load. For example, to change file name MPC434R1, download MPC402BX. These files are 1984 X25 protocol versions. You can not download a 1980 X25 protocol version if table MPC contains a 1984 X25 protocol. An example of a 1980 X25 protocol version is MPC003AB. If the system downloads a wrong protocol version, the system generates the following error message:

```
NEW DOWNLOAD FILE INDICATES CHANGE IN BOARD  
PROTOCOL. MPC MUST BE DELETED AND RE-ADDED TO  
CHANGE PROTOCOL. PROCESSING ERROR.
```

- List the directory of the storage device, that contains the download file, where the CC can recognize the file. List this directory before you enter a tuple. The CC must recognize the file at the time of entry. List the directory to place the file in the user directory. For example, you can perform the command interpreter (CI) command LISTVOL on a disk like D000XPM, to list the download file. If you do not list the download file, entry of data succeeds with a warning that the download can fail. In other occurrences, you can add a tuple to table PMLOADS. Add this tuple to identify the image name and device name for the download file.

Table history

SN07

Table MPC migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MPCFASTA

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Multiprotocol Controller Fast Applications

Table MPCFASTA identifies applications that use the multiprotocol controller (MPC) fast utility. The fast utility is a fast input and output interface through the MPC. Each application has a tuple in table MPCFASTA.

The following information appears in table MPCFASTA:

- the application name
- the frequency at which the system sends audit messages
- the units that apply to the frequency number
- the type of link audit failure recovery procedure
- a maximum of 16 MPC numbers, link numbers, and channel numbers (MLCLIST) for the application

The following considerations apply to the applications:

- If the application does not support an audit, set field AUDITFRQ to 0. Entries in field AUDITFRQ in units of 10 s or less are acceptable. For these unit entries, the system generates a warning about the real time impact frequent audits.
- Two MPCs for each application are recommended for reliability. The first release of this utility supports links 2 and 3. If you are using the Off-Board Selective Routing (OFBSR) interface feature, two MLCs (each consisting of one MPC, one link on the MPC, and one channel of the link) must be datafilled.

See table MPC for related information.

Datafill sequence and meaning

Enter data in the tables MPC and MPCLINK before you enter data in table MPCFASTA.

Table size

0 to 16 tuples.

Datafill

The following table lists the datafill for table MPCFASTA:

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
INDEX		see subfield	<i>Application index</i> This field contains subfield K.
	K	alphanumeric (1 to 8 characters)	<i>Application name</i> Enter an application name. This field is the key for table MPCFASTA. This field represents the application identifier (ID) available for multiprotocol controller (MPC) circuits. The MPC is an open interface. The user can enter a new or current application to allow the application to function with the MPC. The MPC is a generic transport device. The documentation of the application provides information on specified applications.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			If the entry of data in table SERVICES occurs, services DASERV and INTCERV require applications TOPSVR1 and TOPSVR2. The TOPSVR1 and TOPSVR2 cannot run the same service, DASERV or INTCERV. Enter M or L in tables MPC and MPCLINK. Make one entry in table MPCFASTA for each type of automatic location identification (ALI) system that connects to the tandem. The entry of all the links that serve CCI databases must occur.
			Enter one of the following APPLIDs if the application is Remote Call Event Record: • 911RCER1 • 911RCER2 • 911RCER3 • 911RCER4 • 911RCER5 • 911RCER6

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			Enter OPN911AS if the application is E911 for multiprotocol controller card links with direct access to an ALI controller. This protocol generates a pseudo ANI (pANI) location for wireless calls. Enter ENH911AS to support data transmission from the MPC to an external ALI database for E911 calls terminating to a line or ACD public safety answering point (PSAP). Unlike OPN911AS, this protocol generates both the pANI and the mobile directory number (MDN) number of a wireless caller.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
			Enter WLS911 for E911 wireless calls terminating to a line appearance on a digital trunk (LDT) PSAP. Enter ATT911AS for the links that serve the AT&T controllers that connect to the switch. Enter E911SR01 to allow a DMS-100 serving as an E911 tandem to access its primary external selective routing database server (OFBSR). A secondary OFBSR also can be chosen; enter E911SR02 to choose the secondary OFBSR server. The Traffic Operator Position System (TOPS) personal audio response system (PARS) application uses table MPCFASTA in stand-alone and host offices.
AUDITYPE		ACTIVE or IDLE	<i>Audit type</i> Enter the type of audit that runs on the MPC link channel (MLC). Enter ACTIVE for a continuous audit. Enter IDLE to run audits when traffic is not present. The default value is IDLE.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
AUDITFRQ		0 to 255	<i>Audit frequency</i> Enter the time between audits of idle permanent virtual circuits (PVCs). Enter the time in minutes or seconds. See field UNITS.
			If the application does not support the audit, enter 0 if the entry of one of the following appears in field INDEX: • 911RCER1 • 911RCER2 • 911RCER3 • 911RCER4 • 911RCER5 • 911RCER6 • E911SR01 • E911SR02 Note: When field AUDITFRQ is 0, audits do not run on the MLCs.
UNITS		MINUTES or SECONDS	<i>Audit frequency units</i> Enter the unit of measure that applies to the entry in field AUDITFRQ.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
RECOVERY		ENHANCED or REGULAR	<i>Recovery</i> Enter ENHANCED to indicate that the application on link-audit failure requires a reset or initialization at the protocol level when link-audit failure occurs. Enter REGULAR to continue the current process of error recovery.
			The system does not support audits if field INDEX contains one of the following: • 911RCER1 • 911RCER2 • 911RCER3 • 911RCER4 • 911RCER5 • 911RCER6 • E911SR01 • E911SR02
			If field INDEX contains these entries, enter REGULAR. • ATT911AS • OPN911AS • ENH911AS • WLS911

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MLCLIST		see subfields	Multiprotocol controller link channel list. This field contains subfields M, L, and C. You can enter a maximum of 16 three-number sets that represent MLC. Separate each subfield with a single space. If you require less than 16 MLCs, end the list with a dollar sign (\$). An MLC contains one MPC, one MPC link, and one link channel. For example, 1 2 3 indicates MPC 1, link 2 on MPC 1, and channel 3 on link 2.
	M	0 to 255	MPC. Enter the number of the MPC.
	L	2 or 3	Link. Enter the number of the MPC link.
	C	1 to 255	Channel. Enter the number of the MPC link channel.

Additional Information

Dump and restore information for field AUDITYPE appears in this section.

Dump and restore

For BCS36 and later versions, duplication of the tuples occurs on the restore side.

For BCS35 and earlier versions, all fields except field AUDITYPE are copied to the entries that correspond in the table. Field AUDITYPE defaults to IDLE.

Upgrades from BCS34 or BCS35 to BCS36 and later versions require a manual change in table MPCFASTA. This manual change sets field

AUDITYPE to ACTIVE to allow the following applications to continue to run active audits:

- MPCFDS
- MPCFERS
- TOPSIM
- TOPSVR1
- TOPSVR2
- TOPSVSN
- VSNSIM

Table history

SN07

Table MPCFASTA migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

NA015 (SN02)

The APPLIDs E911SR01 and E911SR02 were added to the INDEX field. The E911SR01 ID indicates the primary Off-Board Selective Routing Interface (OFBSR). The E911SR02 ID indicates the secondary OFBSR Interface.

MPCLINK

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Multiprotocol Controller Link

Table MPCLINK specifies link and protocol information for cards entered in table MPC. The user can enter correct multiprotocol controller (MPC) link definitions and protocol groups. The user can enter a group of protocol-specified fields in table MPCLINK.

Table MPCLINK supports the application of the 1980 CCITT X.25 layered protocol and asynchronous communications in the MPC. Table MPCLINK supports the application of the previous X25ORIG (BX25) protocol. Protocol support makes sure the establishment and maintenance of links and conversations occurs.

The fields in table MPCLINK identify the MPC data links to the central control (CC). The fields identify the MPC data links like table MPC identifies the MPC hardware to the CC. These fields do not have default values. The user must enter these fields.

The protocol in use determines protocol parameter descriptions. Most parameter fields do not require datafill. Parameter fields require datafill when adjustments occur to the default values assumed on the peripheral modules (PM). These adjustments occur when a download of the PM occurs. These fields contain timing and messaging specifications.

The user can enter a list of parameter entries and values. This list has different lengths. When you enter data in parameters at the MAP (maintenance and administration position) terminal, a prompt appears. This prompt appears until you enter a \$. Parameters in which you do not enter data retain the established default values. The parameters receive these default values during download. The user can change most of the fields in a tuple when the affected link is in a busy state.

To view all link parameter values on the MPC card, enter the following command at the MPC level of the MAP. Type

>QLINK linknum

and press the Enter key.

where

linknum

specifies which link number (2 or 3) on the MPC the system queries for parameter values.

Note: Command QLINK requires a link that contains entries and an in-service MPC.

The MPC has a limited amount of buffer allocation space. The data packet size determines the number of buffers normally dedicated to an activity on a single circuit. The default number of buffers is two. Requests for additional buffers occur from a general buffer pool. This type of allocation indicates a single channel can use the buffers that remain.

Applications, that output messages, can receive an MPC return code when buffers are not available. An MPC return code causes a CC delay of 10 s before the system sends the block to the MPC again. The system can take a list of parameter entries and values out of active service. The list of parameter entries and values has different lengths.

You must enter data in specified parameters in table MPCLINK. These parameters apply to the X.25 protocols. You must enter data in these parameters to correspond to the circuit subscription configuration for DATAPAC or the host data packet network (DPN).

The following parameters must match the circuit subscription:

- local data network address (DNA)
- number of permanent virtual circuits (PVC)
- number of switched virtual circuits (SVC)
- packet window size

These parameters must correspond exactly to subscription requirements. Users must know the requirements of features that use the MPC. Users must understand the circuit subscriptions or the environment in which the circuit subscriptions operate. Users must configure cards and links in tables MPC and MPCLINK to conform to the requirements of higher-level applications.

Warning: If field PARM = L2WINDOW for all protocols, field SIZE must be the same value at the DTE and DCE ends of the data link. When field PARM= L3WINDOW for all protocols, field SIZE must have the same

value at the DTE and DCE ends of the data link. If the field SIZE values are different at the DTE and DCE ends of the data link, call processing errors, malfunctions, and lost revenue can occur.

Datafill sequence and meaning

You must enter data in table MPC before you enter data in table MPCLINK.

Table size

0 to 512 tuples

Datafill

The following table lists the datafill for table MPCLINK.

Field, subfield, and refinement descriptions for table MPCLINK (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
LINKKEY		sub subfields	<i>Link key</i> This key field contains subfields MPCNO and LINKNO.
	MPCNO	0 to 255	<i>Multiprotocol controller number</i> This field specifies the current multiprotocol controller (MPC) or enhanced multiprotocol controller (EMPC) card for this entry. Enter the MPC/EMPC number as entered in table MPC.

Field, subfield, and refinement descriptions for table MPCLINK (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	LINKNO	0 to 3	<i>Link number</i> You can only specify logical links 2 or 3. A data link cable can connect to MPC physical ports 1, 2, or 3. Physical ports 2 and 3 are low speed RS232 ports (19.2K and below). Physical port 1 is a high speed V.35 port (56/64K). If the data link cable connects to port 3, specify link 3. If the data link cable connects to port 2, specify link 2.
			The RS232 is the default ELECTSPEC. The RS232 is not a datafill requirement. If the data link cable connects to port 1, specify link 3 with an ELECTSPEC of V35. This field does not have a default value.

Field, subfield, and refinement descriptions for table MPCLINK (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
LINKALM (BCS35-)		Y or N	<i>Link alarm</i> Enter Y to activate the MPCLINK alarm for system busy (SYSB) MPC links. Enter N if you do not want to activate the MPCLINK alarm for system busy (SYSB) MPC links. Note: If you enter N in field LINKALM, the system does not generate MPC908 (MPC link state transition) logs.
			For IOM MPC, the system checks the link for changes that are not normal. If the change is not normal, the system generates an MPC908 (MPC link state transition) log. If the change is normal, the system does not generate an MPC908 log. The default value on dump and restore procedures for pre-BCS35 is Y.
PRTCLDAT		see subfield	<i>Protocol data area</i> This field contains subfield PROTOCOL.

Field, subfield, and refinement descriptions for table MPCLINK (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	PROTOCOL	ASYNC X2580 X2584 X25ORIG	<i>Link protocol data</i> The protocol selection must correspond to the download file that table MPC specifies. Enter ASYNC. Enter data in subfield LINKNABL as follows. Enter data in additional refinements. Datafill for additional refinements appears in the next table.

Field, subfield, and refinement descriptions for table MPCLINK (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			Enter X2580 or X2584. Enter data in subfield LINKNABL as follows. Enter data in additional refinements. Datafill for additional refinements appears in the third table in this document. Enter X25ORIG. Enter data in subfield LINKNABL as follows. Datafill for additional refinements appears in the fourth table in this document. This subfield does not have a default value.
	LINKNABL	0 to 32767	<i>Link enable</i> Enter the time-out, in min, before the system system busies (SBSY) and returns to service (RTS) a link that is not fully active. This value must be a multiple of 5. Enter 0 to disable the function. This subfield does not have a default value. Note: If the entry is not zero, the system activates one link. When the other link reaches the timeout threshold, the system SBSY and RTS the active link and the MPC card. To prevent this condition, enter 0 to disable the function.

PROTOCOL = ASYNC

If the entry in subfield PROTOCOL is ASYNC, enter data in refinements PARMASYN and STRASYN. The datafill for these refinements appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 20)

Field	Subfield	Entry	Explanation and action
	PARMASYN	see subfield	<i>Parameter synonym</i> This refinement contains subfield PARM. Enter this refinement with a vector list of a maximum of 19 link configuration parameters.
	PARM	APLDEFN BAUDRATE CHARBITS ECHO FCHARCNT FLOWCTRL IMODE L1IDLY L2IDLY LINEMODE LNKDOWN MODMCTRL NCHARTMO NCHTMOIN OMODE PARITY STOPBITS XPARENT	<i>Parameter protocol</i> This vector field contains 19 parameter options. Some parameters are like the parameters used to configure a link that uses X25ORIG or X2580 protocols. If less than 19 options are a requirement, enter \$ to end the list. When you enter data in all parameter options, proceed to field STRASYN. Field STRASYN appears later in this table. Enter APLDEFN (application definition) to specify application-specified processing. Enter data in refinement ADEFN. Datafill for refinement ADEFN appears later in this table.

Field descriptions for conditional datafill (Sheet 2 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter BAUDRATE (baud rate) to specify the link baud rate. Enter data in refinement RATE. Datafill for refinement RATE appears later in this table.
			Enter CHARBITS (character bits) to specify the number of bits that represent each character. Enter data in refinement LEN. Datafill for refinement LEN appears later in this table.
			Enter ECHO to specify if the MPC must echo input responses received from the remote. Enter data in refinement ECHO. Datafill for refinement ECHO appears later in this table. Enter FCHARCNT (fill character control) to specify the number of times the system transmits an intermessage fill character. Field FILLCHAR specifies the intermessage fill character that the system transmits. Enter data in refinement FCNT. Datafill for refinement FCNT appears later in this table. Note: Entry FCHARCNT is only correct when the entry in subfield OMODE is CHR.

Field descriptions for conditional datafill (Sheet 3 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter FLOWCTRL (flow control) to specify the link flow control sequence for incoming traffic. Enter data in refinement FLOW. Datafill for refinement FLOW appears later in this table. Enter IMODE (input mode) to indicate the operation mode for the input link (receive direction). Enter data in refinement MD. Datafill for refinement MD appears later in this table.
			Enter L1IDLY (level 1 input delay) to specify the maximum layer 1 input delay. This delay occurs when the system passes an input buffer to the layer 2 or layer 3 protocol for additional processing. Enter data in refinement T0. Datafill for refinement T0 appears later in this table.

Field descriptions for conditional datafill (Sheet 4 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter L2IDLY (level 2 input delay). This entry specifies the maximum layer 2 input delay allowed to handle an input buffer output to the CC for additional processing. Enter data in refinement T1. Datafill for refinement T1 appears later in this table. Note: The entry in refinement T0 for entry L1IDLY must be less than the entry in refinement T1 for entry L2IDLY. This requirement does not apply when one or both refinements are 0.
			Enter LINEMODE (line mode) to indicate the line mode for the link. Enter data in refinement MODE. Datafill for refinement MODE appears later in this table. Enter LNKDOWN (link down timer) to specify the amount of time a modem link is idle. The modem link is idle until the system records the modem link down. Enter data in refinement T1. Datafill for refinement T1 appears later in this table. Note: Entry LNKDOWN is only correct when subfield MODMCTRL is FULLMODM.

Field descriptions for conditional datafill (Sheet 5 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter MODMCTRL (modem control) to specify the type of modem control the link presents. Enter data in refinement MODM. Datafill for refinement MODM appears later in this table. Enter NCHARTMO (intercharacter time-out) to specify the minimum intercharacter time-out for character transmission. Enter data in refinement CHTMO. Datafill for refinement CHTMO appears in this table.
			Enter NCHTMOIN (intercharacter time-out incoming) to specify the minimum intercharacter time-out for incoming characters. Enter data in refinement CHTMO. Datafill for refinement CHTMO appears later in this chapter. Enter OMODE to indicate the operation mode for the output link (transmit direction). Enter data in refinement MD. Datafill for refinement MD appears later in this chapter.

Field descriptions for conditional datafill (Sheet 6 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter STOPBITS (stop bits) to specify the number of stop bits required for data communications. Enter data in refinement BITS. Datafill for refinement BITS appears later in this chapter. Enter XPARENT (transparency) to allow DLE character stuffing to achieve data transparency. Enter data in refinement DLE. Datafill for refinement DLE appears later in this chapter.
	ADEFN	A911 , C911, SMDI, or NONE	Application definition. If the entry in field PARM is APLDEFN, enter data in this refinement. The applications that are bound to the asynchronous protocol determines the range of possible inputs to this field. The following values are correct entries if the available features that support the values are installed:

Field descriptions for conditional datafill (Sheet 7 of 20)

Field	Subfield	Entry	Explanation and action
	ADEFN (continued)		• A911 This value requires feature AF2146. This feature is E911 Open Interface to ALI Database for Call Processing. • C911 This value requires feature AF2759. This feature is E911 Direct Access to AT&T ALI Controller. • SMDI This value requires feature AF2471. This feature is SMDI Conversion to Use MPC. The default value is NONE. This value indicates that basic asynchronous processing occurs.

Field descriptions for conditional datafill (Sheet 8 of 20)

Field	Subfield	Entry	Explanation and action
	RATE	B300, B600, B1200, B2400, B4800, B9600, B14400, B19200, B28800	Baud rate. If the entry in field PARM is BAUDRATE, enter data in this refinement. Enter the link baud rate. The default value is B1200 (1200 baud). The 1X89 MPC circuit card has a max baud rate of 9600 (B9600). Note: In addition to all previously supported baud rates, the IOM MPC also supports B14400, B19200, and B28800. The recommended minimum value for IOM MPC applications is B9600.
	LEN	BIT5, BIT6, BIT7, BIT8	<i>Character bits</i> If the entry in field PARM is CHARBITS, enter data in this refinement. Enter the number of bits that represent each character. The default value is BIT7 (7 bits).
	ECHO	ON or OFF	<i>Echo</i> If the entry in field PARM is ECHO, enter data in this refinement. Enter ON if the MPC must echo input responses received from the remote. Enter OFF if you do not want the MPC to echo input responses received from the remote. The default value is OFF.

Field descriptions for conditional datafill (Sheet 9 of 20)

Field	Subfield	Entry	Explanation and action
	FCNT	0 to 1024	<i>Fill character control</i> If the entry in field PARM is FCHARCNT, enter data in this refinement. Enter the number of times the system transmits an intermessage fill character. Subfield FILLCHAR specifies the intermessage fill character. Fill character control is for applications that must synchronize a remote device, like a terminal, to the link. The default value is 0. Note: Entry FCHARCNT is correct when the entry in subfield OMODE is CHR.
	FLOW	NOFLOW or XONOFF	<i>Flow control</i> If the entry in field PARM is FLOWCTRL, enter data in this refinement. Enter the link flow control sequence to control incoming traffic. Enter NOFLOW to indicate a flow control sequence is not available. Enter XONOFF to indicate the American National Standards Institute (ANSI) IA5 XON/XOFF characters are for flow control. The system implements ANSI IA5 XON/XOFF characters as sequences DC1 and DC3 in the sequence specified.

Field descriptions for conditional datafill (Sheet 10 of 20)

Field	Subfield	Entry	Explanation and action
	MD	BLK or CHR	<i>Input mode</i> If the entry in field PARM is IMODE or OMODE, enter data in this refinement. If the entry in field PARM is IMODE, enter the mode in which the input link (receive direction) operates. If the entry in field PARM is OMODE, enter the mode in which the output link (transmit direction) operates. Enter BLK for block mode or CHR for character mode. The default value is BLK.
	MODE	FULL, HALF, SIN, SOUT	<i>Line mode</i> If the entry in field PARM is LINEMODE, enter data in this refinement. Enter the line mode for the link. Enter FULL for full duplex, HALF for half duplex, SIN for simplex-incoming, or SOUT for simplex-outgoing. The default value is FULL.

Field descriptions for conditional datafill (Sheet 11 of 20)

Field	Subfield	Entry	Explanation and action
	T0	0 or 5 to 255	<i>Level 1 input delay</i> If the entry in field PARM is L1IDLY, enter data in this refinement. Enter the time the maximum layer 1 input delays. Enter the time in increments of 10 ms. The delay occurs when the system passes an input buffer to the layer 2 or layer 3 protocol for additional processing. Entries out of this range are not correct. An entry of 0 causes the system to handle data byte-by-byte between level 1 and level 2. The default value is 100 (1 s). Note: The entry in refinement T0 for entry L1IDLY must be less than the entry in refinement T1 for entry L2IDLY. This requirement does not apply when one or both refinements are 0.

Field descriptions for conditional datafill (Sheet 12 of 20)

Field	Subfield	Entry	Explanation and action
	T1	0 to 1000	<i>Link down timer</i> If the entry in field PARM is L2IDLY or LNKDOWN, enter data in this refinement. If the entry in field PARM is L2IDLY, enter the maximum layer 2 input delay. Enter this delay in intervals of 10 ms. This delay is the time the system allows to handle an input buffer output to the CC for additional processing. The correct range is 0 or 5 to 1000. If the entry in field PARM is LNKDOWN, enter the amount of time a modem link is idle. The modem link is idle until the system records the modem link down. Enter the time in increments of 10-ms. Entries out of this range are not correct.
			The default value is 200 (2 s). Note: The entry in refinement T0 for entry L1IDLY must be less than the entry in refinement T1 for entry L2IDLY. This requirement does not apply when one or both refinements are 0.

Field descriptions for conditional datafill (Sheet 13 of 20)

Field	Subfield	Entry	Explanation and action
	MODM	DIAL FULLMODM NOMODM or PARTIAL	<i>Modem control</i> If the entry field PARM is MODMCTRL, enter data in this refinement. Enter the type of modem control the link presents. If the entry in refinement MODE is HALF or SOUT, enter FULLMODEM. The default value is FULLMODM. If the entry in subfield PROTOCOL is ASYNC, you can enter the value DIAL. If you enter DIAL, the MPC assumes the connection is not dedicated. The MPC allows the application to send commands to the modem to establish a connection.

Field descriptions for conditional datafill (Sheet 14 of 20)

Field	Subfield	Entry	Explanation and action
	CHTMO	0 to 500	<i>Intercharacter time-out</i> If the entry in field PARM is NCHARMO or NCHTMOIN, enter data in this refinement. If the entry in field PARM is NCHARMO, enter the minimum intercharacter time-out, in increments of 10-ms, for character transmission. If the entry in field PARM is NCHTMOIN, enter the minimum intercharacter time-out. Enter this value in increments of 10-ms for incoming characters. The default value is 0. This value indicates a delay is not present between characters on transmission. This value represents block data transfer.
	PRTY	EVEN NONE or ODD	<i>Parity</i> If the entry in field PARM is PARITY, enter data in this refinement. Enter the type of parity used on the link. Enter EVEN for even parity, NONE for a parity that is not present, and ODD for odd parity. The default value is EVEN. The system does not support mark and space parity.

Field descriptions for conditional datafill (Sheet 15 of 20)

Field	Subfield	Entry	Explanation and action
	BITS	S1, S2, S15	<i>Stop bits</i> If the entry in field PARM is STOPBITS, enter data in this refinement. Enter the number of stop bits required for data communications. The default value is S1 (1 bit). The value S15 represents 1.5 bits.
	DLE	NODLE or YES	<i>Transparency</i> If the entry in field PARM is XPARENT, enter data in this refinement. Enter NODLE if DLE character stuffing to achieve data transparency cannot occur. An entry of YES allows DLE character stuffing to achieve data transparency. The default value is NODLE.
	STRASYNC	see subfield	<i>String asynchronous</i> This subfield contains subfield STRID.

Field descriptions for conditional datafill (Sheet 16 of 20)

Field	Subfield	Entry	Explanation and action
	STRID	FILLCHAR IEOM ISOM OEOM OSOM	<i>String identification</i> This subfield is a vector that contains six parameter options. To change a parameter default value, enter the parameter option and the associated value. If less than six options are a requirement, enter \$ to end the list. If the entry in field PARM is OMODE and the entry in refinement MD is CHR, enter FILLCHAR (fill character). Enter data in refinement TSTRVAL. Datafill for refinement TSRVAL appears later in this table.

Field descriptions for conditional datafill (Sheet 17 of 20)

Field	Subfield	Entry	Explanation and action
	STRID (continued)		Enter IEOM for incoming end of message. Enter data in refinement STRVAL. Datafill for refinement STRVAL appears later in this table. Enter ISOM for incoming start of message. Enter data in refinement STRVAL. Datafill for refinement STRVAL appears later in this table. Enter OEOM for outgoing end of message. Enter data in refinement STRVAL. Datafill for refinement STRVAL appears later in this table. Enter OSOM for outgoing start of message. Enter data in refinement STRVAL. Datafill for refinement STRVAL appears later in this table.

Field descriptions for conditional datafill (Sheet 18 of 20)

Field	Subfield	Entry	Explanation and action
	TSTRVAL	0 to 9 and A to F (0 or 2 characters)	<i>Test string value</i> If the entry in subfield STRID is FILLCHAR, enter data in this refinement. This parameter allows for the specification of an intermessage fill character. This character is for use in some applications to synchronize a remote device to the link. A terminal is an example of a remote device. Enter characters in multiples of two. The system performs range checking. The default value is a no-fill character. A no-fill character is equivalent to the entry of a vector of zero length (nil).

Field descriptions for conditional datafill (Sheet 19 of 20)

Field	Subfield	Entry	Explanation and action
	STRVAL	0 to 9 and A to F (to a maximum of 8 characters)	<i>String value</i> If the entry in subfield STRID is IEOM, ISOM, OEOM, or OSOM, enter data in this refinement. This parameter specifies the end-of-message or start-of-message sequence verified on all incoming or outgoing messages on the link. Enter characters in groups of two. Each two-character block of the entered string represents from one to four hexadecimal characters. The system can find the character sequence that this subfield represents in an incoming message. When this condition occurs, the system removes the characters from the message.

Field descriptions for conditional datafill (Sheet 20 of 20)

Field	Subfield	Entry	Explanation and action
	STRVAL (continued)		If the entry in subfield STRID is IEOM or ISOM, the default value can occur. The default value occurs if an end-of-message or start-of message verification does not occur. The default value occurs if you do not enter characters. If the entry in subfield STRID is OEOM or OSOM, the default value can occur. The default value occurs when you do not add characters to the end of the transmitted message. The default value occurs if you do not enter characters.

PROTOCOL = X2580 or X2584

If the entry in subfield PROTOCOL is X2580 or X2584, enter data in refinements CONVNABL, PARMS, and EXINF. Datafill for these refinements appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 27)

Field	Subfield	Entry	Explanation and action
	CONVNABL	0 to 32767	Conversation enable Enter the number of minutes a conversation is not in progress before correcting action occurs. This value must be a multiple of 5. An entry of 0 indicates a period of time is not specified. This field does not have a default value.
	PARMS	see subfield	Parameter selector (CCITT x 25CCprotocol) This field contains subfield PARM.

Field descriptions for conditional datafill (Sheet 2 of 27)

Field	Subfield	Entry	Explanation and action
	PARM	BAUDRATE, CLKSRCE, ELECSPEC, L2MODULO, L2WINDOW, L3ACK, L3DATA, L3MODULO, L3WINDOW, N2, NODETYPE, NUMPVCS, PVCDBIT, R20, R22, R23, R25, SVCS2WAY, SVCSIN, SVCSOUT, T1_S, T1_10MS, T20, T21, T22, T23	Parameter selector Enter this field with a vector that has a maximum of 37 parameter options. Enter the parameter option and the associated value to change a parameter default value. Enter parameters as a group of the parameter type. You must enter the parameter name and the value. Enter these items one item at a time in any order. If less than 37 options are a requirement, enter \$ to end the list.
			After you enter all parameter options, proceed to field EXINF. Field EXINF appears later in this table. Enter BAUDRATE (baud rate) to specify the baud rate. Enter data in refinement RATE. Datafill for refinement RATE appears later in this table.
			Enter CLKSRCE (clock source) to specify the source for the MPC system clock. Enter data in refinement SOURCE. Datafill for refinement SOURCE appears later in this table.

Field descriptions for conditional datafill (Sheet 3 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)	T25, T26, T2_S T2_10MS, T3_S, T3_10MS, T4_S, T4_10MS, THRUPUT	Enter ELECSPEC (physical link specification) to determine the electrical specification for links 2 and 3 on the MPC. Enter data in refinement SOURCE. The refinement SOURCE appears later in this table. Enter L2MODULO (frame level modulo counter) to specify a numbering design for end-to-end messaging at level 2. Enter data in refinement MODVAL as described later in this table.
			Enter L2WINDOW (frame window size) to specify the size of the frame window. Enter data in refinement SIZE. Datafill for refinement SIZE appears later in this table. Warning: Field SIZE must have the same value at the DTE and DCE ends of the data link. If the value is not the same, call processing errors, malfunctions, and lost revenue can occur.

Field descriptions for conditional datafill (Sheet 4 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter L3ACK (level 3 packet acknowledgement) to specify packet acknowledgement. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter L3DATA (level 3 data packet size) to specify the maximum number of bytes of user data allowed in a data packet. Enter data in refinement DATASIZE. Datafill for refinement DATASIZE appears later in this table.
			Enter L3MODULO (level 3 packet level modulo counter) to specify a protocol numbering design for end-to-end messaging at level 3. Enter data in refinement MODVAL. Datafill for refinement MODVAL appears later in this table. Enter L3WINDOW (level 3 packet window) to specify the packet-level window size. Enter data in refinement SIZE. Datafill for refinement SIZE appears later in this table.

Field descriptions for conditional datafill (Sheet 5 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Warning: Field SIZE must have the same value at the DTE and DCE ends of the data link. If the value is not the same, call processing errors, malfunctions, and lost revenue can occur. Enter N2 (retransmission counter) to specify the size of the retransmission counter. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter NODETYPE (node type or address) to specify the node type or address of the MPC. Enter data in refinement NODE. Datafill for refinement NODE appears later in this table. Enter NUMPVCS (number of permanent virtual circuits [PVC]) to specify the number of PVCs on the link. Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this table.
			Enter PVCDBIT (PVC bitset) to activate the X.25 D-bit facility on PVC channels. Enter data in refinement BITSET. Datafill for refinement BITSET appears later in this table.

Field descriptions for conditional datafill (Sheet 6 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter R20 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T20). Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. The user must enter data in parameter T20. Enter R22 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T22). Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Parameter T22 must contain data.

Field descriptions for conditional datafill (Sheet 7 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter R23 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T23). Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Parameter T23 must contain data. Enter R25 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T25). Enter data in refinement VALUE. Datafill for refinement value appears later in this table. Parameter T25 must contain data.
			Enter SVCS2WAY. This entry is the number of 2-way switched virtual circuit (SVC). Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this table. Enter SVCSIN (number of one-way incoming SVCs). Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this table.

Field descriptions for conditional datafill (Sheet 8 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter SVCSOUT (number of one-way outgoing SVCs). Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this table. Enter T1_S (timer 1 in steps of 1-s) to specify the timer value in seconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter T1_10MS (timer 1 in steps of 10m-s) to specify the timer value in milliseconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Note: You can enter data in timer T1_S or timer T1_10MS. You cannot enter data in both timers. Enter T20 (restart request timer) to determine the transmission of requests to restart level 3. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.

Field descriptions for conditional datafill (Sheet 9 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter T21 (call restart response timer) to time the remote response to a call request packet. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T22 (reset request timer) to time the remote response to a reset request. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter T23 (clear request response timer) to time the remote response to a reset to clear a virtual call. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T25 (packet acknowledgement timer) to time an acknowledgement is from the remote of the reception of a level 3 packet. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.

Field descriptions for conditional datafill (Sheet 10 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Enter T26 (interrupt response timer) to time the remote response if the system transmits an interrupt packet at level 3. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T2_S (timer 2 in steps of 1-s) to specify the timer value in seconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter T2_10MS (timer 2 in steps of 10-ms) to specify the timer value in milliseconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Note: You can enter data in timer T2_S or timer T2_10MS. You cannot enter data in both timers.
			Enter T3_S (timer 3 in steps of 1-s) to specify the timer value in seconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T3_10MS (timer 3 in steps of 10-ms) to specify the timer value in milliseconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.

Field descriptions for conditional datafill (Sheet 11 of 27)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		Note: You can enter data in timer T3_S or timer T3_10MS. You cannot enter data in both timers.
			Enter T4_S (timer 4 in steps of 1-s) to specify the timer value in seconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T4_10MS (timer 4 in steps of 10-ms) to specify the timer value in milliseconds. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Note: You can enter data in timer T4_S or timer T4_10MS. You cannot enter data in both timers. Enter THRUPUT (throughput class) to specify the throughput class across the link for outgoing data. Enter data in refinement RATE. Datafill for refinement RATE appears later in this table.

Field descriptions for conditional datafill (Sheet 12 of 27)

Field	Subfield	Entry	Explanation and action
	RATE	B300, B600, B1200, B2400, B4800, B9600, B14400, B19200, or B28800	Baud rate If the entry in field PARM is BAUDRATE or THRUPUT, enter data in this refinement. If the entry in field PARM is BAUDRATE, enter the baud rate value for data transmission compatible to the ends of the circuit. The baud rate value represents bits per second. If field CLKSRC contains INTERNAL, you can enter data in field BAUDRATE.
		NOVALUE, T75, T150, T300, T600, T1200, T2400, T4800, T9600, T19200, or T48000	Note: The IOM MPC supports baudrates B14400 and B28800. The default value is B2400.
			If the entry in field PARM is THRUPUT, enter NOVALUE. This entry indicates that you accept the throughput class transmission rate entered in refinement RATE. Enter one of the throughput values (T75 to T48000) for selection of a throughput class other than the default value.

Field descriptions for conditional datafill (Sheet 13 of 27)

Field	Subfield	Entry	Explanation and action
	SOURCE	INTERNAL or EXTERNAL	Clock source If the entry in field PARM is CLKSRC or ELECSPEC, enter data in this refinement.
		RS232 or V35 or 512KV35	If the entry in field PARM is CLKSRC, enter INTERNAL for the MPC card, or EXTERNAL for a modem device. Link 2 and link 3 must have the same clock source. The clock source can be internal or external. If link 2 and link 3 have different clock sources, the system generates an error message. The default value is EXTERNAL.

Field descriptions for conditional datafill (Sheet 14 of 27)

Field	Subfield	Entry	Explanation and action
			If the entry in field PARM is ELECSPEC, enter RS232. This entry is the electrical specification for links 2 and 3 on the NT1X89AA multiprotocol controller (MPC) card. If the enhanced MPC (EMPC) is installed, enter RS232 (port 3 is link 3) or V35 (port 1 is link 3). You must enter one of these values because the NT1X89BA/BB enhanced multiprotocol controller card supports both specifications. Note: The IOM MPC can have value 512KV35. This value supports X2580 or X2584 protocols. The default value is RS232.
	MODVAL	MOD8 or MOD128	Frame level modulo counter If the entry in field PARM is L2MODULO or L3MODULO, enter data in this refinement. Enter a numbering design for end-to-end messaging at level 2 or level 3. Modulo 8 frame sequencing (MOD8) supports a maximum level 2 or level 3 window size of 7. The refinement SIZE is 7. The default value is MOD8.

Field descriptions for conditional datafill (Sheet 15 of 27)

Field	Subfield	Entry	Explanation and action
	SIZE	1 to 127	Frame window size If the entry in field PARM is L2WINDOW or L3WINDOW, enter data in this refinement. Enter the size of the frame window. The frame window is the number of frames that level 2 and level 3 software sends before the levels require a confirmation. The confirmation indicates the software received the first frame. The recommended frame window is 7 because this frame window transmits data faster. In conditions specified, the end application cannot allow a frame window of 7. The digital terminal equipment (DTE) and the digital carrier equipment (DCE) must agree on this parameter. The default value is 2.
	VALUE	0 to 255	Value If the entry in field PARM is one of the following, enter data in refinement VALUE: L3ACK, N2, R20, R22, R23, R25, T1_S, T1_10MS, T20, T21, T22, T23, T25, T26, T2_S, T2_10MS, T3_S, T3_10MS, T4_S, T4_10MS.

Field descriptions for conditional datafill (Sheet 16 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is L3ACK, the system uses this level 3 timer with subfields T2_S and T2_10MS. The entry is in units of 10 ms. The entry must be less than the values in subfields T2_S and T2_10MS. This requirement does not apply if both values are 0. The preferred value is a minimum of 20 ms less than the values in subfields T2_S and T2_10MS. The operating system timing functions of the following cards determine the preferred value: • the NT1X89AA multiprotocol controller cards • the NT1X89BA/BB enhanced multiprotocol controller cards

Field descriptions for conditional datafill (Sheet 17 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		The default value of 0 indicates the system immediately acknowledges incoming data at level 3. To conserve packets when refinement VALUE is not 0, the system starts the timer for an incoming packet. The system starts the timer and waits for reciprocal outgoing data. The reciprocal outgoing data can carry the acknowledgment of the incoming data. If outgoing data is not present, the system acknowledges the incoming data when refinement VALUE expires.
			Do not enter data in refinement VALUE unless a pattern of data is present and recognized. The user must use the Level 3 packet acknowledgment correctly. If the user does not use acknowledgment correctly, throughput from the remote node is affected. The default value is 0.

Field descriptions for conditional datafill (Sheet 18 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is N2, 0 is not a correct entry. A value of 255 indicates the counter size does not have a limit. This counter determines the number of times level 2 transmits a frame again. Level 2 transmits the frame again for which the level does not receive an acknowledgment in the retransmission time. Field PARM is T1. The default value is 10.
			If the entry in field PARM is R20, 0 is not a correct entry. Enter the maximum number of expirations of the restart request timer. Field PARM is T20. When the value for entry T20 expires, the system sends the level 3 restart request again. The system resends the level 3 restart request until the number of requests equals the value entered for value R20. Timing stops if the system receives confirmation of the request. The default value is 1.

Field descriptions for conditional datafill (Sheet 19 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is R22, 0 is not a correct entry. The default value is 1. If the entry in field PARM is R23, 0 is not a correct entry. Enter the number of clear request retransmissions sent before the counter clears.
			If the entry in field PARM is R25, enter the number of data retransmissions attempted before the system fails the message. The system resets the channel. The data that the system does not acknowledge after the packet acknowledgment timer (T25) expires determines the channel. The default value is 0.

Field descriptions for conditional datafill (Sheet 20 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is T1_S, 0 is not a correct entry. Enter the time value in steps of 1 s. Entry T1_S is a timer used at level 2 to determine if the remote responds correctly. The system uses this timer with entry N2. The link can change state and reinitialize. This condition occurs under the following conditions: • if the T1_S timer expires the number of times specified in refinement VALUE for parameter N2 • if the T1_S timer does not send the correct acknowledgment of a frame to the remote device
			The entry in refinement VALUE must be equal to the entry of the remote DCE or DTE for local timer (T2_S) accuracy. If the entry in field PARM is T1_10MS or T2_10MS, the range is 0 or 5 to 255. Enter the time value in steps of 10 ms. Note: You can enter timer T1_S or timer T1_10MS. You cannot enter both timers. If you do not enter timer T1_S or timer T1_10MS, the default value for timer T1_S is 5 s.

Field descriptions for conditional datafill (Sheet 21 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is T2_S, this timer is the guideline to send an acknowledgment for data received. The real value of this entry must be less than the value entered in refinement VALUE for T1_S or T1_10MS. Enter the time value in steps of 1 s. Note: You can enter timer T2_S or timer T2_10MS. You cannot enter both timers. If you do not enter timer T2_S or timer T2_10MS, the default value for timer T2_S is 3 s.
			If the entry in field PARM is T20, T21, T22, or T23, 0 is not a correct entry. The default for timer T20 is 180. The default for timer T21 is 200. The default for timer T23 is 180. If the entry in field PARM is T25, an entry of 0 indicates a time period that is not specified. Value 0 is not a correct entry for protocol X2580. The default value is 0. If the entry in field PARM is T26, 0 is not a correct entry. The default value is 180.

Field descriptions for conditional datafill (Sheet 22 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is T3_S, 0 is not a correct entry. Enter the time value in steps of 1 s. This timer is the idle channel timer. This timer determines when the link logically disconnects after detection of the idle channel state. The system enters the idle channel state when one end detects that I-frames or flags are not incoming on a channel from the remote device. The idle channel time value must be greater than the inactive link timer value. The idle channel time value must be greater than the timer values for timers T1_S or T1_10MS, and T2_S or T2_10MS.
			If the entry in field PARM is T3_10MS or T4_10MS, the range is 5 to 255. Enter the time value in steps of 10 ms. Note: You can enter data in timer T3_S or timer T3_10MS. You cannot enter data in both timers. If you do not enter timer T3_S or timer T3_10MS, the default value for timer 3 is 25 s.

Field descriptions for conditional datafill (Sheet 23 of 27)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		If the entry in field PARM is T4_S, 0 is not a correct entry. Enter the time value in steps of 1 s. This timer is the inactive link timer. This timer times the periodic transmission of a frame to check remote responsiveness. This timer checks remote responsiveness when a higher level of activity on the link is not present. The inactive link timer value must be less than the idle channel timer value. The idle channel timers are T3_S or T3_10MS. The inactive link timer value must be greater than the values for timers T1_S or T1_10MS. Note: You must enter data for timer T4_S or timer T4_10MS. You cannot enter data for both timers. If you do not enter data for timer T4_S or timer T4_10MS, the default value for timer T4_S is 10 s.
	DATASIZE	P16, P32, P64, P128, P256, P512, P1024, P2048, or P4096	Level 3 data packet size If the entry in field PARM is L3DATA, enter data for this refinement. Enter the maximum number of bytes of user data allowed in a data packet. The default value is P128.

Field descriptions for conditional datafill (Sheet 24 of 27)

Field	Subfield	Entry	Explanation and action
	NODE	DCE or DTE	Node type or address If the entry in field PARM is NODETYPE, enter data in this refinement. Enter the node type or address of the MPC. Enter DCE for digital carrier equipment or DTE for data terminal equipment. This entry indicates to the MPC that frame addressing is DCE or DTE. The default value is DTE.
	NUMVCS	0 to 255	Number of virtual circuits If the entry in field PARM is NUMPVCS, SVCS2WAY, SVCSIN, or SVCSOUT, enter data in this refinement. If the entry in field PARM is NUMPVCS, enter the number of permanent virtual circuits (PVC) on the link. If the system does not configure SVCs, a user can configure a maximum of 255 PVCs. The default value is 3.

Field descriptions for conditional datafill (Sheet 25 of 27)

Field	Subfield	Entry	Explanation and action
	NUMVCS (continued)		If the entry in field PARM is SVCS2WAY, enter the number of two-way SVCs configured on the link. If the entry in field PARM is SVCSIN, enter the number of one-way incoming SVCs. If the entry in field PARM is SVCSOUT, enter the number of one-way outgoing SVCs.
			If the total number of SVCs on a link is not 0, you must enter SVCDNA in subfield EXINF80. The entry SVCTYPE is not an additional information option with the X2580 protocol. If you do not enter any SVCs, the system configures a default of 0 for each type. This condition occurs if the user enters data in some PVCs. If the system does not enter data in PVCs or SVCs, the system rejects the tuple.
			The system can configure a maximum of 255 SVCs. The total of combined PVCs and SVCs cannot exceed 255 (NUMPVCS + SVCS2WAY + SVCSIN + SVCSOUT ≤ 255)

Field descriptions for conditional datafill (Sheet 26 of 27)

Field	Subfield	Entry	Explanation and action
	BITSET	DOFF or DON	Permanent virtual circuit d-bit set If the entry in field PARM is PVCDBIT, enter data in this refinement. Enter DOFF to disable the D-bit facility. Enter DON to activate the D-bit facility. Over a network PVC, the network subscription must include the D-bit to use parameter PVCDBIT correctly. The MPC sends all user data with the D-bit set. The MPC acknowledges all incoming D-bit data. This condition applies to PVCs on the link. The call setup process determines the use of the D-bit for an SVC. The default value is DOFF.
	EXINF	see subfield	Example information protocol This field contains subfield EXINFO.

Field descriptions for conditional datafill (Sheet 27 of 27)

Field	Subfield	Entry	Explanation and action
	EXINFO	SVCDNA	Example information protocol Enter SVCDNA if the link uses SVCs. Enter data in refinement DIGITS. If the link uses SVCs, enter \$. SVCDNA is the only correct entry.
	DIGITS	0 to 9 (vector of a maximum of 15 entries)	Digits Enter the digits for the network address.

PROTOCOL = X25ORIG

If the entry in subfield PROTOCOL is X25ORIG, enter data in refinements CONVNABL, PARMS, and EXTRAINF. The datafill for these refinements appears in the following table

Field descriptions for conditional datafill (Sheet 1 of 31)

Field	Subfield	Entry	Explanation and action
	CONVNABL	0 to 32767	<i>Conversation enable</i> Enter the number of minutes a conversation is not in progress before the system takes corrective action. This value must be a multiple of 5. An entry of 0 indicates a period of time that is not specified. This subfield does not have a default value.
	PARMS	see subfield	<i>Parameters</i> This refinement contains subfield PARMSEL.

Field descriptions for conditional datafill (Sheet 2 of 31)

Field	Subfield	Entry	Explanation and action
	PARM	BAUDRATE, CLKSRCE, CTSTIMER, DCDTIMER, ELECSPEC, ENVIRON, FACILCODE, INITROLE, L1PTTOPT, L2ACCESS, L2MODULO, L2WINDOW,	Parameter selector. Enter this field with a vector of a maximum of 46 parameter options. Enter the parameter option and the associated value to change a parameter default value. You must enter parameters as a combination of the parameter type. Enter the parameter name and the value. Enter these items one item at a time in any order. If you require less than 46 options, enter \$ to end the list.
		L3DATA, L3MODULO, L3WINDOW, LINEMODE, LINKCONT, LINUSAGE, N2, NODETYPE, NUMPRIO	After you enter all parameter options, proceed to field EXTRINF. A description of this field appears later in this table. Enter BAUDRATE (baud rate) to specify the baud rate. Enter data in refinement RATE. Datafill for refinement RATE appears later in this table.

Field descriptions for conditional datafill (Sheet 3 of 31)

Field	Subfield	Entry	Explanation and action
		NUMPVCS, NUMSVCS, PHONE, POOLPCT, R20, R22, R23, R25, R27, STANDARD, SYNCMODE, T1, T2, T20, T21, T22, T23, T24, T25, T26, T27, THRUPUT, TIDLE, TINACTIVE	Enter CLKSRC (clock source) to specify the source for the MPC system clock. Enter data in refinement SOURCE. Datafill for refinement SOURCE appears later in this table. The system does not support CTSTIMER. The CTSTIMER is the call-through simulator (CTS). Enter CTSTIMER to indicate that timing for CTS is not active on the MPC. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table.
			The DCDTIMER (DCD timer) is not supported. Enter DCDTIMER to indicate timing failure for DCD. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table.

Field descriptions for conditional datafill (Sheet 4 of 31)

Field	Subfield	Entry	Explanation and action
			Enter ELECSPEC (physical link specification) to determine the electrical specification for links 2 and 3 on the MPC. Enter data in refinement SPEC. Datafill for refinement SPEC appears later in this table. Enter ENVIRON (environment) to specify the protocol environment to establish communications. Enter data in refinement MPCENVRN. Datafill for refinement MPCENVRN appears later in this table.
			The system does not support FACILCODE (facility code). Enter FACILCODE. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table. Enter INITROLE (initialization role) to indicate the role of the MPC during initialization. Enter data in refinement ROLE. Datafill for refinement ROLE appears later in this table.

Field descriptions for conditional datafill (Sheet 5 of 31)

Field	Subfield	Entry	Explanation and action
			Enter L1PTTOPT (dedicated link) to specify if the link is dedicated. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter L2ACCESS (level 2 link access procedure) to specify the link access. Enter data in refinement PROTOCOL. Datafill for refinement PROTOCOL appears later in this table.
			Enter L2MODULO (level 2 frame level modulo counter) to specify a numbering scheme for end-to-end messaging at level 2. Enter data in refinement MODVAL. Datafill for refinement MODVAL appears later in this table. Enter L2WINDOW (level 2 frame window size) to specify the size of the frame window. Enter data in refinement SIZE. Datafill for refinement SIZE appears later in this table.

Field descriptions for conditional datafill (Sheet 6 of 31)

Field	Subfield	Entry	Explanation and action
			Warning: Field SIZE must have the same value at the DTE and DCE ends of the data link. If the value is not the same, call processing errors, malfunctions, and lost revenue can occur. Enter L3DATA (level 3 data packet size) to specify the maximum number of bytes of user data allowed in a data packet. Enter data in refinement DATASIZE. Datafill for refinement DATASIZE appears later in this table.
			Enter L3MODULO (level 3 packet level modulo counter). This entry specifies a protocol numbering scheme for end-to-end messaging at level 3. Enter data in refinement MODVAL. Datafill for refinement MODVAL appears later in this chapter. Enter L3WINDOW (level 3 packet window) to specify the packet level window size. Enter data in refinement SIZE. Datafill for refinement SIZE appears later in this chapter.

Field descriptions for conditional datafill (Sheet 7 of 31)

Field	Subfield	Entry	Explanation and action
			Warning: Field SIZE must have the same value at the DTE and DCE ends of the data link. If the value is not the same, call processing errors, malfunctions, and lost revenue can occur. Enter LINEMODE (line mode) to specify the line mode. Enter data in datafill refinement MODE. Datafill for refinement MODE appears later in this chapter.
			Enter LINKCONT (link control) to specify the link control protocol. Enter data in refinement CONTROL. Datafill for refinement CONTROL appears later in this chapter. Enter LINUSAGE (line usage) to specify the type of circuit. Enter data in refinement LINE. Datafill for refinement LINE appears later in this chapter.
			Enter N2 (retransmission counter) to specify the size of the retransmission counter. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this chapter.

Field descriptions for conditional datafill (Sheet 8 of 31)

Field	Subfield	Entry	Explanation and action
			Enter NODETYPE (node type or address) to specify the node type or address of the MPC. Enter data in refinement NODE. Datafill for refinement NODE appears later in this chapter. Enter NUMPRIOR (number with priority) to specify the number of virtual circuits with high priority. Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this chapter.
			Enter NUMPVCS. This entry is the number of permanent virtual circuits (PVC). This entry specifies the number of PVCs on the link. Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this chapter. Enter NUMSVCS. This entry is the number of simultaneous virtual circuits (SVC). This entry specifies the number of SVCs on the link. Enter data in refinement NUMVCS. Datafill for refinement NUMVCS appears later in this chapter.

Field descriptions for conditional datafill (Sheet 9 of 31)

Field	Subfield	Entry	Explanation and action
			The system does not support PHONE (phone). Enter PHONE. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this chapter. Enter POOLPCT (pool percentage) to specify the percentage of total buffer pool resources that belong to PVCs. Enter data in refinement PERCENT. Datafill for refinement PERCENT appears later in this chapter.
			Enter R20 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T20). Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this chapter. The user must enter data in parameter T20. Enter R22 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T22). Enter data in refinement VALUE. Datafill for refinement VALUE appears in this chapter. You must enter parameter T22.

Field descriptions for conditional datafill (Sheet 10 of 31)

Field	Subfield	Entry	Explanation and action
			Enter R23 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T23). Enter data in refinement VALUE. Datafill for refinement VALUE appears in this chapter. You must enter parameter T23. Enter R25 (restart requests count) to specify the maximum number of expirations of the restart request timer (entry T25). Enter data in refinement VALUE as appears in this chapter. You must enter parameter T25.
			The system does not support R27 (reject retransmission count). Enter R27. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this chapter.

Field descriptions for conditional datafill (Sheet 11 of 31)

Field	Subfield	Entry	Explanation and action
			Enter STANDARD (standard) to specify the protocol standards the system must follow for communications on the link. Enter data in refinement STANDARD. Datafill for refinement STANDARD appears later in this chapter. Enter SYNCMODE (synchronous mode) for synchronous communications. Enter data in refinement MODE. Datafill for refinement MODE appears later in this chapter.
			Enter T1 (retransmission timer) to set the time for the level 2 retransmission timer. This setting specifies if the remote MPC responds correctly. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this chapter. The system does not support T2 (checkpoint). Enter T2. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this chapter.

Field descriptions for conditional datafill (Sheet 12 of 31)

Field	Subfield	Entry	Explanation and action
			Enter T20 (restart request timer) to determine the transfer of requests to restart level 3. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this chapter. Enter T21 (call restart response timer) to time the remote response to a call request packet. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this chapter.
			Enter T22 (reset request timer) to time the remote response to a reset request. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. Enter T23 (clear request response timer) to time the remote response to a reset to clear a virtual call. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.

Field descriptions for conditional datafill (Sheet 13 of 31)

Field	Subfield	Entry	Explanation and action
			The system does not support T24 (window update timer). Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table. Enter T25 (packet acknowledgement timer) to time an acknowledgement from the remote that reception of a level 3 packet occurred. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter T26 (interrupt response timer) to time the remote response if the system transmits an interrupt packet at level 3. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table. The system does not support T27 (reject response timer). Enter T27. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table.

Field descriptions for conditional datafill (Sheet 14 of 31)

Field	Subfield	Entry	Explanation and action
			Enter THRUPUT (throughput class) for the throughput class across the link for outgoing data. Enter THRUPUT. Enter data in refinement DEFAULT. Datafill for refinement DEFAULT appears later in this table. Enter TIDLE (idle channel timer) to determine when the system logically disconnects a link after the system detects an idle channel state. The idle channel state occurs when one end detects that I-frames or flags are not incoming. The I-frames or flags are not incoming on a channel from the remote. Enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.
			Enter TINACTIVE (inactive link timer) to time the periodic transmission of a frame. Perform this action to check remote responsiveness if applications activity does not occur on the link. Enter TINACTIVE to enter data in refinement VALUE. Datafill for refinement VALUE appears later in this table.

Field descriptions for conditional datafill (Sheet 15 of 31)

Field	Subfield	Entry	Explanation and action
	RATE	B300, B600 B1200, B2400, B4800, B9600, B14400, B19200 or B28800	<i>Baud rate</i> If the entry in field PARM is BAUDRATE, enter data in this refinement. Enter the baud rate value for data transmission that is compatible for both ends of the circuit. The baud rate value is in bits per second. The user can enter data in field BAUDRATE if entry of field CLKSRCE is INTERNAL. Note: The IOM MPC supports baudrates B14400 and B28800. The default value is B2400.
	SOURCE	INTERNAL or EXTERNAL	<i>Clock source</i> If the entry in field PARM is CLKSRCE, enter data in this refinement. Enter INTERNAL for the MPC card or EXTERNAL for a modem device. Links 2 and 3 must have the same clock source. If the user enters a different clock source for links 2 and 3, the system generates an error message. The default value is EXTERNAL.

Field descriptions for conditional datafill (Sheet 16 of 31)

Field	Subfield	Entry	Explanation and action
	DEFAULT	NOVALUE or T75, T150, T300, T600, T1200, T2400, T4800, T9600, T19200, or T48000	<i>Default</i> Enter data in this refinement if the entry in field PARM is one of the following: • CTSTIMER • DCDTIMER • FACILCODE • PHONE • R27 • T2 • T24 • T27 • THRUPUT
			If the entry in field PARM is THRUPUT, enter NOVALUE. This entry allows the acceptance of the throughput class transmission rate entered in refinement RATE. To select a throughput class other than the default value, enter one of the throughput values. The throughput values are T75 to T48000. If the entry in field PARM is any value other than THRUPUT, the system does not support the parameter. Enter NOVALUE. The default value is NOVALUE.

Field descriptions for conditional datafill (Sheet 17 of 31)

Field	Subfield	Entry	Explanation and action
	ELECSPEC	RS232 or V35	<i>Specification</i> If the entry in field PARM is ELECSPEC, enter RS232 as the electrical specification for links 2 and 3. Links 2 and 3 are on the NT1X89AA multiprotocol controller (MPC) card. If the enhanced MPC (EMPC) is installed, enter RS232 or V35. Port 3 is link 3 for RS232. Port 1 is link 3 for V35. The NT1X89BA/BB enhanced MPC card supports both specifications. The default value is RS232.
	MPCENVRN	DCETODTE or DTETODXE	<i>Environment</i> If the entry in field PARM is ENVIRON, enter this refinement. This parameter specifies the protocol environment to establish communications. If the entry in refinementNODE is DCE, enter DCETODTE. If the entry in refinementNODE is DTE, enter DTETODXE. The default value is DTETODXE.

Field descriptions for conditional datafill (Sheet 18 of 31)

Field	Subfield	Entry	Explanation and action
	ROLE	PASSIVE	<i>Initialization role</i> If the entry in field PARM is INITIROLE, enter data in this refinement. Enter PASSIVE to indicate the role of the MPC during initialization. The default value is PASSIVE.
	VALUE	0 to 255 or YES or NO	<i>Value</i> Enter data in this refinement if the entry in field PARM is one of the following: • L1PTTOPT • N2 • R20 • R22 • R23 • R25 • T1 • T20 • T21 • T22 • T23 • T25

Field descriptions for conditional datafill (Sheet 19 of 31)

Field	Subfield	Entry	Explanation and action
			• T26 • TIDLE • TINACTIVE If the entry in field PARM is L1PTTOPT, if the link is a dedicated link enter YES. Enter NO if the link is not a dedicated link.
			If the entry in field PARM is N2, a value of 255 indicates the counter size does not have a limit. This counter determines how many times level 2 transmits a frame again. The system does not receive acknowledgment for this frame in the retransmission time. Field PARM is T1. The default value is 10.
			If the entry in field PARM is R20, 0 is not a correct entry. Enter the maximum number of expirations of the restart request timer (T20). When the value entered for entry T20 expires, the system resends the level 3 restart request. The system resends the request the number of times data is entered for value R20. Timing stops if the system receives confirmation of the request. The default value is 1.

Field descriptions for conditional datafill (Sheet 20 of 31)

Field	Subfield	Entry	Explanation and action
			If the entry in field PARM is R22, 0 is not a correct entry. The default value is 1. If the entry in field PARM is R23, 0 is not a correct entry. Enter the number of clear request retransmissions sent before the system clears the counter. If the entry in field PARM is R25, enter the number of data retransmissions attempted before the system fails the message. The data that is not acknowledged after the packet acknowledgment timer (T25) expires, determines how the system resets a channel. The default value is 0.

Field descriptions for conditional datafill (Sheet 21 of 31)

Field	Subfield	Entry	Explanation and action
			If the value in field PARM is T1, enter time, in seconds, for the retransmission timer. The system uses a timer at level 2 to determine if the remote MPC responds. Time can expire. the number of times entered for protocol N2 without correct acknowledgment. The correct acknowledgment is of a transmitted frame from the remote. When these conditions occur, the link changes state and reinitializes. An entry of 0 indicates a period of time that is not specified. This entry is not correct. The default value is 3.
			If the entry in field PARM is T20, T21, T22, or T23, 0 is not a correct entry. The default for timer T20 is 180. The default for timer T21 is 200. The default for timer T23 is 180. If the entry in field PARM is T25, an entry of 0 indicates a time period that is not specified. The default value is 0.

Field descriptions for conditional datafill (Sheet 22 of 31)

Field	Subfield	Entry	Explanation and action
			If the entry in field PARM is T26, 0 is not a correct entry. The default value is 180. If the entry in field PARM is TIDLE, 0 is not a correct entry. Enter the amount of time, in seconds, that a channel can remain idle before the system disconnects the channel.
			The default value is 180. If the entry in field PARM is TINACTIVE, 0 is not a correct entry. Enter the time, in seconds, that the link can remain idle before the system deactivates the link. The default value is 180. Note: The value of the inactive link timer (TINACTIVE) must be less than or equal to the value of the idle channel timer (TIDLE). The value of the inactive link timer must be greater than the value of the transmission timer (T1).

Field descriptions for conditional datafill (Sheet 23 of 31)

Field	Subfield	Entry	Explanation and action
	PROTOCOL	LAPB	<i>Link access procedure</i> If the entry in field PARM is L2ACCESS, enter data in this refinement. The system can support link access procedure balance mode (LAPB). Enter LAPB as the type of level 2 link access procedure. The default value is LAPB.
	MODVAL	MOD8 or MOD128	<i>Frame level modulo counter</i> If the entry in field PARM is L2MODULO or L3MODULO, enter data in this refinement. This parameter specifies a numbering scheme for end-to-end messaging at level 2 or level 3. The only correct entry is MOD8. Modulo 8 frame sequencing (MOD8) supports a maximum level 2 or level 3 window size of 7. The refinement SIZE is 7. The default value is MOD8.

Field descriptions for conditional datafill (Sheet 24 of 31)

Field	Subfield	Entry	Explanation and action
	SIZE	1 to 127	<i>Frame window size</i> If the entry in field PARM is L2WINDOW or L3WINDOW, enter data in this refinement. Enter the size of the frame window. The frame window refers to the number of frames that level 2 and level 3 software send before the software requires confirmation. The software receives confirmation that the system received the first frame. The recommended frame window value is 7. A frame window of 7 transmits data faster. The end application does not always allow a frame window of 7. The digital trunk equipment (DTE) and the digital carrier equipment (DCE) must agree on this parameter. The default value is 2.
			Warning: Field SIZE must have the same value at both the DTE and DCE ends of the data link. If the value is not the same, call processing errors, malfunctions, and lost revenue can occur.

Field descriptions for conditional datafill (Sheet 25 of 31)

Field	Subfield	Entry	Explanation and action
	DATASIZE	P256	<i>Level 3 data packet size</i> If the entry in field PARM is L3DATA, enter data in this refinement. Enter the maximum number of bytes of user data allowed in a data packet. The maximum number is 256 (P256). Entries outside this range are not correct. The default value is P128.
	MODE	FDUPLEX SYNC	<i>Synchronous mode</i> If the entry in field PARM is LINEMODE or SYNCMODE, enter data in this refinement. If the entry in field PARM is LINEMODE, full duplex is the only mode that operates on the MPC. Enter FDUPLEX. If the entry in field PARM is SYNCMODE, communications are synchronous on the MPC. Enter SYNC. The default value is SYNC.

Field descriptions for conditional datafill (Sheet 26 of 31)

Field	Subfield	Entry	Explanation and action
	CONTROL	HDLC	<i>Link control</i> If the entry in field PARM is LINKCONT, enter data in this refinement. High-level data link control (HDLC) is the only link control protocol that the MPC can support. Enter HDLC. The default value is HDLC.
	LINE	LEASED	<i>Line usage</i> If the entry in field PARM is LINUSAGE, enter data in this refinement. The MPC can support the four-wire leased circuit (full duplex). Enter LEASED. The default value is LEASED.
	NODE	DCE or DTE	<i>Node type or address</i> If the entry in field PARM is NODETYPE, enter data in this refinement. Enter the node type or address of the MPC. Enter DCE for digital carrier equipment or DTE for data terminal equipment. This entry indicates to the MPC that frame addressing is DCE or DTE. The default value is DTE.

Field descriptions for conditional datafill (Sheet 27 of 31)

Field	Subfield	Entry	Explanation and action
	NUMVCS	0 to 255	<i>Number of virtual circuits</i> If the entry in field PARM is NUMPRIO, NUMPVCS or NUMSVCS, enter data in this refinement. If the entry in field PARM is NUMPRIO, enter the number of virtual circuits with high priority. The value must be less than the total number of virtual circuits entered. The number of circuits entered is protocol NUMPVCS + protocol NUMSVCS. If the user does not specify protocol NUMPVCS or NUMSVCS, the entry for protocol NUMPRIO must be less than 3.

Field descriptions for conditional datafill (Sheet 28 of 31)

Field	Subfield	Entry	Explanation and action
			The default value is 0. If the entry in field PARM is NUMPVCS, enter the number of permanent virtual circuits (PVC) on the link. If the system does not configure SVCs, you can configure a maximum of 255 PVCs. The default value is 3 if the user does not enter data in parameter NUMPVCS or subfield NUMSVCS. If the user specifies parameter NUMSVCS, the default value for parameter NUMPVCS is 0. The user enters a value that is not zero to specify parameter NUMSVCS. If the entry in field PARM is NUMSVCS, enter the number of SVCs configured on the link. The user can enter a value that is not zero for parameter NUMSVCS. If the user enters this value, the user must enter SVCDNA and SVCTYPE in subfield EXINFSEL. The user can configure a maximum of 255 SVCs. The combination of PVCs and SVCs cannot exceed 255.

Field descriptions for conditional datafill (Sheet 29 of 31)

Field	Subfield	Entry	Explanation and action
	PERCENT	0 to 100	<i>Pool percentage</i> If the entry in field PARM is POOLPCT, enter data in this refinement. Enter the percentage of total buffer pool resources for permanent virtual circuits (PVC). The default value is 0.
	STANDARD	BX25 CCITT80 or DDNBASIC	<i>Standard</i> If the entry in field PARM is STANDARD, enter data in this refinement. This parameter specifies the protocol standards the system must follow for communications on the link. The SVC users must specify CCITT80. The PVC users do not need to enter data in this parameter. The default value is BX25.
	EXTRINF	see subfield	<i>Extra information</i> This refinement contains subfield EXINFSEL.

Field descriptions for conditional datafill (Sheet 30 of 31)

Field	Subfield	Entry	Explanation and action
	EXINFSEL	SVCDNA SVCTYPE	<i>Extra information selector</i> If SVCs are not on the link, do not enter data in this subfield. Enter a maximum of two selectors. If less than two selectors are a requirement, enter \$ to end the list. Enter SVCDNA for a data network address. Enter data in refinement DIGITS. Enter SVCTYPE for a switched virtual circuit (SVC) network. Enter data in refinement NETWORK. Note: If the user does not enter data in SVCs, the system configures a default of 0 for each type. The user must enter data in some permanent virtual circuits (PVC). If the user does not enter data in PVCs, the system rejects the tuple.

Field descriptions for conditional datafill (Sheet 31 of 31)

Field	Subfield	Entry	Explanation and action
	DIGITS	0 to 9 (vector of a maximum 15 digits)	<i>Digits</i> If the entry in subfield EXINFSEL is SVCDNA, enter data in this refinement. Enter the digits that define the network address. Additional data entries are not a requirement.
	NETWORK	DATAPAC, NTELPAC, DDN	<i>Network</i> If the entry in subfield EXINFSEL is SVCTYPE, enter data in this refinement. Enter the SVC network format. Entries outside this range are not correct.

Table history**SN07**

Table MPCLINK migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MPCLSET

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Multiprotocol Controller LINKSET

Table MPCLSET allows the logical links of a multiprotocol controller (MPC) fast application to group in linksets for selective link transfers. Table MPCFASTA specifies the link connections as a collection of application name and MPC number, link number, and channel number (MLC).

Each linkset entry in table MPCLSET contains the application name. The linkset entry contains the linkset number for that application. The linkset entry contains the list of MLCs in that set.

Each application can have a maximum of 16 linksets. An application can have some links grouped in linksets and some links without sets. When a link failure occurs the links without sets do not receive a message transfer.

The user can enter links in different linksets. This action prevents link transfers. The MLCs for an application can appear in the same set. When this condition occurs the link selection and transfer is the like a table that does not contain data. If you remove an MLC from a linkset, the system transfers queued messages to a link in the same linkset. The user enters the MLC in another linkset for availability to a linkset application.

Subfields APPLID and SETNUM allow field LSETKEY to provide a two-part key for this table. Subfield APPLID contains the name of the application to which the linkset belongs. Subfield SETNUM contains the number assigned to each linkset within an application.

Field MLCLIST contains a vector of the MLCs in the application. The user places the vector in the linkset indicated by field LSETKEY. Each vector contains an MPC number, a link number, and a channel number. There can be a maximum of 16 MLCs in each linkset. The system does not allow duplicate MLCs in a linkset MLCLIST. Place a minimum of one MLC in the MLCLIST for each entry.

See table MPC for related information.

Datafill sequence and meaning

Table MPCFASTA must contain all application names and MLCs in table MPCLSET. The user must remove the table MPCLSET entries for applications or MLCs before the user can remove the table MPCFASTA entries.

Before a user adds a new tuple to table MPCLSET, the user must enter correct MPCNOs in table MPC. The user must enter correct MPCLINKs in table MPCLINK. The user must enter correct RCERAPPL in table MPCFASTA.

Table size

Table MPCLSET requires 785 words of protected data store for each application entered. The system allocates the memory when an application enters the first entry in the table. The system removes memory when an application removes the last linkset of that application. The maximum amount of memory required is 785 words x 16 applications = 12.56K words.

Datafill

The following table lists the datafill for table MPCLSET.

Field, subfield, and refinement descriptions for table MPCLSET (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LSETKEY		see subfields	<i>Linkset key</i> This field contains subfields APPLID and SETNUM.
	APPLID	911RCER1, 911RCER2, 911RCER3, 911RCER4, 911RCER5, 911RCER6, ATT911AS, OPN911AS, ENH911AS, WLS911	<i>Application identification</i> Enter the name of the MPC fast application to which the LINKSET belongs. This name must appear in field INDEX in table MPCFASTA.

Field, subfield, and refinement descriptions for table MPCLSET (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SETNUM	0 to 15	<i>Linkset number</i> Enter the number assigned to each linkset in an application.
MLCLIST		see subfields	<i>MPC and link control vector list</i> Enter all MLCs in the same sequence as the MLCs appear in table MPCTASTA with INDEX=911RCER(1-6). Table MPCTASTA determines the order of tries. This field contains subfields M, L, and C. The user can enter a maximum of 16 three-number sets that represent MLC. Separate each subfield with a single space. If the user requires less than 16 MLCs, end the list with a dollar sign (\$). The MLCLIST contains one MPC, one MPC link, and one link channel entered in the following three subfields.
	M	0 to 255	MPC. Enter the number of the MPC.
	L	2 or 3	Link. Enter the number of the MPC link.
	C	1 to 255	Channel. Enter the number of the MPC link channel.

Table history**SN07**

Table MPCLSET migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 7 of 12*, 297-8021-351.09.03.

MSCIDMAP

Mobile Switching Center Identifier Mapping

Table Mobile Switching Center Identifier Mapping (MSCIDMAP) maps Mobile Switching Center Identifiers (MSCIDs) to TLDN pool identifiers from table TOPSTLDN. This allows the customer to control TLDN allocation on a per-MSC basis.

Datafill sequence and meaning

Table TOPSTLDN must be datafilled before table MSCIDMAP.

Table size

0 to 32 767 tuples.

Datafill

The following table lists the datafill for table MSCIDMAP.

Field, subfield, and refinement descriptions for table MSCIDMAP

Field	Subfield or refinement	Entry	Explanation and action
MARKETID		vector, 0 to 65535 or \$	Market identifier. Enter the first part of the two-part key MSCID.
SWITCHID		vector, 0 to 255 or \$	Switch identifier. Enter the second part of the two-part key MSCID.
POOLLIST		vector, up to 255 TLDN pool identifiers from table TOPSTLDN	Pool list. Enter the temporary local directory number pool list. Pointer to TLDN pool IDs in Table TOPSTLDN.

Additional information

An MSCID consists of a Market ID (16 bit value) and a Switch ID (8 bit value). Less than 1,000 market IDs are in use today in the United States, so the datafill of table MSCIDMAP is held to a maximum of 4,096 different market IDs to limit data store usage.

Wildcards (\$) can be used to limit datafill in table MSCIDMAP. The market ID and switch ID can be wildcarded as follows:

Wildcard syntax and usage for table MSCIDMAP fields

MARKETID	Switch number	Explanation and action
\$	\$	Match all MSCIDs not otherwise found in table. This combination, when datafilled, serves as the default.
0 to 65535	\$	Match exact market ID and any switch number, providing exact MSCID and exact switch number is not datafilled.
0 to 65535	0 to 255	Match exact market ID and switch number
\$	0 to 255	Not allowed. A wildcard market ID cannot be datafilled with a specific switch number.

Table history

SN07

Table MSCIDMAP was added in SN07 as per feature A00003687.

MULTITM

Multi Time Zone Support

Table MULTITM is used to contain the data for different timezones where customer lines are located. It contains offsets from the CM clock time, taking into account variations in Daylight Savings Time (DST).

Note: This feature is only supported on IBN/RES sets.

Datafill sequence and meaning

There is no requirement to datafill tables in a specific order.

Table size

Memory is allocated as required to allow a maximum of 100 tuples.

Datafill

The following table lists the datafill for table MULTITM.

Field, subfield, and refinement descriptions for table MULTITM (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
MTZNAME	NEW	MULTITM_KEY Alphanumeric (1 to 4 characters)	Key
TMSENSE	NEW	MODIFY {POS, NEG}	Is offset positive or negative? Note: The TMSENSE field cannot be altered.
MINUTES	NEW	MTZMINSTYP E {0 TO 1560}	Minutes to offset from CM clock Note: The MINUTES field cannot be altered.
DST	NEW	YES_NO {NO, YES}	Does timezone have DST?
DSTSENSE	NEW	MODIFY {POS, NEG}	Is DST offset positive or negative?

Field, subfield, and refinement descriptions for table MULTITM (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DSTMINS	NEW	DSTMINSTYP E {0 TO 120}	Extra minutes to offset from DST
STRTYEAR	NEW	MTZYEARTYP E {2000 TO 3000}	Year when DST period starts
STRTMON	NEW	MONTHS {jan, feb, mar...}	Month when DST period starts
STRTDAY	NEW	DAYS {1 TO 31}	Day when DST period starts
STRTHOUR	NEW	HOURS {0 TO 23}	Hour when DST period starts
STRT_MIN	NEW	MINUTES {0 TO 59}	Minute when DST period starts
ENDYEAR	NEW	MTZYEARTYP E {2000 TO 3000}	Month when DST period ends
ENDMON	NEW	MONTHS {jan, feb, mar,...}	Month when DST period ends
ENDDAY	NEW	DAYS {1 TO 31}	Day when DST period ends
ENDHOUR	NEW	HOURS {0 TO 23}	Hour when DST period ends
ENDMIN	NEW	MINUTES {0 To 59}	Minute when DST period ends

Additional information

The information in table MULTITZ (including time offsets, start, and end points) for DST must be entered manually every year. It's up to each country or region to set their own DST dates.

When you add a tuple to table MULTITM, the start and end dates for DST entries must be set at switch year+1. Any entry with a year greater than this value is rejected.

Table history**SN07**

Table MULTITM was added in SN07 by CR Q00620564.

MULTITZ

ATTENTION

This table applies to new or modified content for NA018 (SN05) that is valid through the current release.

Multi Time Zone Support

Table MULTITZ is used to contain the data for different timezones where customer lines are located. It contains offsets from the CM clock time, taking into account variations in Daylight Savings Time.

Datafill sequence and meaning

There is no requirement to datafill tables in a specific order.

Table size

Memory is allocated as required to allow a maximum of 100 tuples.

Datafill

The following table lists the datafill for table MULTITZ.

Field, subfield, and refinement descriptions for table MULTITZ (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
MTZNAME		MULTITM_KEY Alphanumeric (1 to 4 characters)	Key
	TMSENSE	MODIFY {POS, NEG}	Is offset positive or negative?
	MINUTES	MTZMINSTYP E {0 TO 1560}	Minutes to offset from CM clock
	DST	YES_NO {NO, YES}	Does timezone have DST?
	DSTSENSE	MODIFY {POS, NEG}	Is DST offset positive or negative?
	DSTMINS	DSTMINSTYPE {0 TO 120}	Extra minutes to offset from DST

Field, subfield, and refinement descriptions for table MULTITZ (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	STRTYEAR	MTZYEARTYP E {2000 TO 3000}	Year when DST period starts
	STRTMON	MONTHS {jan, feb, mar...}	Month when DST period starts
	STRTDAY	DAYS {1 TO 31}	Day when DST period starts
	STRTHOUR	HOURS {0 TO 23}	Hour when DST period starts
	STRTMIN	MINUTES {0 TO 59}	Minute when DST period starts
	ENDYEAR	MTZYEARTYPE {2000 TO 3000}	Month when DST period ends
	ENDMON	MONTHS {jan, feb, mar,...}	Month when DST period ends
	ENDDAY	DAYS {1 TO 31}	Day when DST period ends
	ENDHOUR	HOURS {0 TO 23}	Hour when DST period ends
	ENDMIN	MINUTES {0 To 59}	Minute when DST period ends

Table history**SN07**

Table MULTITZ migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

NLUPCLLI

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Nailed-up Connection Common Language Location Identifier

A switching unit can provide table NLUPCLLI. This switching unit must have feature package NTX802AA (Toll Features II), or feature package NTX902AA (Local Features II).

The incoming side of the nailed-up connection pair does not require a hard-wire supervision off-hook to be available. The system supports in-band and standard supervision signals in both directions.

Trunks for the nailed-up connection trunk group have trunk group type NU in table TRKGRP.

The maximum number of nailed-up connections is 801 or 0 to 800. For each of the connections, the following requirements apply:

- Data entry of the CLLI and external trunk number of the incoming and outgoing trunks must occur. You must connect this CLLI and the external trunk number of the incoming and outgoing trunks.
- The value of field CONNECT must be specified.

If field CONNECT is set to Y (yes), the two trunk circuits connect. The state of these trunk circuits change from idle, inhibit, lockout, or remote make busy. The state of these trunk circuits change to seized on the trunk test position (TTP).

If field CONNECT is set to N (no), a release of the connection occurs. The trunks return to the idle state.

For the first datafill, field CONNECT must be N.

Datafill sequence and meaning

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

- CLLI
- TRKMEM

Table size

0 to 801 tuples.

Junctored Network offices

For JNET offices, parameter MAXNUCS in table OFCENG allocates memory for table NLUPCLLI.

Enhanced Network offices

For ENET offices, parameter MAXNUCS in table OFCENG does not use allocate memory for table NLUPCLLI. For ENET offices, parameter MAXNUCS in table OFCENG must be 0.

Datafill

The following table lists the datafill for table NLUPCLLI.

Field, subfield, and refinement descriptions for table NLUPCLLI (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
INDX		numeric (0 to 800)	Index. Enter the index for the entry. the assignment of the index must be in order and start from 0.
NUPI		see subfields	Nailed-up incoming connection. This field contains subfields CLLI and EXTRKNM.
	CLLI	alphanumeric (maximum of 16 characters)	Incoming common language location identifier. Enter the CLLI code assigned to the incoming trunk in table CLLI.
	EXTRKNM	numeric 0 to 9999	Incoming external trunk number. Enter the external trunk number for the incoming trunk.
NUPO		see subfields	Nailed-up outgoing connection. This field contains subfields CLLI and EXTRKNM.

Field, subfield, and refinement descriptions for table NLUPCLLI (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	CLLI	alphanumeric (maximum of 16 characters)	Outgoing common language location identifier. Enter the CLLI code for the outgoing trunk in table CLLI.
	EXTRKNM	numeric 0 to 9999	Outgoing external trunk number. Enter the external trunk number for the outgoing trunk.
	CONNECT	Y or N	Connect. Enter Y if the two trunks are to connect. For other conditions enter N.

Table history**SN07**

Table NLUPCLLI migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

OAFUNDEF

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Operator Services System Advanced Intelligent Network Function Definition

Table Operator Services System Advanced Intelligent Network Function Definition (OAFUNDEF) defines the functions (services) used in processing OSSAIN calls. A function is a service or portion of a service provided by a service node, live operator, or an existing TOPS automated system.

Datafill sequence and meaning

Tables OANODINV, OASESNPL, and CT4QNAMS must be datafilled before table OAFUNDEF.

Table OAFUNDEF must be datafilled before tables OAFNDISP, OAFUNBLK, OACNNPRF, OATLKPRF, OADTFPRF, OACAUPRF, OADSCPRF, OACTLDEF, and SNVLGRP.

Table size

0 to 1023 tuples.

Datafill

The following table lists the datafill for table OAFUNDEF.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 1 of 9)

Field	Subfield or refinement	Entry	Explanation and action
FUNCID		0 to 1022	Function identification. This is the key into the table. This number must match between the host, remote (if OSAC), and service node.
FUNCNAME		1 to 16 characters	Function name. This value is used by other OSSAIN tables.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 2 of 9)

Field	Subfield or refinement	Entry	Explanation and action
FUNCAREA		see subfield FUNCTYPE	Function area. This field consists of subfield FUNCTYPE and refinements.
	FUNCTYPE	SN, TOPSOPER, TOPSAUTO	Function type. The function provider. Following are the values: SN - service node. Datafill refinements ORIGSERV, TRIGGER_AREA, SBTIMER_AREA, ISAUTOSN_AREA, ANSONVLC, and CAMHERE. TOPSAUTO - existing TOPS automated system. Datafill refinements AUTOSYS and OPRONFL. TOPSOPER - a live operator. Datafill refinements OPRCT4Q and QMS_AREA. Note: Note, if a function has FUNCTYPE = TOPSOPER and that FUNCNAME is datafilled in field NEWFUNC, then FUNCTYPE cannot be changed to SN or TOPSAUTO.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 3 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	ORIGSERV	TASERV, DASERV, INTCSERV	Originating service. If FUNCTYPE = SN, datafill this refinement. This field is used to apply a base service to an OSSAIN call originating on the DMS switch and routed to an OSSAIN service node. Calls receiving DA or Intercept service are in a restricted mode while at the service node. DA and Intercept calls should only be routed to a service node to determine billing for the call prior to transferring the call to an operator. The service from the ORIGSERV field is not applied to calls originated by the service node and the service not applied to calls transferred by the service node or operator. Enter TASERV (for toll and assistance), DASERV (for directory assistance), or INTCSERV (for intercept).
	TRIGGER_AREA	see subfield	Trigger area. If FUNCTYPE = SN, datafill this refinement. This field consists of refinement TRIGEVNT.
	TRIGEVNT	N or Y	Trigger event. Enter Y if a specific trigger event session pool is to be used for trigger event informs and datafill refinement TRIGPOOL. Otherwise, enter N.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 4 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	TRIGPOOL	name from table OASESNPL	Trigger event session pool name. Datafill this field if field TRIGEVNT = Y. Enter a session pool name defined in table OASESNPL with TRIGEVNT=Y.
	SBTIMER_ AREA	see subfield SBTIMOUT	Session begin timer area. If FUNCTYPE = SN, datafill this refinement. This field consists of subfield SBTIMOUT and refinement.
	SBTIMOUT	Y or N	Session begin time out. This new field only appears if FUNCTYPE = SN. This field enables a timer when an OSSAIN call is routed to the function. If the SN does not respond in the timer period, the call is routed to an alternate function in table OAFNDISP field ORFLACTN. The values are: Y - Enable timer. Datafill refinement SBTIMER. N - Do not start timer. The DMS switch assumes the SN has received the Session Begin message and has control of the call. If the SN has not received the message, the call remains connected to the SN session. This connection continues until OSSAIN onhook and call sanity timers take effect. Or, the connection continues until the SN goes out of service. The default is N.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 5 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	SBTIMER	1 to 7	Session begin timer period. Datafill this field if SBTIMOUT = Y. Enter the time in seconds the switch waits for a reply from a SN before the call is routed to an alternate function.
	ISAUTOFN_ AREA	see subfields	Is auto function area. If FUNCTYPE = SN, datafill this refinement. This field consists of subfield ISAUTOFN.
	ISAUTOFN	Y or N	Is auto function. Indicate if this function should be reassigned for a no automation service call. Enter Y for reassignment and datafill subfield NEWFUNC. Otherwise, enter N for no reassignment. The default is N. Originating line number service (OLNS) indicates if the subscriber has requested service from an operator instead of an automated system.
	NEWFUNC	name from table OAFUNDEF	New function. Datafill this field if field ISAUTOFN = Y. Enter a TOPS operator function defined in table OAFUNDEF.
	ANSONVLC	N or Y	Answer on voice link connection. This field indicates whether to return answer on connection of a voice link. Enter Y to return answer or N to not return answer. The default is Y.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 6 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	CAMHERE	N or Y	QMS CAM here. If FUNCTYPE = SN, datafill this refinement. This field indicates the location of the QMS CAM. The values are: N (no) - QMS CAM is centralized at an OSAC host switch, not in this switch. Datafill refinement HRSESNPL. Y (yes) - QMS CAM is located in this switch. Datafill refinement CALLQ and VOICE_AREA.
	HRSESNPL	node name from table OANODINV	Host-remote session pool name. If CAMHERE=N, datafill this field with a session pool for OSAC messaging between the OSAC remote and OSAC host. This session pool is used by the remote to request the host for a service node session to a centralized service node that has the function for the call. The session pool name must be datafilled in table OASESNPL with ORIGTYPE = OSACORIG.
	CALLQ	call queue from table QMSCQDEF	Call queue. If CAMHERE=Y, datafill this field with a call queue defined in table QMSCQDEF.
	VOICE_AREA	see subfield	Voice connection area. This area only appears if CAMHERE = Y. This area consists of subfield CONVOICE.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 7 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	CONVOICE	Y or N	Connect voice link. This field indicates if the switch should select and connect a voice link for an SN before routing the call to the SN. Enter Y to enable this capability. The default is N.
	DISPROUT	Y or N	Disposition routing. Datafill this field if field CONVOICE = Y. This field indicates if the switch should perform disposition routing when the voice link connection attempt fails. Enter Y to enable this capability.
	AUTOSYS	AABS, DAS	TOPS automated system. If FUNCTYPE = TOPSAUTO, datafill this refinement. This field indicates the existing TOPS automated system providing this function. The MAP display also shows values MCCS, ACTS, and BRANDING; however, only AABS is currently supported.
	OPRONFL	from field CT4QNAME in table CT4QNAMS	Operator on failure. If FUNCTYPE = TOPSAUTO, datafill this refinement. This field indicates the CT4Q for QMS POSTAUTO refinement ordering if live operator backup is required for the existing TOPS automated system specified in field AUTOSYS. This value is defined in field CT4QNAME of table CT4QNAMS.

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 8 of 9)

Field	Subfield or refinement	Entry	Explanation and action
	OPRCT4Q	from field CT4QNAME in table CT4QNAMS	Operator call type for queue. If FUNCTYPE = TOPSOPER, datafill this refinement. This field indicates the CT4Q for the final call queue assignment when obtaining a live operator for this function. This value is defined in field CT4QNAME of table CT4QNAMS.
	QMS_AREA	see subfield	Voice connect area. If FUNCTYPE = TOPSOPER, datafill this refinement. This field consists of subfield QREFINMT.
	QREFINMT	Y or N	QMS refinement. This field indicates if the switch should apply QMS refinements to the TOPSOPER CT4Q before routing the call to the operator. Enter Y to enable this capability. The default is N. If Y, datafill CQORDER.
	CQORDER	PREOPR, POSTAUTO, RECALL, or ASST	Call queue refinement order. Datafill this field if field QREFINMT = Y. Indicate the order of call queue refinement. The values refer to the fields in tables TQORDERA and TQORDERB, which are the following: PREOPR - pre-operator POSTAUTO - post automated service RECALL - recall or transfer to an operator ASST - a QMS Customer Assistance Service Expert (CASE) operator

Field, subfield, and refinement descriptions for table OAFUNDEF (Sheet 9 of 9)

Field	Subfield or refinement	Entry	Explanation and action
DAS	DASCT4Q	CT4Q name	Enter the Call Type For Queuing (CT4Q) to use to determine the call queue, service, DA database instance.
	QMSAREA	Y, N	Defines whether or not QMS refinements are to be done on the DASCT4Q.
		PREOPR, POSTAUTO, RECALL, ASST	If QMS_AREA = Y this refinement defines the order to be used for QMS refinements.

Additional information**Error messages**

The following error messages apply to table OAFUNDEF.

Error messages for table OAFUNDEF (Sheet 1 of 4)

Error message	Explanation and action
OSSAIN function names must be unique.	This message is displayed if an attempt is made to add two tuples with the same function name.
AABS is the only TOPS automated system that is currently supported for OSSAIN.	This message is displayed if an attempt is made to datafill field AUTOSYS with a TOPS automated system other than AABS. AABS is the only TOPS automated system supported in the initial release (TOPS06) of OSSAIN.
Only session pools with ORIGTYPE OSACORIG may be datafilled in field HRSESNPL.	If the session pool for field HRSESNPL is not datafilled as an OSACORIG session pool in table OASESNP, this error message is displayed.

Error messages for table OAFUNDEF (Sheet 2 of 4)

Error message	Explanation and action
Only nodes of PM type OSAC may be datafilled in field NODENAME.	This message is displayed if an attempt is made to datafill a node name in table OAFUNDEF that is not of type OSAC. Table OANODINV allows nodes to be one of three types: OSN, OSNM, and OSAC. Only OSAC type nodes can be datafilled in table OAFUNDEF when CAMHERE = N.
This CT4Q is in use in table OAFUNDEF. You must remove all references to this CT4Q before you can delete it.	This message is displayed if an attempt is made to delete a CT4Q from table CT4QNAMS that is in use in table OAFUNDEF. Tuples may not be deleted from table CT4QNAMS until all references to that CT4Q are removed from table OAFUNDEF.
Field <field name> must be datafilled with a CT4Q from table CT4QNAMS that has a SYSTEM value of TOPSOPR.	This message is displayed if an attempt is made to datafill field OPRCT4Q or OPRONFL with a CT4Q that is not defined in table CT4QNAMS with field SYSTEM, MCCS, ACTS, BRANDING = TOPSOPR.
This function is datafilled in table XXXXXXXX. Since field FUNCTYPE is being changed from SN, you must remove any references to this function from the OSSAIN trigger tables.	This message is displayed if an attempt is made to change the FUNCTYPE field from SN to TOPSOPER or TOPSAUTO and the function is referenced in any OSSAIN trigger table. The trigger tables may only redirect to a node.

Error messages for table OAFUNDEF (Sheet 3 of 4)

Error message	Explanation and action
This function name is in use in table XXXXXXXX. You must remove all references to this function name before you can delete it.	This message is displayed if an attempt is made to delete a tuple from table OAFUNDEF that has a function name used in one of the following tables: OAFNDISP, OAFUNBLK, OACNNPRF, OATLKPRF, OADTFPRF, OACAUPRF, OADSCPRF, or OACTLDEF. Tuples may not be deleted from table OAFUNDEF until all datafill references to that function name are deleted from all of the above tables. Table OAFUNDEF must be datafilled before the above tables. Standard table control error messages are displayed if an attempt is made to datafill those tables with a function name that has not been defined in table OAFUNDEF.
Only session pools with TRIGEVNT=Y may be datafilled in field TRIGPOOL.	If the trigger event inform pool is not datafilled as a trigger event session pool, this error message is displayed.
TYPE OF HRSESNPL IS SR_SESSION_POOL_RANGE	Tables OANODINV and OASESNPL must be datafilled before host-remote session pools can be used in table OAFUNDEF. A standard table control message is displayed if an attempt is made to datafill a session pool in field H_R_SNPL that is not datafilled in table OASESNPL.

Error messages for table OAFUNDEF (Sheet 4 of 4)

Error message	Explanation and action
This function name is in use in table XXXXXXXX. You must remove all references to this function name before you can delete it.	This message is displayed if an attempt is made to delete a tuple from table OAFUNDEF that has a function name used in one of the following tables: OAFNDISP, OAFUNBLK, OACNNPRF, OATLKPRF, OADTFPRF, OACAUPRF, OADSCPRF, OACTLDEF, or SNVLGRP. Tuples may not be deleted from table OAFUNDEF until all datafill references to that function name are deleted from all of the above tables. Table OAFUNDEF must be datafilled before the above tables. Standard table control error messages are displayed if an attempt is made to datafill those tables with a function name that has not been defined in table OAFUNDEF.
Field NEWFUNC must be datafilled with a function from table OAFUNDEF that has a functype value of TOPSOPER.	This error message is displayed if an attempt is made to enter a value in field NEWFUNC that does not meet the following requirements: • A function must already be present in table OAFUNDEF before it can be assigned to NEWFUNC. • Only functions of type TOPSOPER can be assigned to NEWFUNC.
This function name is in use in NEWFUNC field of table OAFUNDEF. You must remove all references to this function name before you can delete it.	A tuple cannot be deleted if its function name is assigned to a NEWFUNC field. If an attempt is made to delete the tuple this message is displayed.
This function is datafilled in table OAFUNDEF. Since field FUNCTYPE is being changed from TOPSOPER, you must remove any references to this function from the NEWFUNC field in table OAFUNDEF.	TOPS operator functions that are assigned as NEWFUNC cannot be changed to an OSSAIN SN or TOPS Automated System type function. If an attempt is made to change the function, this message is displayed.

Table history**SN07**

Table OAFUNDEF migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

Added field DAS and associated subfields as per feature A00003704.

OFCCODE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Office Code

Applies to new or modified content for NA015 that is valid through the current release.

Table Office Code (OFCCODE) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table OFCCODE translates the office code digit segment, together with tables OFCHEAD and OFCRTE.

For related information, refer to tables ACCODE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Table OFCHEAD must be datafilled before tables OFCCODE and OFCRTE.

Datafill

Refer to table ACCODE for more information.

Table size

Refer to table ACCODE for more information.

Table history

SN07

Table OFCCODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

OFCHEAD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Office Code Head

Table Office Code Head (OFCHEAD) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table OFCHEAD translates the office code digit segment, together with tables OFCCODE and OFCRTE.

For related information, refer to tables ACCODE and ACRTE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Refer to table ACHEAD for more information.

Datafill

Refer to table ACHEAD for more information.

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.

Table history

SN07

Table OFCHEAD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

OFR2

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Office Route-2

Table Office Route-2 (OFR2) is an exact duplicate of table OFRT. Refer to table OFRT for full details of the use and the datafill for table OFR2.

Datafill sequence and meaning

Refer to table OFRT for more information.

Table size

0 to 1024 tuples.

Datafill

Refer to table OFRT for more information.

Table history

SN07

Table OFR2 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

OFR3

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Office Route-3

Table Office Route-3 (OFR3) is an exact duplicate of table OFRT. Refer to table OFRT for full details of the use and the datafill for table OFR3.

Datafill sequence and meaning

Refer to table OFRT for more information.

Table size

0 to 1024 tuples.

Datafill

Refer to table OFRT for more information.

Table history

SN07

Table OFR3 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

OFR4

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Office Route-4

Table Office Route-4 (OFR4) is an exact duplicate of table OFRT. Refer to table OFRT for full details of the use and the datafill for table OFR4.

Datafill sequence and meaning

Refer to table OFRT for more information.

Table size

0 to 1024 tuples.

Datafill

Refer to table OFRT for more information.

Table history

SN07

Table OFR4 migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 8 of 12*, 297-8021-351.09.03.

NA017

Feature 59035336 introduces the Supergroup (SG) option.

OFRT

Office Route Table

ATTENTION

Retranslation using the RT or RX selectors begins in the Home Numbering Plan Control (HNPACONT) table. In order to retranslate correctly, appropriate translations must be in place. Retranslated numbers, which would normally require a prefix digit (1 or 0) in order to complete, will not complete if the retranslated number is an ambiguous code requiring a prefix digit. This situation occurs when the retranslated number encounters the AMBI PFX selector in the HNPACODE subtable in table HNPACONT.

Verify translations that use the RT or RX selectors for correct routing prior to implementation. If the RT or RX selector fails to retranslate the call correctly, you must use alternate translations. The alternate translations may include, but are not limited to the following:

- 1 - use of a virtual facility group
- 2 - use of a dedicated translation scheme for retranslated calls (a dedicated SNPA/STS code in table HNPACONT with retranslated numbers broken out in translations and routed correctly).
- 3 - Use of the OPF selector instead of the PRX selector for ambiguous code calls. The OPF selector does not require the presence of a prefix digit to complete a 10-digit call.

The following table lists the route reference table and subtables.

OFRT route reference table and subtables

Table name	Title
OFRT	Office Route Table
HNPACONT.RTEREF	Home NPA Route Reference Subtable
FNPACONT.RTEREF	Foreign NPA Route Reference Subtable
FNPACONT.FNPASTS.RTEREF	Foreign NPA STS Route Reference Subtable

Table OFRT is used for routing in all DMS switches except the DMS-300 switch.

For the TL06 release, the following additional selectors are supported:

- SX
- N2

For the NA005.1A release, only the following selectors are supported:

- CND
- N
- S

The route reference table OFRT or subtable RTEREF is used if an originating call is being translated and a preceding stage identifies a route reference index. Refer to the descriptions of table OFRT and subtables HNPACONT.RTEREF, FNPACONT.RTEREF, and FNPACONT.FNPAST.RTEREF for more information on the preceding stages of translation that can point to the route reference tables.

A route reference index can point to

- a list of up to eight alternate routes
- a treatment list (in table OFRT only)

List of alternate routes

If translation of the call points to a route reference index in table OFRT, from other than treatment table TMTCNTL.TREAT, or in subtable RTEREF, the route list must be a list of alternate route list elements in order of preference.

A route list is composed of one to eight elements (nine elements for selectors DCRT and NODE only). The DMS switch allows nine elements to be datafilled, but the only time nine routes are valid is if the first selector is DCRT or NODE. If DCRT or NODE is not the first selector, only eight routes are supported. Each element usually contains the identity of a trunk group from which an idle outgoing trunk (if any) is selected. If no idle trunk is available, the system advances to the next element in the list.

ATTENTION

It is possible to create an infinite loop through the datafill, which will cause call deaths and traps.

Unlike line translations, circular hunt configurations should not be set up in trunk routing. The following figure shows an example of the type of datafill to be avoided.

Note: The NA010 ISP Even Call Distribution feature allows use of super-group translations for ISDN primary rate interface (PRI) circular hunting. Refer to “ISP Even Call Distribution” in the ISDN translations section of the Translations Guide for more information on this feature.

Example of an infinite loop in table OFRT

RTE RTELIST

```
-----
801 (N D TRUNK1 O N N) (T OFRT 802) $
802 (N D TRUNK2 O N N) (T OFRT 803) (TRMT BUSY) $
803 (N D TRUNK3 O N N) (T OFRT 801) $
```

When route selector TRMT is used, calls are routed directly to treatment. If the end of the list is reached and no idle trunk is found, translation proceeds to subtable TMTCNTL.TREAT.

A route list element defines a combination of the following elements by means of predefined route selectors:

- next stage in call translation, either unconditionally or with conditions
- digit manipulation of the received digits that may already have been manipulated in preceding stages of translation
- redefinition of various factors associated with the originator of the call, such as charging, billing, screening, and type of call
- outpulsing of digits or signals or both, and generation of tones

Refer to table “Office parameters” for route element functions as a guide for the selection of the route selector.

Treatment route list

If translation of the call results in a treatment code and table TMTCNTL.TREAT points to a route reference index in table OFRT, the route list must be a list of tones, announcements, or states applied in the order listed.

Table OFRT in international translations

Table OFRT can be used in international translations only for treatments and standard routes. Nonstandard routing using this table does not work and results in a software error (SWERR) from NADTUI.

If a nonstandard route is required, use the appropriate international translation table (FTRTE, PXRTE, OFCRTE, FARTE, CTRTE, or ACRTE).

Treatment routes

For information on treatment routes, refer to the description of subtable TMTCNTL.TREAT.

Note on Cancel Normal Charges (CANCNORC) field

Examples of normal charges as interpreted by the DMS switch are described below.

If the call does not result in an abortive treatment and the called party goes off hook, the following occurs:

- If the type of call is NP (no prefix), the DMS switch takes appropriate action depending on where the call originated as follows:
 - For a call incoming on a one-party flat rate (1FR) line, no action for charging is taken.
 - For a call incoming on a one-party message rate (1MR) line, message rate register is pegged.
 - For a call incoming on a coin station (coin first [CCF], coin dial-tone first [CDF], or coin semi-postpay [CSP]) line, appropriate action is taken to collect coin depending on type of coin station.
 - For a call incoming on a trunk group, an off-hook signal is returned.
- If the type of call is DD (direct dial), the DMS switch takes appropriate action depending on where the call originated as follows:
 - For a call incoming on a 1FR or 1MR line, the call is recorded on Local Automatic Message Accounting (LAMA) or Centralized Automatic Message Accounting (CAMA) tape unless the call

goes out on a trunk group type capable of Automatic Number Identification (ANI) spill.

- For a call incoming on a coin station (CCF, CDF, or CSP) line, appropriate action is taken until the operator at the coin collection desk is reached.
- For a call incoming on a trunk group, an off-hook signal is returned.
- If the type of call is OA (operator assisted), the DMS switch takes appropriate action depending on where the call originated as follows:
 - For a call incoming on a 1FR or 1MR line, no special action is taken until the operator is reached.
 - For a call incoming on a coin station (CCF, CDF, or CSP) line, appropriate action is taken until the operator at the coin collection desk is reached.
 - For a call incoming on a trunk group, an off-hook signal is returned.

If the call results in an abortive treatment, the normal procedure is not to charge the caller even if the type of call indicates a chargeable call. Canceling normal charges results in appropriate action to charge the caller even if the type of call indicates a nonchargeable call.

If field CANCELC is set to Y, a nonrevenue call is assumed and is reflected in the call code of the bearer capability (BC) Automatic Message Accounting (AMA) record.

If field CANCELC is set to N, then a revenue record is assumed and reflected in the call code of the AMA record (provided nonrevenue is not indicated in another manner).

Partitioned Table Editor feature

In DMS offices with the Partitioned Table Editor (PTE) feature, non-operating company users can be authorized by the operating company to use the PTE feature to edit all tuples of subtables owned by them as follows:

- subtables HNPACONT.RTEREF: refer to the description of subtable HNPACONT.RTEREF for more information
- subtables FNPACONT.RTEREF: refer to the description of subtable FNPACONT.RTEREF for more information
- subtables FNPACONT.FNPASTS.RTEREF: refer to the description of subtable FNPACONT.FNPASTS.RTEREF for more information

The PTE feature allows the operating company to limit edit access to a table for a specified user to denied, read-only, change-only, or add and delete tuples.

It is recommended that PTE feature access is set for non-operating company users as follows:

- Subtables HNPACONT.RTEREF—add and delete tuples access
- Subtables FNPACONT.RTEREF—denied access
- Subtables FNPACONT.FNPASTS.RTEREF—add and delete tuple access

In subtables FNPACONT.FNPASTS, field COMMON_FNPA is set to N to ensure that a separate FNPACONT.FNPASTS.RTEREF subtable is created for each STS.

Refer to the description of table OWNER for information on the Customer Data Change feature.

Route element functions (Sheet 1 of 4)

Route selector																										
Functions performed	C											N											T			
	N											P											R			
	D											O											T			
	/	D	I	I	M							N	N	O									T			
	O	R	D	N	S	E	M	N	N	2	E	S	N	Q	H	T	X	S	G	Q	T	X	T	C	T	S
<i>Proceed to (unconditionally)</i>																										
First free member of CLLI					Y		Y	Y	Y		Y	Y						Y		Y	Y	Y			Y	
Tested trunk MEMBER or CLLI																								Y		
Specified trunk MEMNUM of CLLI						Y																				
Tested subscriber line LEN																								Y		

Route element functions (Sheet 2 of 4)

Route selector																									
Functions performed	C	N	D											N	P										
	/	D											N	N	O										
	N	C	I	I	M									O	P	S									T
	O	R	D	N	S	E	M	N	N	2	E	S	N	Q	H	T	X	S	G	Q	T	X	T	C	T
Table TABID at KEY																								Y	
Table at RTEREF																					Y				
TOFCNAME at SNPA OFCCODE			Y										Y												
Retranslate after Digits Change															Y	Y									
TMTCNTL.TRE AT to treatment																								Y	
<i>Proceed to (with condition)</i>																									
Table at RTEREF		Y																							
List after SKIPNUM		Y																							
Table TABNAME at INDEX		Y																							
DESTNODE at DESTNAME			Y									Y													
<i>Digit manipulation</i>																									
Delete DELDIGS leading digits								Y	Y	Y		Y		Y											Y

Route element functions (Sheet 3 of 4)

Route selector																			
Functions performed	C N D / N O R T	D C T	I D N S	I S A	M E M A	M N N	N 2	N D E	N O S	N P O S	N Q H	R T	R X	R S	S G	S Q	S T	S X	T C T S
Prefix digits PRFXDIGS						Y	Y	Y	Y	Y									Y
Prefix signals PRFXDIGS																			Y
Replace with REPLDIGS													Y						
Delete Digits Last Stage (DDL S)								Y											
Add Digits Last Stage (ADLS)								Y											
In table DIGMAN				Y										Y					
2-stage Out FSTNUM, FSTSTAGE																			Y
Redefine originators																			
Normal charges CANCNORC (Y/N)						Y	Y	Y	Y	Y	Y	Y							Y
NPA as SNPA													Y						
NPA as STS														Y					
Billing code as BILLCODE						Y							Y						
Billing code as BILLDMI														Y					

Route element functions (Sheet 4 of 4)

Route selector																								
Functions performed	C N D / N O T	D C T	I D N S	I S A	M E M A	M N N	N 2	N D E	N O S	N O D S	N Q H	R T	R X	R S	S G	S Q	S T	S X	T C	T M	T R	T S		
Screening as ORIGSCRE													Y											
Type of call TYPCALL												Y	Y											
CALLTYPE and refinements				Y																				
Off-hook queuing time OTIME				Y							Y													
Off-hook queuing OHQ (Y/N)				Y						Y					Y									
Call back queuing CBQ (Y/N)				Y																				
Expensive route EXP (Y/N)				Y																				
ANI (Y/N) information required						Y																		
Tone out CSTHTONE, CSTLTONE						Y																		
Note: The route element selectors listed in this table are described on the following pages.																								

Selector descriptions

The following paragraphs describe the route element selectors listed in the above table "Route element functions".

Route selector AFR

Used as an index to an advanced intelligent network (AIN) identifier in table TRIGINFO. If the AFR trigger is subscribed, and all preceding routes in the route list are busy, and the AFR selector is encountered, a query is sent to an off-board processor.

Route selector CND

Used if the call proceeds as specified in this route element only if a specified condition is met. If the condition is not met, the call is routed as specified in the next element of the route list.

Route selector DCRT

Used in offices with the Dynamically Controlled Routing (DCR) feature as the first element of a route list. If the DCR destination of the call is one link away from the switch, it blocks the call if the second leg of a DCR tandem recommendation is not available.

Route selector DN

Used if digit translation converts the received digits into a seven-digit directory number (DN) that terminates on the switch.

The DN selector allows calls to terminate on the DN described in the DN route element list. Call processing translation assumes the final routing destination is the DN found during translation. Subsequent route selectors are not searched nor advanced to.

Route selector FEAT (DMS-250)

Used on a DMS-250 switch for 1800 (International 800) service and international virtual private network (IVPN) services.

Note: This description of table OFRT does not cover DMS-250 applications.

Route selector INS

Used only while editing a route list to insert a new element into the route list. The new element is inserted immediately ahead of the element that is replaced with INS. The replaced element is restored, and the user is prompted for the inserted route.

Route selector ISA

Selector ISA (integrated service access) routes to a primary rate access (PRA) interface.

The ISA service routes different call types (public, private, tie trunk to private branch exchange (PBX), foreign exchange (FX), wide area telephone service (WATS, and inbound WATS [INWATS]) over the same trunk group.

Route selector MEM

Used in offices with the Trunk Group Utilization Enhancements feature, if routing to a specified trunk group member is required. A lower and upper range must be supplied. If only one trunk member is used, the same number is supplied for the upper and lower range.

Route selector MN

Used if a call is routed to an operator and class of service tone is required.

Route selector N

Used if translation requires digit substitution or cancellation of normal charging.

Route selector N2

Used if translation requires the capability to strip off the NPA digits and/or add them back to the outpulsed digits to reach a uniform outpulsing schema. Route selector N2 is the same as route selector N, with the addition of two fields, Delete Digits Last Stage (DDLS) and Add Digits Last Stage (ADLS).

Route selector N2 is used as a substitute for the N route selector only when the DELDIGS and PRFXDIGS fields are used for purposes other than modifying the called number.

The DELDIGS field is assumed to be set to 15, because the N2 selector is only used when the OZZ digits are required and the PRFXDIGS field is used to insert the OZZ digits. The DDLS field holds the value which determines the number of digits that will be deleted from the front of the called number to be outpulsed. The ADLS field holds the actual digits which will be prefixed onto the front of the called number to be outpulsed.

Route selector N2 is specific to Feature Group D (FGD) Equal Access calls and does not support any international call scenario. Use of the N2 selector is limited to IT, MF, and ISUP type trunks.

Because the N2 selector is a clone of the N selector, billing records are produced exactly as if the N selector was used. Digit manipulation done by the N2 selector is not shown in the billing records.

Route selector NIL

Used only while editing a route list to delete an element from the route list. The selector that is replaced by selector NIL is removed from the list.

Route selector NODE

Used in offices with the DCR feature. If the office is used as a DCR switch, routing proceeds to table DESTNODE, field DESTKEY which is equal to field DESTNAME associated with this selector.

Route selector NOT

Used if the call proceeds as specified in this route element only if a specified condition is not met. If the condition is met, the call is routed as specified in the next element of the route list. This selector is the opposite of selector CND.

Route selector NPOS

Used to indicate that no calling number identification is required for

- the operator number identification (ONI) from multiparty line, or
- the ANI-failure delay dial (DD)

In the following cases, selector NPOS is equivalent to route selector N:

- calls originated from trunk group types other than SuperCAMA (SC) or Traffic Operator Position System (TOPS) trunk groups
- calls without ONI or ANI-failure indication

Route selector NPOSDN

Used to indicate that no calling number identification is required for

- the ONI from multiparty line, or
- ANI-failure DD

In the following cases, selector NPOSDN is equivalent to route selector DN:

- calls originated from trunk group types other than SC or TOPS
- calls without ONI or ANI-failure indication

Route selector NQ

Not used.

Route selector QH

Used if segregation of low-tariff and high-tariff route elements in the route list is required.

When route selector QH is used in table OFRT, it routes the call to treatment. Due to this routing action, selector QH must only be used in table IBNRTE.

Route selector RT

Used if the incoming dialed digits are replaced by the number specified in field REPLDIGS (maximum 11 digits), and the call is retranslated starting from table HNPACONT.HNPACODE for the serving NPA specified in field SNPA.

The RT selector designates retranslation. This selector inserts new digits before retranslation is attempted. The RT route element lists are final if a call advances to a route element in the list during call processing.

Route selector RX

Used if retranslation is required and the new digits are listed in table DIGMAN.

The RX selector designates retranslation. This selector inserts new digits before retranslation is attempted. The RX route element lists are final if a call advances to a route element in the list during call processing.

Route selector S

Used if the outgoing trunk group type is IT (intertoll) and standard digit manipulation applicable to intertoll trunk groups is required.

This selector can also be used to route the call to a tone or announcement CLLI.

Route selector SG

Used to allow even call distribution across a set of trunk groups. Route selector SG allows selection of a trunk group from the groups defined in table SUPERTKG (Super Trunk Group). This table joins up to 220 trunk groups together into super-groups.

Optional DMI entries of 1 to 31,999 in the selector allow manipulation of digits by table DIGMAN. This is an index into table DIGMAN. The DMI option enables the called number characteristics to be manipulated by use of table DIGMAN.

Route selector SQ

Not used.

Route selector ST

Used if translation routes to another route reference in the same table.

Route selector SX ROUTE

This selector is used if translation routes to an expanded route table. It is used if the outgoing trunk group type is IT (intertoll) and standard digit

manipulation applicable to intertoll trunk groups is required. Interpretation and use of the SX_ROUTE selector is product-dependent. By default, this selector does nothing.

Route selector T

Used if translation routes to another table or to another route list in table OFRT.

If the T selector is routed to during call processing, the current route list is exhausted. Any subsequent route list elements are not routed to within the list.

For example, assume a T selector is used in a route list before an N selector. In this case, routing advances to the table and the T selector route element list points to the next step in translation. When the table route is exhausted, the table is exited and translation is stopped. The N selector is not advanced to, even though the N selector is in the route element list after the T selector.

Route selector TC

Used if the route list can only be accessed from the directory number or trunk defined in the first element of the route list.

Route selector TPBX (DMS-250)

Used in a DMS-250 switch to route calls by table DIGMAN to PBXs in a DMS-250 to PBX configuration.

Note: This description of table OFRT does not cover DMS-250 applications.

Route selector TRMT

Used if a call is routed to treatment.

Route selector TS

Used if two-stage outpulsing to international switching centers is required.

Route selector UOP

Use route selector UOP to set uniform outpulsing on calls to direct inward dial (DID), automatic intercept (AI), and PRA trunks. Selector UOP also provides operating company personnel with the capability of common digit replacement.

General

Table OFRT is required for route lists that are pointed to from tables other than HNPACONT and FNPACONT.

The following tables can specify a route list in table OFRT:

- Country Code Translator (CCTRNSL)
- FNPA Control (FNPACONT)
- INWATS Originating Route Reference (INWORIRT)
- INWATS Terminating Route Reference (INWTERTE)
- Position (POSITION)
- Route Reference (OFRTMAP)
- Standard Pretranslator (STDPRTCT.STDPRT)
- Trunk Group (TRKGRP)
- Network Management Reroute (REROUTE.NWMRROUT)
- Directory Number Route (DNROUTE)
- Terminating Office Name Table (TOFCNAME)
- Hunt Group (HUNTGRP)
- AMR Route (AMRROUTE)
- Class of Service Screening Control (CLSVSCRC)

An element in a route list can point to another route list in table OFRT. It can be any route list, except the route list to which the element is assigned.

Routes defined in the HNPACONT and FNPACONT tables have their routes defined in the HNPACONT and FNPACONT subtables.

Memory is allocated dynamically for table OFRT. The maximum number of route lists is 1024.

Route options

The available route option is ATGS (alternate trunk group selection).

Datafill sequence and meaning

If the T selector points to table OSNCCAP, table OSNCCAP must be datafilled before table OFRT.

Note: For information about datafilling this table, see *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual*, 297-8021-351.09.03.

Table size

0 to 1023 tuples.

Table history

PADDATA

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Pad Data

Table Pad Data (PADDATA) contains attenuation and boost settings for connections through different devices. Pads are applied to devices in order to balance volume levels across the network.

This document describes how DMS-100 and DMS-100/200 switching units use table PADDATA. This document does not describe how SL-100 switching units use this table.

The fixed loss plan uses an index from each party in calls that access table PADDATA. The data fields of tables TRKGRP, CONF3PR, CONF6PR, CPOS, and TOPSPOS contain this index. The system stores an index for each line.

Operating company maintenance personnel use digital pads to equalize differences between trunk groups. Table PADDATA does not affect the digital pads currently in use on the trunk modules (TM).

Table PADDATA stores the transmit and receive pad values inserted in this type of connection. The two-part key contains two pad group names. The associated data contains the pad values for connections between the specified pad groups.

Call processing determines where the system implements the pad value. The subscriber cannot control this process. If the connection involves a line, the operating company normally sets the pad in the line card in the receive direction. To set the value of 14L in field PAD1TO2 and field PAD2TO1, you must use the line and network pads together. The value of 14L indicates a loss of 14 dB. See the second example in Section "Additional information" for a description of this value.

The subscriber can define 21 of the 64 possible pad groups. The 43 pad groups that remain are reserved pad groups. The names of 38 of these pad groups appear in table PADDATA. See proposed pad group names.

Of the 38 defined pad groups, 16 pad groups are in table PADDATA when you enter data in this table. These pad groups appear in the

following table. These pad groups have default values for fields PAD1TO2 and PAD2TO1. These values appear in the table in Section “Default keys and recommended DMS-100 loss values”.

Pad groups at datafill

Pad group	Description
STDLN	standard line
UNBAL	unbalanced line
LRLM	remote line module (RLM)
IAO	Plain Ordinary Telephone Service (POTS) intraoffice trunk
LCO	POTS collocated step-by-step (SXS) trunk
ELO	POTS interoffice trunk
ETLS	POTS end office trunk (short distance)
ETLL	POTS end office trunk (long distance)
TLA	POTS toll connecting trunk (TCT) to toll trunk
TLD	POTS TCT to toll trunk (digital)
PPHON	P-phone line
PRAC	primary node access (PRA)
DAVLN	data above voice line
PKLNL	Gateway line that has GRPTYPE set to S in table LGRPINV
PKNIL	Gateway line that has GRPTYPE set to C in table LGRPINV
CONF	conference circuit
CPOS	centralized automatic message accounting (CAMA) position
TPOS	Traffic Operator Position System (TOPS) position

A nil pad group (NPDGP) appears in table PADDATA. A tuple that uses the nil pad group can contain only 0 0 settings. The tuple cannot contain other values.

The central control (CC) instructs the connecting peripheral modules (PM) to use a 0 dB pad level on the line card gain setting. The CC instructs the PMs to use this level on the line card gain setting for all line connections to announcements. This value is a default value. You cannot administer this value.

The reserved 38 pad groups with defined names are as follows:

- Nil pad group:
 - NPDGP, not normally used
- Pad groups for POTS lines:
 - UNBAL (unbalanced line)
 - STDLN (standard line)
 - LRLM (line is on a remote line module [RLM] > 80 km)
- Pad groups for gateway lines:
 - PKLNL (gateway line with GRPTYPE S in table LGRPINV)
 - PKNIL (gateway line with GRPTYPE C in table LGRPINV)
- Station is a line or attendant console. Pad groups for Integrated Business Network (IBN) lines:
 - ONS (on-premises station)
 - OPS (off-premises station)
- Pad group for P-phone lines:
 - PPHON (P-phone set)
- Pad groups for POTS trunks:
 - IAO (intraoffice trunk)
 - LCO (collocated-SXS in the same office)
 - ELO (interoffice trunk, class 5 office)
 - ELOA (interoffice trunk, analog class 5 office)
 - ELOD (interoffice trunk, digital class 5 office)
 - ETLS (end office toll < 320 km between 2 class 5 offices)
 - ETLL (end office toll > 320 km between 2 class 5 offices)
 - TLA (TCT to toll office analog [class 4])
 - TLD (TCT to toll office digital [class 4])

- ITTA (intertoll trunk to analog toll office)
- ITTD (intertoll trunk to digital toll office)

Note: ITTD is recommended when trunking to Nortel CDMA sites.

- SAT (satellite office)
- Pad group for echo suppressors:
 - DES (digital echo suppressors)
- Pad group for conference bridges:
 - CONF (conference circuit)
- Pad groups for CAMA and TOPS positions:
 - CPOS (CAMA position)
 - TPOS (TOPS position)
- Pad groups for IBN trunks:
 - ATT (analog trunk interface to analog tie trunk)
 - DTT (digital trunk interface to digital or combination tie trunk)
 - CTT (combination tie trunk)
 - SATT (analog trunk interface to analog satellite private branch exchange [PBX] tie trunk)
 - SCTT (digital trunk interface to combination satellite PBX tie trunk)
 - SDTT (digital trunk interface to digital satellite PBX tie trunk)
 - ACO (analog trunk interface to analog central office [CO] trunk)
 - DCO (digital trunk interface to digital or combination CO trunk)
 - ATO (analog trunk interface to analog toll office [TO] trunk)
 - DTO (digital trunk interface to digital or combination TO trunk)

- Pad group for receivers:
 - RCVR, multifrequency [MF] and dual-tone multifrequency [DTMF] receivers, for selection of network pad values for trunk to receiver connections
- Pad group for PRA:
 - PRAC (PRA interface)
- Pad group for data above voice lines:
 - DAVLN (data above voice line)

Adding pad groups

You can add pad groups. The operating company can add pad groups to the proposed pad groups or define pad groups to add. The entry of the proposed pad groups is not a requirement. You can enter a maximum of 24 pad groups.

To create new pad groups, you can add the groups as keys in fields PADGRP1 and PADGRP2 of table PADDDATA. To use pad groups as line or trunk data, make sure the pad groups are in table PADDDATA.

Modifying pad groups

You can change the pad values in table PADDDATA. Checks to make sure the specified values apply for the agent that uses the pad group do not occur.

Deleting pad groups

Deletion of a table entry sets the internal data to represent 0 pad settings. If you delete all references to a pad group that the subscriber defines from the table, the system removes the key. The entry NPDGP is the nil pad group entry in fields PADGRP1 and PADGRP2. This entry replaces references to the deleted pad group.

Note: Deletion of all entries of a defined pad group removes all table entries. Deletion of entries does not remove the pad group name from the key range. Data references can reference the pad group. This action sets the pads to 0.

Access restriction to table PADDDATA

To restrict access to table PADDDATA, enter data in table CUSTPROT. You must use this method to restrict access for United Kingdom operating companies. Table PADDDATA contains the pad group values. Personnel that are not authorized must not change the values in this table.

Default keys and recommended DMS-100 loss values

The default values for fields PAD1TO2 and PAD2TO1 appear in the following table.

Default keys and recommended DMS-100 loss values (Sheet 1 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
STDNL	STDNL	0	0
UNBAL	STDNL	2L	2L
UNBAL	UNBAL	2L	2L
LRLM	STDNL	2L	2L
LRLM	UNBAL	2L	2L
LRLM	LRLM	2L	2L
IAO	STDNL	0	0
IAO	UNBAL	0	0
IAO	LRLM	0	0
IAO	IAO	0	0
LCO	STDNL	1L	0
LCO	UNBAL	1L	0
LCO	LRLM	1L	0
LCO	IAO	0	0
LCO	LCO	0	0
ELO	STDNL	3L	0
ELO	UNBAL	3L	0
ELO	LRLM	3L	0
ELO	IAO	0	0
ELO	LCO	2L	0
ELO	ELO	0	0

Default keys and recommended DMS-100 loss values (Sheet 2 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
ETLS	STDLN	3L	0
ETLS	UNBAL	3L	0
ETLS	LRLM	3L	0
ETLS	IAO	0	0
ETLS	LCO	2L	0
ETLS	ELO	3L	3L
ETLS	ETLS	3L	3L
ETLS	STDLN	6L	0
ETLL	UNBAL	6L	0
ETLL	LRLM	6L	0
ETLL	IAO	3L	0
ETLL	LCO	5L	0
ETLL	ELO	3L	0
ETLL	ETLS	3L	0
ETLL	ETLL	0	0
TLA	STDLN	5L	0
TLA	UNBAL	5L	0
TLA	LRLM	5L	0
TLA	IAO	3L	0
TLA	LCO	4L	0
TLA	ELO	3L	0
TLA	ETLS	3L	0
TLA	ETLL	0	0

Default keys and recommended DMS-100 loss values (Sheet 3 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
TLA	TLA	0	0
TLD	STDNL	6L	0
TLD	UNBAL	6L	0
TLD	LRLM	6L	0
TLD	IAO	3L	0
TLD	LCO	5L	0
TLD	ELO	3L	0
TLD	ETLS	3L	0
TLD	ETLL	0	0
TLD	TLA	0	0
TLD	TLD	0	0
CONF	STDNL	6L	0
CONF	UNBAL	6L	0
CONF	LRLM	6L	0
CONF	IAO	3L	0
CONF	LCO	5L	0
CONF	ELO	3L	0
CONF	ETLS	3L	0
CONF	ETLL	0	0
CONF	TLA	0	0
CONF	TLD	0	0
CONF	CONF	0	0
CPOS	STDNL	6L	0

Default keys and recommended DMS-100 loss values (Sheet 4 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
CPOS	UNBAL	6L	0
CPOS	LRLM	6L	0
CPOS	IAO	3L	0
CPOS	LCO	5L	0
CPOS	ELO	3L	0
CPOS	ETLS	3L	0
CPOS	ETLL	0	0
CPOS	TLA	0	0
CPOS	TLD	0	0
CPOS	CONF	0	0
CPOS	CPOS	0	0
TPOS	STDNL	6L	0
TPOS	UNBAL	6L	0
TPOS	LRLM	6L	0
TPOS	IAO	3L	0
TPOS	LCO	5L	0
TPOS	ELO	3L	0
TPOS	ETLS	3L	0
TPOS	ETLL	0	0
TPOS	TLA	0	0
TPOS	TLD	0	0
TPOS	CONF	0	0
TPOS	CPOS	0	0

Default keys and recommended DMS-100 loss values (Sheet 5 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
TPOS	TPOS	0	0
PPHON	STDNL	0	0
PPHON	UNBAL	0	0
PPHON	LRLM	0	0
PPHON	IAO	0	0
PPHON	LCO	0	0
PPHON	ELO	0	0
PPHON	ETLS	0	0
PPHON	ETLL	0	3L
PPHON	TLA	0	2L0
PPHON	TLD	0	3L
PPHON	CONF	0	3L
PPHON	CPOS	0	3L
PPHON	TPOS	0	3L
PPHON	PPHON	0	0
DAVLN	UNBAL	2L	5L
DAVLN	STDNL	0	3L
DAVLN	LRLM	2L	5L
DAVLN	DAVLN	3L	3L
DAVLN	SPPHN	0	3L
DAVLN	IAO	0	3L
DAVLN	LCO	0	4L
DAVLN	ELO	0	6L

Default keys and recommended DMS-100 loss values (Sheet 6 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
DAVLN	ETLS	0	6L
DAVLN	ETLL	0	7L
DAVLN	TLA	0	6L
DAVLN	TLD	0	7L
DAVLN	CONF	0	7L
DAVLN	CPOS	0	7L
DAVLN	TPOS	0	7L
PKLNL	NPDGP	0	0
PKLNL	UNBAL	6L	6L
PKLNL	STDNL	6L	6L
PKLNL	LRLM	6L	6L
PKLNL	ONS	6L	6L
PKLNL	OPS	6L	6L
PKLNL	PPHON	6L	6L
PKLNL	DAVLN	0	6L
PKLNL	SPPHN	0	6L
PKLNL	IAO	0	6L
PKLNL	LCO	0	6L
PKLNL	ELO	0	6L
PKLNL	ELOA	0	6L
PKLNL	ELOD	0	6L
PKLNL	ETLS	0	6L
PKLNL	ETLL	0	6L

Default keys and recommended DMS-100 loss values (Sheet 7 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
PKLNL	TLA	0	6L
PKLNL	TLD	0	6L
PKLNL	ITTA	0	6L
PKLNL	ITTD	0	6L
PKLNL	SAT	0	6L
PKLNL	DES	0	6L
PKLNL	CONF	0	6L
PKLNL	CPOS	0	6L
PKLNL	TPOS	0	6L
PKLNL	ATT	0	6L
PKLNL	DTT	0	6L
PKLNL	CTT	0	6L
PKLNL	SATT	0	6L
PKLNL	SCTT	0	6L
PKLNL	SDTT	0	6L
PKLNL	ACO	0	6L
PKLNL	DCO	0	6L
PKLNL	ATO	0	6L
PKLNL	DTO	0	6L
PKLNL	RCVR	0	6L
PKLNL	PRAC	0	6L
PKLNL	PKLNL	3L	3L
PKNIL	NPDGP	0	0

Default keys and recommended DMS-100 loss values (Sheet 8 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
PKNIL	UNBAL	6L	6L
PKNIL	STDNL	6L	6L
PKNIL	LRLM	6L	6L
PKNIL	ONS	6L	6L
PKNIL	OPS	6L	6L
PKNIL	PPHON	0	9L
PKNIL	DAVLN	0	9L
PKNIL	SPPHN	0	9L
PKNIL	IAO	0	9L
PKNIL	LCO	0	9L
PKNIL	ELO	0	9L
PKNIL	ELOA	0	9L
PKNIL	ELOD	0	9L
PKNIL	ETLS	0	9L
PKNIL	ETLL	0	9L
PKNIL	TLA	0	9L
PKNIL	TLD	0	9L
PKNIL	ITTA	0	9L
PKNIL	ITTD	0	9L
PKNIL	SAT	0	9L
PKNIL	DES	0	9L
PKNIL	CONF	0	9L
PKNIL	CPOS	0	9L

Default keys and recommended DMS-100 loss values (Sheet 9 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
PKNIL	TPOS	0	9L
PKNIL	ATT	0	9L
PKNIL	DTT	0	9L
PKNIL	CTT	0	9L
PKNIL	SATT	0	9L
PKNIL	SCTT	0	9L
PKNIL	SDTT	0	9L
PKNIL	ACO	0	9L
PKNIL	DCO	0	9L
PKNIL	ATO	0	9L
PKNIL	DTO	0	9L
PKNIL	RCVR	0	9L
PKNIL	PRAC	0	9L
PKNIL	PKLNL	6L	6L
PKNIL	PKNIL	9L	9L
PRAC	UNBAL	2L	0
PRAC	STDNL	3L	0
PRAC	LRLM	3L	0
PRAC	PPHON	0	6L
PRAC	IAO	3L	0
PRAC	LCO	3L	0
PRAC	ELO	0	0
PRAC	ETLS	0	0

Default keys and recommended DMS-100 loss values (Sheet 10 of 10)

PADGRP1	PADGRP2	PAD1TO2	PAD2TO1
PRAC	ETLL	0	0
PRAC	TLA	0	0
PRAC	TLD	0	0
PRAC	CONF	0	0
PRAC	CPOS	0	0
PRAC	TPOS	0	0
PRAC	ATT	3L	0
PRAC	DTT	0	0
PRAC	PRAC	0	0

Note: The value in field PAD2TO1 is 3 dB less than the accurate loss. A 3 dB fixed pad in the NT6X21 line card causes this condition.

Datafill sequence and meaning

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

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

- LNINV
- TRKGRP
- CONF3PR
- CONF6PR
- CPOS
- TOPSPOS

Table size

The system automatically allocates memory for 64 pad groups.

Datafill

The following table lists the datafill for table PADDDATA.

Field, subfield, and refinement descriptions for table PADDDATA (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PADKEY		see subfields	Pad data key. This field is the key to table PADDDATA. This field contains subfields PADGRP1 and PADGRP2.
	PADGRP1	alphanumeric (maximum of 5 characters)	Pad group one. Enter the pad group name to enter in field PADGRP of table TRKGRP, LNINV, CONF3PR, CONF6PR, CPOS, or TOPSPOS. The pad group can be one of the pad groups that the subscriber defines.
	PADGRP2	alphanumeric (maximum of 5 characters)	Pad group two. Enter the pad group name to enter in field PADGRP of table TRKGRP, LNINV, CONF3PR, CONF6PR, CPOS, or TOPSPOS. The pad group can be one of the reserved pad groups or a pad group the user defines.

Field, subfield, and refinement descriptions for table PADDATA (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PAD1TO2		1L to 14L, 0G to 7G, or 0 (zero)	Pad group one to pad group two. Enter the value of the network or line pad for the connection between the entry in field PADGRP1 to the entry in field PADGRP2. Each entry value corresponds to a gain or loss level. The value G indicates gain and L indicates loss. Note: Gain (G) applies to Series 1 peripherals. Series 1 peripherals are trunk modules (TM), maintenance trunk modules (MTM), service trunk modules (STM), line modules (LM), and remote line modules (RLM). Entry values that are gains cause a loss of 0.
PAD2TO1		1L to 14L, 0G to 7G, or 0 (zero)	Pad group two to pad group one. Enter the value of the network or line pad for connection PADGRP2 to PADGRP1. Each entry value corresponds to a gain or loss level in decibels. The value G indicates gain and L indicates loss. Note: Gain (G) applies to Series 1 peripherals. Series 1 peripherals are TM, MTM, STM, LM, and RLM. Entry values that are gains cause a loss of 0.

Additional information

Table PADDDATA is not used in TRAVER.

Table history

SN07

Table PADDDATA migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

PADNDEV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Patch Administration Device

The automatic patching application process uses table (Patch Administration Device) PADNDEV. A list of the devices that contain the patch appears in this table. When the system activates the automatic patch application process, the system searches table PADNDEV. The system searches this table for the patches that appear in table PATCTRL. You can add the store file device (SFDEV) and disk volumes to this table.

The key field (DEVKEY) and the associated device field (DEVICE) appear in this table. The automatic patch application process uses the key to select in sequence the devices that appear in the table. This operation stops when the system completes the search, or when the search reaches the bottom of the table.

See table PATCTRL for associated information.

Datafill sequence and meaning

You must enter data in table DDU before you enter data in table PADNDEV.

Datafill

The following table lists the datafill for table PADNDEV.

Field, subfield, and refinement descriptions for table PADNDEV (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DEVKEY		see 1, 2, or 3	Device key. Enter the key to the table that indicates the selection of the associated device. A key of 1 for the tuple indicates that the tuple contains the primary device used. A limit of three devices can appear in this table.

Field, subfield, and refinement descriptions for table PADNDEV (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DEVICE		alphanumeric (1 to 12 characters)	Device name. Enter the device name that contains a patch. The name SFDEV (store file device), or a disk volume are correct device names.

Table history**SN07**

Table PADNDEV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

PECINV

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Product Engineering Code Inventory

Table PECINV accommodates the baseline datafill of the SuperNode Product Engineering Codes (PECs).

The baseline datafill is in a separate EXT file. The system picks up this file during the loadbuild process. The content of this table is shipped with the software that goes to the operating company.

Changes to the hardware baseline can be necessary for special requirements of specified operating companies. You can perform changes to the baseline during hardware upgrades.

Datafill sequence and meaning

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

Table size

0 to 256 tuples.

An office parameter that you can use to change the maximum number of tuples in this table is not available. The maximum size is a constant. You can change the maximum number of tuples with a software upgrade.

Store for 256 tuples is pre-allocated in DSPROT. Each tuple approximately 20 bytes.

Datafill

The following table lists the datafill for table PECINV.

Field, subfield, and refinement descriptions for table PECINV

Field	Subfield or refinement	Entry	Explanation and action
PEC		vector of a maximum of eight characters	Product Engineering Code. This field contains correct SuperNode Product Engineering Codes (PECs). This field is the key field.
SSYSBASE		vector of a maximum of nine multiples with SUBSYS, BASELINE, EXCPTN or \$	Subsystem baselines. This field contains an optional vector of sub-tuples. Entry SUBSY is the SN_SUBSYSTEM_HW (SuperNode subsystem hardware) type, and contains the range STDHW, CMHW, MSHW, ENETHW, LIMHW, LIU7HW, APHW, HSIHW and LTSHW. The sub-tuple with STDHW subsystem hardware that applies for subsystem types does not appear in the tuple. The BASELINE is a table of two characters. The EXCPTN is an optional vector, with a maximum of two characters. These exception characters must be higher than the baseline. A \$ (dollar sign) terminates the vector.

Additional information

The system cannot perform Dump and Restore for this table. The content of this table is in an EXT file. If the system performs a dump and restore, the system loses the new content of the table.

Procedure for determining the minimum allowable baseline release number associated with a Product Engineering Code

- 1 Access C-SPAN as the C-SCAN Basic User Guide describes.
- 2 Select the Baseline Reports option.

Procedure for changing the release number associated with a Product Engineering Code***At the MAP terminal***

- 1 To return to the CI level of the MAP display, type
>QUIT ALL
and press the Enter key.
Example of a MAP response:
NO COMMAND IN LINE
- 2 To access table PECINV, type
>TABLE PECINV
and press the Enter key.
Example of a MAP response:
TABLE: PECINV
- 3 To identify (position on) the Product Engineering Code (PEC) to change, type
>POS pec
and press the Enter key.
where
pec
is the Product Engineering Code (like NT9X15AA)
Example of a MAP response:
NT9X15AA
(LIMHW40 \$) (MSHW40 \$) \$
- 4 To prepare to change the release number for the PEC, type
>CHA
and press the Enter key.
Example of a MAP response:
ENTER Y TO CONTINUE PROCESSING OR N TO QUIT

- 5 To confirm that a change must occur, type
>Y
and press the Enter key.
Example of a MAP response:
SSYSBASE: LIMHW 40 \$
- 6 To enter the new release number for the PEC, type
>subsys rel_no \$
and press the Enter key.
where
subsys
is the subsystem hardware type (like LIMHW)
rel_no
is the new release number (like 49)
Example of a MAP response:
SSYSBASE: LIMHW 49
- 7 To confirm that the new release number is correct for the PEC, type
>\$
and press the Enter key.
Example of a MAP response:
NT9X15AA
(LIMHW49 \$) \$
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
- 8 To confirm the change, type
>Y
and press the Enter key.
Example of a MAP response:
TUPLE changed
- 9 To make sure the change to table PECINV occurs, type
>LIST
and press the Enter key.

Example of a MAP response:

PEC	SSYSBASE

NT9X15AA	(LIMHW 49 \$) \$

- 10** To quit the table editor and return to the CI level of the MAP display, type

>QUIT ALL

and press the Enter key.

Table history

SN07

Table PECINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

Table size increase included as per feature A00002433.

PMLOADS

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Peripheral Module Loads

Feature AL0131 (PM Autoloading—Phase II) provides a general autoloading capability for the peripheral module (PM) loader. Extended multiprocessor system (XMS)-based PM (XPM) maintenance uses this capability to provide automatic reloads of XPMs that require a new load.

The application of dual-plane loading occurs for first-level XPMs. This condition reduces the load time of first-level XPMs.

The following node types provide PM autoloading:

- line trunk controller (LTC)
- remote cluster controller (RCC)
- message switch and buffer (MSB)
- emergency stand-alone (ESA)

The system reloads LTC or RCC PM types that have a load with faults. Operating company personnel do not have to interrupt when the system reloads these LTC or RCC PM types. This condition reduces recovery time.

Table PMLOADS stores the device location of every PM load file. This table stores mapping between the load names and devices on which the loads exist. This condition permits autoloading to locate load files without the interruption of operating company personnel.

The system does not activate autoloading for tape devices. The storage of PMloads must occur on a disk device. The system does not check the tuples the user enters during first entry of data. Every other add operation checks that the device and files are present.

Office alarms

Use of the autoloading option only occurs if a disk contains the load files. If the system does not locate a PMload on the disk, the system raises a minor alarm. This condition occurs because the magnetic tape center cannot recover the PMs that require reloads. The magnetic tape center

cannot recover these PMs because the system cannot locate the load file.

A minor alarm also occurs after PMLOADS locates invalid datafill for table ESRVATTR. The invalid ESRVATTR datafill appears before it can cause an outage.

Datafill sequence and meaning

The user must enter data in the following tables after table PMLOADS.

- LTCINV
- RCCINV
- XESAINV
- MSBINV

An exception to this condition occurs during the following events:

- first data entry
- dump and restore

In these events, the system adds tuples to table PMLOADS when the addition of tuples occurs in tables LTCINV and RCCINV.

During first data entry and dump and restore, the system enters data in table PMLOADS with a dummy entry. This condition occurs if the load name is not in the table. When this condition applies to a switch, the dummy entry must include the storage device for the PM load files.

Remove every use of a load name from every PM inventory table before you can remove the load name from table PMLOADS.

Table size

0 to 255 tuples.

Datafill

The following table lists the datafill for table PMLOADS.

Field, subfield, and refinement descriptions for table PMLOADS (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
load name		alphanumeric (a maximum of 32 characters)	PM loadfile name. Enter the PM load file name. The load file name in this field must be the same as the load file name specified in the inventory tables.
ACTFILE		alphanumeric (a maximum of 32 characters)	Active PM loadfile name. Enter the active PM load file name. Note: The active load file can be the original load file or a patched load file.
ACTVOL		alphanumeric (a maximum of 16 characters)	Active loadfile storage device. Specify the device that stores the active load file. The range is the set of disk drive unit (DDU) volumes and system load module (SLM) disks available to the computing module (CM).
BKPFIL		alphanumeric (a maximum of 32 characters)	Backup PM loadfile name. Enter the backup load file name. Note: In BCS36, the PM load file name is the shipped load file. The PM load file must be the same name as the name specified in field load name.
BKPVOL		alphanumeric (a maximum of 16 characters)	Backup loadfile storage device. Specify the device that stores the backup load file. The range is the set of disk drive unit (DDU) volumes and system load module (SLM) disks available to the computing module (CM).

Field, subfield, and refinement descriptions for table PMLOADS (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
UPDACT		Y or N	Automatic loadfile name update. Enter Y (yes) to update field ACTFILE automatically with the patched load file name. If you do not require an automatic update of field ACTFILE, enter N (no). The default value for this field is Y. Note: This field controls the ability of the load file to receive load file patching.

Additional information

The modified table PMLOADS stores data for the following:

- the names of the active load file name
- the backup load file name
- the file locations
- an update active load file to indicate if the user wants to activate load file patching

Table history**SN07**

Table PMLOADS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

PXCODE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Prefix Code

Table Prefix Code (PXCODE) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table PXCODE translates the prefix code digit segment, together with tables PXHEAD and PXC RTE.

For related information, refer to tables ACCODE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Table PXHEAD must be datafilled before tables PXCODE and PXRTE.

Datafill

Refer to table ACCODE for more information.

Table size

Refer to table ACCODE for more information.

Table history

SN07

Table PXCODE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

PXHEAD

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Prefix Code Head

Table Prefix Code Head (PXHEAD) is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments. Table PXHEAD translates the prefix code digit segment, together with tables PXCORE and PXRTS.

For related information, refer to tables ACCODE and ACRTE.

For a description of the universal translation tables, refer to table ACHEAD.

Datafill sequence and meaning

Refer to table ACHEAD for more information.

Datafill

Refer to table ACHEAD for more information.

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.

Table history

SN07

Table PXHEAD migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

PXRTE

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Prefix Code Route

Table PXRTE is a member of the universal translation tables. The universal translation tables are organized to translate the incoming digit string in segments.

Table PXRTE translates the prefix code digit segment, together with tables PXHEAD and PXCODE.

For related information, refer to table ACRTE. For a description of the universal translation tables, see table ACHEAD.

Datafill sequence and meaning

Table PXHEAD must be datafilled before tables PXRTE and PXCODE.

Datafill

Field names, subfield names, and valid data ranges for table PXRTE are described in table ACRTE.

Table size

Refer to table ACRTE for more information.

Table history

SN07

Table PXRTE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

NA017 (SN04)

Feature 59035336 introduces the Supergroup (SG) option.

QMSMIS

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

QMS MIS Link Definition

Table QMS MIS Link Definition (QMSMIS) defines the links used by a Queue Management System Management Information System (QMS MIS) application and also defines the audit frequency for the links.

Datafill sequence and meaning

When field DATALINK = MPC, datafill the tables in this order before table QMSMIS:

- MPC
- MPCLINK

When field DATALINK = ETHERNET, datafill the tables that follow in the indicated order before table QMSMIS:

- OANODNAM
- OANODINV

When field DATALINK = IP, datafill table IPCOMID before table QMSMIS.

Table size

The maximum number of tuples is 16. Each tuple will be 11 words long. The entire table will be allocated when initialized. It is a relatively small table and remains static in size.

Datafill

The following table lists the datafill for table QMSMIS.

Field, subfield, and refinement descriptions for table QMSMIS (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
INDEX		see subfield	QMS Management Information System index. This field consists of subfield K.
	K	TOPS, QMSNILAP, OSSAIN	QMS Management Information System application in use. This is the key field of the table. The entries are: TOPS - Traffic Operator Position System. This entry is used for MIS statistics accumulated for calls handled by operators. This entry requires that field DATALINK is set to MPC or IP. QMSNILAP - non-TOPS QMS application OSSAIN - Operator Services System Advanced Intelligent Network. This entry is used for MIS statistics accumulated for calls handled by OSSAIN Service Nodes. This entry requires that field DATALINK is set to ETHERNET.

Field, subfield, and refinement descriptions for table QMSMIS (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DATALINK		see subfield	Data link. This field consists of subfield DATALINK and refinements.
	DATALINK	MPC, ETHERNET, IP	Datalink. This field indicates the type of datalink used by the application to send MIS statistics. The values are the following: MPC - Multiprotocol controller link conversation list, which uses an X.25 datalink. This link is used by the TOPS MIS application. This entry requires that subfield K is set to TOPS or QMSNILAP. Enter datafill in subfield MLCLIST and refinements. ETHERNET - An Ethernet link, which is used by the OSSAIN MIS application. This entry requires that subfield K is set to OSSAIN. Enter datafill in refinements NODENAME, MISNETID, and MISPORT. IP - Internet protocol. Datafill fields BUFXTIME and CONNLIST.

Field, subfield, and refinement descriptions for table QMSMIS (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DATALINK (continued)	MLCLIST	see subfields	Multiprotocol controller link conversation list. This field consists of subfields M, L, and C. Separate each subfield with a single space. Up to 16 multiples of the subfields can be entered. If less than 16 multiples are entered, end with a \$ (dollar sign). Entries in field MLCLIST must match entries in tables MPC and MPCLINK. Only permanent virtual circuits (PVC) are supported by the Queue Management System Management Information System (QMS MIS) application. At least two links should always be datafilled for the TOPS application to guarantee that data is not lost if one link fails. A maximum of 16 links can be entered for the TOPS application. When more than one link has datafill against the TOPS application, the DMS switch shares the data transmission load, sending buffers across the least recently used link.
	M	0 to 255	Multiprotocol controller number. Enter the multiprotocol controller (MPC) number. This entry must first be entered in table MPC.

Field, subfield, and refinement descriptions for table QMSMIS (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DATALINK (continued)	L	0 to 3	Link number. Enter the link number. This entry must first be entered in table MPCLINK. Note: All link numbers must be 2 or 3 for QMS MIS applications.
	C	0 to 255	Conversation number. Enter the conversation number.
	NODENAME	name from table OANODINV	OSSAIN node name. Enter the source name of the MIS data. The node must be entered in tables OANODNAM and OANODINV. For table OANODINV, set fields ONPMTYPE = OSNM.
	MISNETID	0 to 32,766	Management information system (MIS) network identification. This field enables a unique identifier to be specified within the header of the MIS data stream. Enter a source identifier for the MIS data. In the OSAC environment, where multiple Host nodes may be connected, the MIS network Id can be used to uniquely identify the source of the MIS statistics.
	MISPORT	1024 to 32,767	MIS port. This field specifies the port number for sending an MIS class message to the given node.
	BUFXTIME	1 to 59	Buffer transfer time. This field indicates the maximum period before a buffered MIS IP buffer is sent to the MIS server.

Field, subfield, and refinement descriptions for table QMSMIS (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DATALINK (continued)	CONNLIST	see subfields	Connect list. Datafill subfields DESTADDR, DESTPORT, DESSTAT, and COMID.
	DESTADDR	4 numbers (0-255, 1-255, 0-255, 0-255)	Destination address. Enter the destination IP address to send the QMS MIS event message. The entry consists of 4 numbers, each in the indicated range and separated by a space.
	DESTPORT	1024 to 32,767	Destination port. Enter the port number to send the QMS MIS event message.
	DESSTAT	INACTIVE or ACTIVE	Destination status. The desired status of the destination server.
	COMID	number from IPCOMID	Communication identifier. Enter an index into table IPCOMID. This field points to an XPM and associated port (according to the service name) to use for IP communication.

Additional information

This section provides information on dump and restore procedures and error messages that can occur when datafilling table QMSMIS.

Dump and restore

No dump and restore is needed when first applied. Normal dump and restore procedures apply after the first application.

Error messages

The following error messages apply to table QMSMIS.

Error messages for table QMSMIS (Sheet 1 of 4)

Error message	Explanation and action
UNABLE TO OBTAIN OWNERSHIP OF CONVERSATION MPC <mpc number>, LINK <link number>, CHANNEL <channel number>, AT POSITION <position number> IN MLCLIST.	If an attempt is made to datafill an MPC or link (field MLCLIST) in table QMSMIS that is not datafilled in tables MPC or MPCLINK, respectively, this error message is produced: <Position number> refers to the position of the particular MLC tuple in the MLC list. For instance, if the second MLC element in the MLC list had a link number that is not datafilled in table MPCLINK, the position number printed is 2.
The node specified must be datafilled with PMTYPE of OSNM in Table OANODINV.	The specified node name must be datafilled with a PMTYPE of OSNM in table OANODINV or this message is displayed.
You must OFFL the new node before changing the node name.	The node name can not be changed unless the node specified by node name is off-line. Otherwise, one of these messages is displayed.
You must OFFL the old node before changing the node name.	
You must OFFL this node before changing the MISPORT.	The MISPORT can not be changed unless the node specified by NODENAME is off-line. Otherwise, this message is displayed.
You must OFFL this node before deleting the tuple.	The tuple cannot be deleted unless the node specified by NODENAME is off-line. Otherwise, this message is displayed.

Error messages for table QMSMIS (Sheet 2 of 4)

Error message	Explanation and action
You must OFFL this node before adding the tuple.	The tuple cannot be added unless the node specified by NODENAME is off-line. Otherwise, this message is displayed.
The NODENAME specified is in use in Table OASESNPL.	The specified node name cannot be in use in table OASESNPL. Otherwise, this error message is displayed.
You must set DATALINK to IP or MPC for TOPS MIS facility. You must set DATALINK to ETHERNET for OSSAIN MIS nodes.	The index and DATALINK fields must match. If the index is set to TOPS the DATALINK field must be either IP or MPC, and if the index is OSSAIN, the DATALINK needs to be ETHERNET. Failure to do so results in one of these messages.
Invalid COMID. Make sure COMID exist in table IPCOMID.	The COMID specified must already be datafilled in table IPCOMID before it can be used in table QMSMIS. Failure to do so will result in this message.
Error! COMID already in use by another application	If the COMID is already being used by another application, this error message is displayed.
ERROR ALLOCATING MEMORY FOR NEW IP TUPLE.	If the CM cannot allocate memory when an IP tuple is being added, this error message is displayed.
COMID IS NOT PRESENT IN TABLE IPCOMID	When an IP tuple being added to the IP vector fails to bind to the IP Datacomm layer due to an invalid comid error this message is displayed.

Error messages for table QSMIS (Sheet 3 of 4)

Error message	Explanation and action
COMID IS ALREADY IN USE BY ANOTHER APPLICATION	When an IP tuple being added to the IP vector fails to bind to the IP Datacomm layer because the comid is already in use by another application, this message is displayed.
PROBLEM WITH THE SERVICE BOUND TO THIS COMID	When an IP tuple being added to the IP vector fails to bind to the IP Datacomm layer due to a wrong service datafilled for the comid this message is displayed
COMID FAIL TO BIND TO IP LAYER	When an IP tuple being added to the IP vector fails to bind to the IP Datacomm layer for any unknown reason, this message is displayed.
EMPTY IP VECTOR IS NOT ALLOWED	Empty IP vectors are not allowed. This message is displayed if an attempt is made to add an empty vector.
DUPLICATE COMIDS ARE NOT ALLOWED.USE ONE COMID PER IP CONNECTION.	An attempt to add duplicate COMIDs to an IP vector will result to this message being displayed.
ERROR - ONLY COMIDS DATAFILLED TO USE TCP PROTOCOL ARE ALLOWED IN TABLE QSMIS.	An attempt to datafill a protocol other than TCP for a COMID used by table QSMIS will result in this message.
FAIL TO ALLOCATE MEMORY FOR IP BUFFERS.	If memory cannot be allocated for the IP buffers the first time an IP interface is added in table QSMIS, this message is displayed.
YOU MUST SET THE DESSTAT FIELD(S) TO INACTIVE BEFORE DELETING THE TUPLE.	When an attempt is made to delete a TOPS IP tuple whose DESSTAT Field(s) are active, this message is displayed.

Error messages for table QMSMIS (Sheet 4 of 4)

Error message	Explanation and action
YOU MUST SET THE DESSTAT FIELD(S) TO INACTIVE BEFORE CHANGING THE TUPLE.	When an attempt is made to change the datalink of a TOPS tuple from IP to MPC, this message is displayed if any of the DESSTAT fields are active.
WARNING!! DATAFILLING A COMID WITH A NON-ZERO PORT IN TABLE IPSVCS FOR TCP, WILL RESULT IN TCP/IP CONNECTION RE-ESTABLISHMENT DELAYS. IT IS HIGHLY RECOMMENDED TO DATAFILL ZERO AS THE PORT NUMBER IN TABLE IPSVCS FOR THE QMS MIS IP APPLICATION.	When a non-zero port is datafilled in table IPSVCS for a QMSMIS service, a warning is produced when the COMID that uses that port is datafilled in table QMSMIS.

Table history**SN07**

Table QMSMIS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

RESFEAT

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Residential Line Feature

Table RESFEAT contains the assignment of custom local area signaling services (CLASS) features for residential lines.

CLASS features are as follows:

- Automatic Call Blocking (ACB)
- Anonymous Caller Rejection (ACRJ)
- Analog Display Services Interface (ADSI)
- Automatic Recall (AR)
- Call Logging (CALLOG)
- CLASS Message Waiting Indicator (CMWI)
- Calling Name Delivery Blocking (CNAB)
- Calling Name Delivery (CNAMD)
- Calling Number Delivery (CND)
- Calling Number Delivery Blocking (CNDB)
- Customer Originated Trace (COT)
- Deluxe Spontaneous Call Waiting Identification (DSCWID)
- Dialable Number Delivery (DDN)
- Distinctive Ringing Call Waiting (DRCW)
- Redirecting Number and Reason Delivery (RND)
- Selective Call Acceptance (SCA)
- Selective Call Forwarding (SCF)
- Selective Call Rejection (SCRJ)
- Spontaneous Call Waiting Identification (SCWID)

Note 1: CND and DDN are incompatible features and are mutually exclusive.

Note 2: Assign Screening List Editing (SLE) features (DRCW, SCA, SCF, SCRJ) to directory numbers (DNs) on integrated services digital network (ISDN) sets. SLE features assigned to ISDN sets are in the index by the logical terminal identification (LTID). There is one tuple for each DN key that has the SLE feature.

Note 3: As of BCS36, CLASS features can be assigned to data units.

The following paragraphs describe the CLASS features available for residential lines.

Automatic Call Back (ACB)

This feature allows a subscriber to place a call to the last station the subscriber called. If the destination line is busy, ACB monitors the line until it becomes idle and can accept the call.

Anonymous Caller Rejection (ACRJ)

This feature allows the subscriber to reject incoming calls from callers who have intentionally blocked their caller identification information.

The ACRJ option requires NT1X77AA and NT1X79AA digital recorded announcement (DRA) cards for recording customized announcements, including rejection and activation/deactivation confirming announcements.

ACRJ can be assigned to the pilots and individual members of multiline hunt (MLH) and distributed line hunt (DLH) groups. ACRJ must be assigned to directory number hunt (DNH) groups on an individual basis. ACRJ may be assigned to only the primary member of a multiple access directory group (MADN).

ACRJ can be used with Meridian Business sets but not with Integrated Voice and Data Sets or ISDN sets.

Analog Display Services Interface (ADSI)

This feature is used to distinguish between the audio and visual types of access for SLE features. When ADSI is assigned to a line with the SLE feature, Visual Screen List Editing (VSLE) is accessed if the customer premises equipment (CPE) acknowledges the CPE alerting signal (CAS) or query tone with a dual-tone multifrequency (DTMF) A tone. The host peripheral module (PM) on the line must have a unified processor (UP), a universal tone receiver (UTR), a CLASS modem resource card (CMR), and the 6X69AD tone and messaging card. Access to the ADSI line option is allowed in table RESOFC when the ADSI tuple is enabled.

The SLE function allows subscribers to screen specific incoming calls for special treatment. In a VSLE session, using the ADSI protocol and the ADSI-compatible display set, the main list editing level is replaced with a visual display of feature status information. The subscriber uses scrolling softkeys that move through items in the screening list.

The ADSI feature is always assigned with subfield AMA set to NOAMA and subfield STATUS set to ACT (active).

Automatic Recall (AR)

This feature allows a subscriber to place a call to the last station that called the subscriber. If the destination line is busy, AR monitors it until it becomes idle and can accept the call.

AR can also be activated as a two-level procedure featuring three types of announcements depending on the type of the incoming call: the DN announcement, the private DN announcement, and the invalid DN announcement. With the DN announcement, the subscriber hears an announcement stating the DN of the last incoming call as well as the date and time of that call. The subscriber is then instructed to dial the digit 1 to activate AR or hang up to abort AR.

Call Logging (CALLOG)

This feature provides the subscriber with information related to busy, unanswered, or forwarded calls.

The subscriber accesses this feature by dialing an appropriate activation code and views the information using softkeys on SESAME customer premise equipment (CPE). Upon viewing, the subscriber receives the following information for each call:

- the DN and name of the calling party, when available
- the time and date of the call's arrival
- the number of times the calling party called
- the status (unanswered, forwarded, or busy) of the subscriber's line when the call was logged

The CALLOG option is not allowed on an MLH/DLH hunt member.

CLASS Message Waiting Indicator (CMWI)

This feature builds on the Message Waiting (MWT) feature. The MWT feature allows users to have a list of messages stored against their station in the DMS switch or at a message center. When a message is queued against the user's station, the message waiting indicator

associated with the station is activated. When the last message is retrieved by the user, the message waiting indicator is deactivated.

The CMWI feature provides a means of controlling the message waiting indicator on a CLASS set.

Subscribers must have option MWT assigned to their lines before option CMWI can be added.

The subscriber must be equipped with a set capable of receiving and understanding CLASS modem transmissions. The CLASS Modem Resource (CMR) card is used to transmit the lamp/display information to the set.

The CMWI feature is activated when enabled in the office and assigned to the line. The CMWI subscribers can activate or deactivate the ringing option by dialing the CMWIRING activation and deactivation codes from their sets.

Calling Name Delivery Blocking (CNAB)

This feature allows delivery of the calling name to be blocked.

When feature package NTXE46AA is present, the CNAB options provide the ability to activate the CNB (Calling Number Blocking), CNNB (Calling Name Number Blocking), and CNND (Calling Name Number Delivery) options.

Calling Name Delivery (CNAMD)

This feature delivers the calling party's name, current time, and date to the terminating line between the first two rings of every incoming call, provided the host PM on the line has a CMR card and CNAMD is turned on for the switching unit in table RESOFC.

Feature CNAMD with automatic message accounting (AMA) allows subscription usage sensitive pricing (SUSP) for CNAMD. An AMA record is generated for each delivery of calling information on calls terminating to the line. The user must dial the CNAMD SUSP activation code datafilled in table IBNXLA to activate CNAMD with AMA. AMA is only available if field SUSP in table AMAOPTS is set to ON.

For ISDN basic rate interface (BRI) lines, use the Aggregate CND Recording (ACR) line option to generate ISDN-specific AMA billing records. Option ACR differentiates between voiceband information (VI) and circuit-mode data (CMD) calls in the AMA records it produces. Option ACR is an extension of the CND feature. Option ACR requires that the line has the CND feature and that CND is enabled for the switch

in table RESOFC. Feature CNAMD is optional for use with the ACR line option.

No activation code is required if the line has feature CNAMD with no AMA. Delivery of calling name information is automatic.

Note: All CLASS display features (CNAMD, CND, and DDN) with AMA use the same CND SUSP activation or deactivation code datafilled in table IBNXLA. Dialing the CND SUSP activation code activates all display features with AMA. The subscriber cannot turn on or off a single display feature leaving others unaffected.

Calling Number Delivery (CND)

This feature indicates that the line receives calling information on calls terminating to the line, provided the host PM on the line has a CMR card and CND is turned on for the switching unit in table RESOFC.

Table LTCINV or table RCCINV must be datafilled with a CMR card in field OPTCARD for the host PM of the line.

Note: If table LTCINV or table RCCINV is not datafilled, the CND feature is still added to the line.

Feature CND with AMA allows SUSP for the feature. An AMA record is generated for each delivery of calling information on calls terminating to the line. The user must dial the CND SUSP activation code that is datafilled in table IBNXLA to activate CND with AMA. AMA is only available if the SUSP option in table AMAOPTS is set ON.

For ISDN BRI lines, use the ACR line option to generate ISDN-specific AMA billing records for VI and CMD. Option ACR differentiates between VI and CMD calls in the AMA records it produces. Option ACR is an extension of the CND feature. Option ACR requires that the line has the CND feature and that CND is enabled for the switch in table RESOFC.

Calling Number Delivery Blocking (CNDB)

This feature allows delivery of the calling number to be blocked.

The CNDB option cannot be assigned to Meridian business sets (MBS).

When feature package NTXE46AA is present, the CNDB options provide the ability to activate the CNB (Calling Number Blocking), CNNB (Calling Name Number Blocking), and CNND (Calling Name Number Delivery) options.

Customer Originated Trace (COT)

This feature allows the recipient of a harassing call to request an automatic trace of the call.

Deluxe Spontaneous Call Waiting Identification (DSCWID)

This feature allows a subscriber to receive calling party information during Call Waiting (CWT) and control the treatment of incoming calls with a set of disposition options. The host PM must have a CMR card, and the DSCWID feature must be turned on for the switching unit in table RESOFC. The disposition options are available through softkeys on an ADSI-compliant CPE. The term softkey refers to the context-sensitive keys on the CPE that change function according to the type of service and the menu levels within the service.

The DSCWID subscriber receives one of two types of CWT alerting sequences: subscriber alerting signal (SAS) or a SAS followed by a CPE alerting signal (CAS). The SAS is the normal CWT tone that a subscriber hears. The SAS followed by a CAS is necessary to alert the CPE to display the DSCWID options on the ADSI-compliant CPE as well as to send caller identification (CID) to the CPE if a CID feature, such as CND, DDN, or CNAMD, is assigned to the DSCWID subscriber's line.

After the CWT tone indicates to the DSCWID subscriber that a call is waiting, the CPE displays calling party information (name, number, or both name and number) and softkey options from which the subscriber can choose a disposition for the waiting call.

The DSCWID subscriber can choose one of the following options for treating the second (incoming) call:

- Answer the new call and put the existing call on hold.
- Disconnect the existing call and answer the new call.
- Connect the new call to a busy announcement.
- Forward the new call.
- Put the new call on hold after connecting to a hold announcement.
- Conference the new call with the existing call.

Dialable Number Delivery (DDN)

This feature indicates that the line receives calling information in the form of a dialable DN on calls terminating to the line. The information is delivered, provided that the host PM of the line has a CMR card and that feature DDN is turned on for the switching unit in table RESOFC.

Feature DDN is an enhancement to the CLASS CND feature. The DDN feature delivers the calling number to the subscriber with the digits the subscriber dials to reach the calling party. When feature DDN with NOAMA is assigned to a line, delivery of calling information is automatically activated.

No AMA records are generated for delivery of calling information to a DDN NOAMA line.

Feature DDN with AMA allows SUSP for feature DDN. An activation code CND SUSP datafilled in table IBNXL A must be dialed in order to activate delivery of calling information. Once this activation code has been dialed, an AMA record is generated each time the calling information is delivered to the line. Feature DDN with the AMA option is also referred to as DDN SUSP.

Table LTCINV or table RCCINV must be datafilled with a CMR card in field OPTCARD for the host PM of the line.

Note: If table LTCINV or table RCCINV is not datafilled, the CND is still added to the line.

Distinctive Ringing/Call Waiting (DRCW)

This feature allows a subscriber to identify a list of directory numbers by receiving distinctive alerting treatment. The DNs, given distinctive alerting treatment, are built into a list through the SLE facility. These terminating alerting treatments are different from standard power ringing and call-waiting tone. The caller only receives standard audible ringing.

The distinctive alerting is given when a call is received from a DN that is on the list of numbers referred to as the DRCW list. If a call is made to a DRCW subscriber's line while it is busy, the distinctive call waiting tone is given if the following conditions apply.

- The line has standard call waiting assigned to it.
- A call can be waited.
- The calling DN is on the operating company's DRCW list. Calling DNs not on the DRCW list are identified using standard call waiting treatment.

Distinctive call waiting is the same as Call Waiting, except during alerting treatment. If DNs of the incoming calls cannot be identified or do not exist on the DRCW screening list, then standard alerting treatment is provided for these incoming calls.

Feature DCRW supports the lines that are connected to the following PMs:

- line concentrating modules (LCM)
- remote LCMs (RLCM)
- outside plant modules (OPM)
- line modules (LM)
- remote LMs (RLM)
- subscriber carrier modules (SCM)
 - subscriber carrier module urban (SCM-100U/RCU)
 - subscriber carrier module SLC-96 (SCM-100S/RCS)
 - subscriber carrier module rural (SCM-100R/RCT)

The ring types supported are coded, superimposed, and frequency selective ringing, shown in the following table below with the different PMs.

Ring types

PM types	Ring type
LCM	Coded
LM	Coded
OPM	Coded
RLCM	Coded
RLM	Coded
SCM-100S/RCS	Frequency selective
SCM-100R/RCT	Superimposed
SCM-100U/RCU	Coded

DCRW ringing pattern varies according to the ring type. For coded and superimposed frequencies, the ringing pattern is on-off-on-off.

The duration of the ringing components for the coded and superimposed ring types vary according to the following conditions.

If the subscriber line is connected to an LCM, LM, OPM, RLCM, or RM, then durations are as shown in the following table.

LCM, LM, OPM, RLCM, RM ringing duration

Ringing type	Short ring	Long ring	Inter-ring silence
Coded 20 Hz	500 ms	1000 ms	500 ms
Coded 30 Hz	450 ms	900 ms	450 ms
Coded 30 Hz (See Note)	500 ms	1000 ms	500 ms
Superimposed	460 ms	920 ms	460 ms
Note: If the optional package NTX101 (IBN Enhanced Services) is present in the office, Coded 30 Hz is the same as Coded 20 Hz.			

If the subscriber line is connected to an SCM, then the durations are as shown in the following table.

SCM ringing duration

Ringing type	Short ring	Long ring	Inter-ring silence
Coded 20 Hz	500 ms	1000 ms	500 ms
Coded 30 Hz	500 ms	1000 ms	500 ms
Superimposed	500 ms	1000 ms	500 ms

Frequency selective ringing

For frequency selective ringing, the DRCW ring pattern is on-off-on.

If the subscriber line is connected to an LCM, LM, OPM, RLCM, or RLM, the pattern heard by the subscriber is short-short.

The duration of the ringing components is shown in the following table.

Duration of components

	First short	Second short	Inter-ring silence
Frequency selective	600 ms	640 ms	700 ms

If the subscriber is connected to an SCM, then the pattern heard by the subscriber is long-long.

The duration of the ringing components is shown in the following table.

Duration of components for SCM

	First long	Second long	Inter-ring silence
Frequency selective	1000 ms	1000 ms	500 ms

The distinctive call waiting tone of the DRCW feature consists of different length bursts of 440 Hz tone. The pattern provided is on-off-on-off-on.

The duration for each segment is shown in the following table.

Segment durations

Short tone	Long tone	Inter-ring silence
100 ms	500 ms	100 ms

Redirecting Number and Reason Delivery (RND)

This feature allows redirecting number and reason delivery for ISDN call forwarding. Add option RND to the DN by SERVORD to set RND for an ISDN line as flat-rate or SUSP. SERVORD automatically updates table RESFEAT with a tuple for each DN assigned the RND option.

Enter Y in the ENABLED subfield for the RND tuple in table RESOFC to enable the RND line option. Universal access does not apply to RND. Set field ACCESS to SUBSCR for subscription access only billing.

Selective Call Acceptance (SCA)

This feature allows a subscriber to selectively accept calls arriving from a set of DNs as specified in an SCA list that is built using the SLE facility. The customer activates feature SCA by dialing the SCA access code that is datafilled in table IBNXLA and enters the SLE sessions.

Any call that terminates to a line with feature SCA is screened by the SCA feature before any other terminating feature is enabled. If feature SCA is active and the incoming call's DN is not on the SCA list, the caller is given SCA treatment. Any toll call is charged for the call if specified in table RESOFC. If screening cannot be applied due to system failure, lack of resources, or the calling DN is not available, the

call is given SCA treatment. Feature SCA only allows calls that can be screened to terminate.

The exception to SCA screening is any incoming call from an operator no-test trunk. This provides a limited capability to allow completion of emergency calls to an SCA line that originate from lines not on the SCA list. The operator can then inform the SCA user of the emergency call. Handling of the call at that point is up to the discretion of the SCA user.

Selective Call Forwarding (SCF)

This feature allows a subscriber to selectively forward calls arriving from a set of DN's as specified in an SCF list built using the SLE facility. The subscriber activates feature SCF by dialing the SCF access code datafilled in table IBNXLA and entering the SLE sessions.

Feature SCF takes precedence over other kinds of call forwarding. For example, if a line has both features SCF and CFU active and the calling DN appears on the line's SCF list, the call is forwarded to both the SCF feature and the DN.

Tuples for feature SCF in table RESFEAT cannot be added or deleted. Each tuple can only be modified. Tuples are automatically added or deleted to this table when feature SCF for the lines is added in table IBNFEAT.

Selective Call Rejection (SCRJ)

This feature allows a subscriber to selectively reject calls arriving from a limited set of previously identified DN's. The rejected DN's are built into a list by the SLE facility. Calls that are rejected are given treatment SCRJ.

The subscriber initiates an SCRJ SLE session by dialing the SCRJ code. The access code is specified in table IBNXLA. The subscriber with SCRJ is not advised, in any way, that calls are being rejected. When the incoming call screened is a forwarded call, the originating DN, not a forwarding station's DN, is screened.

Spontaneous Call Waiting Identification (SCWID)

This feature allows a subscriber to receive calling party information in conjunction with a call waiting tone.

To assign SCWID to a line, CWT must be assigned to the line either at the same time or before SCWID is added. At least one display option (DDN, CND, or CNAMD) must be assigned to the line either at the same time or before SCWID is added.

If the CWT option is deleted from a SCWID line, the SCWID option must be removed first. SCWID must be deleted either at the same time or before the last display option is removed.

If RES_SO_SIMPLIFICATION is TRUE, the SCWID line option can be added to lines that have been assigned the RES, 1FR, or 1MR line class code.

With feature package NTXE58AA, SCWID can be assigned to lines with an LCC of IBN.

With feature package NTXE64AA, SCWID can be assigned to LCCs of OWT, EOW, INW, 2WW, and ETW.

Datafill sequence and meaning

The following tables must be datafilled before table RESFEAT:

- RESOFC
- IBNLINES

Datafill

The following table lists the datafill for table RESFEAT.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 1 of 13)

Field	Subfield or refinement	Entry	Explanation and action
LINE		see subfields	<i>Line</i> This field is the key to table RESFEAT. It is identical to field LEN. Field LEN defines the physical location of the equipment that is connected to a specific telephone line. Because field LEN is common to more than 60 tables, it is documented in a single section to avoid unnecessary duplication. Refer to section "Common entry field LEN" for a complete description of field LEN and associated subfields. For ISDN lines, field LEN consists of subfield LTID. For non-ISDN lines, field LEN consists of subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT, and CIRCUIT.
KEY		0 to 69	<i>Key</i> This field contains the possible physical keys for a DN appearance on a Meridian business set (MBS). A non-MBS set always has a key of 0 (zero). All keysets have range of 1 to 69.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 2 of 13)

Field	Subfield or refinement	Entry	Explanation and action
FEAT		ACB, ACRJ, ADSI, AR, CALLOG, CMWI, CNAB, CNAMD, CND, CNDB, COT, DDN, DRCW, DSCWID, RND, SCA, SCF, SCRJ, SCWID	<i>Class feature.</i> Enter ACB for Automatic Call Back. Enter ACRJ for Anonymous Caller Rejection. Enter ADSI for Analog Display Services Interface. Enter AR for Automatic Recall. Enter CALLOG for Call Logging. Enter CMWI for CLASS Message Waiting Indicator. Enter CNAB for Calling Name Delivery Blocking. Enter CNAMD for Calling Name Delivery. Enter CND for Calling Number Delivery. Enter CNDB for Calling Number Delivery Blocking. Enter COT for Customer Originated Trace. Enter DDN for Dialable Directory Number. Enter DRCW for Distinctive Ringing Call Waiting. Enter DSCWID for Deluxe Spontaneous Call Waiting Identification.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 3 of 13)

Field	Subfield or refinement	Entry	Explanation and action
FEAT (continued)			Enter RND for Redirecting Number and Reason Delivery. Enter SCA for Selective Call Acceptance. Enter SCF for Selective Call Forwarding. Enter SCRJ for Selective Call Rejection. Enter SCWID for Spontaneous Call Waiting Identification.
VAR		see subfields	<i>Variable data</i> This field consists of subfields DF, AMA, STATUS, FDN, DTYPE, DEFTRMT, DAMA, CONFPEGS, AVAILDLY, UNAVAILDLY, CMDAVAILDLY, and CMDUNAVAILDLY
	DF	ACB, ACRJ, ADSI, AR, CALLOG, CMWI, CNAB, CNAMD, CND, CNDB, COT, DDN, DRCW, DSCWID, RND, SCA, SCF, SCRJ, SCWID	<i>CLASS feature.</i> Enter AMA if an automatic message accounting (AMA) record is generated for the feature. The SUSP (subscriber usage sensitive pricing) feature in table AMAOPTS must be set ON for AMA generation.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 4 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	AMA	AMA, NOAMA	<i>Automatic message accounting.</i> Enter AMA if an automatic message accounting (AMA) record is generated for the feature. The SUSP (subscriber usage sensitive pricing) feature in table AMAOPTS must be set ON for AMA generation. Enter NOAMA if no AMA record is required.
	STATUS	ACT, INACT, UNIVA, UNIVI	<i>Status</i> Enter ACT (active) if the feature is active on the line. Otherwise, enter INACT (inactive). The entries UNIVA and UNIVI indicate the feature is activated or inactivated by a universal user. Enable the feature for the office in table RESOFC.
	FDN	1 to 30 digits	<i>SCF DN</i> If the entry in subfield DF is SCF, datafill this refinement. Enter the forward-to DN for SCF calls when SCF is active.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 5 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	DTYPE	PROPRITY, ADSITIME, ADSICID, NODATA, NOCIDCW, COMPLETE, DEF, or others as defined	<i>DSCWID type</i> If the entry in subfield DF is DSCWID, datafill this refinement. The DSCWID type is the name defined in table DSCWDTYPE. Enter the name of the DSCWID type assigned to the line as follows: • The PROPRITY tuple indicates the proprietary DSCWID type. • The ADSITIME tuple indicates that only time data is transmitted and only standard CWT is available to non-ADSI sets. • The ADSICID tuple indicates that both CID and time data are transmitted, based on the CID features present on the line, and only standard CWT is available to non-ADSI sets. • The NODATA tuple indicates that CID and time data are not transmitted, and both ADSI and non-ADSI sets have all DSCWID options.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 6 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)			- The NOCIDCW tuple indicates that only time data is transmitted, and both ADSI and non-ADSI sets have all DSCWID options. - The COMPLETE tuple indicates both CID call waiting (CIDCW) and time data are transmitted, and both ADSI and non-ADSI sets have all DSCWID options. Note: You cannot use the PROPRITY value when adding DSCWID to a line.
	DEFTRMT	RING, FWD, ANNC, or DEF	<i>Default treatment</i> If the entry in subfield DF is DSCWID, datafill this refinement. Enter the default treatment to be applied when no DSCWID option is chosen. Enter RING to apply ringing, ANNC to apply an announcement, and FWD to forward the call to a valid CFDA number. Enter DEF to apply the same treatment datafilled in table RESOFC.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 7 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	DAMA	NONE, CONF, or DEF	<i>DSCWID AMA</i> If the entry in subfield DF is DSCWID, datafill this refinement. Enter the type of AMA recording status for DSCWID lines. Enter CONF to record on use of the CONFERENCE option, NONE for no AMA recording, and DEF to apply the same AMA status datafilled in table RESOFC.
	CONFPEGS	0 to 32767	<i>Conference pegs</i> If the entry in subfield DF is DSCWID, datafill this refinement. Enter the number of successful DSCWID conference attempts made when subfield DAMA is set to CONF since the last aggregation interval. This field cannot be changed by the operating company. It should be reset at the close of the aggregation interval or when subfield DAMA is reset to NONE.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 8 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	AVAILDLY	0 to 32767	<i>Available delivery</i> If the entry in subfield DF is CNAMD, CND, DDN, or RND datafill this refinement. This field holds the unrecorded counts for voice deliveries where information was available but not recorded in a Bellcore AMA format record. This count only increments when the feature has AMA enabled in table RESOFC and option SUSP is ON in table AMAOPTS. If the entry in subfield DF is CNAMD, this field holds the number of times that both a calling name and a calling number are delivered. If the entry in subfield DF is CND or DDN, this field holds the number of times a calling name, but not a calling number is delivered. If the entry in subfield DF is RND, this field holds the number of times the redirecting number is delivered. The default is 0 (zero).

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 9 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	UNAVAILDLY	0 to 32767	<i>Unavailable delivery</i> If the entry in subfield DF is CNAMD, CND, DDN, or RND datafill this refinement. This field holds the unrecorded counts for voice deliveries where information was suppressed, private, or otherwise unavailable for the feature. These were not recorded in a BELLCORE format. This count only increments when the feature has AMA enabled in table RESOFC and option SUSP is ON in table AMAOPTS. If the entry in subfield DF is CNAMD, this field holds the number of times that neither a calling name and a calling number are delivered. If the entry in subfield DF is CND or DDN, this field holds the number of times a calling number, but no calling name is delivered. If the entry in subfield DF is RND, this field holds the number of times that no redirecting number is delivered. The default is 0 (zero).

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 10 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	CMDAVAILDLY	0 to 3276	<i>Circuit-mode data (CMD) available delivery</i> For ISDN BRI, the Calling Number Identification Service (CNIS) billing feature includes the SERVORD option Aggregate CND Recording (ACR). Option ACR generates call type-specific AMA records for CND or CNAMD, or both. SERVORD option ARR (Aggregate RND Recording) generates call type-specific AMA records for the RND feature. If RND is on the line, ARR is required. If the entry in subfield DF is CNAMD or CND, datafill this refinement. This field holds the unrecorded counts for deliveries where information was available but not recorded in a BELLCORE AMA format record. This count only increments when the feature has AMA enabled in table RESOFC and option SUSP is ON in table AMAOPTS.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 11 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)			This field holds CMD counts for ISDN BRI only. The AVAILDLY subfield holds all voice and non-ISDN counts. If subfield DF contains CNAMD, this field indicates how often the switch delivered both a calling name and a calling number. If subfield DF contains CND, this field indicates how often the switch delivered a calling name but not a calling number (that is, CNAMD-only deliveries). If subfield DF contains RND, this field indicates the number of times a redirecting number is delivered. The default is 0 (zero).

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 12 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)	CMDUNAVAILDL Y	0 to 32767	<i>Circuit-mode data (CMD) unavailable delivery</i> For ISDN BRI, the CNIS billing feature includes the SERVORD option ACR. Option ACR generates call type-specific AMA records for CND or CNAMD, or both. If the entry in subfield DF is CNAMD or CND, datafill this refinement. This field holds the unrecorded counts for deliveries where information was available but not recorded in a BELLCORE AMA format record. This count only increments when the feature has AMA enabled in table RESOFC and option SUSP is ON in table AMAOPTS. SERVORD option ARR generates call type-specific AMA records for the RND feature. If RND is on the line, ARR is required. This field holds CMD counts for ISDN BRI only. The UNAVAILDL subfield holds all voice and non-ISDN counts. If subfield DF contains CNAMD, this field indicates how often the switch did not deliver a calling name and a calling number.

Field, subfield, and refinement descriptions for table RESFEAT (Sheet 13 of 13)

Field	Subfield or refinement	Entry	Explanation and action
VAR (continued)			If subfield DF contains CND, this field indicates how often the switch delivered a calling number but no calling name (that is, CND-only deliveries). If subfield DF contains RND, this field indicates the number of times that no redirecting number is delivered. The default is 0 (zero).

Additional information

This section provides information on possible error messages when datafilling table RESFEAT.

Error Messages

For feature CND, table LTCINV or table RCCINV must be datafilled with a CMR card in field OPTCARD for the host PM of the line. If this is not the case, then the following warning is output:

```
***WARNING** CND ASSIGNED TO LINE WITH NO CMR BOARD ACCESSIBLE.
```

If the option is added to a line whose host PM is not one of LTC, LGC or RCC, then the following error message is displayed and the feature is not added to the line:

```
CND NOT ALLOWED FOR LINES ON THIS PERIPHERAL TYPE
```

For feature DDN, table LTCINV or table RCCINV with a CMR card in the OPTCARD field for the host peripheral module of the line. If this is not the case, then the following warning is output:

```
***WARNING** CND/DDN ASSIGNED TO LINE WITH NO CMR BOARD ACCESSIBLE.
```

If the feature is added to a line whose host peripheral module is not one of LTC, LGC, or RCC types, then the following error message is displayed and the feature is not added to the line:

CND/DDN NOT ALLOWED FOR LINES ON THIS PERIPHERAL TYPE

The following error message appears if an attempt is made to datafill this table using the table editor:

Protected table, use SERVORD to change.

This error message has been added for the NA005 release in accordance with feature AN1653 (Enforcement of SERVORD).

All additions, deletions and changes must be entered using the Service Order System (SERVORD). For information, refer to the *SERVORD Reference Manual*.

Table history

SN07

Table RESFEAT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

REXSCHED

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Routine Exercise Schedule

Table Routine Exercise Schedule (REXSCHED) contains the information that the system routine exercise (SREX) controller requires. This table schedules routine exercise (REx) tests according to the requirements of the operating company. The operating company requires these tests for spectrum peripheral modules (SPMs), series-3 peripheral modules (PM), XPM-based peripheral modules (XPS), and file processors (FP).

The operating company can use table REXSCHED to customize the REx test schedule to a switch. Table REXSCHED does not force operating companies to create REx test schedules. This table provides flexibility to operating companies to schedule REx tests.

For each type of node, operating company personnel can perform the following actions:

- enable or disable individual REx tests
- define REx test frequencies
- define the maximum number of REx tests that the system can run in parallel for SPM_REX_TEST. This should not be more than the maximum number decided by the system. As of feature number A89007516 the maximum number is one
- prevent tests on defined days

Computing module (CM), message switch (MS), and enhanced network (ENET) REx tests have a critical identification in software design. These tests are essential. The operating company can use the REXTEST command to suspend these critical tests for a limited time.

You can use the ENABLE field in table REXSCHED to disable the REx testing. The REx tests that you can disable include critical tests. This action can have serious consequences. Northern Telecom does not recommend that you disable REx critical tests. If you disable critical

REx tests, warnings appear. If you disable CM REx testing, the following conditions occur:

- Automated image testing does not occur. This testing includes image testing that follows patch applications.
- Automated activity switch occurs when system diagnostics cause this activity.
- Full CM REx testing does not occur every week.

You can use the DAYSDSBL field to exclude some REx tests from the test schedule on specified days of the week.

Table REXSCHED must have a minimum of two entries. The CM and MS REx tests are present in every DMS SuperNode office with series-3 PMs, applications, and file processors. The number of REx tests that table REXSCHED defines can increase with the addition of nodes and services.

The operating company cannot add or delete REx tests (from field REXTSTID). The system automatically defines the entries in this table. This condition causes entries to occur for the REx tests available in the office. The operating company can change the other fields.

Refer to the descriptions of table REXINTEN and office parameter NODEREXCONTROL in table OFCVAR for related information.

LCM and LCMCOV REx tests

In NA004 and later versions, the LCM REX Controller Enhancement feature has the following function. This feature eliminates the conflict that was present before between the extended peripheral module (XPM) and line concentrating module (LCM) REx tests. To eliminate the conflict, the feature migrates the LCM REx test from the LCM node audit process to the SREX controller. The feature removes the continuity and voltage (COV) test step that the system performs on the power converters and ringing generator. The feature removes the COV step from the LCM REx test and places the step in a separate test. This separate test is the LCMCOV REx test. This feature adds the tuples LCM_REX_TEST and LCMCOV_REX_TEST to table REXSCHED.

LCM, LGC REx test incompatibility with ATT BERT test

Do not schedule the ATT BERT test to run at the same time as the LCM and LGC REx tests. This ATT BERT test is in table ATTSCHED. These LCM and LGC REx tests are in table REXSCHED. You can schedule LCM and LGC REx tests to run at the same time as the ATT BERT test. The trunks that the system tests cannot operate, and the ATT BERT

test fails. The system generates log ATT122 when a schedule is present for these tests to run at the same time.

Datavill sequence and meaning

The system automatically enters data in table REXSCHD.

Office parameter NODEREXCONTROL in table OFCVAR activates the REX test scheduling mechanism. Field REXON turns the REX test scheduling mechanism ON or OFF. For additional information on office parameter NODEREXCONTROL, refer to *Office Parameters Reference Manual* on office parameter NODEREXCONTROL.

You can disable the automatic REX test configuration. When this event occurs, table REXSCHD allows the operating company to configure automatic REX testing manually for the REX test identifier LGC_REX_TEST. You can enable the automatic REX test configuration. When this event occurs, the system does not allow attempts to change fields PARALLEL and PERIOD for LGC_REX_TEST. These attempts result in an error message.

To manually update fields PARALLEL and PERIOD, you must disable automatic configuration. To disable automatic configuration, enter the following command at the command interpreter (CI) level of the MAP display:

```
>AUTOCONFIG OFF LGC_REX_TEST
```

Table size

0 to 64 tuples.

Normal size is 16 tuples.

Datavill

The following table lists the datavill for table REXSCHD.

Field, subfield, and refinement descriptions for table REXSCHD (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
REXTSTID		see subfield	Routine exercise test identifier. This field contains subfield REX_TEST_ID.

Field, subfield, and refinement descriptions for table REXSCHED (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	REX_TEST_ID	alphanumeric 1 to 16 characters	Routine exercise test identifier. The system defines routine exercise (REx) test identifiers (REXTSTID). The REx tests that are available in the office appear in this table.
ENABLE		Y or N	Enable. Enter Y (yes) to enable or N (no) to disable the REx test. The default value for this field is Y.
			Note: If you disable critical (CM, MS, or ENET) REx tests, the system generates alarms. These alarms are CM RExSch, MS RExByp, and Net RExSch, in that order. The system also generates, IOAU112, CM179, MS104, and ENET501 logs.
PERIOD		1 to 7	Period. Enter a value between 1 and 7 included. This value defines the minimum number of days between two REx tests that follow on the same node. Each REx test must run at least one time every week.

Field, subfield, and refinement descriptions for table REXSCHED (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			If you disable automatic REx test configuration, the default value for this field is 1. This value indicates that an REx test occurs every day. If you enabled automatic REx test configuration, the default value for this field for REx test identifier LGC_REX_TEST is 7. This value indicates that an REx test occurs every week. The system does not allow you to change this period. This system sets this field to a default value of 7 for REx test identifiers LCM_REX_TEST, LCMCOV_REX_TEST, and SPM_REX_TEST. When this value is 7, an REx test occurs every week. To change the period of a test, set this field to a different value.
PARALLEL		0 to 99 See Note	Parallel. This field limits the number of REx tests that can occur in parallel for one node type. The SREX controller can maximize the number of REx tests run in parallel. The operating company can limit the number of parallel REx tests in a node type but cannot increase the number of parallel REx tests beyond the limit defined for the application. This value is different for all REx tests. The resources that each test requires determine this value.

Field, subfield, and refinement descriptions for table REXSCHED (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
			You can disable automatic REx test configuration. The default value for this field is the maximum value that the maintenance software for each REx test allows. These tests do not include the LCM REx test and LCMCOV REx test. For the LCM REx test and LCMCOV REx test, the default value for this field is the minimum value. You can enable automatic REx test configuration. When the event occurs, the default value for the REx test identifier LGC_REX_TEST is the default value that the system automatically configures. An NA (does not apply) appears in this field. The system does not allow you to change the value of this field for the LGC_REX_TEST tuple. Note: For the LCM_REX_TEST tuple, this field can be a value from 1 to 4. For the LCMCOV_REX_TEST tuple, this field must contain 1. The LCMCOV REx test does not execute on more than one LCM at a time. This field contains a default value of 1 for the LCM_REX_TEST, LCMCOV_REX_TEST, and SPM_REX_TEST tuples.

Field, subfield, and refinement descriptions for table REXSCHED (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
DAYSDBL		MON, TUE, WED, THU, FRI, SAT, SUN, ALL, or NONE	Days disabled list. Enter the days on which to disable the REx test. The name day applies to the scheduled start of the REx test. For example, an REx test can be in a schedule. The test can run from Monday evening 23:00 to Tuesday morning 02:00. The test runs at 01:00 Tuesday. In this condition, the system records as sent that the test started on Monday. Each REx test must run at least onetime every week. Enter ALL to disable an REx test on every day of the week. This entry can suspend critical REx tests for a limited time. The default value for this field is NONE. This value represents REx test never disabled.

Additional information

The following error message appears if you attempt to set field PARALLEL to a value greater than 4 for the LCM_REX_TEST tuple:

```
The maximum for LCM_REX_TEST is 4 parallel REX
test(s)
```

The LCMCOV REx test does not execute on more than one LCM at a time. The following error message appears if you attempt to set field PARALLEL to a value other than 1 for the LCMCOV_REX_TEST tuple:

```
The maximum for LCMCOV_REX_TEST is 1 parallel REX
test(s)
```

The SPM REx test does not execute on more than one LCM at a time. The following error message appears if you attempt to set field PARALLEL to a value other than 1 for the SPM_REX_TEST tuple:

```
The maximum for SPM_REX_TEST is 1 parallel REX
test(s)
```

SPM_REX_TEST has a dependency on ENET_REX_TEST and MS_REX_TEST. This means that REX test will not be run on SPM nodes while ENET REX and MS REX tests are being executed.

You can disable a critical REX test in table REXSCHED. If you attempt to suspend the REX test with the REXTEST SUSPEND command, the following error message appears:

```
REXTEST SUSPEND successful on <REx_test_type>.  
However, <REx_test_type> is already disabled in table  
REXSCHED.
```

Note: The REX_test_type can be CM_REX_TEST, MS_REX_TEST, or ENET_REX_TEST.

You can disable a critical REX test in table REXSCHED. If you attempt to enable the REX test with the REXTEST RESUME command, the following error message appears:

```
REXTEST RESUME successful on <REx_test_type> However,  
<REx_test_type> is disabled in table REXSCHED.
```

Note: The REX_test_type can be CM_REX_TEST, MS_REX_TEST, or ENET_REX_TEST.

(XLIU) and Node Interface Unit (NIU) nodes has been discovered. The spare XLIU nodes begin REX before the NIU node has come back in service (INSV) from completing its REX test; it remains at in-service trouble (ISTB) status. The ISTB status of NIU causes the spare XLIU to go into system-busy status (SYSB). To prevent this conflict, datafill the XLIU and NIU REX in Table REXSCHED so that the tests occur on separate days.

Note: Do not schedule the XLIU_REX_TEST to occur during a full REX of Table REXINTEN.

Table history

SN07

Table REXSCHED migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 9 of 12*, 297-8021-351.09.03.

This table was updated as per feature number 89007516.

RMMINV

Remote Maintenance Module Inventory

Table RMMINV performs functions similar to a maintenance trunk module (MTM), such as scanning of the service circuits (for example, dial pulse collection, test trunks, and alarm circuit packs). The remote maintenance module (RMM) is driven by the host line group controller/line trunk controller (LGC/LTC). The RMM can be located in the remote line concentrating module (RLCM), remote switching center (RSC), convertible RLCM, outside plant module (OPM), international LCM (IRLCM) switching configurations, Meridian cabinet remote module (MCRM), or remote digital line module (RDLM).

The RMM can be used remotely in one of the switching configurations described above. All switching configurations except RSC can have one RMM only. RSC can be equipped with up to two RMMs.

The RMM is a single-shelf peripheral (NT6X13AA, NT6X13BA, NT6X13DA, NT6X1301, NT7X53AA) that contains two power converters (NT2X06AB and NT2X09AA), an RMM control card (NT6X74AB), a CODEC and TONE card (NT2X59AA), and space for 15 trunk circuits or service circuit packs. Product engineering code (PEC) NT6X13BA is the Caribbean RMM and NT6X13DA is the Turkish RMM.

The RMM terminates by means of two DS30A links (duplicated) on either the line cluster controller (LCC) or the remote cluster controller (RCC) depending on the configuration involved. Each DS30A link consists of 32 channels; 30 of these carry pulse code modulation (PCM) information, and the other two are for messaging purposes. The RMM sends messages through DS30As to the LCCs/RCCs/DLMs and then by means of DS-1s to the host LGC/LTC if the RMM is part of a RLCM/RLDM or D30 to host ILGC/ILTC if the RMM is part of an IRLCM.

Table RMMINV identifies the RLCM/RSC/OPM/IRLCM/MCRM/RDLM site with the frame type, frame number, floor, row, frame position, equipment PEC, peripheral module (PM) load and executive program loaded, and C-side PM attached to each RMM.

Datafill sequence and meaning

The following tables must be datafilled before table RMMINV:

- DLMINV
- LCMINV
- LTCPSINV

- RCCINV
- RCCPSINV
- SITE

Tables SITE, RCCINV, and RCCPSINV must be datafilled before table RMMINV if an RMM is a subordinate of an RCC or RCC variant.

Tables SITE and LCMINV must be datafilled before table RMMINV if an RMM is a subordinate of an LCM or LCM variant.

Tables SITE, RCCINV, RCCPSINV, and LTCPSINV must be datafilled before table RMMINV if an RMM is a subordinate of an LTC.

Tables SITE, LCMINV, and DLMINV must be datafilled before table RMMINV if an RMM is a subordinate of a DLM.

Table size

0 to 255 tuples.

Datafill

The following table lists the datafill for table RMMINV.

Field, subfield, and refinement descriptions for table RMMINV (Sheet 1 of 8)

Field	Subfield or refinement	Entry	Explanation and action
RMMNAME		see subfields	<i>Remote maintenance module name</i> This field consists of subfields SITENM, PMTYPE, and RMMNO.
	SITENM	alphanumeric (up to 4 characters)	<i>Site name</i> Enter the site name assigned to the remote location. This name must also be datafilled in tables LCMINV, RCCINV, OPMINV, and SITE.
	PMTYPE	RCC2, RMM or SRCC	<i>Peripheral module type</i> Enter the PM type.

Field, subfield, and refinement descriptions for table RMMINV (Sheet 2 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	RMMNO	0 to 254	<i>Remote maintenance module number</i> Enter the RMM number. This number is unique by office, not unique by site.
FRTYPE		DLE, MCRM, OPE, RCE, RCME, or RLCM	<i>Frame type</i> Enter the frame type on which the RMM is equipped, as follows: • Enter DLE (digital line equipment) if the RMM is used in the RDLM • Enter MCRM if the RMM is used in the cabinetized Meridian SL-100. • Enter OPE if the RMM is used in the OPM. • Enter RCE if the RMM is used in the RSC. • Enter RCME if the RMM is used in the convertible RLCM configurations. • Enter RLCM if the RMM is used in the RLCM. • Entries outside this range are invalid.
FRNO		0 to 511	<i>Frame number</i> Enter the number of the frame on which this RMM is equipped.

Field, subfield, and refinement descriptions for table RMMINV (Sheet 3 of 8)

Field	Subfield or refinement	Entry	Explanation and action
SHPOS		5, 21, 38, 55, 56	<i>Shelf position</i> Enter the number of the shelf on which the RMM is located as follows: • Enter 5 if the RMM is located in the OPE. • Enter 21 if the RMM is located in the RCME. • Enter 38 or 55 if the RMM is located in the RCE. • Enter 56 if the RMM is located in the RCLM. Entries outside this range are invalid.
FLOOR		0 to 99	<i>Floor</i> enter the number of the floor on which the PM is located.
ROW		A to H, J to N, P to Z, AA to HH, JJ to NN, PP to ZZ	<i>Row</i> Enter the number of the row in which the RMM is located.
FRPOS		0 to 99	<i>Frame position</i> Enter the position of the PM equipment frame.

Field, subfield, and refinement descriptions for table RMMINV (Sheet 4 of 8)

Field	Subfield or refinement	Entry	Explanation and action
EQPEC		6X1301, 6X13AA, 6X13BA, 6X13DA, 7X53AA, 8X98AA, FX14AA, or MX85AA	<i>Equipment product engineering code</i> Enter the equipment PEC as follows: • Enter 6X1301 for cabinetized Meridian SL-100 • Enter 6X13AA for a regular RMM • Enter 6X13BA for RMM - Caribbean • Enter 6X13DA for RMM-Turkey • Enter 7X53AA for RMM in the RDLM • Enter 8X98AA for RMM on SRU • Enter FX14AA for AIM-based RMM controller • Enter MX85AA for RCC2 Entries outside this range are invalid.
LOAD		alphanumeric (vector of up to 8 characters)	<i>Load</i> Enter the name given to the issue of the PM software (for a list of available names, see the batch change supplement for the appropriate BCS release).

Field, subfield, and refinement descriptions for table RMMINV (Sheet 5 of 8)

Field	Subfield or refinement	Entry	Explanation and action
EXECS		alphanumeric (up to 6 characters)	<i>Execs</i> Enter the exec lineup to be used for the RMM (for a list of available names, see the batch change supplement for the appropriate BCS release).
CSPMINFO		see subfields	<i>C-side peripheral module information</i> This field consists of subfields RMMSELECTOR, CSIDEPM, and CSIDPORT.
	RMMSELECTOR	RMDLDM, RMMILCM, RMMLCM, RMMLTC, RMMRCC2, RMMRCC, RMMRCCI, RMMRCO2, RMMSRCC, or RMMSRU	<i>Remote maintenance module selector</i> Enter the type of module in which the RMM is located.
	CSIDEPM	see subfields	<i>C-side peripheral module</i> This field consists of subfields PMT and EXTPMNO.

Field, subfield, and refinement descriptions for table RMMINV (Sheet 6 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	PMT	ALCM, ARCC, DLM, ELCM, ILCM, LCM, LTC, PRCC, RCC2, RCC, RCCI, RCO2, RMMLTC, SRCC, SRU, or TRCC	Peripheral module type Enter the PM type as follows: • Enter DLM if the entry in field RMMSELECTOR is RMMDLM • Enter ILCM if the entry in field RMMSELECTOR is RMMILCM • Enter ALCM, ELCM, or LCM if the entry in field RMMSELECTOR is RMMLCM • Enter RCC, TRCC, ARCC or PRCC if the entry in field RMMSELECTOR is RMMRCC • Enter LTC or RCC if the entry in field RMMSELECTOR is RMMLTC or RMMRCC • Enter PRCC for international PCM30 remote cluster controller (the PCM30 peripheral can be used if the entry in field RMMSELECTOR is RMMRCC or RMMRCCI)

Field, subfield, and refinement descriptions for table RMMINV (Sheet 7 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	PMT (continued)	ALCM, ARCC, DLM, ELCM, ILCM, LCM, LTC, PRCC, RCC2, RCC, RCCI, RCO2, RMMLTC, SRCC, SRU, or TRCC	• Enter RMMLTC if the entry in field RMMSELECTOR is RMMLTC • Enter RCC2 if the entry in field RMMSELECTOR is RMMRCC2 • Enter RCCI if the entry in field RMMSELECTOR is RMMRCCI • Enter RCO2 if the entry in field RMMSELECTOR is RMMRCO2 • Enter SRCC if the entry in field RMMSELECTOR is RMMSRCC • Enter SRU if the entry in field RMMSELECTOR is RMMSRU

Field, subfield, and refinement descriptions for table RMMINV (Sheet 8 of 8)

Field	Subfield or refinement	Entry	Explanation and action
	EXTPMNO	0 to 63	<i>External peripheral module number</i> Enter the external PM number to which the RMM is attached. Entries outside this range are invalid. This number must also be datafilled in tables LCMINV, OPMINV, RCCINV, or DLMINV, as required.
	CSIDPORT	0 to 63	<i>C-side port</i> Enter the number of the C-side port connected to the RMM as follows: • If the entry in field RMMSELECTOR is RMMRCC2, RMMRCCO2, or RMMSRCC, enter a value from 0 to 63 • If the entry in field RMMSELECTOR is RMMRCC, RMMRCCI, or RMMLTC, enter a vlue from 0 to 19

Table history**SN07**

Table RMMINV was added in SN07 by feature A00007749.

SDMBILL

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

SDMBILL

The SDMBILL table is used to store information pertaining to the SDM billing platform on a by stream basis. The fields indicate either a billing stream is sent to the SuperNode Data Manager (SDM), Device Independent Recording Package (DIRP) or both. The fields holds the volumes (one or two) chosen for backup of the billing data.

There are CI commands available at the MAP level of SDMBILL (MAPCI;MTC;APPL;SDMBIL) that allows the user to adjust and view the tuples in the table. The table automatically contains all of the streams that are datafilled in table CRSFMT. The tuples are automatically deleted if the tuples are removed from table CRSFMT. This is the only way the tuples can be deleted from table SDMBILL. The stream's SDMBACT field needs to be OFF before deleting the stream from CRSFMT.

Datafill sequence and meaning

Table CRSFMT must be datafilled before table SDMBILL. The datafill occurs automatically, adding a tuple for each stream.

Table size

The maximum number of tuples is 16. Each tuple will be 11 words long. The entire table will be allocated when initialized. It is a relatively small table and remains static in size.

Datafill

The following table lists the datafill for table SDMBILL.

Field, subfield, and refinement descriptions for table SDMBILL (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SDMBKEY		up to 16 characters	SuperNode Data Manager billing key. This is the key to the table. This is the call data stream name that is automatically datafilled from table CRSFMT field KEY to synchronize the two tables.
SDMBACT		ON, OFF, or BOTH	SuperNode Data Manager billing activation. ON sends billing data to the stream for SDM only. OFF only sends billing data to the stream for DIRP. BOTH sends billing data to the SDM and DIRP. The SDMBCTRL command can be used to modify this field which is a hidden menu command at the SDMBILL map level. Default: The default value is OFF. Note: Even though there may be several streams in the table, only the BCFMT format stream (AMA, which is hard coded to 1) is allowed to be turned to ON, or BOTH for the first release.

Field, subfield, and refinement descriptions for table SDMBILL (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SDMBSTAT		Insv, ISTb, ManB, Bkup, Rcvy, RBsy, Off, OffP, or SysB	SuperNode Data Manager billing status. This field indicates the current status of the stream, given in field SDMBKEY. This field is automatically datafilled as table CRSFMT is datafilled.
VOLUME1		up to 8 characters	Volume 1. The CONF menu command can be used to modify this field which is a hidden menu command at the SDMBILL map level.
VOLUME2		up to 8 characters	Volume 2. The CONF menu command can be used to modify this field which is a hidden menu command at the SDMBILL map level.

Table history**SN07**

Table SDMBILL migrated from *DMS-100 Family North American
DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*,
297-8021-351.09.03.

SERVINFO

ATTENTION

This table applies to new or modified content for NA018 (SN05) that is valid through the current release.

Intelligent Network Service Information Table

Table SERVINFO contains information related to an international intelligent network (IN) service. Services are identified by the service index, which is the key to table SERVINFO. This gives the customer the ability to tailor and adapt IN services on a per-customer, per-service basis. (Service Profiling)

The role of table SERVINFO is to:

- determine the parameter content of the InitialDP operation
- determine whether a one-way or two-way speech path for in-band interaction between the calling party and a specialized resource function (SRF) is established
- determine whether to wait for the full Called Party Number before sending an InitialDP
- determine whether or not to use multiple PromptAndCollectUserInformation (P&CUI) operations to collect a single stream of incoming inband digits.
- determine how many (if any) digits are to be stripped from the called party number (CDPA)
- determine which AMA extension module (if any) is attached to the AMA billing record (28, 40, 199, 611, or 612)
- determine if post-Connect, post-EstablishTemporaryConnection (ETC) or post-Continue translations must start from one of the following locations:
 - a specified universal translations system
 - table IBNXLA
- determine whether table INNCOS is used to identify the point of re-entry into translations, or whether the network class of service (NCOS) is changed for the Capability Set 1 Refined (CS-1R) call
- indicate the type and format of data received by the DMS SSP in the BillingChargingCharacteristics parameter of the FurnishChargingInformation (FCI) operation

- control the automatic disarming of implicitly undetectable event detection points (EDP)
- optionally apply charging to backwards progress messages sent to previous exchanges
- determine whether to correlate multiple billing records closed during the progress of a call sequence arising from a single operation
- optionally specify CS-1R handling of the Continue and/or ContinueWithArgument operations
- optionally allows the use of UK ISUP proprietary INAP extensions on a per-service basis
- determine if support for interaction of IN triggering is supported with Network CCBS and Nodal CCBS

Datafill sequence and meaning

Table SERVINFO must be datafilled before the SERVIDX option is datafilled in table TRIGDIG.

Table size

0 to 1024 tuples

Table SERVINFO table size is dynamically allocated.

Datafill

ATTENTION

In subfield RESPONSE_INFO, you can remove a translator from the translations system due to deletion requests from the related xxHEAD universal translations table. Make sure that you remove translators from table SERVINFO before you remove the same translators from the universal translations tables. The removal of these translators at the wrong time can cause invalid call results related to point of re-entry control.

The following table lists the datafill for table SERVINFO.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 1 of 21)

Field	Subfield or refinement	Entry	Explanation and action
SERVIDX		0 to 9999	<i>SERVINFO index</i> This field indicates an IN service on the DMS SSP switch. This field is the key from tables TRIGINFO and TRIGDIG. Enter a key number to uniquely identify the IN service.
OPTION		INITDP_PARM S, BILL_INFO, DIGIT_COLLE CTION_INFO, SRF_INFO, RESPONSE_I NFO, EDPS_INFO, BCI_INFO, TCAP_INFO, FI, CS1R, INITDP_UK_E XTENSIONS, CCBS	These are the main categories from which various per-service options and controls reside.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 2 of 21)

Field	Subfield or refinement	Entry	Explanation and action
	INITDP_PARMS	see subfield INITDP_PARM _INFO	This entry controls what information is included as parameters to the InitialDP operation.
OPTION (continued)	INITDP_PARM_I NFO	SERVKEY, CDPA, CLI, CPC, BUS_GROUP, BC, EVENT_TYPE, OCN, RDN, DD, RD_INFO, FWD_CI	Enter SERVKEY to include the service key. Enter CDPA to include the Called Party Address. Enter CLI to include the Calling Line Identity (Calling Party Number). Enter CPC to include the Calling Party Category. Enter BUS_GROUP to include the BusinessGroupID and Network Class of Service information. Enter BC to include the bearer Capability parameter (if it was encoded). Enter EVENT_TYPE to include the eventTypeBCSM parameter. Enter OCN to include the originalCalledPartyID parameter (The DN originally dialed by the calling party). Enter RDN to include the redirectingPartyID parameter (The DN the call was redirected to).

Field, subfield, and refinement descriptions for table SERVINFORM (Sheet 3 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)			Enter DD to include the original untranslated dialled digits in the dialledDigits parameter. Enter RD_INFO to map the incoming ISUP IAM redirection information parameter into the InitialDP. Enter FWD_CI to make the ForwardCallIndicator parameter available in the InitialDP operation. When available, EINTRACE, a diagnostic tracing tool, will display the FWD_CI value. Enter RD_INFO to control the sending of the redirection information parameter of the InitialDP operation. This is mapped from the relevant call setup messages received. If RD_INFO is datafilled and is not obtainable, the redirection information will be sent and set to NO_REDIRECTION with the rest of the fields set to zero.
	BILL_INFO	see subfield BILLING_INFO_OPTION	This option controls options relating to the billing of IN services.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 4 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	BILLING_INFO_OPTION	AMA_OPT, FCI_OPT	Enter AMA_OPT to further specify IN-related billing options. Enter FCI_OPT to further specify what the format of the FCIBillingChargingCharacteristics parameter contained in the FCI operation received will be, and stored in AMA module 199. This allows FCI compatibility with non-Nortel SCPs.
	AMA_INFO_OPTION (Subfield of AMA_OPT)	DIALED_DIGITS_INFO, AMA_XLA_OPTION, CORRELATION_ID	Enter DIALED_DIGITS_INFO to further specify which, if any, AMA extension module is appended to the base billing record by the SSP to record the original dialled digits (translated in the case of calls triggering at TDP-3)

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 5 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)		see subfield	Enter AMA_XLA_OPT to control billing options relating to AMA billing translations data. Enter CORRELATION_ID to append an AMA module 611 (80014) with a significant digits count of 7 which only includes Correlation ID to associate all billing records produced by an IN call triggering at TDP-2 or TDP-3 resulting from a single call origination. A further optional parameter of RECORD_IND can be entered to also include additional information. If CORRELATION_ID is not present, no extension module will be appended. This functionality does not apply to the sFBillingChargingCharacteristics parameter of the ActivateServiceFiltering operation.
	CORRELATION_ID_OPTIONS (Subfield of CORRELATION_ID)	RECORD_IND or leave blank	Enter RECORD_IND to increase the significant digit count to 10 to include Correlation ID, last Record Indicator and Record Count.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 6 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	DIALED_DIGITS_ MODULE (Subfield of DIALED_DIGITS_ INFO)	MODULE_28 or MODULE_40 or MODULE_612 or NONE	Enter MODULE_28 to add module code 028 to the base AMA record. Enter MODULE_40 to add module code 040 to the base AMA record. Enter MODULE_612 to add module code 612 (with context identifier 80012) to the base AMA record. Enter NONE to remove the DIALED_DIGITS_INFO option. Refer to the AMA Reference Guide, 297-80nn-800, for more information on billing.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 7 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	AMA_XLA_INFO_ OPT (Subfield of AMA_XLA_OPT)	MAINTN_CALL CODE, MAINTN_OCI	Enter MAINTN_CALLCODE to allow the SSP to open a billing record for terminating call legs that are set up subsequent to the original one, even if translations determines that the call is not billable. The Call Type Code in AMA records opened subsequent to the original one will have the same value as the original CTC of the AMA record opened during translations prior to triggering, unless a generic call code is specified in table AMAXLAID for the terminating call leg. This option allows the switch to override the CTC setting when a distinct call code is required in the AMA record for a particular termination. Enter MAINTN_OCI to use the original OCI (originating charge information) for all AMA records which are subsequently generated on a call triggering or retriggering at TDP-3. (In the case of retriggering at TDP-3, the latest OCI or CTC will be used from that point forwards)/

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 8 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	FORMAT (Subfield of FCI_OPT)	FREEFORM or FORMATID or NONE	Enter FREEFORM if the SCP is a Nortel SCP. The value from the octet string is placed in the Data Descriptor field of AMA module 199. Enter FORMATID if the SCP is a non-Nortel SCP. The range 127-255 is subsequently available to denote a vendor-specific FCIBCC format or IN service. This value is then placed in the Data Descriptor field of AMA module 199. If NONE is entered, the FCI_OPT tuple is disabled and the SSP defaults to non-Nortel FCIBCC processing. Value 255 is entered in the Data Descriptor field in AMA module 199.
	DIGIT_ COLLECTION_IN FO	see subfield COLLECTION_ OPTION	This option is used to control digit collection functionality. See Note 2 (below table) for restriction.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 9 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	COLLECTION_OPTION	FULL_CDPA, PCUI_BUFFER , DEL_DIGS	Enter FULL_CDPA if the full CalledPartyAddress (translated if the call triggered at TDP-3) must be available before sending an InitialDP. If FULL_CDPA is not present, the benefits of overlap inpulsing are gained. The digits that were available when the call triggered will be present in the InitialDP. Enter PCUI_BUFFER to collect a single stream of incoming inband digits on the SSP using multiple P&CUI operations. If PCUI_BUFFER is not present, the SSP will disconnect its digit collection hardware upon completion of a single P&CUI operation. This will save on network resources. Enter DEL_DIGS to specify the number of leading digits to strip from the Called Party Number (CDPN) when building the InitialDP. If DEL_DIGS is not present, the full Called Party Number is sent in the InitialDP.
	DEL_DIGS (Subfield of COLLECTION_OPTION)	1 to 30	This is the number of leading digits to be stripped from the CDPN when constructing the InitialDP.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 10 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	DEL_DIGS_FROM_AMA (Subfield of DEL_DIGS)	DEL_DIGS_FROM_AMA	Enter DEL_DIGS_FROM_AMA to make the AMA record contain the stripped digits to match the CDPN of the InitialDP. Otherwise, the AMA record contains the unstripped digits.
	SRF_INFO	see subfield INTERNAL_SRF_INFO	This option defines the behavior of the specialized resource function (SRF) pertaining to the ConnectToResource (CTR) INAP operation.
	INTERNAL_SRF_INFO	EARLY_ANS	Enter EARLY_ANS for the SSP to send an early answer message on receipt of a ConnectToResource (CTR) operation and establish a two-way speech path. If EARLY_ANS is not present, a one-way speech path is established between the SRF and the calling party.
	EARLY_ANS_DATA (Subfield of INTERNAL_SRF_INFO)	ANS_ON_PCUI or NO_ANS	Enter ANS_ON_PCUI if it is necessary to send an early answer for the PromptAndCollectUserInformation (PCUI) Internal IP operation only. Enter NO_ANS if an early answer message is not necessary for the Internal IP.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 11 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	RESPONSE_INF O	see subfield RESPONSE_I NFO_OPTION	This option allows you to re-assign the NCOS value linked to a CS-1R call. This option also indicates the location in the universal translations table to begin post-Connect, Continue or ETC translations.
	RESPONSE_INF O_OPTION	CONNECT_OP T, ETC_OPT, CONTINUE_O PT	Enter CONNECT_OPT to apply the CS-1R point of re-entry control information against the Connect operation. Also refer to Table 2. Enter ETC_OPT to apply the CS-1R point of re-entry control information against the ETC operation. Also refer to Table 2. Enter CONTINUE_OPT to apply the CS-1R point of re-entry control information against the Continue operation. Also refer to Table 2. You can enter CONNECT_OPT, ETC_OPT or CONTINUE_OPT as separate options in the tuple.
	EDPS_INFO	see subfield EDPS_INFO_O PTION	This category controls a range of options relating to EDP behaviour.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 12 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	EDPS_INFO_ OPTION	EXPLICIT, EDP8_DETECT, SUSPEND_RE SUME_ALLO W, RCVR_FAILUR E, EDP8_OPT, REDIRECTION _NUMBER	Enter EXPLICIT to activate explicit disarming of undetectable EDPs. If EXPLICIT is not present, then the default of implicit disarming is used, where undetectable EDPs are automatically disarmed by the SSP (i.e., EDPs 4, 5, 6, and 7 are disarmed when the call is answered). This also stops unnecessary dialog between the SSP and SCP. Enter EDP8_DETECT to determine the type of hardware that performs EDP8 supervision. If EDP8_DETECT is not present, an STR card performs EDP8 supervision. Enter REDIRECTION_NUMBER to control the sending of the redirection information parameter of the ERBCSM operation. If REDIRECTION_NUMBER is datafilled and the terminating agent has Redirection Number in the ISUP REL message, Redirection Number is mapped to the Event Report BCSM extension parameter and sent to the SCP.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 13 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)			If REDIRECTION_NUMBER is datafilled and Redirection Number is missing in the ISUP REL message for the terminating agent, no mapping is performed and the extension is not sent. Enter SUSPEND_RESUME_ALLOW to tandem suspend and resume messages to the originator. If SUSPEND_RESUME_ALLOW is not present, the SSP will treat the suspend as a release. Enter RCVR_FAILURE to further specify the behaviour of the call if EDP8 is armed and the receiver is out of service. Currently, only SRVC_NO_DROP can be entered which continues the call with IN. If SRVC_NO_DROP is not present, the call continues as a non-IN call. Enter EDP8_OPT to allow the passive call leg to be maintained on a per-service basis if event EDP-8 is encountered on the controlling leg.
	EDP8_DETECT (Subfield of EDPS_INFO_OPTION)	SPAP	Enter refinement SPAP for the signal processing application peripheral (SPAP) card to perform EDP8 supervision.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 14 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	EDP8_OPT (Subfield of EDPS_INFO_OP TION)	OMIDCALL_R L_P_LEG	Controls the action to drop the passive call leg. If no datafill (default), the passive call leg is only dropped when EDP-8 is detected in the Alerting phase of the call (ringing is being applied to the far end). If set to 'Y', the passive call leg is dropped when EDP-8 is detected in the Active (call has been answered) or the Alerting phases of the call. The value of the default datafill is PRE_ANS. If set to 'N', the passive call leg is not dropped when EDP-8 is detected in either the Active (call has been answered) and the Alerting phases of the call.

Field, subfield, and refinement descriptions for table SERVINFORM (Sheet 15 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)		OMIDCALL_WI LDCARD_ ZERO	If OMIDCALL_WILDCARD_ZERO is datafilled, the Service Switching Point (SSP) will assume that the: • Mid-call event specified will be the same as that sent in the iNServiceControlCode Low parameter • Number of digits will be the same • Upper limit of the range of digits to be collected will be 9's, and have the same number of 9's as the number of 0's supplied in the iNServiceControlCode Low parameter For example if the iNServiceControlCodeLow parameter has the value *000 and OMIDCALL_WILDCARD_ZERO is datafilled, the SSP assumes the value of the iNServiceControlCodeHigh parameter to be *999.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 16 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)			If OMIDCALL_WILDCARD_ZERO is not datafilled (default), it is not mandatory that the iNServiceControlCodeHigh must be received. If this parameter is not received AND OMID_WILDCARD_ZERO is not datafilled, the digits collected should match those supplied in the iNServiceControlCodeLow parameter. See Note 1 (below table)
	RCVR_FAILURE (Subfield of EDPS_INFO)	SRVC_NO_DR OP	If datafilled, the IN dialogue is maintained even if no Specialized Tone Receiver (STR) is available. If not datafilled (default), the call will continue as a non-IN call.
	BCI_INFO	see subfield BCI_INFO_OP TION	This option controls Backwards Call Indicator (BCI) information.
	BCI_INFO_ OPTION	EARLY	Enter EARLY to control BCI options of an early ISUP ACM message.
	FIELD (Subfield of BCI_INFO_ OPTION)	CHARGE_IND	Enter CHARGE_IND to control options of the charge indicator of the early ISUP ACM.
	CHARGE_ INDICATION (Subfield of FIELD)	CHARGE	Enter CHARGE so that all calls that use this service and that cause an early ISUP ACM message to be sent backwards have the charge indicator sent to "charge".

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 17 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	TCAP_INFO	See subfield INAP_OPT & TCAP_VERSION	
	INAP_OPT	AUTO_CONTINUE	Indicates whether Auto-Continue is used.
	TCAP_VERSION	CCITT_V0, CCITT_V1	Indicates the version of TCAP used on the ITU IN SSP (Blue Book or White Book). CCITT_V0 indicates Blue Book. CCITT_V1 indicates White Book. Default = CCITT_V0.
	TCAP_INFO	see subfield TCAP_INFO_OPTION	This option allows per-service control of different TCAP-related parameters.
	TCAP_INFO_OPTION	U_ABORT	Enter U_ABORT to specify the behaviour when the IN dialogue is aborted by a U_ABORT/TC_END message. If U_ABORT is not present, the call will not be taken down by a U_ABORT message.
	U_ABORT_DATA (Subfield of TCAP_INFO_OPTION)	CLEAR_CALL	Enter CLEAR_CALL to take down the call on a U_ABORT message.
	FI	see subfield FI_OPTION	This option allows per-service control of interactions between IN and DMS-100 features.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 18 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)		RETRIG_OPTION	This option controls the interaction of the Call Forward feature and its variants.
		RAG	If RAG is datafilled, interaction of IN with the Ring Again and Network Ring Again features is allowed and the call leg generated when the RAG feature is activated can trigger as an IN call. If RAG is not datafilled this restricts the use of the RAG feature.
		ACB	If ACB is datafilled, interaction of IN with the Automatic Call Back feature is allowed and the call leg generated when the ACB feature is activated can trigger as an IN call. If ACB is not datafilled, this restricts the use of the ACB feature.
		AR	If AR is datafilled, interaction of IN with the Automatic Recall feature is allowed and the call leg generated when the AR feature is activated can trigger as an IN call. If AR is not datafilled, this restricts the use of the AR feature.
	FI_OPTION	3WC	Enter 3WC to control three way call interactions.

Field, subfield, and refinement descriptions for table SERVINFORM (Sheet 19 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)	FI_ACTION (subfield of FI_OPTION)	TAKE_CONTR OL, or CLEAR_CALL, or DENY_FEATU RE	Enter TAKE_CONTROL to allow the activated feature to take control of the call and abort the IN dialogue. Enter CLEAR_CALL to allow the call to be terminated if an attempt to activate the feature occurs when the IN dialogue is active. Enter DENY_FEATURE to prevent the feature being activated when the IN dialogue is active.
	CS1R	see subfield CS1R_INFO	This option allows CS-1R Handling of the INAP Operations specified on a per-service basis.
	CS1R_INFO	CONTINUE, CWA	Enter CONTINUE for CS-1R handling of the Continue operation. Enter CWA for CS-1R handling of the ContinueWithArguments operation.
	INITDP_UK_ EXTENSIONS	NATIONAL_F WD_CALL_ IND	Adds the National Forward Call Indicator to InitDP operation (if the parameter is supported in the incoming agent).
		PRESENTATI ON_NO	Adds the Presentation Number to InitDP operation (if the parameter is supported in the incoming agent).

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 20 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)		LAST_DIV_LIN E_ID	Adds the Last Diverting Line ID to the InitDP operation (if the parameter is supported in the incoming agent).
		PARTIAL_CLI	Adds the Partial Calling Line Identifier to the InitDP operation (if the parameter is supported in the incoming agent).
		CALLED_SUB S_BSM	Adds the Called Subscribers Basic Service Marks to the InitDP operation (if the parameter is supported in the incoming agent).
		CALLING_SUB S_BSM	Adds the Calling Subscribers Basic Service Marks to the InitDP operation (if the parameter is supported in the incoming agent).
		CALLING_SUB S_OFM	Adds the Calling Subscribers Originating Facility Marks to the InitDP operation (if the parameter is supported in the incoming agent).
		CALLED_SUB S_TFM	Adds the Called Subscribers Terminating Facility Marks to the InitDP operation if the parameter is supported in the incoming agent.

Field, subfield, and refinement descriptions for table SERVINFO (Sheet 21 of 21)

Field	Subfield or refinement	Entry	Explanation and action
OPTION (continued)		CLI_NAME	Controls the sending of the name extension parameter of the InitialDP operation. If CLI_NAME is datafilled the name parameter will be sent in the InitialDP. The name parameter for trunk-originating calls is derived from the IAM message. For line-originating calls it is derived from datafill of the DNATTRS table. If no name parameter can be found for the call, but CLI_NAME is datafilled, an empty name parameter (no length) is sent.
	CCBS		This option specifies whether Network CCBS and Nodal CCBS can interact with ITU IN.

Note 1: Wildcard Zero

During a RequestReportBSCMEvent (RRBCSME) operation the legID parameter specifies the leg of a call that the system monitors for the occurrence of a specified event.

The MidCallControlInfo parameter indicates the specific mid-call events (OmidCall), which are requested to be Monitored. This is done as a result of the calling party pressing the * key, pressing the # key, or pressing either of those keys. The MidCallControlInfo parameter can contain one or two MidCallInfoType elements, each using iNServiceControlCodeLow to specify a single control code.

Prior to MMP16, the digits which caused EDP-8 to be encountered were limited to * or #. These digits were specified in the iNServiceControlCodeLow parameter, a subparameter of the MidCallInfoType parameter of the RRBCSME operation. EDP-8 can only be armed on the controlling leg. At MMP16, additional digits are supported for iNServiceControlCodeLow, and support for iNServiceControlCodeHigh is added. This allows the Service Control

Point (SCP) to specify a range of digits which must be collected when EDP-8 is encountered, in addition to the digit which would cause EDP-8 to be encountered.

The `iNServiceControlCodeLow` and `iNServiceControlCodeHigh` parameters of the RRBCSME are used to specify the mid-call event(s) to be detected and the number and range of digits that can be collected by the Service Switching Point (SSP) when EDP-8 has been armed. The `iNServiceControlCodeHigh` parameter specifies a mid-call event and the upper limit of the range of digits which can be collected. However, it is possible to datafill table `SERVINFO` (using `EDP8_WILDCARD_ZERO`) such that a mid-call event and a number and range of digits can be assumed without the need for a `iNServiceControlCodeHigh` parameter.

`EDP8_WILDCARD_ZERO` allows a range of digits to be accepted when only the `iNServiceControlCodeLow` parameter is received. If `EDP8_WILDCARD_ZERO` is datafilled, the range of digits collected will correspond to the number of zeroes contained in the `iNServiceControlCodeLow` parameter. For example, if the value of `iNServiceControlCodeLow` is `*000`, and `EDP8_WILDCARD_ZERO` is datafilled, the range of digits to be accepted is assumed to be `*000` to `*999` even though no `iNServiceControlCodeHigh` is received.

Note 2: Digit buffering

Buffering of digits dialled by the calling party in response to the `PromptAndCollectUserInfo` operation is not supported on IN calls originating on ETSI PRI or lines, or IN calls triggering on QSIG. Digits dialled after a P&CUI Return Result has been sent and before any subsequent P&CUI operation is received will be lost.

**RESPONSE_INFO_OPTION=CONNECT_OPT,CONTINUE_OPT,ETC_OPT,
or all**

If the entry in the RESPONSE_INFO_OPTION subfield is CONNECT_OPT, CONTINUE_OPT, ETC_OPT, or all, add data to subfield RESPONSE_INFO_OPTION_ATTR as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RESPONSE_INFO_OPTION_ATTR	NCOS_MODIFY Y, XLA_REENTRY Y, or both	Response information option attribute. This optional subfield indicates that the following characteristics of the CS-1R call are subject to change: • NCOS value • post-Connect translations behavior • post-Continue translations behaviour • post-ETC translations behavior Enter NCOS_MODIFY to indicate that the NCOS value is subject to changes related to the INNCOS table during SCP response translations. Enter XLA_REENTRY to indicate that the translations behavior is subject to change during SCP response translations. Also refer to Table 3.

RESPONSE_INFO_OPTION_ATTR=XLA_REENTRY

If the entry in the RESPONSE_INFO_OPTION_ATTR subfield is XLA_REENTRY, add data to subfield XLA_REENTRY_ATTR as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	XLA_REENTRY_ATTR	INNCOS_LOOKUP, UNIV_XLA, or both	Translations re-entry attribute. This optional subfield indicates the location in universal translations to begin post-SCP operation processing. Enter INNCOS_LOOKUP to indicate that post-SCP operation processing begins from a translations point indicated in the INNCOS table. Enter UNIV_XLA to indicate the location in universal translations to begin post-SCP operation processing. Also refer to Table 4.

XLA_REENTRY_ATTR=UNIV_XLA

If the XLA_REENTRY_ATTR subfield is UNIV_XLA, add data to subfield UXLA_DATA as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	UXLA_DATA	see subfields	Translations data. This subfield includes subfields XLASYS and XLANAME.
	XLASYS	AC, AM, CT, FA, FT, NSC, OFC, PX, or NIL	Translations system. Enter the translations system to identify the start point for post-SCP operation translations. Enter AC to indicate the access code system.
			Enter AM to indicate the ambiguous code system. Enter CT to indicate the city code system. Enter FA to indicate the system of the foreign area code.
			Enter FT to indicate the feature code system. Enter NSC to indicate the system of the number service code.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
			Enter OFC to indicate the office code system. Enter PX to indicate the prefix code system. Enter NIL to indicate that no translations system is available.
	XLANAME	alphanumeric (1 to 8 characters)	Translator name. Enter the translator to identify the start point for post-SCP operation translations. Enter the index into the table identified by the XLASYS subfield.

RETRIG_OPTION=RETRIG_ACTION, RETRIG_ALLOW_BASIS, RETRIG_PRIORITY

RETRIG_OPTION has the suboptions and fields listed as follows.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RETRIG_ACTION	DENY, DENY_AND_CLEAR, ALLOW	Controls whether an IN call can re-trigger on the call leg being forwarded by the CFW feature. DENY prevents the call leg from triggering. DENY_AND_CLEAR disallows the trigger and sends the call to treatment. ALLOW takes down the existing dialogue and allows the new leg to trigger a new IN dialogue
	RETRIG_ALLOW_BASIS	GT, GTE	This suboption must be datafilled if ALLOW is datafilled in RETRIG_ACTION above. It controls the priority of the attempted re-trigger over the existing dialogue.
	RETRIG_PRIORITY	0 to 255	Priority level of the new call leg.

Table history

SN07

Table SERVINFO migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

NA018 (SN05)

Added option CCBS to extend the capability for IN triggering at TDP2 and TDP3 to include Nodal and Network CCBS for feature 59038655.

NA017 (SN04)

Added suboption DEL_DIGS_FROM_AMA to the DEL_DIGS option as per CR 30374181.

New entry CLI_NAME added to field INITDP_UK_EXTENSIONS as per feature 59033637.

New entries RETRIG_OPTION, RAG, ACB & AR added to field FI as per feature 59033609.

Subfields INAP_OPT and TCAP_VERSION added as per feature 59033629.

Added suboption REDIRECTION_NUMBER to the EDPS_INFO option and suboption RD_INFO to the INITDP_PARMS option as per feature 59033624.

SERVSINV

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Server Subtending Node Inventory

Table Server Subtending Node Inventory (SERVSINV) contains the names of the server subtending nodes and their associated gateways. The subtending nodes are the Audio Controller (AUD) and the Dynamic Packet Trunk (DPT).

Table SERVSINV supports the following commands:

- ADD
- DEL
- CHA

Note: CHA is only supported for the AUD node.

Datafill sequence and meaning

Enter datafill into table SERVRINV before table SERVSINV.

Enter datafill into the following tables after you enter datafill into table SERVSINV:

- ANNMEMS

Table size

Maximum tuples 256.

Datafill

The following table lists the datafill for table SERVSINV.

Field, subfield, and refinement descriptions for table SERVSINV (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
SRVSNAME		multiple with XPMTYPE PM_TYPE XPMNO (0 to 255)	Server Subtending Name. Enter AUD, DPT, or BCT for the PM type. Enter a PM number between 0-255.
SRVRNAME		multiple with XPMTYPE PM_TYPE XPMNO (0 to 255)	Server Name. Enter GWC for the PM type. Enter the PM number that is present in table SERVIRINV.
NUMTERMS		1024, 2048, or 4095	Number of Terminals field. This field represents the number of terminals of the node. This field must be 2048 for DPT.
OPTIONS		SIPT, SIPSNODE, BICC, ANNC, 3PORT, 6PORT, ALTTERMS	Options field. Enter options: SIPT, SIPSNODE, BICC, ANNC, 3PORT, 6PORT, and/or ALTTERMS.

Field, subfield, and refinement descriptions for table SERVSINV (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
OPTION = SIPT, SIPSNODE or BICC			
			SIPT is used to provision SIP-T GWCs. This option adds the GWC node to the DDM's VRDN table node list. The GWC receives the list of VRDN information from the DDM during RTS static data download. Enter the IP address of the VRDN. Enter any valid IP address when provisioning a SIP-T GWC. BICC is used to provision the DPT subtending GWCs with Bearer Independent Call Control (BICC) capability. SIPSNODE is used to provision SIP Service Node resources on the DPT. Note: For OPTION = SIPT, SIPSNODE or BICC there are no subfields.
OPTION = ANNC			
OPTIONS			ANNC is used to control the number of announcement calls to an audio server.
	ANNTERMS	1 to 300	Announcement terminals. Defines the number of ports for announcement calls on the audio server. Enter value between 1 to 300.

Field, subfield, and refinement descriptions for table SERVSINV (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
OPTION = 3PORT or 6PORT			
			3PORT is used to indicate the number of 3-port conferencing circuits on the audio server. 6PORT is used to indicate the number of 6-port conferencing circuits on the audio server.
	CONFTERMS	3 to 4092 (for 3PORT)	Indicates the number of 3-port conference ports. Value has to be divisible by 3 and the result is the number of 3-port circuits reserved on the audio server. For example 30 ports provisioned means there are 10 3-port conference circuits. (This option requires that the UASCF3P CLLI be datafilled in table CLLI. If the number of ports specified in the CONFTERMS field is greater than 2046, then the UASCF3PX CLLI must also be datafilled in table CLLI.)
		6 to 2046 (for 6PORT):	Indicates the number of 6-port conference ports. Value has to be divisible by 6 and the result is the number of 6-port circuits reserved on the audio server. For example 30 ports provisioned means there are 5 6-port conference circuits. (This option requires that the UASCF6P CLLI be datafilled in table CLLI.)

Field, subfield, and refinement descriptions for table SERVSINV (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
OPTION = ALITERMS			
			ALITERMS is used to provision the number of BCT resources on the audio server.
	ALITERMS	0 to 4095	Indicates the number of BCT resources. This number is usually the number of CG6000 cards dedicated to BCT multiplied by 90 (since there are 90 terminals per card). For ATM networks, this number should be 500 per audio server.

Additional information

You can datafill only 128 DPT tuples in table SERVSINV.

Error messages

The following error messages are given for invalid datafills:

- ERROR: BICC option is only valid with DPT tuple
An attempt has been made to add a non-DPT tuple with BICC option.
- ERROR: Host PM must be a GWC
An attempt to add a DPT tuple with BICC option does not have GWC as the XPMTYPE in the SRVRNAME field.
- ERROR: Coexistence of BICC and SIPT options in a DPT tuple is not supported
An attempt has been made to add a DPT tuple with SIPT and BICC options.
- ERROR: Maximum DPT nodes already provisioned
An attempt to add a DPT tuple with BICC option exceeds the maximum number of DPT tuples in table SERVSINV, which is set to 128.
- ERROR: Change is not allowed
An attempt has been made to remove the BICC option from a DPT tuple.

An attempt has been made to change the SRVSNAME field of an existing DPT tuple with BICC option.

An attempt has been made to add BICC option to a DPT tuple with SIPT option.

An attempt has been made to add SIPT option to a DPT tuple with BICC option.

An attempt has been made to replace the BICC option in a DPT tuple with SIPT option.

An attempt has been made to replace the SIPT option in a DPT tuple with BICC option.

An attempt has been made to change the NUMTERMS field of an existing DPT tuple with BICC option.

- `ERROR: DPT tuple must have either SIPT or BICC option`

An attempt has been made to add a DPT tuple without SIPT or BICC option.

Recommendations for provisioning CONFTERMS

Recommendations for provisioning the number of CONFTERMS specified against the 3PORT and 6PORT options:

In order to avoid a mismatch between the CM and the Audio Server gateways, the combined number of terminals (or ports) specified against the 3PORT and 6PORT options must match the number of conference ports engineered on the UAS gateways (for a given GWC or AUD node).

The distribution of these terminals or ports in the CM against the 3PORT and 6PORT options is dependent on the need of the individual services which make use of the conferencing resources. For example, 3-way calling uses 3PORT resources while meet-me and station controlled conferencing make use of 6PORT resources. The existing guidelines for assigning TDM-based 3-port conference circuits in table CONF3PR (and 6-port circuits in CONF6PR) one must consider that one 3-port circuit maps to 3 conference terminals (against the 3PORT option) and one 6-port circuit maps to 6 conference terminals (against the 6PORT option).

The provisioning of conference ports against the 3PORT and 6PORT options is reflected by the addition of UASCF3P, UASCF3PX and UASCF6P circuits in the CM. Like their TDM counterparts (CF3P, CF3PX and CF6P), these circuits may be posted at the TTP level of the MAP.

Since conferencing services always select circuits from the pool available in the CM, it is important that the number of conference terminals specified against the 3PORT and 6PORT options match the number of conference ports engineered on the UAS gateways. If the CM is under-provisioned in conference terminals, then this will result in the conference ports on the UAS never being fully utilized. Conversely, if the CM is over-provisioned, then the additional circuits allocated in the CM will remain in the NMB state and will never be made available for call processing.

The following table illustrates how 30 conference ports provided by 2 CG6000 cards on a UAS can be provisioned in table SERVSINV (bearing in mind that the number of 3PORT terminals must be divisible by 3 and the number of 6PORT terminals must be divisible by 6):

3PORT confterms	6PORT confterms
30	not assigned
24	6
18	12
12	18
6	24
not assigned	30

It is also important to note that under the given circumstances these are the only valid configurations. Any other configuration would result in the CM being either over or under provisioned with respect to the UAS.

Furthermore, although the CM cares about the distribution of conference terminals between the 3PORT and 6PORT options, the GWC does not. It will only report the total number of conference ports available in a single POOL INIT message sent to the CM. The CM then distributes these between the 3PORT and 6PORT options based on the ratio of conference terminals (CONFTERMS) provisioned in table SERVSINV.

To illustrate, we will consider the case where the Core is over-provisioned. For example, assume that both the 3PORT and 6PORT options are provisioned with 18 conference terminals for a total of 36. This maps to 6 UASCF3P circuits and 3 UASCF6P circuits. Furthermore, we will assume that this is 18 more ports than are engineered on the UAS. In this case, the ratio of 3PORT to 6PORT

terminals is 1 to 1, so the Core will attempt to distribute the 18 ports reported in the Pool INIT message accordingly.

However, since it cannot give 9 ports to each (since 9 is not divisible by 6), it will provide 12 for 3PORT and 6 for 6PORT (the 3PORT option is always favored over 6PORT in such situations). This will be reflected by 4 of the 6 UASCF3P circuits being in the IDLE state and the other 2 being NMB. Similarly, 1 of the 3 UASCF6P circuits will be IDLE, the other 2 will be NMB.

Table history

SN07

Table SERVSINV migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

Added information about UASCF3P, UASCF3PX, and UASCF6P as per CR Q00737124.

SITE

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

SITE

Table SITE contains data for the DMS-100 switch and all other sites that depend on the DMS-100. Table SITE also contains the site name (SN) for each remote location. The operating company defines site names for the local sites.

The first entry in table SITE must be HOST for the host switching unit.

The test desk SN for a line equipment number (LEN) enables the testers to choose a two- or three-digit SN. This SN corresponds to the site the testers want to dial. The number 11 precedes the two-digit SN to indicate the dialing of a LEN is taking place. The number 12 precedes the three-digit SN to indicate the dialing of a LEN is taking place. Seven digits that represent the LEN come after the two- or three-digit SN. For example, 11 + 2-digit SN + 7 digits, 12 + 3-digit SN + 7 digits.

Set the module count. It must equal zero (0). The system automatically updates this value as line modules (LM) on site are added to tables LMINV and LCMINV.

The switching unit has a fixed code VER90 in table CLLI for the operator verification trunk group. The operating company defines the codes for the operator verification trunk group at the other sites. To assign these trunks to the metallic test access, refer to table MTAHORIZ. Assign these trunks in table TRKGRP with trunk group type VR.

The operating company assigns three signal distributor points at the other remote sites. The three are critical alarms, major alarms, or minor alarms. The operating company cannot assign the four remaining signal distributor points in this signal distributor group to lines for line features.

Datafill sequence and meaning

Table CLLI must be datafilled before table SITE.

Table size

1 to 255 tuples.

The system continuously increases table SITE in blocks of 32, as needed. At the initial program load (IPL), the system allocates data store (DS) for the first 32 tuples.

Datafill

The following table lists the datafill for table SITE.

Field, subfield, and refinement descriptions for table SITE (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
NAME		alphanumeric (1 to 4 characters)	Site name. Enter the site name assigned to the host or remote switching unit. The first character must be alphabetical. Site names can be a vector of up to four characters in length. You do not use PM type names for site names. An exception is RLCM. You do not use the name ALL as a site name.
LTDSN		0 to 255	LEN test desk SN. Enter the two or three numbers required to dial the site that appears under field NAME.
MODCOUNT		0 to 1000	Module count. Enter zero (0). The system updates the value to reflect the number of line modules (LM) on site. This update proceeds as you add the LMs to tables LMINV and LCMINV.

Field, subfield, and refinement descriptions for table SITE (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
OPVRCLLI		VER90 or alphanumeric	Operator verification common language location identifier. Enter the common language location identifier (CLLI) assigned to the operator verification trunk group at the remote location. The host switching unit has a fixed operator verification CLLI code VER90. Enter VER90 for the switching unit operator verification CLLI.
ALMDATA		see subfields	Alarm data. This field is for remote locations only and consists of subfields ALMTYPE, TMTYPE, TMNO, CKTNO, and POINT.
	ALMTYPE	CR, MJ, MN, NA	Alarm type. If the entry is for a remote location, enter the alarm type: critical (CR), major (MJ), or minor (MN). If the entry is for the host switching unit, enter NA.
	TMTYPE	RMM, RSM, or blank	Trunk module type. If the entry is for another location, enter the trunk module type, remote service module (RSM), or remote maintenance module (RMM). This trunk module is where the signal distributor point assigned to the alarm resides. If the entry is for the host switching unit, leave blank.

Field, subfield, and refinement descriptions for table SITE (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	TMNO	0 to 2047	Trunk module number. If the entry is for another location, enter the number assigned to the remote service module. This module is where the signal distributor point assigned to the alarm resides. If the entry is for the host switching unit, leave blank.
	CKTNO	0 to 29 or blank	Trunk module circuit number. If the entry is for another location, enter the trunk module circuit number of the RSM or RMM. This module is where the signal distributor point assigned to the alarm resides. If the entry is for the host switching unit, leave blank.
	POINT	0 to 7 or blank	Point. If the entry is for another location, enter the signal distributor point number within the trunk module circuit number. If the entry is for the host switching unit, leave blank.
Note: Enter the continuation mark (+) in fields with multiple-possible entries when more data is specified on the next line or more records will be entered. Enter the end mark (\$) in fields with multiple, possible entries after the last entry.			

Table history**SN07**

Table SITE migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

SOSMMPC

System of Operative Searching Measures MPC

Table System of Operative Searching Measures MPC (SOSMMPC) provides the mechanism to allocate MPC cards for the DMS-Control Point X.25 Interface of SOSM feature. For each pair of channels, a tuple is added to this table.

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- Table MPC
- Table MPCLINK
- Table SOSMMPC

Table size

0 to 8 tuples.

Datafill

The following table lists the datafill for table SOSMMPC.

Field, subfield, and refinement descriptions for table SOSMMPC (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOSMLINK		0 to 7	The name of the key field is SOSMLINK. This field is used to index the table by the SOSM X.25 application. Up to eight pairs of channels may be datafilled. No default value.
DATAACH1		MPCNO with range 0 to 255, LNKNO with range of 0 to 3	Specifies the MPC card and Link number to be used for DMS to CP Data Channel 1 (CP Command Interface). No default value.

Field, subfield, and refinement descriptions for table SOSMMPC (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DATAACH2		MPCNO with range of 0 to 255, LNKNO with range of 0 to 3	Specifies the MPC card and Link number to be used for DMS to CP Data Channel 2 (Call Information Channel) No default value.

Additional information

SOSMMPC table entries can be edited only if the following criteria are met:

- SOSM0001 is ON
- SOSMCONF CI increment is accessed with a valid password, and
- SOSM system is inactive (not activated by a CP command).

Table history**SN07**

Table SOSMMPC was added in SN07 by feature A00002173.

SOSMPARM

System of Operative Searching Measures (SOSM) Parameters

Table System of Operative Searching Measures Parameters (SOSMPARM) is used by SOSM system for saving SOSM specific parameters.

Datafill sequence and meaning

There is no specific datafill sequence required for table SOSMPARM.

Table size

3 tuples.

Datafill

The following table lists the datafill for table SOSMPARM.

Field, subfield, and refinement descriptions for table SOSMPARM (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PARAMNAME		TOLL_EXIT_CODE INTRAZONAL_CODE or INTERNTNL_CODE	Parameter name. This is the name of the SOSM specific parameter.
PARAMVAL	PARAMSEL	TOLL, INTRAZONAL, INTERNTNL	This subfield is the selector which determines the refinement used for the corresponding SOSM parameter. TOLL is valid only for TOLL_EXIT_CODE. INTRAZONAL is valid only for INTRAZONAL_CODE INTERNTNL is valid only for INTERNTNL_CODE parameters.
	PARAMSEL: TOLL EXIT_CODE	digit, 0 to 9	Toll exit code. Enter a single digit between 0-9.

Field, subfield, and refinement descriptions for table SOSMPARM (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PARMSEL: INTRAZON AL EXIT_CODE	digit, 0 to 9	Zonal exit code. Consists of a single digit between 0-9.
	PARMSEL: INTERNTNL EXIT_CODE	2 digits, each 0 to 9	International exit code. Consists of two digits, each between 0-9.

Additional information

It is not permitted to change PARMSEL for the default parameters (TOLL_EXIT_CODE, INTRAZONAL_CODE and INTERNTNL_CODE) by table editing commands.

Data in SOSMPARM table cannot be deleted.

SOSMPARM table entries can be edited only if the following criteria are met:

- SOSMCONF CI increment is accessed with a valid password, and
- SOSM0001 is ON,
- SOSM system is inactive (not activated by a CP command).

Table history**SN07**

Table SOSMPARM was added in SN07 by feature A00002173.

SOSMTRK

System of Operative Searching Measures (SOSM) Trunk

Table System of Operative Searching Measures Trunk (SOSMTRK) is used by the SOSM system for mapping generic trunk groups into dedicated SOSM trunks. Each entry identifies a trunk group to be used for the PCM-30 group of MCLs.

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- Table CLLI
- Table TRKGRP
- Table TRKSGRP
- Table TRKMEM
- Table SOSMTRK

Table size

0 to 8 tuples.

Datafill

The following table lists the datafill for table SOSMTRK.

Field, subfield, and refinement descriptions for table SOSMTRK

Field	Subfield or refinement	Entry	Explanation and action
SOSMGRP		0 to 7	This field identifies the PCM-30 group number.
CLLI		Common Language Name (CLLI)	Common Language Name (CLLI). This field identifies the trunk group to be used by SOSM. Note: The CLLI entered here must correspond to a valid trunk datafilled in tables CLLI, TRKGRP, TRKSGRP and TRKMEM.

Additional information

SOSMTRK table entries can be edited only if the following criteria are met:

- SOSM0001 is ON
- SOSMCONF CI increment is accessed with a valid password, and
- SOSM system is inactive (not activated by a CP command).

Table history

SN07

Table SOSMTRK was added in SN07 by feature A00002173.

SPMCHAST

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

SPM Messaging Channel Assignment

In the DMS-Spectrum Peripheral Module (SPM), the mapping between C-side and P-side channels are made dynamically. This ability is supported in the common equipment module (CEM) hardware by an internal time switch. In addition, mapping between C-side and P-side channels is not necessarily one-to-one. For example, some C-side channels are used for messaging between the DMS-Bus and the SPM without tying up any P-side channels.

To take advantage of this, a dynamic mapping table is maintained by the channel manager to make efficient use of the channels available. Table SPMCHAST is queried to find the next available channel, then updated when a channel is reserved or freed.

Table SPMCHAST keeps track of current DS0 channels being used for messaging in the SPM. It is implemented as a data table to be dumped and restored on the inactive side as part of the dump and restore process.

When SPM table control is restored on the inactive side, this messaging channel mapping table provides SPM table control with the channels being assigned for messaging. This is required to ensure that identical channels are allocated on the inactive side in preparation for the NORESTART SWACT.

Datafill sequence and meaning

There is no requirement to datafill other tables prior to table SPMCHAST. Table SPMCHAST datafill is controlled by the SPM link registration agent.

Table SPMCHAST cannot be datafilled by operating company personnel and is not accessible through the table editor.

Table size

24 to 1536 tuples.

The system continuously increases table SITE in blocks of 32, as needed. At the initial program load (IPL), the system allocates data store (DS) for the first 32 tuples.

Table size is dynamic and depends on the current configuration of the SPM. Each entry takes 6 bytes. There is a maximum of $4 \times N$ entries, where N is the number of SPM nodes (maximum 64). However, a normal configuration usually has only one or two SPM nodes.

Minimum size: $(4 \times 1 \text{ node}) \times 6 \text{ bytes} = 24 \text{ bytes}$

Maximum size: $(4 \times 64 \text{ nodes}) \times 6 \text{ bytes} = 1536 \text{ bytes}$

Datafill

The following table lists the datafill for table SPMCHAST.

Field, subfield, and refinement descriptions for table SPMCHAST (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
KEY		See subfields	Key. This field consists of subfields NODE, LINK, and MSG_CHNL. This is the key field to table SPMCHAST.
	NODE	0 to 63	Node number. Enter the node number of the SPM node.
	LINK	0 to 97	Message link. Enter the message link number for the node.
	MSG_CHNL	0 to 3	Message channel. Enter the message channel number for the node.

Field, subfield, and refinement descriptions for table SPMCHAST (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
START		0-511	Start. This field indicates the starting DS-0 channel of the messaging channel. The default value is 0.
BANDWIDT		0-511	Bandwidth. This field indicates the number of DS-0 channels in the messaging channel. The default value is 0.
DISTANCE		0-511	Distance. This field indicates the distance between two consecutive DS-0 channels in the messaging channel. The default value is 0.
Note: Table SPMCHAST is indexed by the SPM node, link, and messaging channel number.			

Table history**SN07**

Table SPMCHAST migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

SPMECAN

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

SPM Echo Cancellor

Table SPM Echo Cancellor (SPMECAN) is used to provision the DMS-Spectrum Peripheral Module (SPM) echo canceller (ECAN) control parameters.

Datafill sequence and meaning

There is no requirement to datafill other tables before table SPMECAN.

A tuple in this table can be referenced by any number of tuples in table TRKSGRP. To delete a tuple from table SPMECAN, there must be no reference to it in table TRKSGRP.

Tables must be datafilled in the following sequence:

- SPMECAN
- MNNODE

Table size

0 to 255 tuples.

The system continuously increases table SITE in blocks of 32, as needed. At the initial program load (IPL), the system allocates data store (DS) for the first 32 tuples.

Size of one tuple = 7 bytes

Minimum size of table = 0 Kbytes

Maximum size of table = $256 \times 7 = 1.75$ Kbytes

Datafill

The following table lists the datafill for table SPMECAN.

Field, subfield, and refinement descriptions for table SPMECAN (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
TONMG		Y or N	Tone message. Enter Y (default) to send messages to the SPM resource manager every time the echo canceller is disabled by a valid G.164 or G.165 tone or enabled by silence below the specified threshold for ~300ms. Note: AUTON parameter must be set to 1 for the echo canceller to be enabled again after being disabled by the tone.
TONEDMOD		G164 or G165	Tone disabler mode. Enter G164 to use the G.164 tone disabler mode. Enter G165 (default) to use the G.165 tone disabler mode. Note: The only difference between G.164 and G.165 is the additional requirement for G.165. Specifically, the disabling tone must contain phase reversals to be detected.

Field, subfield, and refinement descriptions for table SPMECAN (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
S56KB		Y or N	Signal 56 kilobytes. Enter Y to enable the 56 Kbyte/s mode for tone disabler. The default is N. Note: This mode is used for data transfer. In the switched 56 Kbyte/s traffic mode, the least significant bit (LSB) of every frame is set to 1 for a busy circuit. The echo canceller is initially disabled by the detection of tone and remains disabled as long as an "all 1's" pattern is maintained. Following a violation of "all 1's" pattern, the echo canceller is enabled again when signal energy falls below the specified threshold.
AUTON		Y or N	Automatic on. Enter Y (default) to again enable the echo canceller when signal energy falls below a specified threshold.
NLP		Y or N	Center clipper. Enter Y (default) to enable the center clipper. The center clipper operates on residual echoes in the absence of near-end speech paths—this improves the ERLE after convergence.

Field, subfield, and refinement descriptions for table SPMECAN (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
NSMAT		Y or N	Noise matching. Enter Y (default) to enable noise matching. This function is active only if NLP is enabled. When the output signal from the echo canceller falls below a specified suppression threshold, it is replaced by white noise at the threshold level.
SOS		Y or N	SOS. Enter Y (default) to allow the ECAN to send SOS messages when the echo canceller cannot achieve the specification within a reasonable amount of time.
TDINC		Y or N	 Enter Y (default) to enable the automatic increment of MDLA (maximum tail delay) when convergence cannot be achieved with the current setting. When field TDINC is set to Y, the normal SOS message is not sent when convergence is impossible; the MDLA is incremented to 128 ms. If the MDLA parameter is already 128 ms and convergence is still impossible, an SOS message is sent.
MDLA		16MS, 32MS, 48MS, 64MS, 80MS, 96MS, 112MS, 128MS	Maximum tail delay. This field sets the maximum tail delay recognized. Echoes with a delay greater than the maximum tail delay are not recognized. The default value is 32MS.

Field, subfield, and refinement descriptions for table SPMECAN (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
MERL		0DB, 3DB, 6DB	Minimum ERL. This field contains the minimum expected ERL (echo return loss). The default value is 6DB.
ACOM		20DB TO 70DB	Combined loss. This field enables customers to specify the expected limit of Combined Loss on a trunk subgroup basis. When the Combined Loss is less than the value of datafilled ACOM for a call, information on the suspect EC is documented in the SPM660 log The default value is 33DB.
FAREC		Y or N	Far end echo canceller. Enter Y if an external echo canceller is present at the far end. The default value is N. Note: FAREC and BK2BK fields cannot both be assigned a value of Y at the same time.
BK2BK		Y or N	Back to back. Enter Y to allow two ECANs to be hooked in back-to-back configuration. The default value is N. Note: FAREC and BK2BK fields cannot both be assigned a value of Y at the same time.

Field, subfield, and refinement descriptions for table SPMECAN (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
S2COMPAT		S2C_NONE, S2C_NORM, S2C_REV	MMP series 2 peripheral compatibility mode. Enter S2C_NONE to retain the expected SPM behavior in all non-MMP loads. Enter S2C_NORM for the SPM to replicate the MMP echo canceller behavior of series 2 peripherals in normal mode. Enter S2C_REV for the SPM to replicate the MMP echo canceller behavior of series 2 peripherals in reverse connected mode. The default value is S2C_NONE.
EC_BYTE_1		00-FF	This hex byte #1 applies to a third party echo canceller. By default, it is set to 00.
EC_BYTE_2		00-FF	This hex byte #2 applies to a third party echo canceller. By default, it is set to 00.
EC_BYTE_3		00-FF	This hex byte #3 applies to a third party echo canceller. By default, it is set to 00.
EC_BYTE_4		00-FF	This hex byte #4 applies to a third party echo canceller. By default, it is set to 00.

Additional information

If an attempt is made to delete a tuple in table SPMECAN which is referenced in table MNNODE, the attempt is rejected with the following error message:

```
CANNOT DELETE THIS TUPLE - IT IS USED BY SPM 14 IN
TABLE MNNODE.
```

Dump and restore

If the SPMECAN table is not present on the dump side, but is present on the restore side, it will come up empty on the restore side after the

one-night process (ONP). If table SPMECAN is present on both the dump and restore sides prior to ONP, it will be restored before table TRKSGRP.

Inter table dependencies

Inter table dependencies are as follows:

- An index is allowed in table TRKSGRP only if it already exists in table SPMECAN.
- If an index is being used by a trunk in table TRKSGRP, it cannot be deleted from table SPMECAN.
- The FAREC and BK2BK fields cannot both be assigned a value of Y in the same tuple instance.

Table history

SN07

Table SPMECAN migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Tuples in table MNNODE may reference tuples in table SPMECAN.

SPMLDVAL

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Spectrum Load Name Validation

Table SPMLDVAL stores the device load sequence for different releases of the TDM spectrum peripheral module (SPM) loads.

The key for table SPMLDVAL is a combination of four parts as follows:

- Spectrum family load type indicator
- General release number
- Maintenance release number
- Emergency release number

The following applications retrieve data from table SPMLDVAL:

- The CI tool SPMLDINFO gets the load sequence information for different SPM load releases from table SPMLDVAL
- The command QUERYPM FILES compares the device loads in a DMS Call Processing (DMSCP) SPM with the load sequence of different SPM load releases datafilled in table SPMLDVAL in order to display the release load running on that SPM

Note 1: Table SPMLDVAL datafill is only applicable to DMSCP SPM release loads.

Note 2: For DMSCP SPMs, if table SPMLDVAL is not datafilled, the CI tool SPMLDINFO and the QUERYPM command display a warning that the SPM load lineup does not match datafill in table SPMLDVAL.

Datafill sequence and meaning

Table SPMLDVAL can be datafilled in the following ways:

- During peripheral module upgrade automation initiative (PANTHER) execution, if at least one DMSCP SPM node is provisioned in the office, the table SPMLDVAL is datafilled automatically during the PANTHER filecopy step. For offices with Succession Multi-Services Gateway 4 (SMG4), Interworking (IW), or Dynamic Packet Trunk

(DPT) SPMs but no DMSCP SPMs, the table is not datafilled during PANTHER execution.

- If tuples need to be added manually, then the administrator can use the RWOK ON option to enable write permission for the table.

Table SPMLDVAL does not have any dependencies on other table datafills.

Table size

0 to 255 tuples. Memory information is defined as protected memory.

Datafill

The following table lists the datafill for table SPMLDVAL.

Field, subfield, and refinement descriptions for table SPMLDVAL

Field	Subfield or refinement	Entry	Explanation and action
LOAD_TYPE		SP	Spectrum family load type indicator.
GEN_REL		1 to 99	General Release. Enter the milestone release number of the load.
MTC_REL		0 to 9	Maintenance Release. Enter 0 if the load is a general release.
EMG_REL		0 to 9	Emergency Release. Enter 0 if the load is a general release or maintenance release.
LOADLIST		List of up to 32 device loads.	Enter up to 32 valid device load names. Each load name is 7 character long.

Additional information

Translation and verification

Table SPMLDVAL does not use translation verification tools.

Protection level

The protection level of table SPMLDVAL is SYSPROT. This level prevents adding, deleting or modification of tuples in this table directly. To activate write permission enter the command:

> RWOK ON

Error conditions

During datafill the following error conditions can occur:

- If the same loadname is repeated in a tuple, then the tuple addition will be rejected with the following error message:

ERROR: Loadname <loadname> is repeated in the tuple.

- If the length of any of the loadname entered is not 7 characters, then the tuple addition is rejected with the following message:

ERROR: Loadnames must be 7 characters in length.

- Whenever a tuple with 32 or more loadnames are added, the following warning message is displayed to the user:

WARNING: 32 loadname entries accepted. Any additional loadname entries will be discarded.

If a tuple with more than 32 loadnames is added in the table, it will take only the first 32 loadnames entered and discard the remaining entries.

- If the table is already full, then addition of a new tuple will fail with the following message:

TABLE IS FULL.

Table history**SN07**

Table SPMLDVAL migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Table SPMLDVAL was introduced by feature number A89007535.

SYNCLK

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Synchronous Clock

Switches arranged for synchronous clock operation require table Synchronous Clock (SYNCLK). You can enter data in this table for the DMS-100 switch (NT40) or the DMS-SuperNode switch.

DMS-100

Switches with synchronous clocks can be one of the following types of switches:

- A master external switch in which the central message controller (CMC) clocks synchronizes with an external reference clock.
- A master internal switch that uses the free running oscillator in the synchronizable master clock oscillator (NT3X15AA or NT3X16AA) as the network master clock.
- A slave switch that synchronizes to a master or another slave above the slave in the network hierarchy. This process occurs through clock signals on one of the two assigned DS-1 timing links.

Table SYNCLK allows the user to specify the location of the clock and the timing links. The clock and timing links are for the following peripheral module (PM) types:

- digital carrier module (DCM)
- digital trunk controller (DTC)
- line trunk controller (LTC)

The Stratum-3 and STRAT2P5 clocks (PEC NT3X15) are always on the same shelf as the central control (CC). The system supplies the default values for fields FRTYPE, FRNO, SHPOS, FLOOR, ROW, and FRPOS. The system supplies and ignores these fields.

The Stratum-2 clock (NT3X16) cannot reside on the CC shelf. The Stratum-2 clock can be on an input/output equipment (IOE) frame. This frame must be maximum of 200 feet away from the central message controller (CMC). Overwrite the default values for fields FRTYPE,

FRNO, SHPOS, FLOOR, ROW, and FRPOS to reflect the true position of the clock.

The contents of the phase register field do not affect the DCM. For LTCs and DTCs, the phase register field must select the specified register on the time switch card. This time switch card is hard-wired to the port. This configuration provides the timing link data.

DMS SuperNode

The synchronous clock system handles different office configurations. The synchronous clock system allows the DMS to be a node in the timing network.

In the master external office configuration, the message switch (MS) connects to an external reference source, like a Cesium. This connection synchronizes the DMS system clock. Offices at the top of the network hierarchy use this configuration. Dedicated links that connect to the DMS-bus clock paddleboard (NT9X54) synchronize the DMS clock.

The master internal office configuration uses the internal clock of the DMS to synchronize the office. Offices at the top of the hierarchy and non-Stratum-1 quality use this configuration.

Configuration of the Signaling Transfer Point (STP) offices must occur in the Master Internal Stratum 3 configuration.

The slave office configuration does not have dedicated links incoming to the office to supply the required timing. The system extracts the clock reference source from the incoming digital trunks. To select the digital trunks that the system can use as timing links, enter data in table SYNCLK. You can select two trunks as timing links.

The two trunks that the system uses as timing links do not have limits. The two trunks do not have limits if the following conditions apply:

- the trunks are digital trunks
- the trunks are not on the same DCM
- the trunks are not on the same circuit card if the trunks are on the same DTC or LTC
- the circuit numbers for PMs have a limit of 0 for card 0, and 2 for card 1
- the MS contains the system clocks. Each MS has one clock

Table SYNCLK allows the switch to synchronize the Stratum-3 system clock to the remote Stratum-2 or 2.5 clock. A remote clock contains a Stratum-2 or 2.5 quality oscillator in the NT3X95 remote oscillator shelf.

The DMS uses the slave office configuration to synchronize to another office. For the slave office configuration, the system extracts the synchronization reference from an incoming DS-1 timing link.

SPM OC-3

Spectrum Peripheral Module (SPM) optical carrier-level 3 (OC-3) can be provisioned as a timing link when an office is configured in slave mode.

In table SYNCLK, field OFFCONF must be datafilled as SLAVE. This datafill enables selection of SPM as a timing link in field LK0_PTY or LK1_PTY.

Field LK0_PNUM or LK1_PNUM can be datafilled only with existing SPMs defined in table MNODE. If the requested SPM is not datafilled in table MNODE, the datafill is rejected and the following message displays: "SPM XX is undefined." Also, SPMs to be datafilled must be configured in internal timing mode in table MNODE. Failure to configure the SPM in internal timing mode in table MNODE results in the datafill being blocked and the following message displays: "SPM XX is not in INTERNAL mode."

Fields LK0_PNUM and LK0_RMTYP or LK1_PNUM and LK1_RMTYP combine to form the timing link identifier for an SPM. This translates to a circuit pack on the SPM, which must be defined in table MNCKTPAK prior to the datafill in table SYNCLK. If the circuit pack is not defined correctly, the datafill is rejected and the following message displays: "No OC3 RMs found on SPM XX." In addition, if the state of the SPM is anything but INSV, the following warning is displayed: "SPM XX is NOT INSV."

The following list describes additional restrictions imposed in table SYNCLK for OC-3 line timing:

- Stratum 2 and Stratum 2.5 configurations are not supported. An attempt to provision OC-3 as a timing link with Stratum 2 or Stratum 2.5 configurations results in the following message: "SLAVE office with SPM as sync source. Office should be datafilled with STRAT3 clock."
- A combination of SPM and other PMs as LINK0 and LINK1 is not allowed. An attempt to establish this combination results in the following message: "SPM timing links cannot be provisioned with other PTYP."

SPMs currently datafilled in table SYNCLK cannot be deleted from table MNNODE without first being removed from table SYNCLK. If the SPMs are not removed from table SYNCLK first, the deletion from table MNNODE is blocked and the following warning displays: "SPM XX is provisioned as Link X in table SYNCLK." ("Link X" represents LK0 when X=0 and LK1 when X=1. "SPM XX" corresponds to the SPM number being datafilled. XX can have integer values from 0 to 63.)

Datafill sequence and meaning

Enter data in the following tables before you enter data in table SYNCLK.

- LTCINV
- LTCPSINV
- DCMINV
- SYNOGLNK, if the load includes this table
- MNNODE, when provisioning SPM OC-3 as a timing link
- MNCKTPAK, when provisioning SPM OC-3 as a timing link

Table size

The system allocates memory for one default tuple.

Datafill

The following table lists the datafill for table SYNCLK.

Field descriptions for DMS-100 switches

The following table lists the datafill for DMS-100 switches.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Description
KEY		0	Key. Enter the index 0 in the synchronous clock table. Entries outside the range indicated for this field are not correct.
OFFCONF		MASTER_EXT, MASTER_INT, NON_SYNC, or SLAVE	Office configuration. Define the office configuration. Enter MASTER_EXT if the switching unit is configured as a master with an external reference clock. Enter MASTER_INT if the switching unit is configured as a master with the internal clock as a standard. Enter NON_SYNC if the switching unit does not contain synchronous clock hardware. The system initializes field OFFCONF with a value of NON_SYNC. Enter SLAVE if the switching unit is configured as a slave office synchronized through DS-1 to a master switching unit.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Description
CLK0DEF		NON_SYNC_CLOCK or SYNC_CLOCK	Clock 0 definition. Enter NON_SYNC_CLOCK if clock 0 is not a synchronous clock. Enter SYNC_CLOCK if clock 0 has synchronous clock hardware. The system initializes field CLK0DEF with a value of NON_SYNC_CLOCK.
CLK1DEF		NON_SYNC_CLOCK or SYNC_CLOCK	Clock 1 definition. Enter NON_SYNC_CLOCK if clock 1 is not a synchronous clock. Enter SYNC_CLOCK if clock 1 has synchronous clock hardware. The system initializes field CLK1DEF with a value of NON_SYNC_CLOCK.
LK0PTYP		D30_ADTC_TYPE D30_DCA_TYPE D30_DCMT_TYPE D30_IDTC_TYPE D30_PDTC_TYPE D30_TDTC_TYPE D30_TLTC_TYPE DS1_DCM_TYPE DS1_DTC_TYPE DS1_DTCI_TYPE DS1_ICP_TYPE DS1_LTC_TYPE DS1_RMISC_TYPE or SPM	Timing link zero peripheral module type. Enter the peripheral module (PM) type assigned to timing link 0. Entry D30_DCA_TYPE is for licensee (K+S) use. Entries D30_TDTC_TYPE and D30_TLTC_TYPE are for licensee use. Entries outside the range indicated for this field are not correct.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Description
LK0PNUM		0 to 511	Timing link zero peripheral module number. Enter the number of the PM assigned to timing link 0 in field LK0PTYP. The DTC or LTC PMs (peripheral modules) can have an assigned value from 0 to 63. SPM can have an assigned value from 0 to 63. Give PM DCM a value from 0 to 511.
LK0CCT		0 to 4	Timing link zero circuit number. Enter the circuit card number assigned to timing link 0. Assign DCM DS-1 ports links 0 to 4. The LTC, DTC, PDTC, ADTC, IDTC or DTCL can have DS-1 ports 0 and 2 assigned. The DCA (for K+S) can have DS-1 ports from 0 to 3 assigned. Entries outside the range indicated for this field are not correct.
LK1PTYP		D30_ADTC_TYPE D30_DCA_TYPE D30_DCMT_TYPE D30_IDTC_TYPE D30_PDTC_TYPE D30_TDTC_TYPE D30_TLTC_TYPE DS1_DCM_TYPE DS1_DTC_TYPE DS1_DTCL_TYPE DS1_ICP_TYPE DS1_LTC_TYPE DS1_RMSC_TYPE or SPM	Timing link one peripheral module type. Enter the PM type that belongs to timing link 1. Entry D30_DCA_TYPE is for licensee (K+S) use. Entries D30_TDTC_TYPE and D30_TLTC_TYPE are for licensee use. Entries outside the range indicated for this field are not correct.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Description
LK1PNUM		0 to 511	Timing link one peripheral module number. Enter the number of the PM assigned to timing link 1. If the entry in field LK1PTYP is a DCM type, the range is 0 to 511. The DTC or LTC PMs can have an assigned value from 0 to 63. SPM can have an assigned value from 0 to 63.
LK1CCT		0 to 4	Timing link one circuit number. Enter the circuit card number that belongs to timing link 1. If the entry in field LK1PTYP is a DCM type, the range is 0 to 4. The entry in field LK1PTYPE can be an ADTC, DTC, IDTC, LTC, PDTC, or DTCL type. In this condition, the entry can have DS-1 ports 0 and 2 assigned for office synchronization. If the entry in field LK1PTYPE is a DCA type (for K+S), the entry can have DS-1 ports 0 to 3 assigned. Entries outside the range indicated for this field are not correct.
MOFS		Y or N	Master of slaves. Enter Y if the switching unit is a master of slaves. If the switching unit is not the master of slaves, enter N. The system initializes field MOFS with a value of N.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Description
BEAT		Y or N	Beat detection. Enter Y if the switching unit is a MASTER_EXT office (field OFFCONF). If the switching unit is not a MASTER_EXT office, enter N. The default value is Y.
FRTYPE		CCC or IOE	Frame type. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, enter data in this refinement. Enter IOE (input/output equipment) or CCC (central control complex). The default for this field is CCC. Entries outside the range indicated for this field are not correct.
FRNO		0 to 511	Frame number. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, enter data in this refinement. Enter the frame number that contains the clock card. The default for this field is 0.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Description
SHPOS		0 to 77	Shelf position. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, data enter this refinement. Enter the shelf position that contains the clock card. The default for this field is 43. Entries outside the range indicated for this field are not correct.
FLOOR		0 to 99	Floor. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, enter data in this refinement. Enter the floor position that contains the clock card. The default entry for this field is 0.
ROW		A to Z, AA to ZZ, except I, II, O, and OO	Row. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, enter data in this refinement. Enter the row on the floor that contains the clock card. The default entry for this field is A.
FRPOS		0 to 99	Frame position. If the entry in field CLOCKPEC, in the following Field descriptions table, is NT3X16, enter data in this refinement. Enter the frame position of the bay that contains the clock card. The default entry for this field is 0.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Description
CLOCKPEC		NT3X15 or NT3X16	Clock product engineering code. Enter the clock product engineering code (PEC). The PEC for the Stratum-2 clock is NT3X16. The other PECs, like Stratum-3, STRAT2P5) are NT3X15. See Additional information section for information for changes to the clock type.
LOWDRIFT		10 to 75	Lower percent drift. Enter the lower percent adjustment. This adjustment causes an alarm. The alarm indicates the sync clock oscillator is out of adjustment and needs readjustment. This value increases by 10, 11, 12.....75.
LALRMLVL		NO_ALARM MINOR MAJOR	Lower alarm level. Enter the alarm level the system raises. The system raises the alarm level when the sync clock oscillator reaches the percent adjustment that field LOWDRIFT specifies.
UALRMLVL		NO_ALARM MINOR MAJOR	Upper alarm level. Enter the alarm level the system raises. The system raises the alarm level when the sync clock oscillator reaches the upper percent adjustment that the system defines. The alarm level for UALRMLVL must be greater than or equal to the LALRMLVL alarm level.

Field descriptions for DMS SuperNode switches

The following table lists the datafill for DMS SuperNode switches.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Description
CLKKEY		0	Clock key. Enter 0 (zero).
CLKDATA		see subfields	Clock data. This field contains subfield CLKTYPE and associated refinements.
	CLKTYPE	STRAT2 STRAT2P5 STRAT3	Clock type. Enter the type of clock used in the office. If the entry value is STRAT2 or STRAT2P5, enter data in refinements CLKPEC, FRTYPE, FRNO, SHPOS, FLOOR, ROW, and FRPOS. Enter STRAT3 for STP offices. If the entry value is STRAT3, see refinement OFFCDATA that follows. See Additional information for information on changes to the clock type.
	CLKPEC	NT3X16AA NT3X16AB NT3X16BA NT3X16BB	Clock product equipment code. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the product engineering code (PEC) of the clock hardware.
	FRTYPE	IOE	Frame type. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. An IOE (input/output equipment) frame accommodates a STRAT2P5 or a Stratum-2 clock. Entries outside the range indicated for this field are not correct.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Description
	FRNO	0 to 511	Frame number. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the frame number of the clock card.
	SHPOS	0 to 77	Shelf position. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the shelf position that contains the clock card. Entries outside the range indicated for this field are not correct.
	FLOOR	0 to 99	Floor. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the floor position that contains the clock car.
	ROW	A to Z, AA to ZZ, except I, II, O, and OO	Row. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the position that contains the clock card.
	FRPOS	0 to 99	Frame position. If the entry in subfield CLKTYPE is STRAT2 or STRAT2P5, enter data in this refinement. Enter the frame position of the bay that contains the clock card.

Field, subfield, and refinement descriptions for table SYNCLK (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Description
	OFFCDATA	see subfields	Office data. This field contains subfield OFFCONF and the associated refinements.
	OFFCONF	MASTINT MASTEXT SLAVE	Office configuration. Enter the correct office configuration. System initialization to MASTINT presets the configuration. Enter MASTEXT for the master external office configuration. Enter data in refinements EXTFREQ and EXTSEL. Enter MASTINT for STP offices. Enter MASTINT for the master internal office configuration. This entry does not require additional refinements. Enter SLAVE for the slave office configuration. Enter data in refinements LK0_PTyp, LK0_PNUM, LK0_PCCT, LK0_REG, LK1_PTyp, LK1_PNUM, LK1_PCCT, and LK1_REG in the following section "OFFCONF = SLAVE".

OFFCONF = MASTEXT

If the system selects master external office (MASTEXT) configuration, enter data in subfields EXTFREQ and EXTSEL.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Description
	EXTFREQ	F64 F1000 F1024 F2048 F2560 F5000 F10000 F10240	External reference frequency. Enter the external reference frequency that the system uses to synchronize the office. The value that you enter defines the frequency in kHz units. For example, F1000 is 1.00 MHz.
	EXTSEL	ANALOG or COMPOSITE	External reference selector. Enter the type of external reference that synchronizes the system clocks. This reference determines the backplane connector on the 9X54AC card that connects to the external source. Stratum-1 type analog signals connect to the coaxial input. Composite signals connect to the 37-pin connector. Composite signals require a BITS connector. If the value of subfield EXTSEL is ANALOG, enter data in refinement EXTTERM.
	EXTTERM	T50 or T75	External reference termination. If the entry in subfield EXTSEL is ANALOG, enter data in this refinement. Enter the type of coaxial cable that connects the external reference. The ANALOG sources use the following cables: 50 ohm termination (Stratum-1 Cesium) and 75 ohm termination (Stratum-1 Loran-C).

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Description
	EXTALARM	MAJOR MINOR OFF	External alarm. This field indicates how the system handles SuperNode clock card problems. Enter MAJOR if the system reports Stratum-1 ALARM0 and ALARM1 clock problems. The A10 and A11 clock alarms must indicate problems on the MAP in the SYNC logs. The A10 and A11 clock alarms must reflect the QUERYCK command. Stratum-1 ALARM0 ALARM1 clock problems result in a system action. An example of a system action is a message switch of clock mastership or an office drop SYNC. Enter MINOR if the system reports Stratum-1 ALARM0 and ALARM1 clock problems. The A10 and A11 clock alarms must indicate the problems on the MAP. The clock alarms record the problems in the SYNC logs. The A10 and A11 clock alarms must indicate problems the QUERYCK command. The system action does not handle the Stratum-1 ALARM0 and ALARM1 clock problems. Enter OFF if the system does not report Stratum-1 ALARM0 and ALARM1 clock problems. The A10 and A11 clock alarms associated with these problems are not present on the MAP. The SYNC logs and the command interpreter (CI) QUERYCK command do not contain the A10 and A11 clock alarms associated with these problems.

OFFCONF = SLAVE

If the entry in field OFFCONF is slave, enter data in the following refinements:

- LK0_PTyp
- LK0_PNUM
- LK0_CCT
- LK0_RMTYP
- LK0_REG
- LK1_PTyp
- LK1_PNUM
- LK1_CCT
- LK0_RMTYP
- LK1_REG

Field descriptions for conditional datafill (Sheet 1 of 3)

Subfield or refinement	Entry	Description
LK0_PTyp	ADTC, DCA, DCM, DCMT, DTC, DTCl, IDTC, LTC, PDTC, RMSC, or SPM	Timing link zero peripheral module type. Enter the type of peripheral module (PM) assigned to timing link 0. • ADTC (Austrian digital trunk controller) • DCA (digital carrier access) Note: The DCA is for licensee (K+S) use. • DCM (digital carrier module) • DCMT • DTC (digital trunk controller) • DTCl (ISDN digital trunk controller) • LTC (line trunk controller) • PDTC (PCM30 digital trunk controller) • RMSC (remote mobile switching center) • SPM

Field descriptions for conditional datafill (Sheet 2 of 3)

Subfield or refinement	Entry	Description
LK0_PNUM	0 to 511	Timing link zero peripheral module number. Enter the number of the PM assigned to timing link 0. The range is restricted for SPMs from 0 to 63. Select an SPM that is datafilled as internal in table MNNODE.
LK0_CCT	0 to 4	Timing link zero circuit number. Enter the circuit card number that belongs to timing link 0. The DCMs have circuits 0 to 4. The DTC, LTC, PDTC, ADTC, or IDTC use 0 and 8. The DCA DS-1 ports can have circuits 0 to 3 assigned. CCT is not a datafilled value for SPM. Entries outside the range for this field are not correct.
LK0_RMTYP	OC3	Timing link zero resource module (RM) type. This field is a refinement over circuit number and was introduced for SPM. The field defines the carrier type of the timing link.
LK0_REG	0 or 1	Timing link zero phase register. This register indicates the count register from which the system extracts the phase samples. This field does not affect a DCM. Enter 0 or 1 to satisfy the table editor.
LK1_PTyp	ADTC, DCA, DCM, DCMT, DTC, DTCl, IDTC, LTC, PDTC, RMSC, or SPM	Timing link one peripheral module type. Enter the type of PM assigned to timing link 1. See field LK0_PTyp.

Field descriptions for conditional datafill (Sheet 3 of 3)

Subfield or refinement	Entry	Description
LK1_PNUM	0 to 511	Timing link one peripheral module number. Enter the number of the PM assigned to timing link 1. The range is restricted for SPMs from 0 to 63. Select an SPM that is datafilled as internal in table MNNODE.
LK1_CCT	0 to 4	Timing link one circuit number. Enter the circuit card number that the system assigns to timing link 1. The DCMs have circuits 0 to 4. The DTC, LTC, PDTC, ADTC or IDTC use circuits 0 and 8. The system assigns DCA DS-1 ports to circuits 0 to 3. CCT is not a datafilled value for SPM. Entries outside the range indicated for this field are not correct.
LK1_RMTYP	OC3	Timing link one RM type. This field is a refinement over circuit number and was introduced for SPM. The field defines the carrier type of the timing link.
LK1_REG	0 or 1	Timing link one phase register. This register indicates the phase count register from which the system extracts timing samples. This field does not affect a DCM. Enter 0 or 1 to satisfy the table editor.

Additional information

This section provides additional information about table SYNCLK.

Changes to the clock type

Changes to the data in table SYNCLK can cause a change in the clock type (stratum). If this condition occurs, the return to service (RTS) requires an out-of-band (OOBAND) option to operate. Use the TSTMS (test message switch) and RTS OOBAND commands to change the clock type. Do not use the standard RTS command.

Use the standard RTS command if data entry changes do not cause the clock type to change.

Table history

SN07

Table SYNCLK migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

SN06 (DMS)

Amended circuit card number that belongs to timing link 1 for a PDTC to use circuits 0 and 8 as per Q00708926.

TDBDAOPT

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

TOPS Database Directory Assistance Options

Table TOPS Database Directory Assistance Options (TDBDAOPT) contains restrictions for Automatic Directory Assistance Call Completion (ADACC). The fields of the table indicate which LATA statuses may be offered ADACC, and which billing options are available for ADACC.

Tuple 0 is the default and allows ADACC for all LATA statuses and all billing options.

Datafill sequence and meaning

Table TDBDAOPT is referenced by table TOPSDB and must be datafilled prior to table TOPSDB.

Tuples in the table cannot be deleted if they are referenced by table TOPSDB.

Default tuple 0 cannot be changed or deleted.

Table size

0 to 1000 tuples.

Table TDBDAOPT is a fixed-size table.

Datafill

The following table lists the datafill for table TDBDAOPT.

Field, subfield, and refinement descriptions for table TDBDAOPT (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
TDBDAIDX		0 to 1000	TOPS database directory assistance index. This is the table key and is indexed from table TOPSDB. Default tuple 0 is shown in the following datafill example and cannot be changed or deleted.
ADACCSRV		INTRALCL, INTRATOLL, INTER, OVERSEAS, ALL, or NONE	Automatic directory assistance call completion service. This field indicates is the LATA status that ADACC can be offered. The values are as follows: INTRALCL - local ADACC only INTRATOLL - non-local INTRA toll ADACC INTER - long distance toll ADACC OVERSEAS - DACC calls can be eligible for ADACC service if the datafill includes either OVERSEAS or ALL. ALL - INTER, INTRATOLL, OVERSEAS, and INTRALCL NONE - ADACC is not available
BILLOPT		Set of {CONTBIL, SENTPD, ALTBIL, OPERBIL}; or ALL, or NONE.	Billing options. Set of valid billing options for the call completion portion of an ADACC call. The values are described below.

Field, subfield, and refinement descriptions for table TDBDAOPT (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		ALL	All billing types. Note: The information in field BILTYPES is passed to the NT Directory Assistance system, and is used for building the appropriate ADACC announcements for automated playback to the caller. In TOPS03, value OPERBIL was added to this field. Value OPERBIL is not recognized by the ADACC announcement software as a valid billing option, and building of the announcement fails if this value is received by the announcement subsystem. Therefore, for TOPS03 and up, values ALL and OPERBIL should not be used. Instead, only values CONTBIL, SENTPD, and ALTBIL should be used. If ALL is datafill prior to the TOPS03 upgrade, change to the values CONTBIL, SENTPD, and ALTBIL (excluding OPERBIL).
		ALTbil	Alternate billing. Caller desires to bill call completion charges either to a calling card, to a third number, or collect.

Field, subfield, and refinement descriptions for table TDBDAOPT (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		CONTBIL	Continue billing. Call completion charges billing must use billing method already established for DA portion of call. Note: CONTBIL is valid only if the preceding DA call was billable which insures that a valid billing method was established. If the billing method established for the DA call was bill to third party, then the entry in office parameter DACC_BILL_TO_THIRD in table VROPT determines if the CONTBIL option can be selected for call completion. If office parameter DACC_BILL_TO_THIRD in table VROPT contains N, CONTBIL is not an option offered to the subscriber.

Field, subfield, and refinement descriptions for table TDBDAOPT (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		NONE	None. Retain billing method used prior to this alternate billing feature. The subscriber is not offered a selection of billing options for call completion. Note: Use of this value is changed by feature AN0262 in TOPS03. Refer to the history section for the functionality of this feature. Prior to AN0262, or if feature AN0262 is not active, specifying NONE indicates that the subscriber is not offered a selection of billing options for call completion, and that the billing approach used prior to Feature AF2086 (ADACC with Alternate Billing) is to be used. When feature AN0262 is active, value NONE indicates that no billing types are valid, except auto-collect. It is suggested that all instances of NONE be changed to either CONTBIL or SENTPD before activating feature AN0262. Note that NONE is still a valid entry but its use has changed in TOPS03.
		SENTPD	Sent paid. Call completion charges are billed to the calling party.
		OPERBIL	Operator billing. The subscriber is connected to a toll operator for billing the ADACC call. Note, this value should not be used. For further information, see the note under value ALL for this field.

Field, subfield, and refinement descriptions for table TDBDAOPT (Sheet 5 of 5)

Field	Subfield or refinement	Entry	Explanation and action
ADASERV		N or Y	ADAS service. This field indicates if the incoming DN may use ADAS or ADAS+. The default is Y. This field is only used during DN screening. If set to Y, the subscriber is given automated DA service. If the subscriber desires a live operator, enter N.

Additional information**Error messages**

The following error messages apply to table TDBDAOPT:

Error messages for table TDBDAOPT

Error message	Explanation and action
Tuple 39 is not datafilled in table TDBDAOPT.	Table TDBDAOPT is referenced by table TOPSDB and must be datafilled prior to table TOPSDB. If the craftsperson attempts to add or change a table TOPSDB tuple with a given TDBDAOPT prior to adding the tuple to table TDBDAOPT, the add or change is not allowed, and an error message is given.
Tuple referred to by another table - use TABREF to get potential table list.	If the craftsperson attempts to delete a table TDBDAOPT tuple which is referenced by table TOPSDB, the deletion is not allowed, and an error message is given.
Tuple 0 cannot be deleted or changed.	If the craftsperson attempts to change or delete default tuple 0, the change or deletion is not allowed, and an error message is given.

Table history**SN07**

Table TDBDAOPT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

TFANINT

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Traffic Separation Intersection

The Traffic Separation Intersection (TFANINT) tables contain tables TFANINT and OCCTSINT.

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

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

The TSMS and EATSMS do not function together.

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

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

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

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

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

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

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

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

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

Datafill sequence and meaning

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

- ANNS
- TRKGRP
- TONES
- LINEATTR

Table size

0 to 2047 tuples.

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

Datafill

The following table lists the datafill for table TFANINT.

Field, subfield, and refinement descriptions for table TFANINT (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
INDX		see subfields	Index. This field contains subfields TFANIN and TFANOUT.
	TFANIN	0 to 127	Source traffic separation number. Enter the source traffic separation number assigned to the intersection. The maximum number of source traffic separation numbers you can specify is 127. If you specify this number, storage restrictions limit the maximum of destination traffic separation numbers you can specify to 125.
	TFANOUT	0 to 127	Destination traffic separation number. Enter the destination traffic separation number assigned to the intersection. The maximum number of destination traffic separation numbers you can specify is 127. If you specify this number, storage restrictions limit the maximum number of source traffic separation numbers you can specify to 125.

Field, subfield, and refinement descriptions for table TFANINT (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DDREGNO		0 to 2047	Direct dial register number. Enter the register number assigned to the intersection for a peg count of DD calls. You can enter a number from 1 to 2047. If you do not require a peg count of DD calls, enter 0. The number you enter cannot exceed the value of office parameter NO_TFAN_OM_REGISTERS in table OFCENG. The maximum value for NO_TFAN_OM_REGISTERS is 2047.
OAREGNO		0 to 2047	Operator assisted register number. Enter the register number assigned to the intersection for a peg count of OA calls. You can enter a number from 1 to 2047. If you do not require a peg count of OA calls, enter 0. The number you enter cannot exceed the value of office parameter NO_TFAN_OM_REGISTERS in table OFCENG. The maximum value for NO_TFAN_OM_REGISTERS is 2047.

Field, subfield, and refinement descriptions for table TFANINT (Sheet 3 of 3)

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

Table history**SN07**

Table TFANINT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 10 of 12*, 297-8021-351.09.03.

TOLLTRKS

TOLLTRKS

Table TOLLTRKS stores the common language location identifiers (CLLI) of all trunk groups carrying incoming toll completing traffic, and LDI evaluates the CLLI name to determine the long distance status.

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- Table TRKGRP
- Table TOLLTRKS

Table size

0 to 8192 tuples.

Datafill

The following table lists the datafill for table TOLLTRKS.

Field, subfield, and refinement descriptions for table TOLLTRKS

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric, 1 to 16 characters	Common language location identifier. This field specifies the trunk over which long distance calls can come into an office. Enter the CLLI from table TRKGRP (1 to 16 characters)

Table history

SN07

Table TOLLTRKS was added in SN07 by feature A00002558.

TONES

Table TONES

Table TONES defines tones that are generated by line or trunk peripheral modules (PMs).

The special tones listed below are generated on cards located on a trunk module (TM) or maintenance trunk module (MTM), and defined in table STN instead of table TONES:

- BVTONE: IBN busy verification tone
- CWT: call waiting tone
- DISTCWT: distinctive call waiting tone
- EBOT: executive busy override tone
- ERWT: expensive route warning tone
- OHQT: offhook queuing tone
- ROH: receiver offhook tone

The special tones listed below are generated on cards located on a TM or MTM, and are defined in table SVRCKT instead of table TONES:

- SVDTMF: DIGITONE outpulsing circuit
- SVOBSV: service observing circuit

Where field KIKEY in table KEY_ITEM is datafilled with an entry of TONEKEY, the maximum number of tones that can be allocated is determined by the value of field SIZE in table KEY_ITEM.

Where field DATSKEY in table DATASIZE is datafilled with an entry of TONES, memory for table TONES is allocated in accordance with the value of field SIZE in table DATASIZE.

To extend the length of the table, the size in the DATASIZE table must be increased and a cold restart performed.

Datafill sequence and meaning

There is no requirement to datafill other tables before datafilling table TONES.

The following tables must be datafilled after table TONES:

- CLLIMTCE
- OFRT

- OFR2
- OFR3
- OFR4

Table size

0 to 20 tuples.

United Kingdom

If the switching unit is a DMS-100 switch in the United Kingdom and office parameter MARKET_OF_OFFICE in table OFCENG is set to UK PABX, the recommended values for the entry in table CUSTPROT with field TABNAME equal to TONES are shown in the following table.

UK PABX datafill for table CUSTPROT

Field name	Entry
TABNAME	TONES
READPROT	15
UPDTPROT	30
ALLPROT	30

Datafill

The following table lists the datafill for table TONES.

Field, subfield, and refinement descriptions for table TONES (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the code assigned to the tone in table CLLI.
TRAFSNO		0 to 127	<i>Traffic separation number</i> LOCAL, TOLL, LOCAL/TOLL, GATEWAY or INTERNATIONAL only: If the switching unit has the optional Traffic Separation software feature, enter the outgoing traffic separation number 0 to 127 assigned to the tone. If traffic separation is not required, enter 0 (zero). The range of values for the outgoing traffic separation number is dependent upon office parameter TFAN_OUT_MAX_NUMB ER in table OFCENG. It is recommended that outgoing traffic separation numbers 1 to 9 be reserved for generic separation numbers.

Field, subfield, and refinement descriptions for table TONES (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
TRAFSNO (continued)		0 to 127	See table TFANINT for the assignment of incoming to outgoing traffic separation numbers. With the traffic separation feature, a peg count of all calls, by type of call, can be accumulated between an incoming source (incoming trunk or an originating line attribute) and an outgoing source (outgoing trunk, terminating line attribute, tone or announcement). Direct Dial (DD), Operator Assisted (OA) and No Prefix (NP) are the call types supported.
SEGTIME		10 to 250	<i>Segment time</i> Enter the duration of one segment of tone specified in multiples of 10 ms (for example, 20 = 200 ms).
OFFTIME		10 to 250	<i>Offtime</i> enter the duration of the no-tone period specified in multiples of 10 ms (for example, 20 = 200 ms).
TONEPATT		numeric (16 digits)	<i>Tone pattern</i> Enter a 16-digit string of 0s and 1s. Each digit corresponds to one segment of tone pattern and represents the binary state on the tone, where: • 0 = tone off • 1 = tone on

Field, subfield, and refinement descriptions for table TONES (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
TONETYP		alphanumeric	<i>Tone type</i> Enter the type of tone generator required. New tones are added as necessary, and the list below is not fully comprehensive. Since some of the tone generators listed below are mutually exclusive, only a subset of these tone generators can be found in a given software load.
		HI	<i>High tone</i> This is a general-purpose high-frequency tone generator.
		HZ400_5DB	<i>400-Hz tone, 5 decibels</i> This is the tone generator for 400 Hz at -5 dBm.
		INTL_ROH_TONE	<i>International ROH tone</i> This is for use in an international DMS when the entry in field CLLI is IROH.
		LO	<i>Low tone</i> This is a general-purpose low-frequency tone generator.
		1024HZ_TONE	Datafill this field for any CLLI when setting up the Bangladesh feature tones. This datafill is not active until you have set FEATURE_TONE_SET to BNGLDTC in table OFCENG.

Field, subfield, and refinement descriptions for table TONES (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
TONETYP (continued)		SILENT_TONE	<i>Silent tone</i> Silence
OFFTONE		alphanumeric	<i>Off tone</i> Tone types are as for TONETYP.
MAXDURN		1 to 255	<i>Maximum duration</i> Enter the maximum time in seconds that a call condense block can be attached. For information on office parameter NCCBS (Number of Call Condense Blocks), see table OFCENG. The maximum duration for silent tone is 10 seconds.

Field, subfield, and refinement descriptions for table TONES (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
MAXCONN		127	<i>Maximum connections</i> Enter 127 to satisfy the table editor. Entry values other than 127 are not valid. Note: This field is operative in table ANNS and STN because members of such trunk groups represent real physical resources, but is not operative in table TONES because LM-generated tones do not represent real physical resources. The DMS maintains a count of tone usage but does not prohibit the number of users from exceeding MAXCONN.

Field, subfield, and refinement descriptions for table TONES (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action
FNTONID		alphanumeric	<i>Functional tone identity</i> This field is used for Succession Networks operation only. Enter a tone identity from the Unified Toneid range. For Succession Networks operation, CLLI and FNTONID are the only fields in this table that require datafill. This field has no impact on TDM operation. Note 1: After an ONP in a Succession load, the FNTONID value defaults to TONE_NULL. This must be changed to a useful value, or a software error will occur in the GWC. Note 2: This functional tone will be mapped by the GWC to a protocol request of the gateway to play the tone. This physical definition will be in the gateway.
TONESGRP		Y or N	<i>Table TONESGRP</i> This field indicates whether there are additional tone definitions in table TONESGRP.

Additional information

Tone types are not specific to TDM or Succession operation. For Succession operation, equivalent FNTONIDs can be defined for all tones.

For Succession loads, only the CLLI and FNTONID fields are used. The equivalence between CLLIs and FNTONIDs in this case is as follows:

- ENGAGED - busy tone
- BRAGCNT - tone_congestion
- CONFMN - tone_confirmation
- NROH - tone_receiver_off_hook
- NOBT - tone_vacant
- BRAFNL - tone_nack
- BRANACK - tone_nack

Any provisioned tone that can be played to both TDM and Succession agents must have complete datafill.

Table history

SN07

Q00999115

Added new field FNTONID.

SN06 (DMS)

A59022704

New fields added: OFFTIME, OFFTONE, and FNTONEID. Range for SEGTIME increased. Datafill information updated to show both DMS (TDM) and Succession operation.

SN04 (DMS)

59033657

Datafill example added for Brazil tonesets BRASMF and BRASMFC.

TOPSFTR

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

TOPS Features

Table TOPS Features (TOPSFTR) is a TOPS table which allows optional TOPS functions to be activated and deactivated easily. Once the SOC option has been turned on for a TOPS feature, the customer can use Table TOPSFTR to turn the function on and off.

Datafill sequence and meaning

There is no requirement to enter datafill into other tables.

Table size

44 tuples. Tuples cannot be added nor deleted.

Datafill

The following table lists the datafill for table TOPSFTR.

Field, subfield, and refinement descriptions for table TOPSFTR (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FTRNAME		AUTHORIZATION_CODE_BILLING AUTOMATED_ROOM_AND_AUTH_NUM_COLL BELLCORE_NUMBER_PORTABILITY CALL_REST_FOR_WSALE CALLING_CARD_DENIAL_REASONS CANADIAN_EQUAL_ACCESS CELLULAR_AUTOMATIC_DATA_CALL_COMP COMMERCIAL_CREDIT_CARD_SUPPORT COUNTRY_DIRECT DISALLOWED_CARD_ISSUER ESTIMATE_OF_CHARGES EXTERNAL_RATING FLEX_ANI GLOBAL_COMPETITIVE_ACCESS GOSS7_ANSI GOSS7_ETSI, IN_OPERATOR_BACKUP INTRA_LATA_PIC_VIA_OLNS ISUP_FOR_TOPS	Feature enable. This field is fixed, read only, it cannot be changed. This field indicates the feature name to be enabled or disabled in field FTRENABL. In order for a feature to be completely enabled, all of the following must be met. - SOC option OSB00101 must be on to enable the TOPS system. Refer to functionality TOPS On/Off Switch, OSB00101. - The SOC governing the feature must be on. - In table TOPSFTR, the tuple for the feature must be set to Y. Note: Tuple RLT_FOR_GSM is supported through the TOPS GSM ADACC function.

Field, subfield, and refinement descriptions for table TOPSFTR (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FTRNAME (continued)		MESSAGE_DELIVERY_SERVICE MUSIC_AND_ANN_IN_QUEUE NUMBER_PORTABILITY OLNS_FOREIGN_LANGUAGE OLNS_NO_AUTOMATION ORIGINATING_LINE_NUMBER_SCREEN OSS7_OSNC OSSAIN_INITIAL_RELEASE OSSAIN_RELEASE_07 OSSAIN_RELEASE_09 OSSAIN_RELEASE_10 OSSAIN_RELEASE_11 OSSAIN_RELEASE_12 OSSAIN_RELEASE_20 PRE_PAID_COIN QMS_BILLING_SATISFIED QMS_CASER RLT_FOR_GSM RLT_FOR_ISUP RLT2_FOR_ISUP SCREEN_FOR_BILLING_AGREEMENT SECONDS_BASED_ANNOUNCEMENTS TOPS_ON_OFF_SWITCH	

Field, subfield, and refinement descriptions for table TOPSFTR (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
FTRNAME (continued)		UNBUNDLING_BRANDING_VI A_SPID UNBUNDLING_LIDB_QUERY_ ROUTING UNBUNDLING_REFINEMENT_ FOR_SPID UNBUNDLING_SPID_IN_MIS_ STREAM UNBUNDLING_TRANSLATION S_VIA_SPID	
FTRENABL		Y or N	Feature enable. This field enables (set to Y) or disables (set to N) the feature.

Additional information**Error Messages**

Warning messages are provided in the SOC procedures to caution the user of conflicting interactions. For example, if a given SOC option is changed from IDLE to ON, then for each SOC feature controlled by that SOC option, a message is displayed listing the state as specified in TOPSFTR. This enables the user to be aware of what features are enabled when the given SOC option is turned ON. Similarly, if a given SOC option is changed from ON to IDLE, a message is displayed listing all SOC features that would no longer be active.

Warning messages are also displayed if there is a conflict in the enable/disable status of a feature in TOPSFTR and the state of the SOC option controlling that feature. For example, when the user attempts to enable a SOC feature in TOPSFTR by setting FTRENABL to Y, a warning message is displayed if the SOC option controlling that feature is IDLE.

Table history

SN07

Table TOPSFTR migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 11 of 12*, 297-8021-351.09.03.

A new entry (OSSAIN_RELEASE_20) was added to field FTRNAME as per feature A00003704.

A new entry (RLT_FOR_GSM) was added to field FTRNAME as per feature A00003687.

TOPSMCDB

TOPS Message Center Database

Table TOPS Message Center Database (TOPSMCDB) provides datafill for a TOPS SMS SS7-based message center simulator.

An operator position or automated node can send SMS messages using either IS-41 TCAP or GSM TCAP. When the simulator receives the SMS, it looks up the data stored against the SMS destination number to determine the disposition of the SMS.

The simulator can successfully acknowledge the SMS, send back a failure message, or ignore the SMS so the TOPS SMS time-out code executes.

Datafill sequence and meaning

Table TOPSTLDN must be datafilled before table MSCIDMAP.

Table size

0 to 64 tuples.

Datafill

The following table lists the datafill for table TOPSMCDB.

Field, subfield, and refinement descriptions for table TOPSMCDB (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
DESTDIGS		1-18 digits	Destination number. Digilator field containing the destination number
RESULT		SUCCESS, REJECT, or ERROR	Result. Tells disposition of SMS to this destination number
	PROBTYPE Subfield of RESPAREA when RESULT set to REJECT	GENPROB, TRANSPROB, ERRPROB, RESPPROB, or INVPROB	Problem type. Defines problem type.

Field, subfield, and refinement descriptions for table TOPSMCDB (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	PROBCODE Subfield of RESPAREA when RESULT set to REJECT	tbd: Numerous codes, depending on contents of PROBTYPE, will copy them in here later	Problem code. Defines problem code. The choices for problem code vary based on the problem type.
	IS41CODE Subfield of RESPAREA when RESULT set to ERROR	tbd: Numerous cause codes defined in IS-41, will copy them in here later	IS41 cause codes.
	GSMCODE Subfield of RESPAREA when RESULT set to ERROR.	tbd: Numerous cause codes defined in GSM, will copy them in here later	GSM code.
DELAYSEC		0 to 255	Delay in seconds. Delay in seconds before sending response. Helps simulate real-world response time.

Table history**SN07**

Table TOPSMCDB was added in SN07 by feature A00003687.

TOPSPARM

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

TOPS Office Parameter Table

Table TOPSPARM lists office parameters unique to TOPS offices.

Datafill sequence and meaning

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

Table size

25 to 34 tuples

Memory is automatically allocated for 25 tuples.

Datafill

The following table lists the datafill for table TOPSPARM.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 1 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
AABS_ OPTIMIZATION	ON or OFF	This parameter determines whether optimization can be used for Automated Alternate Billing System (AABS) calls. This parameter has two states: ON and OFF. When set to OFF and the parties go on-hook, the DMS switch waits for a message from the automated voice system (Voice Service Node - VSN, or Interactive Voice System - IVS) before releasing the port. When this parameter is set to ON, the DMS switch automatically releases the port when the parties go on-hook. This parameter must be set to OFF for AABS calls to the VSN and ON for AABS calls to the IVS. The following paragraph explains this requirement. This parameter is created by functionality GR317/GR394 ISUP to/from TOPS (OSEA0005). The VSN is upgraded in release TOPS05 to support this functionality, but the IVS is not upgraded. Since ISUP calls cannot use AABS optimization, this parameter must be OFF for the VSN and ON for the IVS. This is also true for non-ISUP calls since the VSN does not differentiate between ISUP and non-ISUP calls. When the IVS is upgraded, this parameter will not be necessary.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 2 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ACCOUNT_CODE_ BILLING_ENABLE	Y or N	Enter ACCOUNT_CODE_BILLING_ENABLE to allow the operating company to turn the Account Code Billing feature on or off. Enter Y (yes) to allow the operating company to turn the Account Code Billing feature on. Otherwise, enter N (no). If the parameter is set to N, it only disables account code billing for calls designated with the Account Code Billing feature. This parameter also exists in table VSNOPT. Field PARMVAL must be set to the same value in both tables TOPSPARM and VSNOPT for the feature to function properly. The default is Y. Activation is immediate.
ACTS_ DOLLAR_COINTEST	Y or N	<i>Automatic Coin Toll Service dollar coin test</i> This parameter enables coin testing using dollars. Set this parameter to Y for phones that do accept dollars, or to N for phones that do not accept dollars. The default is N. If the test fails, a TOPS117 log is produced. For further information on coin testing, refer to functionality Automatic Coin Toll Service, ENSV00002.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 3 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADAS_CASSETTE_ICON	Y or N	Enter ADAS_CASSETTE_ICON to allow the operating company to enable or disable the cassette icon. This icon is used to indicate that the directory assistance call was automated. Enter Y if the cassette tape icon is displayed on call origination for directory assistance calls that have been routed to the Automated Directory Assistance Service (ADAS) Voice Processing System (VPS). Enter N if the cassette tape icon is not displayed on call origination for ADAS-handled calls. The default is N. Activation is immediate. Note: if you are using IBM DA, a text string will appear instead of an icon.
ADAS_BARGE_IN	Y or N	This parameter enables or disables ADAS Barge-In. The values are Y (enable) and N (disable). For more information, refer to functionality ADAS Base Barge-In, ALPP0001.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 4 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADAS_ ENABLE	Y or N	Enter ADAS_ENABLE to allow the operating company to enable or disable the Automated Directory Assistance Service (ADAS) Voice Processing System (VPS) feature. Enter Y to enable the ADAS VPS feature. Otherwise, enter N. If the parameter is set to N, this feature is disabled and all directory assistance calls are routed directly to the operator, bypassing ADAS. The default is N. Activation is immediate.
ADAS_INWARDS_ ENABLE	Y or N	Enter ADAS_INWARDS_ENABLE to allow the operating company to enable or disable the ADAS for 131 inward calls. Enter Y to allow 131 inwards calls to route to ADAS prior to receiving operator assistance. Enter N to disallow service for 131 inwards calls. The default is N. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 5 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADAS_OPR_PROFILE_ICON	Y or N	Enter ADAS_OPR_PROFILE_ICON to allow the operating company to enable or disable the operator profile icon. The operator profile icon is used to indicate that a call was not automated. Enter Y to display the operator profile icon for non-automated (non-ADAS) directory assistance calls. Enter N to disable the display. The default is Y. Activation is immediate. Note: If you are using IBM DA, a text string will appear instead of an icon.
ADASPLUS_ARU_WINK	N or Yx (x is 1-20)	This parameter disables/enables and determines the duration of the reverse wink (on-hook or off-hook) sent on the ADASPLUS ARU when it is connected to the operator. If set to N, no wink is sent. If set to Y, plus a value in the range 1-20 (10ms), a wink of the value duration is sent. For example, a value of 5 sends a wink of 50 milliseconds.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 6 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADASPLUS_ CALLER_ JOINED_TONE	NONE, REGDACA, LOWHIGH, and HIGHLOW	For ADAS+, this parameter is used to choose a tone to be played to the operator when the calling party is joined to the operator. This occurs after ADAS+ playback to the operator or when the operator split/joins or RLS CLD during playback. ADAS+ is provided by feature AN0880 in DA Automation I/F, OSDA0006. The values are as follows: • NONE - No call arrival tone. • REGDACA - Regular DA call arrival tone. • LOWHIGH - Low to high ADAS+ call arrival tone. • HIGHLOW - High to low ADAS+ call arrival tone. The default is NONE.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 7 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADASPLUS_ENABLE	Y or N	This parameter enables (Y)/disables (N) routing of eligible calls to ADAS+. ADAS+ is provided by feature AN0880 in DA Automation I/F, OSDA0006. In order for ADAS+ to function properly, the following conditions must be met: • ADASPLUS_ENABLE must be set to Y • In table SERVICES: — the protocol must be set to CCI — ADASPLUS must be set to Y — VERSION must be greater than or equal to 3 • SOC option OSDA0006 must be ONLY Value Y can only be set if SOC option OSDA0006 has been set to ON. It can be set to N at anytime. Option OSDA0006 can only be set to IDLE if ADASPLUS_ENABLE is set to N. The correct setting is described in section "Activation" of DA Automation I/F, OSDA0006. The default is N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 8 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ADASPLUS_POST _ DEFLECT	Y or N	<i>ADAS Plus post deflect</i> This tuple allows ADAS Plus calls to be deflected from queue to treatment after ADAS Plus processing based on table QMSCQDEF field DEFLAREA. This field indicates the wait time and number of calls in the queue before deflection. Enter Y for deflection. Otherwise, enter N for no deflection. The default is N.
ADAS_RINGING_ DURING_ PLAYBACK	Y or N	When set to Y, the subscriber is connected to ringing while ADAS plays the recordings to the operator. When set to N, the subscriber hears nothing while ADAS play the recordings to the operator. ADAS+ is provided by feature AN0880 in DA Automation I/F, OSDA0006. The default is N. Activation is immediate.
ADAS_WITH_ PARS_ENABLE	Y or N	Enter ADAS_WITH_PARS_ENABLE to allow the operating company to route ADAS-handled calls to the personal audio response system (PARS) when the call is presented to an operator. Enter Y if the subscriber is played an introductory greeting by PARS. Enter N if no introductory greeting is played. The default is N. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 9 of 64)

Field PARMNAME	Field PARMVAL	Explanation and action
ALERT_ TONE_ TIME	5 to 30	Prior to the expiry of the allocated time for a fixed-duration call, a warning tone warns the subscriber that the call is about to end. Enter ALERT_ TONE_ TIME to specify the number of seconds that a warning tone is heard before the subscriber's call is disconnected. Enter the number of seconds that the warning tone is heard before the subscriber is disconnected. The default is 5. Activation is immediate.
ALL_ CALLS_ USE_ OPR_ SVC_ AGRMTS	Y or N	This parameter allows the operator services provider to wholesale their billing agreements when CLECs do not want to secure their own agreements. The values are as follows: • Y - All calls incoming on TOPS/ISUP trunks use the operator services billing agreements for the checks. The agreement groups are obtained from TOPSPARM parameter OPR_ SVC_ AGRMTS, if OPR_ SVC_ AGRMTS is set to Y. • N - Determine whether to use the operator services agreements on an individual basis by field BILAGRMT in table TOPEACAR or SPIDDB.
APS_ DISPLAY_ DOLLAR_ SIGN	Y or N	This parameter controls display of the dollar sign in the CHARGE field of the APS log in the range APS100-APS121. Enter Y to display \$ in front of the charge. Enter N for no \$.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 10 of

Field PARMNAME	Field PARMVAL	Explanation and action
ARAN_ STATUS	NONE, BOTH, HOTEL, INSTN	This parameter activates/deactivates ARAN on an office wide basis. Allowable values are: • NONE - ARAN deactivated for hotel and institution subscribers. Both hotel and institution calls are not routed to ARAN. Instead, hotel calls that require room number collection are sent to an operator for manual room number collection and institution calls tandem through the TOPS office. • BOTH - ARAN activated for hotel and institution subscribers. Both hotel calls that require room number collection and institution calls are routed to ARAN. • HOTEL - ARAN activated for hotel subscribers only. Only hotel calls that require room number collection are routed to ARAN. However, institution calls tandem through the TOPS office. • INSTN - ARAN activated for institution subscribers only. Only institution calls are routed to ARAN. However, hotel calls that require room number collection are sent to an operator for manual room number collection. The default is NONE. Note: If ARAN_STATUS is activated for hotel subscribers, then it is activated for numbers datafilled in tables SPLDNID and TDBCLASS.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 11 of

Field PARMNAME	Field PARMVAL	Explanation and action
AUTO_MDS_QMS_CQPROF	N or Yxx (xx is queue)	Enter AUTO_MDS_QMS_CQPROF to enable a coin subscriber's keypad upon presentation to the automated message delivery system (MDS). If the call queue profile number of the automated MDS is datafilled as the parameter value for parameter AUTO_MDS_QMS_CQPROF and the origination station is a coin phone, the subscriber's keypad is enabled. Enter Yxx, where xx is the desired call queue number; otherwise, enter N. The default is N. Activation is immediate.
AUTO_OUTPUTSE_ UPON_CCV_ SUCCESS	Y or N	This parameter determines whether the DMS switch automatically outputpulses the forward number if a valid calling card is entered. The values are Y (auto outputpulse, the same as prior to OSSAIN) and N (no auto outputpulse). The default is Y.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 12 of

Field PARMNAME	Field PARMVAL	Explanation and action
BRAND_USING_DEFAULT_SPID	Y or N	This parameter enables front end (calling party) branding for non-carrier calls using the SPID in TOPSPARM parameter DEFAULT_SPID. The values for BRAND_USING_DEFAULT_SPID are Y (enable) and N (disable). Therefore, if BRAND_USING_DEFAULT_SPID = Y and no SPID is given in table DNSCRN for the calling party's DN, then the default SPID in TOPSPARM parameter DEFAULT_SPID is used for front end branding. Also, data in table SPIDDB is used for the branding. If BRAND_USING_DEFAULT_SPID = N or no SPID is assigned to the calling DN, the NBEC code is used for branding of non-carrier calls. No SPID is assigned if an SPID is not provided by an OSSAIN SN or OLNS query, there is no SPID entry in table DNSCRN, or parameter DEFAULT_SPID is not datafilled with a default SPID. Note: This parameter does not automatically appear in the table, it must be added.
CCARD_SALES_REPORT_ACTIVE	Y or N	This parameter enables the commercial credit card sales report. The values are Y (enable) and N (disable). This capability is described in functionality TOPS Commercial Credit Card, ABS00008.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 13 of

Field PARMNAME	Field PARMVAL	Explanation and action
CC_CARRIER_ SELECT_ DEFAULT	ALLOW or BLOCK	This parameter determines default outpulsing of calling card calls when selecting a terminating carrier. This parameter is used if a match is not found in table CCCSOPTS. The values are: • ALLOW - Outpulse the existing translations: network prefix + country code + national number. Note that there is no carrier code, so the following network (international gateway) needs to perform translations to select the carrier. • BLOCK - Disallow outpulsing. A display is presented on the operator screen. The default is ALLOW. For further information, refer to feature AF7021 in functionality Carrier Selection, ENSV0001.
CC_CARRIER_ SELECT_ ENABLE	Y or N	This parameter enables calling card carrier selection. The values are Y (enable) and N (disable). This functionality introduces a serious operator outpulsing restriction; therefore, this parameter is required to limit the application of this restriction. The restriction is that an operator is blocked from outpulsing an outbound call until a valid billing method is selected. This restriction is enforced when this parameter is activated and the called number is foreign. The default is N. For further information, refer to feature AF7021 in functionality Carrier Selection, ENSV0001.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 14 of

Field PARMNAME	Field PARMVAL	Explanation and action
CCV_ACCS_ 15TH_DIGIT_ TIMER	1 to 15	Specifies the time that ACCS will wait for entry of a 15th digit after the 14th digit is entered. This parameter does not apply to AABS. It does apply to ACCS, as the name implies. Range is 1 to 15 seconds. The default is 2.
C DIR_ CARRIER_ SELECT_ DEFAULT	ALLOW or BLOCK	This parameter determines default outpulsing of country direct calls when selecting a terminating carrier. This parameter is used if a match is not found in either table CDCSOPTS nor CDCSOPT2. The values are: • ALLOW - Outpulse the existing translations: network prefix + country code + national number. Note that there is no carrier code, so the following network (international gateway) needs to perform translations to select the carrier. • BLOCK - Disallow outpulsing. A display is presented on the operator screen. The default is ALLOW. For further information, refer to feature AF7021 in functionality Carrier Selection, ENSV0001.
C DIR_ DEDICATED_ DN	Y or N	Determines the calling number. If set to N, the digit stream is used. If set to Y, a 10 digit DN (datafilled after the Y) is used (with possible modification) as the calling number for all Country Direct calls in that office. If a country code is sent, it replaces the last 3 digits of the datafilled DN. If no country code is sent, the datafilled DN is used without change.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 15 of

Field PARMNAME	Field PARMVAL	Explanation and action
CDIR_RATING	Y or N	This parameter is used in a GOS environment to indicate which signalled codes to base rating of country direct calls. The values are: • Y (the default) - Base the rate on the signalled country and carrier codes. Then, use the special country direct tables to derive an SSETNAME for entering the GOS rating system. • N - Base the rate on the signalled access, country and carrier codes. These codes are used to index table CLGSSET which gives an SSETNAME for entering the GOS rating system. For further information, refer to functionality Auto Country Direct, ENSV0010.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 16 of

Field PARMNAME	Field PARMVAL	Explanation and action
CHECK_BILL_ AGRMT_USING_ BSP_SPID	Y or N	The LIDB can return both an AO SPID and a BSP SPID. This feature allows for screening on both the AO and BSP SPIDs. Screening is always done on the AO SPID. Optional screening on the BSP SPID is controlled by this parameter. If no AO or BSP SPID is returned from the LIDB, the default behavior is defined by field NOSPDERR in applicable table SPIDDB or TOPEACAR. The values of this parameter are as follows: • Y - screen on both the AO and BSP SPID. If both an AO and a BSP SPID are returned by the LIDB, then screening is done on the basis of the AO SPID first. If an agreement based on the AO SPID is not found, then the BSP SPID is used to screen. If, however, an agreement is found based on the AO SPID, then no further screening on the basis of the BSP SPID is done. • N - screen only on the AO SPID

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 17 of

Field PARMNAME	Field PARMVAL	Explanation and action
CHG_DISPLAY_DECIMAL	0 to 3	Enter CHG_DISPLAY_DECIMAL for a TOPS Global Operator Services (GOS) office. This parameter specifies how many decimal digits to place to the right of the decimal point for display of call charge values. This is useful for countries with decimal currency systems since charge values can be displayed in a format familiar to the TOPS operator. If the monetary system is not based on decimal units, then the GOS rating system is not able to convert the results into the proper units. However, the calculations are still valid in the base units. This parameter is not available in North American TOPS offices. If this parameter is set to 0, then no decimal point is displayed. The default is 2. Activation is immediate.
CLD_DNSCRN_ENABLED	Y or N	This parameter determines whether or not the called number is screened for restricted attributes (UNPAID, BLCKCALL) in table DNSCRN. The range is Y (screen) and N (do not screen). The default is N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 18 of

Field PARMNAME	Field PARMVAL	Explanation and action
COIN_PAY_SEQUENCE	POSTPAY or PREPAY	Enter COIN_PAY_SEQUENCE to select either pre-pay or post-pay for all coin phones that are routed to a TOPS Global Operator Services (GOS) office. This selection determines how calls are charged. If the value is set to POSTPAY, the customer is asked to deposit the necessary amount for the initial coin recall period. When this period has expired, no additional payment deposit is required. After each subsequent recall period expires, the call is brought back to the TOPS position and the customer is requested to deposit the necessary amount to cover the charges for the period that just expired. When the call is terminated, the call is brought back to the TOPS position so that the charges for the unpaid portion of the call can be collected. If the value is set to PREPAY, the customer is requested to deposit the necessary amount before each recall period. When the call is terminated, the call does not recall to the TOPS position since no incurred charges are unpaid. The default is POSTPAY. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 19 of

Field PARMNAME	Field PARMVAL	Explanation and action
CZECH_OFFICE	Y or N	This parameter was created for use by SPT (the Czech Republic Telephone Company). When set to Yes, this parameter allows the table TQMSOPT parameter, QMS_BLOCK_RECALL_SERVICE_CHANGE, to be activated. In order to set CZECH_OFFICE=Y, table TOPSPARM parameter NUMBERING_PLAN must first be set to OPEN_NUMBERING. For more information, refer to feature AN1085 in GOS Enhancements, GOS00001. This parameter only appears in a global load.
DACC_CIC_OVERRIDE_ENABLE	Y or N	This parameter enables an override of the carrier associated with an interLATA ADACC call. Then, a replacement carrier is selected in one of the following ways: • office wide basis in TOPSPARM parameter DACC_OVERRIDE_CIC • service provider basis in table SPIDDB, field DACICOVR The values are Y (enable) and N (disable). If the carrier override functionality is not required, then this parameter should be set to N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 20 of

Field PARMNAME	Field PARMVAL	Explanation and action
DACC_OVERRIDE_CIC	Y and cic or N	This parameter overrides the carrier associated with an interLATA ADACC call. This parameter is valid only if TOPSPARM parameter DACC_CIC_OVERRIDE_ENABLE = Y. Then, DACC_OVERRIDE_CIC is checked, which has the following values: - Y - Enable override on an office wide basis. Refinement CARRNO appears, which is a 4-digit carrier number. The carrier must be datafilled in table TOPEACAR. If DACC_OVERRIDE_CIC and table SPIDDB, field DACICOVR are both set to Y, then DACC_OVERRIDE_CIC has precedence. - N - Disable override. This value is required for override on a service provider basis in table SPIDDB, field DACICOVR.
DANI_DISPLAY_CLG_NUM	Y or N	Enter DANI_DISPLAY_CLG_NUM to specify whether the calling number is displayed to the operator for all calls over TOPS trunk groups with a calling group identification (CLGID) of DANI. Enter Y to display the calling number. Otherwise, enter N. The default is Y. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 21 of

Field PARMNAME	Field PARMVAL	Explanation and action
DEFAULT_ LOCLZONE	Y or N	This parameter is used for calls with no incoming trunk group (Delay and system initiated) to enable local screening and select an initial zone name. The values are as follows: - Y - use GOS Local Determination to determine if the call is local and datafill refinement LOCLZONE with a\ zone name defined in table TLCLZONE. - N - use the universal translations method with the CLASS option. This value is the default. For calls on a trunk group, table TRKGRP, subfield LOCLZONE provides this equivalent function.
DEFAULT_ PRODUCT	NA100 or GLOBAL	This parameter determines which TOPS product controls processing of switch originated calls (that is, Operator and OSSAIN service node originated calls). This parameter is necessary when multiple TOPS products are combined. The values are NA100 and GLOBAL. In TOPS07, this is a read-only parameter where the value is automatically set according to the environment and cannot be changed. Therefore, no data entry is required or allowed for this TOPS07 release since only single product loads are available. For future releases with loads that contain multiple products, this parameter is automatically initialized but can be changed.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 22 of

Field PARMNAME	Field PARMVAL	Explanation and action
DEFAULT_SPID	Yxxxx or N (xxxx are characters)	This parameter indicates the default account owner (AO) SPID on an office wide basis. This parameter is used if no AO SPID is assigned by an OSSANI SN, OLNS query, calling or ANI digits, table DNSCRN, or table TOPSTOPT. The AO SPID is used for TOPS protocols, screen updates, AMA processing, and front end (calling party) branding of non-carrier calls. Table SPIDDB provides supportive data. The values for DEFAULT_SPID are Y and N, indicating a default SPID is or is not specified, respectively. If Y is entered, also enter the default SPID, previously datafilled in table SPID. If BRANDING_USING_DEFAULT_SPID = N or no SPID is assigned to the calling DN, the NBEC code is used for branding of non-carrier calls. This is dependent upon the service being enabled in table SPIDDB. If a DEFAULT_SPID is specified and parameter BRANDING_USING_DEFAULT_SPID = Y, the DEFAULT_SPID is used for branding This is dependent upon the service being enabled in table SPIDDB. If the service is disabled, no branding is provided, not even using the NBEC code.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 23 of

Field PARMNAME	Field PARMVAL	Explanation and action
DEFAULT_SPID (continued)		An SPID cannot be removed from table SPID if it is datafilled as the DEFAULT_SPID in table TOPSPARM. Note: This parameter does not automatically appear in the table, it must be added.
DELAY_SPECIFIED_ SNPA	SNPA from HNPACONT or SNPANAME	This parameter specifies the SNPA used to expand a 7-digit calling number to 10 digits for a delay call. Enter an SNPA that is defined in table HNPACONT or SNPANAME.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 24 of

Field PARMNAME	Field PARMVAL	Explanation and action
DEVICE_ OUTPUT_CR	Y or N	Device output carriage return. This parameter determines if an extra LF/CR is put into a character string that is longer than 80 characters. This parameter should be set to N (do not include extra LF/CR) for a Call Store Buffer/TLCS VQ made by CGI. For all other VQ TTYS, set this parameter to Y. The default is N. With functionality TOPS IDDD 15 Digit Expansion (OSB00001), some Hobic devices require more than 80 ASCII characters to display one billing record. The calling and called number fields are increased to handle up to 19 digits. Since the TOPS device buffer is only 80 characters, an extra LF/CR is used to send the record in two lines. However, the VQ TTY in some sites is not a TTY but a Call Store Buffer/TLCS made by CGI and the VQ uses the LF/CR as a flag to indicate end/beginning of a new record. Since the CGI equipment cannot be modified to allow for the extra LF/CR, one billing record looks like two.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 25 of

Field PARMNAME	Field PARMVAL	Explanation and action
DISPLAY_ CALLED_ NUMBER	NONE, MP, OPP, or BOTH	This parameter indicates the type of TOPS position to receive the called number from the DMS switch, if sent. Following are the values: • NONE - The called number is not sent to any TOPS position. • MP - The called number is sent and displayed at TOPS MP positions. • OPP - The called number is sent and displayed at OPP-compatible positions. • BOTH - The called number is sent and displayed at both TOPS MP and OPP-compatible positions. The default is N.
DISTINCT_ NUM_ CALL_ ARRIVAL_ TONES	Y or N	Enter DISTINCT_NUM_CALL_ARRIVAL_TONES to activate or deactivate the Distinct Number of Call Arrival Tones feature. If the parameter is set to Y, one call arrival tone indicates a toll assistance (TA) call arrival at the operator's position, two call arrival tones indicate an intercept call arrival or operator number identification (ONI) call arrival, and three call arrival tones indicate a directory assistance (DA) call arrival. If the parameter is set to N, one call arrival tone indicates a TA or DA call, and two call arrival tones indicate an intercept or ONI call. The default is Y. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 26 of

Field PARMNAME	Field PARMVAL	Explanation and action
DOM_CCARD_ FORMAT_CHECKS	Y or N	<i>Domestic calling card format checks</i> This parameter allows disabling of RAO and NPA checks on North American 14-digit domestic calling card number formats. This parameter is provided for countries in North America that have open numbering, so do not have these format requirements. The values for this parameter are: • Y - Enable the RAO and NPA checks as prior to this parameter. These checks are the following: — In North America, domestic calling card number formats are checked for one of the following: – The card number has a 0 or 1 as its forth digit, making it an RAO card. – The card number begins with a valid North American NPA; that is, the first digit is in the range 2-9. — Also, the following requirements are enforced: – The card number does not begin with 700, 800, or 900. – The card number begins with a valid North American NPA; that is, the first digit is in the range 2-9. – The four digit personal identification number (PIN) does not begin with 0 or 1.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 27 of

Field PARMNAME	Field PARMVAL	Explanation and action
DOM_CCARD_ FORMAT_CHECKS (continued)		• N - Disable the RAO and NPA checks as follows: — The domestic calling card number is not checked to determine if it is an RAO card. — Since the domestic calling card number is not an RAO card, checks in tables RAO and RAOCHECK are skipped. Also, the RAO number is not removed from the billing number field of module codes 061 and 066. Additionally, the RAO number is not recorded as a “special number” in the Billing Type Identification field of module codes 052 and 061; it is instead recorded as a calling card. — Since this card is not an RAO card but a valid NPA card, checks in tables NPACHECK are skipped. And, since datafill in table NPACHECK determines whether further checks in table CHKDIGIT are involved, table CHKDIGIT is also ignored. — “Fay” is no longer displayed to the operator if a non-RAO domestic calling card's first three digits are not in table NPACHECK and table CHKDIGIT is no longer checked.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 28 of

Field PARMNAME	Field PARMVAL	Explanation and action
DOM_CCARD_ FORMAT_CHECKS (continued)		- N (continued) - The following check is not performed: Verification that a domestic calling card number does not begin with digits 700, 800, or 900, or have 555 as digits 4-6. - Verification that the PIN begins with a digit in the range 2-9 is skipped. The default is Y. The following calling card checks are independent of card format and numbering plan so are not affected by this parameter: - regional domestic credit card checks in tables DOMBILL and REGNUM - able HOTLIST checks This parameter is checked on all TOPS office call types that may be billed to a domestic calling card number. This includes operator-assisted (OA), MCCS, AABS, and OSSAIN calls. This parameter is checked in North American and open numbering plan offices. This parameter also affects card numbers in table INTCCFMT that require transitional validation. These card numbers use an ITU-T format, but are subject to the same format validation as 14-digit domestic calling cards. For further information, refer to SR 50058693 in functionality TOPS Call Processing Features (Call Processing), OSB00001.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 29 of

Field PARMNAME	Field PARMVAL	Explanation and action
FIXED_ DURATION	ALL, COIN, HOTEL, NONE, RESTRICT, STATION	Enter FIXED_DURATION to specify the set of call types that are marked as fixed duration calls upon call arrival. Enter the call types that are marked as fixed duration calls upon call arrival. The default is NONE. Activation is immediate.
FIXED_ DURATION_APS	Y or N	This parameter indicates if APS calls are marked as fixed duration. APS calls are marked as fixed duration by either this parameter or the operator. When a call is marked as fixed duration, the operator must first enter a duration for the call. Then, the operator can release the call. When the duration period ends, the switch ends the call and generates a record with the charges. The values are Y (yes, APS calls are fixed duration) and N (no, APS calls are not fixed duration). Table TOPSPARM parameter ALERT_TONE_TIME indicates the number of seconds before the duration period ends that a notification tone sounds.
FORWARD_ ANI_AS_CLI	Y or N	Forward Automatic Number Identification as Calling Line Identification. Enables conversion of ANI on an incoming trunk to CLI for an outgoing ISUP trunk. If set to N, ANI is not forwarded as CLI. If set to Y, ANI may be forwarded as CLI. Forwarding of CLI also depends on table ISUPTRK, field ANI2CLI, and table TOPSTOPT, field ANITOCCLI. ANI is forwarded as CLI only if all 3 values are set to Y. The default is N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 30 of

Field PARMNAME	Field PARMVAL	Explanation and action
FOUR_DIGIT_CIC_STATUS	THREEDIG, FOURDIG, or PERMISSIVE	Enter FOUR_DIGIT_CIC_STATUS to specify how many carrier identification codes (CIC) the office can process. Enter THREEDIG if the office can only process three-digit CICs. Enter FOURDIG if the office can only process four-digit CICs that begin with 0 (zero), 5, or 6 (that is, 0xxx, 5xxx, or 6xxx). Enter PERMISSIVE if the office can handle both three-digit and four-digit CICs. The default is THREEDIG. Activation is immediate.
GCACALL_DEFAULT	Y or N	This parameter is used if there is no tuple for the call in table GCASCRN. It determines if the call should be considered a GCA call. If set to Y, the call is a GCA call; otherwise, it is an Operating Company call. The default value is N. This parameter is visible only in a TOPS global load.
GCA_PHASE	PHASE_1 or PHASE_2	This parameter allows a graceful change of GCA from phase 1 to phase 2. At installation, the value is set to PHASE_1. While preparing datafill to convert from phase 1 to phase 2, the value should be set to PHASE_1. Once datafill is complete or the site is a new GCA site, set the value to PHASE_2. The default value is PHASE_1. This parameter is visible only in a TOPS global load.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 31 of

Field PARMNAME	Field PARMVAL	Explanation and action
GEN_DNSCRN_ INVALID_CIC_LOG	Y or N	This parameter specifies if the TOPS130 log should be generated when an invalid CIC is encountered in table DNSCRN. If Y, the log is generated. If N, the log is not generated. A CIC is invalid if it is not datafilled in table TOPCACAR. Due to the size of table DNSCRN, there are no cross checks to prevent deletion of a CIC from table TOPCACAR that is datafilled in table DNSCRN. The default value is Y. This parameter is visible only in a TOPS global load.
GEN_NO_BILL_ AGRMT_LOG	Y or N	This parameter enables generation of new log TOPS612, No Billing Agreement, which is generated under the following conditions: • billing is blocked due to the lack of a billing agreement • no Billed AO or BSP SPID is returned from the LIDB database • no Calling AO SPID and TOPSPARM parameter OPR_SVC_AGRMTS is set to N BLOCK The values of the parameter are as follows: • Y - enable generation of the log • N - disable generation of the log

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 32 of

Field PARMNAME	Field PARMVAL	Explanation and action
IN_INTERWORKING_RESPONSE_TIMER	1 to 60	This parameter indicates the amount of time in seconds that the TOPS switch waits for a message from the SSP after sending a response to a previous Invoke. The default is 5. The timer is started when the TOPS switch sends an ISUP FAR or FAC message to the SSP. When the timer expires, the following occurs • The ISUP connection is released. • The operator terminal is notified of the release. • Log TOPS 608, IN Interworking Response Timer Popped, is generated.
IPPOS_AUDIT_INTERVAL	5 to 15	This parameter specifies the interval of time between each audit cycle. The values are in seconds and the default is 5. Setting this parameter higher saves CM realtime and messaging but may delay the time it takes for the audit and position to recognize a loss of data connectivity. Setting it lower has the opposite effect.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 33 of

Field PARMNAME	Field PARMVAL	Explanation and action
IPPOS_AUDIT_THRESHOLD	2 to 5	The parameter specifies how many consecutive times an OPP Audit Request should be sent to a position without receiving a response before the state of the position is changed to SYSB. The default is 3. Increasing the threshold increases the messaging and real time but it also reduces the number of positions being put into a SYSB state because of an occasional packet loss.
LANG_ERROR_SCREEN_DISPLAY	alphanumeric (1 to 4 characters)	Enter LANG_ERROR_SCREEN_DISPLAY for error display on TOPS 4 operator consoles. It provides a method of displaying error conditions to the operator when one or more incorrect digits are entered by the operator. The displayed message is a character string that can be customized by the operating company. Enter the customized message. The default is LANG. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 34 of

Field PARMNAME	Field PARMVAL	Explanation and action
LNP_QUERY_ FOR_AMA_ONLY	CLG, SPL, ALL, or NONE	This parameter specifies which numbers are valid for LNP queries for AMA module 720 recording purposes only. The values are: • CLG - calling number Including CLG in the set has no effect unless TOPSTOPT field LNPCLGAM is 'Y' for the originating trunk group. • SPL - Special (third and 14-digit line-based calling card) numbers • ALL - All (CLG and SPL) numbers. This is the default value. A value of ALL does not always cause LNP modules to be appended. For example, if table TOPSTOPT has the LNPCLGAM field set to N (for calling number), then no LNP information for AMA is required. So no LNP module would be appended. • NONE - No numbers. A value of NONE does not prevent appending LNP modules for calling and special billing numbers since: — Queries for these numbers can be made for reasons other than AMA recording. For example, in a delay call, an LNP query is made for the calling number so it can route to the back party. — The LRN associated with the calling number may be datafilled against the incoming trunk group.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 35 of

Field PARMNAME	Field PARMVAL	Explanation and action
LNP_QUERY_FOR_AMA_ONLY (continued)		The called number is not included as a value, because if LNP information is required, the query is made for routing rather than for AMA purposes. AMA information on a called number is recorded without consulting this parameter. This parameter is specific to North American TOPS switch loads and is only referenced when TOPS LNP is active.
LNP_TIMEOUT	1 to 60	This parameter is referenced when an LNP query is launched to determine how long TOPS call processing waits for a response to its query. The range is 1 - 60 seconds. The default is 2. This parameter is specific to North American TOPS loads and is only referenced when TOPS LNP is active.
MF_TRUNK_WINK_REQUEST_DELAY	1 to 200	Enter MF_TRUNK_WINK_REQUEST_DELAY to specify the delay time before a wink is sent from a TOPS office to an end office to request automatic number identification (ANI). This parameter also controls the delay before a wink is sent by a TOPS office for treatment supervision. This parameter only applies to multifrequency (MF) TOPS trunks utilizing MF receivers that gather automatic number identification (ANI) digits spilled from the end office. Enter the delay time, in 10-ms increments, before a wink is sent from a TOPS office to an end office to request ANI. The default is 25. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 36 of

Field PARMNAME	Field PARMVAL	Explanation and action
MP_DISPLAY_POSSIBLE_AUTOMATION	Y or N	Enter MP_DISPLAY_POSSIBLE_AUTOMATION to control the display of an icon indicating whether calls reaching the TOPS position could have been automated. Enter Y if a question mark icon is displayed on the screen whenever a call reaches the TOPS position that could have been automated, but was not. Enter N if the display is the same as before and no indication of possible automation is provided. The default is N. Activation is immediate.
MULTI_NPA_INWARD_XLA	Y or N	Enter MULTI_NPA_INWARD_XLA to determine whether the inwards code entered by the operator on an inwards call is translated using information from tables TRKGRP and TOPSBC instead information from table OPRTRANS alone. Enter Y if inwards calls are routed using the calling party's trunk group data. Enter N if translations are performed using the operator's translations data for routing. The default is N. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 37 of

Field PARMNAME	Field PARMVAL	Explanation and action
MULTI_NPA_ NO_AMA_XLA	Y or N	Enter MULTI_NPA_NO_AMA_XLA to activate or deactivate the Multiple Trunk Group per NPA feature. Enter Y for an operator assisted call that is not billable, the called number entered by the operator is translated with information from tables TRKGRP and TOPSBC. Enter N if the called number entered by the operator is translated with information from table OPRTRANS. The default is N. Activation is immediate.
NOTIFY_RECALL_ OPTIONS	Y or N	When set to Y (yes), this parameter enables the following functions (fields) provided by feature AN1085 in GOS Enhancements, GOS00001: • MUTED_NFY_RECALL (muted notify recall) • AUTO_NFY_RECALL (automatic notify recall) • NFY_RECALL_CNT (notify recall count) Each field is enabled by setting to Y. Refer to the datafill example at the end.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 38 of

Field PARMNAME	Field PARMVAL	Explanation and action
NSC_800PLUS_ QUERY_AT_ POSITION	Y or N	This parameter indicates where NSC processing is done for an 800 Plus call at an operator position. The values are as follows - Y - Do NSC processing at the current TOPS switch. The call is routed with the DN received from the database. LNP processing is done at an adjacent switch. This process is the same as before this functionality. - N - Do NSC processing at an adjacent switch. The calling and toll-free numbers are signalled to the adjacent switch. LNP processing also is done at the adjacent switch. If the adjacent switch is not a tandem switch, a looparound trunk to the same office ensures that LNP processing occurs soon enough in the network to avoid last resort routing. For trunking recommendations, refer to the Operator handled calls section in functionality 800+ Interworking with LNP, OSB00001 of this manual. The default is Y.
NUMBERING_ PLAN	N_AMERICAN, or OPEN_ NUMBERING	Enter NUMBERING_ PLAN to allow the TOPS software to function in an Open Numbering Plan environment. This parameter is used for internal purposes only. It cannot be accessed by the operating company. The default is N_AMERICAN. Activation is set during software load-build.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 39 of

Field PARMNAME	Field PARMVAL	Explanation and action
OCIPDL_AUDIT_THRESHOLD	2 to 10	Operator Centralization Internet Protocol Data Link (OCIPDL) maintenance audit threshold in seconds. OCIPDL audits typically occur every 30 seconds for in-service links. So, every 30 seconds an audit message is sent by the near end switch over the OCIPDL to maintenance at the far end switch. The near end waits up to 5 seconds for an audit response, which indicates the far end is in-service. If a response is not received within 5 seconds, the audit is considered a failure; however, the audits continue. If a consecutive number of audit failures equals this parameter, the ODIPDL changes state from INSV to SYSB. The link can be recovered as follows: • The continuing audits become successful, which is automatic. • The far end initiates recovery. • The near end manually busies and RTSes to initiate recovery. The default value is 3.
OC_PMIST_FORMAT	OFF or FULL	This parameter enables decoding and formatting of the PMIST message for the operator centralization (OC) protocol. The range is OFF and FULL. When set to OFF, the message is displayed in hexadecimal format. When set to FULL, the message is displayed in both the hexadecimal and decoded formats. The default is OFF.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 40 of

Field PARMNAME	Field PARMVAL	Explanation and action
OFFER_LOCAL_DACC	NONE, LCL, NLCL, or ALL	This parameter indicates the DA call completion choice for Operating Company calls. The values are as follows: • NONE - call completion is not allowed. • LCL - call completion is allowed only for local calls • NLCL - call completion is allowed only for non-local calls. • ALL - call completion is allowed for both local and non-local calls.
OFFER_LOCAL_STDCC	NONE, LCL, NLCL, or ALL	This parameter indicates the standard call completion choice for Operating Company calls. The values are as follows: • NONE - call completion is not allowed for local calls. • LCL - call completion is allowed only for local calls • NLCL - call completion is allowed only for non-local calls. • ALL - call completion is allowed for both local and non-local calls.
OLNS_EAANI_DACC	Y or N	This parameter determines whether or not the DACC indicator is considered when determining what ANI ID digits to spill to the carrier on interLATA calls. The range of values is Y and N. Enter Y to consider the DACC indicator. Refer to section "Spilling ANI ID to carrier on InterLATA calls" in functionality TOPS OLNS Interface (ABS00012) for more details. The default is N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 41 of

Field PARMNAME	Field PARMVAL	Explanation and action
OLNS_EAANI_ ADD_BILLSRV	Y or N	This parameter determines whether or not the Additional Originating Billing Services Indicator is considered when determining what ANI ID digits to spill to the carrier on interLATA calls. The range of values is Y and N. Enter Y to consider the DACC indicator. Refer to section "Spilling ANI ID to carrier on InterLATA calls" in functionality TOPS OLNS Interface (ABS00012) for more details. The default is N.
OLNS_ILP_ DACC	Y or N	Originating line number screening intraLATA presubscription directory assistance call completion. This parameter indicates whether ILP should be offered on intraLATA toll DACC calls. The values are Y (offer ILP) and N (do not offer ILP). Refer to functionality OLNS IntraLATA Presubscription, OSEA00006. The default is N.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 42 of

Field PARMNAME	Field PARMVAL	Explanation and action
OLNS_ RESTRICTED_ DACC	Y or N	This parameter is used to determine if a call is restricted when an ANI ID 7 is signalled. The values are: - Y - The TA (sent paid, collect, third, calling card, and special BNS) and DA (sent paid, collect, third, calling card, special BNS, and DACC) indicators are checked. - N - The TA (sent paid, collect, third, calling card, and special BNS) and DA (sent paid, collect, third, calling card, and special BNS) indicators are checked. Note that error handling is applied to calls with no billing restriction which are signalled with an ANI ID 7. These calls are treated as ANIF, routed to an operator, and a TRK118 log is generated. Note: This parameter does not automatically appear in the table, it must be added.
OLNS_ TIMEOUT	1 to 15	This parameter indicates the timeout period in seconds for an OLNS response message. This value can range from 1 to 15 seconds with a default value of 2 seconds.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 43 of

Field PARMNAME	Field PARMVAL	Explanation and action
OPP_ALWAYS_SEND_SPID_INFO	Y or N	This parameter indicates whether both trunk group and SPID display information should be sent to an OPP compatible position if both are applicable. If this parameter is N, then the switch passes either the SPID display or the trunk group display to the position as applicable. Otherwise, both displays are sent if available. For further information, refer to table SPIDDB. Note: This parameter does not automatically appear in the table, it must be added. This capability is available on a trunk group basis in table TOPSTOPT, field DISPSIPD.
OPP_PMIST_FORMAT	BRIEF, FULL, or OFF	Enter OPP_PMIST_FORMAT to control the formatted peripheral module intercept system test (PMIST) output for Open Position Protocol (OPP) messages. Enter BRIEF to select a condensed format, FULL to provide the full format, or OFF to turn off the formatting. The default is FULL. Activation is not applicable.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 44 of

Field PARMNAME	Field PARMVAL	Explanation and action
OPR_ COMPROMISED_ CALL_ OVERRIDE	Y or N	Enter OPR_COMPROMISED_CALL_OVERRIDE to specify how an operator can complete compromised calls. This option allows operators to be notified about possible billing problems without having to restrict the calls being handled. Enter Y if the operator can complete compromised calls without changing the billing method. Enter N if the operator can only complete compromised calls by changing the billing method and taking a manual ticket, or by just taking a manual ticket. The default is N. Activation is immediate.
OPR_SVC_ AGRMTS	Y or N	This parameter allows CLECs to use their own billing agreements or use the billing agreements already established by the Operator Services wholesaler. This parameter identifies the billing agreement groups of the Operator Services wholesaler. This parameter is used as the default behavior when no Calling AO SPID is associated with the call.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 45 of

Field PARMNAME	Field PARMVAL	Explanation and action
OPR_SVC_AGRMTS (continued)		The values are as follows: • Y - There are operator services billing agreements. Datafill the following refinements: — CCVAGRMT - Call card validation. Enter a billing agreement group name defined in table BAGNAME. This name is used as part of an index into table CCVAGRMT. — BNSAGRMT - Billed number screening. Enter a billing agreement group name defined in table BAGNAME. This name is used as part of an index into table BNSAGRMT. — NOSPDERR - No SPID is returned from the database. The values for error handling are as follows: — ACCPT—Accept the call. — BLOCK—Block the call. — OPER—Send the call to an operator if the call is not at an operator (that is, at an automated system), or if at an operator, block that billing method and allow the operator to prompt for another method of payment.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 46 of

Field PARMNAME	Field PARMVAL	Explanation and action
OPR_SVC_AGRMTS (continued)		- N - There are no operator services billing agreements. This value is allowed only if TOPSPARM parameter ALL_CALLS_USE_OPR_SVC_AGRMTS = N and no SPID in table SPIDDB nor CIC in table TOPEACAR is using the operator services billing agreements. Datafill refinement NO_CLG_AO_ACTION. This refinement allows the Operator Services wholesaler to define default handling when there is no Calling AO SPID associated with the call (for LEC calls only) and no Operator Services Agreements are datafilled. The values are as follows: - ACCPT - Accept the call (default). This value allows the feature to be activated through SOC and screening for billing agreement to be done on a per SPID basis. After all necessary datafill is in place for all SPIDs in table SPIDDB, this field can be changed to BLOCK if desired. - BLOCK - block the call
OPR_SPECIFIED_SNP	SNPA from HNPACONT or SNPANAME	This parameter specifies the SNPA used to expand a 7-digit calling number to 10 digits for an operator call. Enter an SNPA that is defined in table HNPACONT or SNPANAME.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 47 of

Field PARMNAME	Field PARMVAL	Explanation and action
OSNC_OUTGOING_DEFAULT	Y or N	This parameter allows all outgoing ISUP calls to default to OSNC signalling. This parameter eliminates the need to add the OSNCCAP selector to all route lists that should be using OSNC signalling. The values are as follows: • Y - All outgoing ISUP traffic is routed with OSNC signalling unless overridden by the OSNCCAP selector indicating not to use OSNC signalling for incoming OSNC calls • N - All outgoing ISUP traffic is routed with TOPS/ISUP (functionality GR317/GR394 ISUP to/from TOPS, OSEA0005) signalling unless OSNC signalling is specified in the route list by selector OSNCCAP for incoming OSNC calls.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 48 of

Field PARMNAME	Field PARMVAL	Explanation and action
OVERRIDE_ ANIFSPL_ HANDLING	Y or N	<i>ANI ID failure special</i> This subfield determines on a switch wide basis whether an ANI failure call should be displayed as ANI success to the operator. An ANI failure occurs if the call is marked as special and no calling number is found in table SPLDNID or DNSCRN. The values are as follows: • Y - An ANI failure is allowed to proceed through the system, no restrictions are marked against the call, and the call is displayed as ANI success. This parameter has precedence over table TOPSTOPT field ANIFSPL. Therefore, when this parameter is set to Y, field ANIFSPL is not valid. • N - An ANI failure is displayed as ANI failure as prior to this feature. This value is the default. For this value only, an ANI failure can be displayed as ANI success on a trunk group basis according to table TOPSTOPS field ANIFSPL. This behavior applies to calls marked as special by the ANI ID tables (OSSCAT, BELLCAT, and OPENANI) that arrive on STATCLAS = DNLOOKUP or RESTBIL trunk groups.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 49 of

Field PARMNAME	Field PARMVAL	Explanation and action
OVERRIDE_ ANIFSPL_ HANDLING (continued)		When a call arrives with an ANI ID marked as special, the screening tables are used to identify the calling service (for example, coin, restricted, and so forth). When there is no data in these tables for a call marked as special and the datafill indicates not to mark this call as ANI failure, the calling service is marked as station.
PARS_PMIST_ FORMAT	OFF or FULL	This parameter enables decoding and formatting of the PMIST message for the personal audio response (PARS) protocol. The range is OFF and FULL. When set to OFF, the message is displayed in hexadecimal format. When set to FULL, the message is displayed in both the hexadecimal and decoded formats. The default is OFF.
POSITION_ SANITY_TIMER	Nor Yx (x is 1 to 60)	Enter POSITION_SANITY_TIMER to set the TOPS position sanity timer on or off in a TOPS office. Enter Y to turn on the sanity position timer and then enter a timer duration in the range of 1 to 60 seconds. Otherwise, enter N to turn off the timer. The default is N. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 50 of

Field PARMNAME	Field PARMVAL	Explanation and action
POST_WINK_ PRE_OFFHOOK_ DELAY	1 to 200 (80 is the default value)	This parameter indicates the delay in 10ms increments between each trunk signalled ACK and OFFHK. That is, multiply the entry by 10ms. Therefore, the range is 1 (10ms) to 200 (2000ms). This parameter is used for the intermittent problem of calls routing to a position and then going to reorder. This happens when an end office takes the call down and generates a TRK121 log due to no start dial. This only occurs when the TOPS trunk is set for COMFGD. The end office is missing the OFFHK from the TOPS office and reports a CALL_FAILURE_MSG in the XPMIST. XPMIST shows the interval between the EXECs sent to the XPM for the final wink and the answer offhook to be a minimum of 300ms. The XPM data shows the DMS100 switch side of the TOPS switch is being sent these messages in 60—70ms. The LSSGR states that the minimum time between these two should be 250ms. If the table OFCSTD parameter WK_DD_PRE_DIAL_DELAY is set way below the default (80ms) to 40ms, the failures stop occurring. However, changing this OFCSTD parameter is difficult to activate and the change must be performed in each end office. Therefore, this table TOPSPARM parameter provides a convenient solution.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 51 of

Field PARMNAME	Field PARMVAL	Explanation and action
POST_WINK_ PRE_OFFHOOK_ DELAY (continued)		If the above problem description occurs, increase the value. Start at the default value of 80 and increase the value in increments of 10 ms until the problem no longer occurs. Note: This parameter does not automatically appear in the table, it must be added.
PPCO_ DISCONNECT	Y or N	Pre-paid coin overtime disconnect. This parameter indicates whether to route a call to an operator when the caller does nothing after all the ACTS prompts and time-outs for overtime payment are finished. Enter N to route the call to an operator. Or, enter Y to disconnect the call. The default value is N.
RLT_SUPPORT_ ISO_CARDS	Y or N	Specifies if the ISO card number is signaled on the RLT for commercial credit and ITU cards. The default value is N.
RONI_TAKE_ DOWN_DELAY	Y or N	Enter RONI_TAKE_DOWN_DELAY to indicate whether additional time is required to wait for a successful digits indication from centralized automatic message accounting (CAMA) offices. Enter Y if additional time is allocated. Enter N if no additional time is allocated to wait for the indication. The default is N. Activation is immediate.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 52 of

Field PARMNAME	Field PARMVAL	Explanation and action
RTRS_ADACC_ DAS_ANN_QUERY	Y or N	This parameter enables/disables the ADACC surcharge query sent to the external real-time rating system. The values are as follows: • Y - Perform the ADACC surcharge query. Use this value when ADAC calls can have different surcharges. This value is the default. • N - Disable the ADACC surcharge query. This value should only be used if all of the following conditions are met: — All ADACC calls have the same surcharge. — The DAS has a pre-recorded hardcoded announcement of the static surcharge or the charges are not announced.
RTRS_ADACC_ QUERY_FAIL_ ACTION	BLOCK, OPER, or FREE	This parameter indicates the error recovery action if a rate could not be obtained for the ADACC portion of a real-time rated call. This takes place from a coin or hotel phone. Following are the values: • BLOCK: The subscriber is given an announcement indicating technical difficulties and the call is terminated. • OPER: The subscriber is connected to an operator. • FREE: The subscriber is not charged for the ADACC service and the call progresses. The default is OPER.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 53 of

Field PARMNAME	Field PARMVAL	Explanation and action
RTRS_DEFAULT_COMPANY_CODE	000000 to 999999	This parameter provides the default company code for calls requiring real-time rating which do not have an associated company code in table COMPCODE per their origination status (trunk, NPA-NXX). The range is 000000 to 999999. The default is 000000.
RTRS_DEFAULT_SYSTEM	INTERNAL or EXTERNAL	This parameter determines the real-time rating system (INTERNAL or EXTERNAL) for calls requiring real-time rating which do not have an entry in table COMPCODE per their origination status (trunk, NPA-NXX). A value of INTERNAL selects the older table driven real-time rating system is used in determining the call's rate(s). A value of EXTERNAL selects the external real-time rating system (the RTRS) to query the call's rate(s). The default is INTERNAL.
RTRS_FIRST_MTS_COIN_QRYFL_ACTION	BLOCK, OPER, or FREE	This parameter indicates the error recovery action if a rate could not be obtained from the RTRS for the first period of a coin call (pre or post pay overtime) if at ACTS. Following are the values: • BLOCK: The subscriber is given an announcement indicating technical difficulties and the call is terminated. • OPER: The subscriber is connected to an operator. • FREE: The subscriber is not charged for the first coin time period and the call progresses. The default is OPER.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 54 of

Field PARMNAME	Field PARMVAL	Explanation and action
RTRS_SUBSE_ MTS_COIN_ QRYFL_ACTION	OPER or FREE	This parameter indicates the error recovery action if a rate could not be obtained from the RTRS for a non-initial period of a coin call (pre or post pay overtime) if at ACTS. • OPER: The subscriber is connected to an operator. • FREE: The subscriber is not charged for the coin time period and the call progresses.
RTRS_TIMEOUT	0 to 600	This parameter indicates the time in seconds when a query to the RTRS is considered timed-out. The range is 0 to 600 (seconds). The default is 1.
RTRS_VERSION	VERSION_1 or VERSION_2	This parameter indicates the external rater protocol version. The values are: • VERSION_1 - This version is the original release (TOPS04) of this functionality. This is the default value. • VERSION_2 - This version is the current release (TOPS09) and beyond of this functionality. For more information, refer to functionality External RTRS Interface, ENSV0009

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 55 of

Field PARMNAME	Field PARMVAL	Explanation and action
SA_QUEUEING_ BY_REQUEST_ AGE	Y or N	Enter SA_QUEUEING_BY_REQUEST_ AGE to allow old SA/IC (service assistant/in-charge) requests to be dequeued on the basis of the time spent waiting in the queue to be serviced by the next available team. This allows an SA/IC request that has been waiting the longest in the queue to be connected to the most recently released SA/IC team, as long as the service is compatible. Enter Y to allow old SA/IC requests to be dequeued on the basis of the time spent waiting in the queue to be serviced by the next available team. Enter N if the enqueued request is only serviced by the team on which it was enqueued. The default is N. Activation is immediate.
SEND_SECONDS_ TO_HOBIC	Y or N	This parameter enables sending of minutes and seconds to the HOBIC device for display. This parameter applies only to the external real-time rater, not the internal rater. The values are as follows: • Y - Send minutes and seconds. • N - Send only minutes. This value is the default, the process before this functionality. Since down stream processors must be ready to use the seconds based information, use value N during preparation.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 56 of

Field PARMNAME	Field PARMVAL	Explanation and action
SPECIAL_ HANDLING_ COLLECT	Y or N	This parameter activates the global functionality Special Handling for Collect Calls, GOS00101, and specifies a new route for collect calls when this feature is active. The values are Y (activate this feature) and N (disable this feature). For Y only, enter a valid XLASYS and XLANAME to index table PXC CODE. This parameter is valid only in a global environment, not in North America.
SPLIT_CLG_FOR_ COLLECT	Y or N	This parameter indicates if the calling party should be split on collect calls when the called number is outpulsed. The values are Y (split) and N (do not split). This parameter is created by the global functionality Special Handling for Collect Calls, GOS00101. This parameter is valid only in a global environment, not in North America.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 57 of

Field PARMNAME	Field PARMVAL	Explanation and action
TBI_AUTO_SPLIT	Y or N	Manual Toll Break-In (MTBI) automatic split. The values are as follows: • Y - The calling party (who is requesting the break-in) is automatically split from the call when the operator attempts MTBI via the Trunk Offer Start (TOS) function. When MTBI ends, the operator uses the Trunk Offer End (TOE) function. This causes the system to restore the calling party's voice path back to either split or joined as prior to the TOS function. • N - TOS does not automatically split the calling party's voice path out of the call. The operator must use the split/join function. This parameter appears in global loads only.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 58 of

Field PARMNAME	Field PARMVAL	Explanation and action
TMT_FOR_INTC_FAILURES	Y or N	This parameter indicates handling of the following types of intercept failures: • failure to get an ARU • failure of the DAS to find a listing • timeout of the DAS to find a listing • failure of a facility during playback • a wake up message received during playback • split referral The values for this parameter are as follows: • Y - Send intercept failures to Emergency Route 6 (EMR6) in an Operator Centralization (OC) configuration. This value enables this feature. • N - Send intercept failures to the queue management system (QMS) refinement tables. This value is the default and disables this feature.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 59 of

Field PARMNAME	Field PARMVAL	Explanation and action
TOPS06_DEVICE_ENHANCEMENTS	Y or N	This parameter enables additional information in the output reports for TOPS TTY devices for the commands listed below. Enter Y to enable or N to disable the new information. Value Y is the default. Following are the commands, devices, and new information: • RA/EA (assign a study register) - Used on TADS, SADS, SADSHADS, and QTADS devices. The response, when successful, now indicates how many study registers are in use by the team and how many are available for assignment. • RQ/EN (query study register assignments) - Used on TADS and QTADS devices. The response now indicates how many study registers are available for assignment. This parameter is non-optional, that is, it is valid regardless of the SOC state of functionality QMS Customer Service Enhancements, ADVQ0006. Also, this parameter is applicable in the TOPSACD and QMS environments. For more information about these commands, refer to the applicable (TOPS MP, MPX, or IWS) Force Management Guide.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 60 of

Field PARMNAME	Field PARMVAL	Explanation and action
TOPS11_DEVICE_ENHANCEMENTS	Y or N	This parameter controls appearance of the calling number in TOPS devices. The values are as follows: • N - The devices output the same as before this TOPS11 parameter. The calling number usually does not appear, but can appear in some cases such as a collect call billed to a hotel, or a charge adjustment not associated with an AQ or DUAQ device in table TOPSDEV or HOBICDEV. This parameter value is the default. • Y - The calling number appears in the billing records output by TOPS autoquote (AQ), voice quote (VQ), dial-up autoquote (DUAQ0, and record devices. Also, the calling number appears in charge adjust records generated on the hotel administration data system (HADS), VQ, or record devices. Charge adjust records appear when the operator makes a charge adjustment. This parameter is not optional and appears in all loads, North American and global. Refer to functionality TOPS Call Processing Features (Billing), OSB00001, under feature 50095068, in the Translations Guide for more information.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 61 of

Field PARMNAME	Field PARMVAL	Explanation and action
TOPS_RLT_REL_ VIA_CCTO	Y or N	This parameter provides support of release link trunking (RLT) in the end office. This parameter indicates the Service Activation Parameter (SAP) feature value sent to the DMS-100 end office if field RLT in table ISUPTRK is set to RLT_REL 1. The values are: • N - Send the SAP feature indicator value of RLT_REQUEST_MSG. This value is supported in NA0015 and up. • Y - Send the SAP feature indicator of CCTO_ALL_ISUP or CCTO_NOT_ALL_ISUP (as applicable). This value (Y) is the default. This value represents the behavior prior to this parameter. This value must be used if any DMS-100 end office connected to the TOPS office is below NA0015 and using RLT_REL.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 62 of

Field PARMNAME	Field PARMVAL	Explanation and action
TWO_AMA_REC_ FOR_SERVED_ OMINUS_EA	Y or N	This parameter applies to 0- call originations that turn out to be EA calls destined for carriers that are SERVED by the Operating Company. The term SERVED means table TOPEACAR, field OPSERV, subfield OPSERVSEL= SERV. For these calls, this parameter enables generation of two AMA records that are identical except as follows: • One record has a call code 190 and the other record has call code 192. For the record with the call code 192, if the operator enters a carrier ID but no called number and makes no attempt to output (that is, cancels calls and releases position), then a call code 196 replaces 192. • The call code 190 record does not have a call completion module, Module Code 051, nor a Module Code 316. In addition, Module Codes 314, 315, 184, 186, and 187 are not included on the call code 190 record. These modules are only included on the call code 192, if applicable to the call.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 63 of

Field PARMNAME	Field PARMVAL	Explanation and action
TWO_AMA_REC_ FOR_SERVED_ OMINUS_EA (continued)		The values of this parameter are as follows: • Y - Enable generation of the two AMA records as described above. This feature only applies to 0- dialed calls. 00-, 10XXX0-, and 10XXX00- calls routed to the TOPS system do not generate the access record. • N - Generate one AMA record (Structure Code 752 with call code 192) with a call completion module (module code 51) indicating that completion service was provided for the call. In addition, module code 53 is also included to identify the carrier associated with the call. If Origination Line Number Screening (OLNS) is in use, then Structure Code 772 is generated instead of Structure Code 752.

Field, subfield, and refinement descriptions for table TOPSPARM (Sheet 64 of

Field PARMNAME	Field PARMVAL	Explanation and action
ZENITH_EA_ROUTING	Y or N	Enter ZENITH_EA_ROUTING to specify whether Zenith calls are to use TOPS equal access (EA) translations. Enter Y if calls receive local access and transport area (LATA) screening and are routed through equal access (EA) translations. Enter N if no LATA screening is performed and calls use standard non-EA translations. The default is N. Activation is immediate.
ZENITH_TEN_DIGIT_DIALING	Y or N	Enter ZENITH_TEN_DIGIT_DIALING to allow individual offices to select seven- or ten-digit Zenith numbers. Enter Y if the Zenith number remains ten digits. Enter N if the area code is stripped from Zenith numbers that have the same area code as the TOPS operator position. The default is N. Activation is immediate.

Additional information

This section provides additional information regarding table TOPSPARM.

Error Messages

The following error messages apply to table TOPSPARM.

Error messages for table TOPSPARM

Error message	Explanation and action
Auto muted notify does not apply unless muted notify is set.	Muted notify recalls must be allowed for automatic muted notify recalls to be permitted. If an attempt is made to change the value of AUTO_NFY_RECALL to Y when MUTED_NFY_RECALL is N, then the change is not allowed.
Parameter NOTIFY_RECALL_OPTIONS only applies when the office numbering plan is open numbering.	Parameter NOTIFY_RECALL_OPTIONS only applies to open numbering offices. If a craftsperson attempts to change parameter NOTIFY_RECALL_OPTIONS in a North American office, the change is allowed and the warning message is displayed.

Table history

SN07

Table TOPSPARM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 11 of 12*, 297-8021-351.09.03.

TOPSTOPT

ATTENTION

This table applies to new or modified content for NA017 (SN04) that is valid through the current release.

Traffic Operator Position System Trunk Options Table

Table TOPSTOPT is used to specify different options for Traffic Operator Position System (TOPS) trunks. The Automatic Call Distribution (ACD) field is used to specify the processing used on a trunk group basis. An entry of QMSCAM in field ACD is not permitted in BCS32. The ACD used is TOPSACD for trunks not datafilled in this table for BCS32.

Standard dump and restore applies after BCS32. This table can be left empty. If the table is empty, TOPSACD is used internally.

Fields SPIDPRC and TRKSPID interact as follows.

Control of SPID processing by fields SPIDPRC and TRKSPID

Field SPIDPRC	Field TRKSPID	Effect on calling AO SPID assignment
N	N	SPID processing is not performed, so no value is assigned to the calling AO SPID. This condition applies even if an attempt is made to assign one. An AO SPID assignment attempt can be made from an OLNS query, table DNSCRN, and so forth.
N	Y nnnn	SPID processing is not performed, so no value is assigned to the calling AO SPID. A default SPID value `nnnn' can be entered, but does not effect SPID assignment.

Control of SPID processing by fields SPIDPRC and TRKSPID

Field SPIDPRC	Field TRKSPID	Effect on calling AO SPID assignment
Y	N	SPID processing occurs, but the calling AO SPID has no value at this point. SPID assignment may occur later (for example, from an OLNS query, table DNSCRN, and so forth).
Y	Ynnnn	SPID processing occurs, and a default SPID value 'nnnn' is assigned to calling AO SPID. This initial SPID value may be overridden later (for example, from an OLNS query, and so forth).

The following table shows how field DISPSPID and the indicated parameter combinations determine the SPID display.

Field and parameter interactions for SPID display

Table TOPSTOP T field DISPSPID value	Table TOPSPARM parameter OPP_ALWAYS_SEND_SPID_INFO value	CSPID display sent to position?
N	N	no
Y	N	yes
N	Y	yes
Y	Y	yes

Datafill sequence and meaning

The following tables must be datafilled before table TOPSTOP:

- CLLI
- TRKGRP
- SPID
- WSALEOPT
- TRKOPTS (if field MAXCONNS is set to a non-zero value)

If the common language location identifier (CLLI) in table TOPSTOPT is an Integrated Business Networks (IBN) trunk, the CLLI is interlocked to the corresponding CLLI in table TRKGRP(IBN). An IBN trunk CLLI must be datafilled in table TRKGRP(IBN) prior to being datafilled in table TOPSTOPT.

Table size

0 to 8191 tuples

Actual table size is based on the entry TRKGRP in table DATASIZE.

Datafill

The following table lists the datafill for table TOPSTOPT.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 1 of 17)

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfield	<i>Group key</i> GRPKEY consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter a valid incoming or two-way trunk CLLI used for TOPS traffic. This entry must be datafilled in table CLLI and table TRKGRP. If the CLLI is an IBN trunk, it must be datafilled in table TRKGRP(IBN) before being datafilled in table TOPSTOPT.
ORGAREA		see subfield	<i>Originating area</i> This field consists of subfield ORGCRIT_SEL.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 2 of 17)

Field	Subfield or refinement	Entry	Explanation and action
	ORIGCRIT_SEL	Y or N	<i>Originating criterion selector</i> If calls are to be CT4Q refined by the originating criteria (table CTQORIG and associated tables), enter Y and datafill refinement ORIGCRIT. Otherwise, if there is no criterion, enter N and do not datafill ORIGCRIT.
ORGAREA (continued)	ORGCRIT	name from TQORGNAM	<i>Originating criteria</i> This field is valid only if field ORIGCRIT_SEL = Y. Enter a call originating location name from table TQORGNAM. This field segregates traffic on a trunk group basis according to the calling number and is used in table CT4QORIG.
DISPCLG		Y or N	<i>Display calling number</i> Enter Y if the calling number is displayed at the TOPS terminal for use by the TOPS operator. The default value is N, calling number is not displayed.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 3 of 17)

Field	Subfield or refinement	Entry	Explanation and action
ADASERV		NONE, ADAS, or ADASPLUS	<i>Automated directory assistance service availability</i> ADAS service allowed for calls on trunk. The values are defined as follows: • NONE - Do not to use any ADAS system. • ADAS - Use the ADAS system in functionality ADAS, OSDA0004. • ADASPLUS - Use the ADAS system in functionality DA Automation I/F, OSDA0006. The default value is NONE.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 4 of 17)

Field	Subfield or refinement	Entry	Explanation and action
ADASANS		NA, IMMEDIATE or DELAYED	<i>ADAS answer supervision</i> Controls when answer supervision is returned to the originating trunk. Entries are: • NA - Not applicable. Use when ADASERV is set to anything other than ADAS or ADASPLUS, (i.e. NONE). When ADASERV equals ADAS or ADASPLUS, ADASANS cannot be set to NA. • IMMEDIATE - Answer supervision is provided when the incoming trunk is initially connected to ADAS. • DELAYED - Answer supervision is not provided until the call arrives at the operator position. DELAYED can only be used for Intertoll or TOPS ONI trunks.
ANITOCCLI		see subfield	<i>Automatic Number Identification to Calling Line Identification</i> This field consists of subfield ANI2CLI.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 5 of 17)

Field	Subfield or refinement	Entry	Explanation and action
ANITOCCLI (continued)	ANI2CLI	Y or N	<i>Automatic Number Identification to Calling Line Identification</i> Enables conversion of ANI on an incoming trunk to CLI for an outgoing ISUP trunk. If set to N, ANI is not forwarded as CLI. If set to Y, ANI may be forwarded as CLI, depending on tables ISUPTRK and TOPSPARM. When set to Y, datafill subfield BLKCLI. CLI is forwarded if field ANITOCCLI is set to Y in tables ISUPTRK and TOPSTOPT, and parameter FORWARD_ANI_AS_CLI is set to Y in table TOPSPARM.
	BLKCLI	Y or N	<i>Block Calling Line Identifier</i> This subfield is present only if field ANITOCCLI = Y. Set BLKCLI = Y to mark all calls incoming on the given trunk as 'presentation restricted'; that is, mark the caller's ID (number) as blocked. Set to N to allow presentation of the CLI. When set to N, table TDBCLASS, field BLKCLI is searched before forwarding the CLI with presentation allowed.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 6 of 17)

Field	Subfield or refinement	Entry	Explanation and action
OLNSQRY		NONE or ALL	<i>Originating Line Number Screening Query</i> This field indicates which calls can launch a query on a given incoming trunk. The following are descriptions of the values: • NONE - No OLNS queries are made for incoming calls. • ALL - OLNS queries are made on all calls prior to arrival at the operator position except for intercept and inwards calls. For these two call types, OLNS queries are not made since the subscriber calling number is not signalled to the DMS switch. For the ALL case, if the call is ONI or ANI fail, the query is launched automatically when the calling number is entered by the operator at position. No more than one OLNS query is made for a call unless the calling number is changed as can be done for operator number identification (ONI) or ANI fail calls.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 7 of 17)

Field	Subfield or refinement	Entry	Explanation and action
DCIBIDX		0 to 511	Disallowed card issuer blocking index This field is an index into table DCICSET for blocking calling cards on a trunk group basis. The default value is 0, which means that the disallowed card issuer blocking functionality is not offered on this trunk group. This field is used the two conditions as follow are true: • The DCIB SOC (ABS00014) is ON • This trunk is not eligible for OLNS; that is, field OLNSQRY = NONE.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 8 of 17)

Field	Subfield or refinement	Entry	Explanation and action
LNPCLGAM		Y or N	<i>Local number portability calling number AMA</i> This field specifies whether to append a module 720 to the AMA record for calls that originate on the trunk group. The value Y indicates that the LRN of the calling number should be included in the AMA record. The default is N, indicating LNP information for AMA is not required. If a trunk is not datafilled in TOPSTOPT, then LNP information for AMA is not required. A value of N does not always prevent an LNP module for the calling number from being appended to the AMA record. For example, a module 720 is appended if a query is made for the purpose of routing to that calling number. Likewise, a value of Y does not always cause an LNP module for the calling number to be appended to the AMA record. For example, even when this value is Y, no module 720 is appended if an LRN is not datafilled against the incoming trunk group (table TRKGRP) and the parameter LNP_QUERY_FOR_AMA_ONLY does not include the value CLG (table TOPSPARM).

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 9 of 17)

Field	Subfield or refinement	Entry	Explanation and action
LNPCLGAM (continued)			This field is only available in North American TOPS switch loads and is specific to TOPS LNP. It is only referenced when TOPS LNP is active.
XLASCHEM		see subfield	<i>Translation scheme</i> This field consists of subfield NEWXLA.
	NEWXLA	Y or N	<i>New TOPS translations</i> This field enables this trunk group (field GRPKEY) for use by the new TOPS translations process. Enter Y (enable) or N (disable). For value Y, datafill refinement XLAGRP. The default is N.
	XLAGRP	name from table XLAGRP	<i>Translations group</i> Datafill this field if field NEWXLA = Y. Enter a translations group name defined in table XLAGRP that contains this trunk group (field GRPKEY).

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 10 of

Field	Subfield or refinement	Entry	Explanation and action
SPIDPRC		Y or N	<i>Service provider identifier processing</i> This field enables SPID processing for this incoming trunk group. Enter Y (enable) or N (disable). For value N, the earlier method of translations applies for this trunk group. The default is Y. The value of this field does not stop entering a value in field TRKSPID. However, if SPIDPRC= N, the TRKSPID field is not used. Note 1: This field affects all SPID processing in the whole unbundling functionality group (UNBN0001). Note 2: The “Functional description” section describes the interaction of fields SPIDPRC and TRKSPID.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 11 of

Field	Subfield or refinement	Entry	Explanation and action
TRKSPID		Y or N	<i>Trunk Service Provider Identifier</i> This field indicates whether a default SPID has been assigned for the given trunk group. If this field is set to N, there is no trunk-associated default SPID. If this field is set to Y, then datafill refinement SPID Note: The “Functional description” section describes the interaction of fields SPIDPRC and TRKSPID.
	SPID	4 characters	<i>Trunk Service Provider Identifier</i> Datafill this field if TRKSPID = Y with the default SPID to be associated with this trunk group.
BILLSCRN		see subfield	<i>Billing screening</i> This field consists of subfield BILLSCRN.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 12 of

Field	Subfield or refinement	Entry	Explanation and action
BILLSCRN (continued)	BILLSCRN	Y or N	<i>Billing screening</i> This field indicates whether screening methods apply to the trunk group. Wholesale screening is considered only if DN screening finds no restrictions for non-directory assistance call completion (non-DACC) calls. The values are as follows: • Y - Enable screening and enter datafill in subfields WSIDX, SCRNDX, DACCSCRM, and ANIDSCR. • N - Disable screening. This value is the default.
	WSIDX	0-99	<i>Wholesale Index</i> This subfield is an index into table WSALEOPT.
	SCRNDX	0-100	<i>Screening index</i> This subfield is an index into table RESTBIL (TA call) or DARSTBIL (DA call). This subfield is used for trunk based screening when table WSALEOPT field INTRA or INTER contains TRK. Value 100 is nil.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 13 of

Field	Subfield or refinement	Entry	Explanation and action
BILLSCRN (continued)	DACCSCR	Y or N	<i>Directory Assistance Call Completion screening</i> This subfield indicates whether wholesale screening should apply to Directory Assistance Call Completion (DACC) calls. The values are Y (yes) and N (no).
	ANIDSCR	Y or N	Automatic number identification screening This subfield determines whether calls should be screened based on the ANI ID. This screening is only considered if DN screening finds no restrictions for non-DACC calls and table WSALEOPT screening is attempted but there are no entries in applicable field INTER or INTRA. The values are as follows: - Y - Enable screening. The signaling type is determined from table TRKGRP field SIGTYPE to access applicable table BELLCAT, OSSCAT, or OPENANI field SCRNIDX (all tables). The applicable table provides an index into applicable table RESTBIL (TA call) or DARSTBIL (DA call). - N - Disable screening.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 14 of

Field	Subfield or refinement	Entry	Explanation and action
ANIFSPL		Y or N	<i>ANI ID failure special</i> This subfield determines on a trunk group basis whether an ANI failure call should be displayed as ANI success to the operator. An ANI failure occurs if the call is marked as special and no calling number is found in table SPLDNID or DNSCRN. The values are as follows: • Y - An ANI failure is allowed to proceed through the system, no restrictions are marked against the call, and the call is displayed as ANI success. This value is valid only if table TOPSPARM parameter OVERRIDE_ANIFSPL_HANDLING = N, since this parameter has precedence over field ANIFSPL • N - An ANI failure is displayed as ANI failure as prior to this feature. This value is the default.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 15 of

Field	Subfield or refinement	Entry	Explanation and action
ANIFSPL (continued)			This behavior applies to calls marked as special by the ANI ID tables (OSSCAT, BELLCAT, and OPENANI) that arrive on STATCLAS = DNLOOKUP or RESTBIL trunk groups. When a call arrives with an ANI ID marked as special, the screening tables are used to identify the calling service (for example, coin, restricted, and so forth). When there is no data in these tables for a call marked as special and the datafill indicates not to mark this call as ANI failure, the calling service is marked as station.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 16 of

Field	Subfield or refinement	Entry	Explanation and action
MAXCONNS		0 to 2016	<i>Maximum connections</i> This field indicates the maximum number of voice over IP (VoIP) connections that can be initiated on a trunk group reserved for TOPS VoIP calls. Each VoIP connection corresponds to a trunk member. Although the MAP display indicates the range maximum is 32767, the effective maximum is 2016, since a TOPS dynamic trunk group may have at most 2016 members. Entering a value greater than 2016 has no effect; the maximum number of connections for that trunk group remains at 2016. MAXCONNS applies to all TOPS dynamic trunk types: remote OC-IP voice links, host OC-IP voice links, and IP position voice links. For all other trunk types (non-dynamic), set this field to 0. MAXCONNS has no effect on trunk groups that are not datafilled as OC or POS dynamic trunks in table TRKOPTS. In table TRKOPTS, indicate the trunk group is reserved for OC or POS dynamic trunks before setting field MAXCONNS in table TOPSTOPT.

Field, subfield, and refinement descriptions for table TOPSTOPT (Sheet 17 of

Field	Subfield or refinement	Entry	Explanation and action
DISPSPID		Y or N	<i>Display SPID</i> This field determines on a trunk group basis if the SPID display information from table SPIDDB (field SCRNDISP) should be sent to the OPP-compatible position on carrier calls. Enter Y to send the display or N to not send the display. This same functionality is available on an office-wide basis in table TOPSPARM parameter OPP_ALWAYS_SEND_SPID_INFO. Refer to the table at the beginning of this module for the interaction of this parameter and field DISPSPID.

Additional information

This section provides information on possible error messages when datafilling table TOPSTOPT.

Error message for table TOPSTOPT

Error message	Explanation and action
The DCIBIDX index must be datafilled in Table DCICSET prior to use in Table TOPSTOPT.	A DCIBIDX value cannot be datafilled in table TOPSTOPT until it has been defined in table DCICSET. If an attempt is made to datafill a DCIBIDX that has not been defined in table DCICSET, the table change is not allowed and this error message is displayed.
Trunk group not marked as a dynamic trunking application in Table TRKOPTS. MAXCONNS must be 0.	This message appears when attempting to increase MAXCONNS to a nonzero value for a trunk group not reserved for TOPS VoIP calls. The tuple addition or change is not allowed.
Warning: MAXCONNS is set to 0. No connections will be allowed on this trunk group.	This warning message appears when attempting to set MAXCONNS to zero for a TOPS dynamic trunk group. The tuple addition or change is allowed.
Warning: MAXCONNS is set higher than the maximum per trunk group. A maximum of 2016 connections will be used by call processing.	This warning message appears when setting MAXCONNS to a value higher than 2016. The tuple addition or change is not allowed.
Warning: TOPS VoIP usage limits are not supported in this load. MAXCONNS will be set to the maximum per trunk group, which is 2016.	This warning message appears when trying to use VoIP usage limits, but the required DMS-100 software is not present in the load. The tuple addition or change is allowed. The MAXCONNS field will be set to 2016, and VoIP Usage Limits will not be used.

Table history

SN07

Table TOPSTOPT migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 11 of 12*, 297-8021-351.09.03.

TRKMEM

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Trunk Member Table

Table TRKMEM lists the data for each trunk specified in tables TRKGRP and TRKSGRP.

Table TRKMEM does not include members of intertoll trunk groups that have common channel interoffice signaling (CCIS) and members of CCITT7 trunk groups in DMS-300 gateway switches.

For members of intertoll trunk groups with CCIS, see table C7TRKMEM. For members of CCITT7 trunk groups in DMS-300 switches, see tables N7TRKMEM and NO7TKMEM. For members of Global Trunks, see table TRKBCHNL.

Spectrum Peripheral Module (SPM) is datafilled into the PMTYPE field of table TRKMEM.

TRKMEM records the following data for each trunk group member and for each analog or digital trunk, including the spare trunks:

- the code assigned to the trunk group in table CLLI
- the external trunk number assigned by the operating company
- the number of the trunk subgroup
- the equipment number

To change a trunk member from a working trunk group to a spare, delete the member from the working trunk group in table TRKMEM, then add the member to the spare trunk group in table TRKMEM.

Note: If the switch has remote operation, the digital carrier module (DCM) assignments in table LMINV cannot be used for assignment to trunk groups.

Assign Common Channel Signaling (CCS7) links with a linkset type (field LSTYPE value ALINK in table C7LKSET) and an allocation scheme (field ALLOC value STBASIC or STPOOL in table C7LINK) to different digital trunk controllers (DTC) in table TRKMEM to provide for

redundancy. Failure to do this leads to CCS7 outage if the DTC goes out of service.

Cross checking is performed on table TRKMEM tuples to table TRKSGRP and TRKOPTs to ensure that only BICC IT trunks have the ECSTAT field in TRKSGRP set to INTERNAL. If an attempt is made to add an tuple for an IT trunk group to table TRKMEM (BICC trunks are not datafilled in table TRKMEM) with ECSTAT in TRKSGRP set to INTERNAL, the attempt is rejected.

Packet Telephony (PT) solutions PT-IP / PT-AAL1 / UA-AAL1 do not support trunk subgroups with both legacy and packet members. This restriction derives from the fact that all members in a given trunk subgroup share the same echo cancellation datafill via TRKSGRP and these values may be interpreted differently by packet and legacy peripherals.

For this reason, we suggest that packet members be combined in one trunk subgroup and legacy members be combined in a second trunk subgroup if both types are needed in the same trunk group. This requirement is not enforced but a notification message is generated during provisioning when both packet and legacy members are detected in the same trunk subgroup.

Trunk groups DTU, LTU, MTU, TTT, and TTU

Each member of the trunk groups with a common language location identifier (CLLI) of DTU, LTU, MTU, TTT or TTU consists of two trunk circuits that are always located in adjacent slots in the trunk or maintenance trunk module. For product engineering code DTU4X23AA both circuits must be specified in the trunk member table. For the following PECs, only the physical location of the circuit is required in the trunk member table:

- TTT2X96AA
- TTU2X47AA
- LTU2X11AA
- MTU4X97AA
- DTU4X23AA

The line test units for the host switch and its associated remote location are all listed under the fixed pseudo-CLLI code LTU.

Datafill an LTU or MTU in table TRKMEM before adding them to table MTAHORIZ. If the LTU or MTU is deleted from table TRKMEM, the corresponding tuple in table MTAHORIZ is marked as deleted, but it is

automatically restored if the LTU or MTU is reentered in table TRKMEM.

The following table indicates how the datafill in table TRKMEM corresponds with the time slots.

Datafill and time slots

Trunk	Timeslot	Trunk	Time slot
1	1	16	16
2	2	17	17
3	3	18	18
4	4	19	19
5	5	20	20
6	6	21	21
7	7	22	22
8	8	23	23
9	9	24	24
10	10	25	25
11	11	26	26
12	12	27	27
13	13	28	28
14	14	29	29
15	15	30	30

Note 1: Time slot 16 cannot be datafilled because it is reserved for signaling. Only a maximum of 30 trunks can be datafilled in a particular carrier. If time slot 16 is activated, a maximum of 31 trunks

can be datafilled. To activate time slot 16, the following conditions must be met:

- Table LTCINV must be datafilled for optional card NT6X28.
- Table LTCPSINV carriers must be CCS. Channel 16 cannot be datafilled on a CAS or digital private network signaling system (DPNSS) carrier.

Note 2: If offices are equipped with time slot flexibility for PCM30 carriers, the maximum number of non-signaling trunks that can be added to a PDTC is 480. Since datafill checks are not made to prevent operating company personnel from datafilling more than 480 non-signaling trunks, care must be exercised when adding new trunk circuits to a PDTC. If a PDTC is equipped with more than 480 trunks, PM180 switch error messages will result. In such a case, the following message is an indication that the capacity of the non-signaling trunks in the PDTC has been exceeded:

NO DB AVAIL

Note 3: All trunks with a signaling type of a DPNSS in table TRKSGRP must have their associated signaling links and inter-peripheral message links datafilled before they can be added to table TRKMEM.

Note 4: For trunk groups using the auto-identified outward dialing (AIOD) trunk feature, a tuple is automatically added to or deleted from table AIODTKN for each TRKMEM tuple added or deleted. The external trunk number of the trunk member is used as the AIOD token for table AIODTKN. The external trunk number must be unique over all trunks and lines using the same AIOD group for AIOD servicing.

X.75 trunk groups

For an X.75 trunk member to be datafilled in table TRKMEM, the following conditions must be satisfied:

- The trunk member must be datafilled first in table X75INFO.
- The DS0 channel must be datafilled in table SPECCONN against an XSG channel.

X.25 trunk groups

For an X.25 trunk member to be datafilled in table TRKMEM, the DS0 channel must be datafilled in table SPECCONN against an XSG channel.

Restricting access to table TRKMEM

Access to table TRKMEM can be restricted by datafilling table CUSTPROT. For United Kingdom customers, access to table TRKMEM must be restricted by datafilling table CUSTPROT to prevent the

operating company from moving physical trunks into a different trunk group.

Datafill sequence and meaning

The following tables must be datafilled before table TRKMEM:

- CLLI
- TRKGRP
- TRKSGRP
- RCCINV
- RCCPSINV
- X75INFO (for an X.75 trunk member)
- SPECCONN (for an X.75 or X.25 trunk member)
- DS0 links on a PCM30 digital trunk controller (PDTC) must first be datafilled in table LTCPSINV before digital jack trunks can be datafilled
- RCCINV (Synchronous Optical Network (SONET) remote cluster controllers (SRCC) must be datafilled first in table RCCINV)
- DS1 must be defined on its P-side in table RCCPSINV
- For PMTYPE of DTM, tables TMINV and TRSGRP must be datafilled before this table. Tables DRAMS and EDRAMINV must also be datafilled.
- When the office is configured with SPMs that have integrated services digital network (ISDN) user part (ISUP) or per trunk signaling (PTS) trunks, datafill table TRKMEM after table MNCKTPAK.

Table OAVLMAP must be datafilled after table TRKMEM. Deletions in table TRKMEM are not allowed if table OAVLMAP has a reference to the tuple being deleted.

When an ISUP or a PTS trunk is added to an SPM, the following dependencies apply:

- AB-bit resources must be datafilled in table MNCKTPAK before a PTS trunk is added in TRKMEM.
- At least one MF resource must be datafilled in table MNCKTPAK before a PTS trunk with an incoming pulse type of MF is added to table TRKMEM (on a given SPM node). The incoming pulse type is datafilled in the associated trunk subgroup (table TRKSGRP).

- At least one dual-tone multifrequency (DTMF) resource must be datafilled in table MNCKTPAK before a PTS trunk with an incoming pulse type of DT is added to table TRKMEM (on a given SPM node).
- If the PM type of the TRKMEM tuple = SPM, the incoming pulse type (IPULSTYP) field in the associated table TRKSGRP tuple cannot be datafilled as NP (nil_pulse_type).
- An ISUP trunk must be datafilled in table TRKMEM before it can be datafilled in table C7TRKMEM.

Table size

0 to 16 000 000 tuples

Note: The SPM tuples in the TRKMEM table use a refinement of the MEM_VAR_AREA, which is part of the TRUNK_MEMBER_DATA_TUPLE area. Therefore, no reformats are needed for dump and restore.

Datafill

The following table lists the datafill for table TRKMEM.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 1 of 7)

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the common language location identifier (CLLI) code that is assigned to the trunk group to which the trunk is a member. This CLLI code is assigned in table CLLI.
EXTRKNM		numeric (0 to 9999)	<i>External trunk number</i> Enter the external trunk number that is assigned to the trunk. For members of trunk groups using the AIOD option, the external trunk number must be unique over all trunks and lines using the same AIOD group.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 2 of 7)

Field	Subfield or refinement	Entry	Explanation and action
SCRP		numeric (0 to 1)	<i>Subgroup number</i> Enter the subgroup number to which the trunk is assigned.
MEMVAR		see subfield	<i>Variable data for members</i> This field consists of subfield PMTYPE and refinements.
	PMTYPE	ADTC AIM ALGC ARCC ATM DCA DCM DTC DTCI DTM ICP IDT IDTC ILTC ISM LGC LTC MMA MTM OAU PDTC PLGC PTM RCC RCC2 RCO2 RMM RMSC RSM SMA SMA2 SPM SMU SRCC STM TAN T8A TM2 TM4 TM8 TMA or TMS	<i>Peripheral module type</i> Enter the peripheral module (PM) type on which the trunk is mounted and datafill the refinements associated with this entry value. Each refinement entry must be separated from the next by a blank space. If the CLLI code is for a trunk group of type TPS101, it must be assigned to a maintenance trunk module (MTM) or packaged trunk module (PTM). If the value of field PMTYPE is ADTC, ALGC, ARCC, DCA, IDTC, ILTC, PDTC, PLGC, datafill subfields DEQNO, DEQCKTNO, and DEQCKTTS. If the value of field PMTYPE is AIM, ATM, DTM, ISM, MMA, MTM, OAU, PTM, RMM, RSM, STM, TAN, T8A, TM2, TM4, TM8, or TMA, datafill subfields TMNO and TMCKTNO.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 3 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MEMVAR (continued)			If the value of field PMTYPE is DCM, datafill subfields DCMNO, DCMCKTNO, and DCMCKTTS. If the value of field PMTYPE is DTC, datafill subfields DTCNO, DTCKTNO, and DTCKTTS. If the value of field PMTYPE is DTCl, datafill subfields DTCINO, DTCICKTNO, and DTCICKTTS. If the value of field PMTYPE is ICP, datafill subfields ICPNO, ICPCKTNO, and ICPCKTTS. If the value of field PMTYPE is IDT, datafill subfields IDTNO and SHEFLSLT. If the value of field PMTYPE is FWC, datafill subfields GWCNO, GWCNODENO, and GWCTRMNO for CS 2000 only. If the value of field PMTYPE is LGC, datafill subfields LGCNO, LGCKTNO, and LGCKTTS. If the value of field PMTYPE is LTC, datafill subfields LTCNO, LTCKTNO, and LTCKTTS.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 4 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MEMVAR (continued)			If the value of field PMTYPE is RCC, datafill subfields RCCNO, RCCCKTNO, and RCCCKTTS. If the value of field PMTYPE is RCC2, datafill subfields RCC2NO, RCC2CKTNO, and RCC2CKTTS. If the value of field PMTYPE is RCO2, datafill subfields RCO2NO, RCO2CKTNO, and RCO2CKTTS. If the value of field PMTYPE is RMSC, datafill subfields RMSCNO, RMCKTNO, and RMCKTTS. If the value of field PMTYPE is SMA, datafill subfields SMANO, SMACKTNO, and SMACKTTS. If the value of field PMTYPE is SMA2, datafill subfields SMA2NO, SMA2CKTNO, and SMA2CKTTS. If the value of field PMTYPE is SMU, datafill subfields SMUNO, SMUCKTNO, and SMUCKTTS.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 5 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MEMVAR (continued)			If the value of field PMTYPE is SPM, datafill subfields SPMNO, SPMCKTNO, and SPMCKTTS. If the value of field PMTYPE is SRCC, datafill subfields SRCCNO, SRCCCKTNO, and SRCCCKTTS. If the value of field PMTYPE is TMS, datafill subfields TMSNO, TMSCKTNO, and TMSCKTTS. Note: PRA type trunks can be datafilled on an ISDN Austrian digital trunk controller (ADTC). These trunks can be datafilled on ports 1 to 31. All members must have an interface identifier specified in table LTCPSINV before they can be added. An ISDN capable ADTC shelf differs from the standard ADTC because it has an ISP card NTB01AA and a universal time switch NT6X44EA card present. The shelf PEC is 6X02NA, the frame type is LTEI. Time switch cards AX73 and AX79 can also be used. For offices with PTMs, datafill the value MTM. PTMs are manufacturer discontinued.

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 6 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MEMVAR (continued)			If the peripheral module is PDTC, digital jack trunks can be datafilled if optional package NTXK50AA (TTP-digital jack ended trunks) is in the load. Digital jack trunks can only be datafilled on time slot 1. The PDTC must be datafilled in table LTCINV and the specified circuit must be datafilled as a DS0 link in table LTCPSINV. If the peripheral module is PDTC, PRA type trunks can be datafilled on ports 0 through 15 and on circuits 1 through 31. Time slot 16 can be datafilled for IDTCs with carriers of signaling type CCS. If an attempt is made to datafill time slot 16 with carriers of type CAS or DPNSS, an error message is output. For NFA trunk member, the type of peripheral module (PM) is restricted to either DTC or LTC. These PMs must be equipped with universal tone receiver (UTR).

Field, subfield, and refinement descriptions for table TRKMEM (Sheet 7 of 7)

Field	Subfield or refinement	Entry	Explanation and action
MEMVAR (continued)			The RCO2 is a remote unit part of the CPM (Common Peripheral Module) family, used in the DMS-100 family for international applications. It is the international version of the RCC2. The RCO2 has the same architecture as the RCC2 and is based on two shelves (introduced for the Domestic RCC2 program in BCS33). RCO2 supports up to 16 PCM30 on the C-side (mapping towards the LGCO) and up to 46 PCM30 on the P-side including 24 PCM30 on the extension shelf. RCO2 supports several types of lines, trunks, and certain small remotes on its P-side, as listed below: • line concentrating module (LCM) • extended line concentrating module (LCME) • community dial office (CDO) trunks • PBX trunks • remote unit (TBD) RCO2 supports up to 16 PCM30s on the C-side (mapping towards the LGCO) and up to 46 PCM30s on the P-side, including 24 PCM30s on the extension shelf.

PMTYPE = ADTC, ALGC, ARCC, DCA, IDTC, ILTC, PDTC, or PLGC

If the value of field PMTYPE is ADTC, ALGC, ARCC, DCA, IDTC, ILTC, PDTC, or PLGC, datafill subfields DEQNO, DEQCKTNO, and DEQCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	DEQNO	numeric (0 to 511)	<i>Trunk module number</i> Enter the number assigned to the trunk module on which the trunk group number is assigned.
	DEQCKTNO	numeric (0 to 19)	Digital equipment circuit number Enter the number of the digital equipment module circuit card to which the trunk group member is assigned.
	DEQCKTTS	numeric (1 to 31)	<i>Digital equipment circuit time slot</i> Enter the number of the digital equipment circuit card time slot to which the trunk group member is assigned. If the flexible time slot feature is not turned on, the range of valid entries is 1 to 30. Datafill NT6X28 as an optional card in table LTCINV to turn on the flexible time slot feature.

PMTYPE = AIM, ATM, ISM, DTM, MMA, MTM, OAU, PTM, RMM, RSM, STM, TAN, T8A, TM2, TM4, TM8, or TMA

If the value of field PMTYPE is AIM, ATM, ISM, DTM, MMA, MTM, OAU, PTM, RMM, RSM, STM, TAN, T8A, TM2, TM4, TM8, or TMA, datafill subfields TMNO and TMCKTNO as described below.

Field descriptions for conditional datafill (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	TMNO	numeric (0 to 2047)	<i>Trunk module number</i> Enter the number assigned to the trunk module on which the trunk group number is assigned.
	TMCKTNO	numeric (0 to 29)	<i>Trunk module circuit number</i> Enter the number of the trunk module circuit to which the trunk group member is assigned. The value for each subfield must be separated by a blank space.
		numeric (1 to 15 and 17 to 29)	See note added to table STN. or
		numeric (7 to 10), 11, 12, 13 to 16, 17 or 18, 19, 20 to 21, 22, 23, 24, 25, 26 to 28	(Aim type TM only) If trunk emulation is provided for NT2X75AA/BA, enter 7 to 10. If trunk emulation is provided for NT1X54AA or NT2X72AA/AB/AC/BA and FX48AA is datafilled for AIM in table TMINV, enter 11. Note: Only one emulation type can be used at a time for NT2X72xx, NT2X81xx and NT2X90xx

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
			If trunk emulation is provided for Montalk and FX48AA is datafilled for AIM in table TMINV, enter 12. If trunk emulation is provided for NT5X30AA/BA, NT2X95AA, NT2X82AA or Montalk and FX48AA is datafilled for AIM in table TMINV, enter 13 to 16. If trunk emulation is provided for NT2X82AA, NT2X95AA or Montalk and FX48AA is datafilled for AIM in table TMINV, enter 17 or 18. If trunk emulation is provided for NT5X30AA/BA and FX48AA is datafilled for AIM in table TMINV, enter 19. If trunk emulation is provided for NT2X71AA and FX48AA is datafilled for AIM in table TMINV, enter 20 or 21.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
			If trunk emulation is provided for NT2X81AA/AB/BA, NT2X90AD or Montalk and FX48AA is datafilled for AIM in table TMINV, enter 22. Note: Only one emulation type can be used at a time for NT2X72xx, NT2X81xx and NT2X90xx If trunk emulation is provided for NT1X54AA, NT2X72AA/AB/AC/BA, enter 23. Note: Emulation of NT2X72xx on circuit 23 and NT2X81xx on circuit 25 may not be used at the same time If trunk emulation is provided for NT5X30AA/BA, enter 24. If trunk emulation is provided for NT2X81AA/AB/BA, NT2X90AD or Montalk, enter 25. Note: Emulation of NT2X72xx on circuit 23 and NT2X81xx on circuit 25 may not be used at the same time If trunk emulation is provided for NT2X90AD or Montalk, enter 26 to 28.

Field descriptions for conditional datafill (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
		numeric (4 to 24, 25 to 27, 28)	(AIM based RMM type TM only) If trunk emulation is provided by a pass-through to the RMM shelf, enter 4 to 24. Note: Non-AIM circuit packs can be provisioned in these circuits and used if the RMM is not AIM based If trunk emulation is provided for NT2X90AD or Montalk, enter 25 to 27. If trunk emulation is provided for Montalk, enter 28.

PMTYPE = DCM

If the value of field PMTYPE is DCM, datafill subfields DCMNO, DCMCKTNO, and DCMCKTTS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DCMNO	numeric (0 to 511)	<i>Digital carrier module number</i> Enter number of the digital carrier module (DCM) to which the trunk group member is assigned.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DCMCKTNO	numeric (0 to 4)	<i>Digital carrier module circuit number</i> Enter the number of the DCM circuit card to which the trunk group member is assigned.
	DCMCKTTS	numeric (1 to 24)	<i>Digital carrier module circuit time slot</i> Enter the number of the DCM circuit card DS1 time slot to which the trunk group member is assigned.

PMTYPE = DTC

If the value of field PMTYPE is DTC, datafill subfields DTCNO, DTCKTNO, and DTCKTTS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DTCNO	numeric (0 to 511)	<i>Digital trunk controller number</i> Enter number of the digital trunk controller (DTC) module to which the trunk group member is assigned.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DTCCKTNO	numeric (0 to 19)	<i>Digital trunk controller circuit number</i> Enter the number of the DTC circuit card to which the trunk group member is assigned.
	DTCCKTTS	numeric (1 to 24)	<i>Digital trunk controller circuit time slot</i> Enter the number of the circuit card DS0 time slot to which the trunk group member is assigned.

PMTYPE = DTCl

If the value of field PMTYPE is DTCl, datafill subfields DTCINO, DTCICKTNO, and DTCICKTTS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DTCINO	numeric (0 to 511)	<i>ISDN digital trunk controller number</i> Enter the number of the ISDN DTC (DTCl) module to which the trunk group member is assigned.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DTCICKTNO	numeric (0 to 19)	<i>ISDN digital trunk controller circuit number</i> Enter the number of the DTCT DS1 span to which the trunk group member is assigned.
	DTCICKTTS	numeric (1 to 24)	<i>ISDN digital trunk controller circuit time slot</i> Enter the number of the circuit card DS0 time slot to which the trunk group member is assigned.

PMTYPE = GWC

If the value of field PMTYPE is GWC, datafill subfields GWCNO, GWCNODENO, and GWCTRMNO as described below. The peripheral module type of GWC applies to CS 2000 only.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	GWCNO	numeric (0 to 255)	<i>Gateway control number</i> Enter the number of the Gateway control number (GWC) for the assignment of the trunk group number.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	GWCNODENO	numeric (0 to 4095)	<i>Gateway control node number</i> Enter the number of the GWC node number for the assignment of the trunk group member.
	GWCTRMNO	numeric (1 to 3999)	<i>Gateway control terminal number</i> Enter the number of the GWC terminal number for the assignment of the trunk group member.

PMTYPE = ICP

If the value of field PMTYPE is ICP, datafill subfields ICPNO, ICCKETNO, and ICCKETTS as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ICPNO	numeric (0 to 511)	<i>Integrated cellular peripheral number</i> Enter the number of the integrated cellular peripheral (ICP) to which the trunk group member is assigned.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	ICPCKTNO	numeric (0 to 19)	<i>Integrated cellular peripheral circuit number</i> Enter the number of the ICP circuit card to which the trunk group member is assigned.
	ICPCKTTS	numeric (1 to 31)	<i>Integrated cellular peripheral circuit time slot</i> Enter the number of the ICP circuit card time slot to which the trunk group member is assigned.

PMTYPE = IDT

If the value of field PMTYPE is IDT, datafill subfields IDTNO and SHELFSLT as described below.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	IDTNO	numeric (0 to 255)	<i>Integrated digital terminal number</i> Enter the number of the integrated digital terminal (IDT) to which the trunk group member is assigned.
	SHELFSLT	see subfields	<i>Integrated digital terminal shelf and slot</i> This subfield consists of refinements SHELF and SLOT.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	SHELF	numeric (1 to 31)	<i>Integrated digital terminal shelf number</i> Enter the number of the IDT shelf to which the trunk group member is assigned.
	SLOT	numeric (1 to 99)	<i>Integrated digital terminal slot number</i> Enter the number of the IDT slot number to which the trunk group is assigned.

PMTYPE = LGC

If the value of field PMTYPE is LGC, datafill subfields LGCNO, LGCKTNO, and LGCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	LGCNO	numeric (0 to 511)	<i>Line group controller number</i> Enter the number of the line group controller (LGC) to which the trunk group member is assigned.
	LGCKTNO	numeric (0 to 19)	<i>Line group controller circuit number</i> Enter the number of the LGC circuit card to which the trunk group member is assigned.
	LGCKTTS	numeric (1 to 24)	<i>Line group controller circuit time slot</i> Enter the number of the LGC circuit card time slot to which the trunk group member is assigned.

PMTYPE = LTC

If the value of field PMTYPE is LTC, datafill subfields LTCNO, LTCKTNO, and LTCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	LTCNO	numeric (0 to 511)	<i>Line trunk controller number</i> Enter the number of the line trunk controller (LTC) to which the trunk group member is assigned.
	LTCKTNO	numeric (0 to 19)	<i>Line trunk controller circuit number</i> Enter the number of the LTC circuit card to which the trunk group member is assigned.
	LTCKTTS	numeric (1 to 24)	<i>Line trunk controller circuit time slot</i> Enter the number of the LTC circuit card DS0 time slot to which the trunk group member is assigned.

PMTYPE = RCC

If the value of field PMTYPE is RCC, datafill subfields RCCNO, RCCCKTNO, and RCCCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RCCNO	numeric (0 to 511)	<i>Remote cluster controller equipment number</i> Enter the number of the remote cluster controller (RCC) equipment to which the trunk group member is assigned.
	RCCCKTNO	numeric (0 to 19)	<i>Remote cluster controller equipment circuit number</i> Enter the number of the RCC equipment circuit card to which the trunk group member is assigned.
	RCCCKTTS	numeric (1 to 24)	<i>Remote cluster controller equipment circuit time slot</i> Enter the number of the RCC equipment circuit card time slot to which the trunk group member is assigned.

PMTYPE = RCC2

If the value of field PMTYPE is RCC2, datafill subfields RCC2NO, RCC2CKTNO, and RCC2CKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RCC2NO	numeric (0 to 511)	<i>Compact remote cluster controller equipment number</i> Enter the number of the compact RCC (RCC2) equipment to which the trunk group member is assigned.
	RCC2CKTNO	numeric (0 to 47)	<i>Compact remote cluster controller equipment circuit number</i> Enter the number of the RCC2 equipment circuit card to which the trunk group member is assigned.
	RCC2CKTTS	numeric (1 to 24)	<i>Compact remote cluster controller equipment circuit time slot</i> Enter the number of the RCC2 equipment circuit card time slot to which the trunk group member is assigned.

PMTYPE = RC02

If the value of field PMTYPE is RC02, datafill subfields RCO2NO, RCO2CKTNO, and RCO2CKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RCO2NO	numeric (0 to 511)	<i>Offshore remote cluster controller equipment number</i> Enter the number of the compact RCC (RCC2) equipment to which the trunk group member is assigned.
	RCO2CKTNO	numeric (0 to 47)	<i>Offshore remote cluster controller equipment circuit number</i> Enter the number of the RCCO equipment circuit card to which the trunk group member is assigned.
	RCO2CKTTS	numeric (1 to 31)	<i>Offshore remote cluster controller equipment circuit time slot</i> Enter the number of the RCCO equipment circuit card time slot to which the trunk group member is assigned.

PMTYPE = RMSC

If the value of field PMTYPE is RMSC, datafill subfields RMSCNO, RMCKTNO, and RMCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	RMSCNO	numeric (0 to 511)	<i>Remote mobile switching center number</i> Enter the number of the remote mobile switching center (RMSC) module to which the trunk group member is assigned.
	RMCKTNO	numeric (0 to 19)	<i>Remote mobile switching center circuit number</i> Enter the number of the RMSC module circuit card to which the trunk group member is assigned.
	RMCKTTS	numeric (1 to 31)	<i>Remote mobile switching center circuit time slot</i> Enter the number of the RMSC equipment circuit card time slot to which the trunk group member is assigned.

PMTYPE = SMA

If the value of field PMTYPE is SMA, datafill subfields SMANO, SMACKTNO, and SMACKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SMANO	numeric (0 to 511)	<i>Subscriber carrier module-100s access mobile switching center number</i> Enter the number of the subscriber carrier module 100S access (SMA) mobile switching center module to which the trunk group member is assigned.
	SMACKTNO	numeric (0 to 19)	<i>Subscriber carrier module-100s access mobile switching center circuit number</i> Enter the number of the subscriber module access (SMA) mobile switching center module circuit card to which the trunk group member is assigned.
	SMACKTTS	numeric (1 to 24)	<i>Subscriber carrier module-100s access mobile switching center circuit time slot</i> Enter the number of the SMA mobile switching center module circuit card time slot to which the trunk group member is assigned.

PMTYPE = SMA2

If the value of field PMTYPE is SMA2, datafill subfields SMA2NO, SMA2CKTNO, and SMA2CKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SMA2NO	numeric (0 to 511)	<i>Expanded subscriber carrier module-100s access mobile switching center number</i> Enter the number of the expanded subscriber carrier module 100S access (SMA2) mobile switching center module to which the trunk group member is assigned.
	SMA2CKTNO	numeric (0 to 47)	<i>Expanded subscriber carrier module-100s access mobile switching center circuit number</i> Enter the number of the expanded subscriber module access (SMA2) mobile switching center module circuit card to which the trunk group member is assigned.
	SMA2CKTTS	numeric (1 to 24)	<i>Expanded subscriber carrier module-100s access mobile switching center circuit time slot</i> Enter the number of the SMA2 mobile switching center module circuit card time slot to which the trunk group member is assigned.

PMTYPE = SMU

If the value of field PMTYPE is SMU, datafill subfields SMUNO, SMUCKTNO, and SMUCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SMUNO	numeric (0 to 511)	<i>Subscriber carrier module-100s urban number</i> Enter the number of the subscriber carrier module 100 urban (SMU) to which the trunk group member is assigned.
	SMUCKTNO	numeric (0 to 19)	<i>Subscriber carrier module-100 urban circuit number</i> Enter the number of the SMU circuit card to which the trunk group member is assigned.
	SMUCKTTS	numeric (1 to 24)	<i>Subscriber carrier module-100 urban circuit time slot</i> Enter the number of the SMU circuit card time slot to which the trunk group member is assigned.

PMTYPE = SPM

If the value of field PMTYPE is SPM, datafill subfields SPMNO, SPMCKTNO, and SPMCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SPMNO	numeric (0 to 63)	<i>SPM number</i> Enter the number of the SPM to which the trunk group member is assigned.
	SPMCKTNO	numeric (0 to 181)	<i>SPM circuit number</i> Enter the number of the circuit card to which the trunk group member is assigned. The maximum number of circuits in an SPM is 84.
	SPMCKTTS	numeric (1 to 31)	<i>SPM circuit time slot</i> Enter the number of the PCM30 time slot to which the trunk group member is assigned. Enter the number (in the range 1 to 24) of the DS1 time slot to which the trunk group member is assigned. The DMS-100 MMP switch generates an error message if you attempt to enter data for a DS1 carrier with a time slot greater than 24.

PMTYPE = SRCC

If the value of field PMTYPE is SRCC, datafill subfields SRCCNO, SRCCCKTNO, and SRCCCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SRCCNO	numeric (0 to 511)	<i>SONET remote cluster controller number</i> Enter the number of the SONET remote cluster controller (SRCC) to which the trunk group member is assigned.
	SRCCCKTNO	numeric (0 to 47)	<i>SONET remote cluster controller circuit number</i> Enter the number of the SRCC circuit card to which the trunk group member is assigned.
	SRCCCKTTS	numeric (1 to 24)	<i>SONET remote cluster controller circuit time slot</i> Enter the number of the SRCC circuit card time slot to which the trunk group member is assigned.

PMTYPE = TMS

If the value of field PMTYPE is TMS, datafill subfields TMSNO, TMSCKTNO, and TMSCKTTS as described below.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	TMSNO	numeric (0 to 255)	<i>TMS number</i> Enter the number of the Traffic Operator Position System (TOPS) message switch (TMS) to which the trunk group member is assigned.
	TMSCKTNO	numeric (0 to 19)	<i>TMS circuit number</i> Enter the number of the TMS circuit card to which the trunk group member is assigned.
	TMSCKTTS	numeric (1 to 31)	<i>TMS circuit time slot</i> Enter the number of the TMS circuit card time slot to which the trunk group member is assigned.

Additional information

This section explains the error messages that can occur if you enter data incorrectly in table TRKMEM.

Error message table (Sheet 1 of 3)

Error message	Explanation and action
Delete the AINPRI entry before deleting TRKMEM.	An attempt was made to delete a tuple that is being referenced by table AINPRI.
DATA IN ASSOCIATED TABLES NOT DELETED YET	An attempt was made to enter data out of sequence. A tuple in table TRKMEM can be deleted, added, or changed only if the tuple is empty or has been deleted from table C7TRKMEM.

Error message table (Sheet 2 of 3)

Error message	Explanation and action
Failed to get AB bit resource. Increase count of AB bit resources for DSPs on this SPM in table MNCKTPAK.	An AB-bit resource is not available for the SPM DS1 carrier to be used by the given PTS trunk.
ERROR: The IPULSTYP field = nil_pulse_type in table TRKSGRP. Trunks datafilled on an SPM node cannot have a nil incoming pulse type.	An attempt was made to enter data for an SPM PTS trunk and the associated incoming pulse type (IPULSTYP) field in table TRKSGRP = NP (nil_pulse_type).
ERROR: This trunk has an associated IPULSTYP = MF in table TRKSGRP, but there are no MF resources provisioned in table MNCKTPAK.	An attempt was made to enter data for a PTS trunk whose associated incoming pulse type = MF, but there are no MF resources provisioned in table MNCKTPAK.
ERROR: This trunk has an associated IPULSTYP = DT in table TRKSGRP, but there are no DTMF resources provisioned in table MNCKTPAK.	An attempt was made to enter data for a PTS trunk whose associated incoming pulse type = DT, but there are no DTMF resources provisioned in table MNCKTPAK.
ERROR: Carrier does not support the time slot specified.	An attempt was made to enter data for a DS1 carrier with a time slot greater than 24 (time slots 25 to 31 are for PCM30 carriers only).

Error message table (Sheet 3 of 3)

Error message	Explanation and action
Table TRKOPTS DYNAMIC option is assigned. Manual operations are not allowed in Table TRKMEM.	No tuples of a dynamic trunk group can be manually added, changed, or removed from table TRKMEM. Trunk groups are defined as dynamic in table TRKOPTS by field OPTION = DYNAMIC. In order to make changes to trunk members of a dynamic trunk group, use the application-specific method, such as table IPINV for the TOPS OC application. The TOPS OC application automatically allocates 48 dynamic trunk members in table TRKMEM when an IP gateway node is defined in table IPINV.
ERROR: MG4000 does not support this GRPTYP in Table TRKGRP.	An attempt was made to provision an unsupported trunk type on a Multi-service Gateway 4000 (MG 4000) node. Refer to Multi-service Gateway 4000 Customer Information Guide the list of supported trunk types.

Error Messages specific to PRI with Semipermanent Packet

Use the following information for an explanation of the error messages associated with table TRKMEM.

Reason: While tables CLLI, TRKGRP, and TRKSGRP datafill, table SPECCONN does not datafill. When table TRKMEM datafills, table TRKMEM searches for a DS0 connection on table SPECCONN. If the DS0 connection is not present on table SPECCONN, the following error message displays.

DS-0 must be nailed up in SPECCONN for X25 PRA.

Action: Datafill table SPECCONN before table TRKMEM.

Reason: All the tables datafill for PRI with Semipermanent Packet LTID. An error message displays when operating company personnel try to

change the DS0, which maps to a PRI with Semipermanent Packet LTID.

Delete the LTMAP entry first.

Action: Delete the tuple in table LTMAP. Then try to change the tuple in table TRKMEM for the corresponding DS0.

Error Messages specific to the PRI-PRI Over Multiple XPMs feature

Error messages appear under the following conditions:

If the CLLI is not mapped in table LTMAP and the protocol variant is other than NTNI:

- adding a distributed B-channel displays a warning message as follows:

Warning: Members spanning different PMs are supported only for NTNI protocol variant

- changing a normal/distributed B-channel to distributed B-channel displays a warning message as follows:

Warning: Members spanning different PMs are supported only for NTNI protocol variant

If the CLLI is mapped in table LTMAP and the protocol variant is other than NTNI:

- adding a distributed B-channel is rejected and the switch displays the following error message:

ERROR: Members spanning different PMs are supported only for NTNI protocol variant

- changing a normal/distributed B-channel to distributed B-channel is rejected and the switch displays the following error message

ERROR: Members spanning different PMs are supported only for NTNI protocol variant

If the protocol variant is NTNI, adding a distributed B-channel in the 17th distributed XPM as an interface, the switch displays the following error message

ERROR: Distributed PRI interface can span only 16 XPMs

Error messages specific to the SPM DS-1 Assignment SOC Control feature

If the The upper limit of provisioned carriers with either PRI or ISUP/PTS is reached, the following error message is displayed:

```
ERROR: This office has reached its upper limit of
carriers provisioned with PRI (ISUP/PTS) trunks in
SOC option id SPMS0017 (SPMS0016)
```

Error messages specific to provision of ECAN resources

If an attempt is made to add a tuple to table TRKMEM for a non-BICC IT trunk, the attempt will be rejected with the following error message:

```
Internal ECSTAT in TABLE TRKSGRP is not supported for
this trunk type.
```

If both packet and legacy trunk members are datafilled in table TRKMEM in the same trunk subgroup, the following warning is generated:

```
WARNING: This trunk subgroup contains a mix of packet
and legacy members. Echo cancellor datafill applies
to all members and may be interpreted differently
based on the node type.
```

Translation verification

To verify datafill associated with a particular CLLI, use the CLLIREF tool to find associated tuples:

```
CLLIREF SEARCH <clli name>
```

Table history

SN07

Table TRKMEM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 12 of 12*, 297-8021-351.09.03.

TRKSGRP type C7UP

CCS7 User Part

If the type of pulsing is Common Channel Signaling 7 (CCS7), datafill table TRKSGRP as described in the following datafill table. This datafill also applies to DMS-300 CCITT No. 7 ISDN user part signaling (ISUP), the United Kingdom variant of national user part (BTUP), telephone user part (TUP), and telephone user part plus (TUPPLUS or TUP+) trunk groups.

Note: TUPE is renamed TUP_BLUE and C7TUP is renamed TUP_RED.

Datafill

The following table lists the datafill for table TRKSGRP type C7UP.

Field descriptions for conditional datafill (Sheet 1 of 11)

Field	Subfield	Entry	Explanation and action
SGRPKEY		see subfields	<i>Subgroup key</i> This field consists of subfields CLLI and SGRP.
	CLLI	alphanumeric (1 to 16 characters)	<i>Common language location identifier</i> Enter the common language location identifier (CLLI) code that is assigned in table CLLI to the trunk group to which the subgroup belongs.
	SGRP	numeric (0 or 1)	<i>Subgroup number</i> Enter the number assigned to the trunk subgroup.
CARDCODE		DS1SIG	<i>Card code</i> Enter DS1SIG.

Field descriptions for conditional datafill (Sheet 2 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR		see subfield	<i>Variable subgroup data</i> This field consists of subfields SIGDATA and DIR, and subfields specific to the value in subfield DIR.
	SIGDATA	C7UP	<i>Signaling data</i> Enter C7UP.
	DIR	IC, OG, or 2W	<i>Direction</i> Enter the trunk group direction: 2W (two-way), IC (incoming), or OG (outgoing). If the entry in field DIR is 2W, datafill subfields ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS, TMRNAME, and GLAREVAR. If the entry in field DIR is IC, datafill subfields ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS, and TMRNAME. If the entry in field DIR is OG, datafill subfields ESUPR, SAT, ECSELECT, ABCNTL, PROTOCOL, OPTIONS, and TMRNAME.

Field descriptions for conditional datafill (Sheet 3 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ESUPR	F, H, or N	<i>Echo suppressor</i> Enter F (full) if a full echo suppressor is located at the near end of the trunk group. The switch takes no action and is used for administrative purposes only. No echo suppressor is inserted in the connection. Enter H (half) if the trunk group has echo suppressors and a half echo suppressor is located at the near end of the trunk group. Enter N (no) if the trunk group has no echo suppressors located at the near end of the trunk group. Enter N if trunk group type is NFA. Enter N for DMS-300 CCITT No. 7 Signaling ISDN user part (ISUP) trunks and Austrian user part (ATUP) on DMS switches, because no echo suppressors are present.
	SAT	Y or N	<i>Satellite</i> Enter Y (yes) if trunk subgroup is configured to switch through satellite. Otherwise, enter N (no).
	ECSELECT	see subfield	<i>Echo canceler selector</i> This field consists of subfield ECSTAT.

Field descriptions for conditional datafill (Sheet 4 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ECSTAT	EXTERNAL, INNOTONE, INTERNAL, or UNEQ	<i>Echo canceler status</i> This field indicates the status of the echo canceler on the trunk subgroup. Enter EXTERNAL if echo cancellations on this trunk subgroup are performed by external echo canceler status equipment, and no call processing control is involved. Field ABCNTL must be checked. Enter INNOTONE if internal echo canceler status is used for the trunk subgroup, but the use of 2100-Hz tone disabling is turned off. This value is not allowed if the echo suppressor is instrumented on the trunk subgroup. Datafill subfield NSMATCH. Enter INTERNAL if the echo canceler status on this trunk subgroup is equipped on the NT6X50EC card in the digital trunk controller (DTC) frame, and is enabled by call processing if the call is not a data call. This value is not allowed if echo suppressor is instrumented on the trunk subgroup. Datafill subfields NSMATCH and AUTOON. Enter UNEQ (unequipped) if echo canceler status is not equipped on this trunk subgroup.

Field descriptions for conditional datafill (Sheet 5 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)			Enter UNEQ if the echo canceler status remains OFF. Enter UNEQ for DMS-300 CCITT No. 7 Signaling ISUP trunks, because no echo suppressors are present.
	NSMATCH	Y or N	<i>Noise match control</i> If the entry in subfield ECSTAT is INNOTONE or INTERNAL, datafill this field. Enter Y to show that noise matching is ON, indicating that background noise levels are maintained if internal echo canceler status is actively cancelling echoes. Enter N to indicate that background noise is not maintained if internal echo canceler status is actively cancelling echoes. The default is N.

Field descriptions for conditional datafill (Sheet 6 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	AUTOON	Y or N	<i>Auto re-enable control</i> If the entry in subfield ECSTAT is INTERNAL, datafill this field. Enter Y to show that auto re-enable is ON. The echo canceler status is automatically turned on after the 2100-Hz tone is removed upon absence of energy. Enter N to indicate that the echo canceler status is not automatically turned on after the 2100-Hz tone control is removed. This option is similar to the END OF CALL option for tone disablers in external echo canceler status. The default is Y.

Field descriptions for conditional datafill (Sheet 7 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ABCNTL	ACTIVEA or NONE	<i>A-bit control</i> Enter ACTIVEA if A-bit signaling as set by office parameters takes place. The office parameters are ECHO_CANCELER STATUS_CONTROL_FORWARD and ECHO_CANCELER STATUS_CONTROL_BACKWARD in table OFCVAR. Enter NONE if this field is not used by call processing control software. FOR C7UP signaling selector in trunk subgroup, field ABCNTL replaces field XFERRAT. If the entry in field XFERRAT was 56 kbit/s, enter ACTIVEA in field ABCNTL. If the entry in field XFERRAT was 64 kbit/s, enter NONE in field ABCNTL. Other datafill conditions can still affect A-bit control if this field is set to NONE. The other datafill conditions are as follows: If the value of the subfield ECSTAT is EXTERNAL, A-bit signaling takes place regardless of the value of field ABCNTL. If the value of the field PRODUCT in table ADJNODE is ESS1A, A-bits are set to an idle condition.

Field descriptions for conditional datafill (Sheet 8 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)			The value of field ADJNODE is used as a key into table ADJNODE.
Note: The following information explains C7UP data, depending on the combined datafill present in subfield ECSTAT and field ABCNTL.			
ECSTAT	ABCNTL	Comments	
UNEQ	ACTIVEA		A-bit signaling as set by office parameters
EXTERNAL	ACTIVEA		ECHO_CANCELLER_CONTROL_FORWARD
INTERNAL	ACTIVEA		ECHO_CANCELLER_CONTROL_BACKWARD
INNOTONE	ACTIVEA		
INTERNAL	NONE		A-bit signaling as set by the above office parameters, regardless of the value of field ABCNTL. This applies only to the DMS-250 switch.
UNEQ INTERNAL	NONENONE		Field ABCNTL is not used by call processing control software, and the above office parameters are not used.
INNOTONE	NONE		Field ACNTL is not used by call processing control software, and the above office parameters are not used. The entry in table ADJNODE, field PRODUCT is ESS1A. A-bits are set to an idle condition. The value of field ADJNODE in table TRKSGRP is used as a key into table ADJNODE.

Field descriptions for conditional datafill (Sheet 9 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	PROTOCOL	AISUP, ATUP, BTUP, CCITT, CTUP, GSM, GWIBN7, IBNISUP, JPNISUP, NCCI, Q764, Q767, RBTUP, TUPE, TUPPLUS, TUP_BLUE, TUP_RED, or UCP	<i>Signaling protocol type</i> Enter the required signaling protocol and datafill any applicable subfields as described in sections “DIR = IC, 2W, or OG and PROTOCOL = AISUP, CCITT, NCCI, Q764, TUPPLUS, TUP_BLUE or UCP” to section “DIR = 2W or OG, and PROTOCOL = BTUP”, then continue datafill with field OPTIONS. The applicability of subfields CONTCHK, COTREQ, ADJNODE, ACO, OVLP, VARIANT, VERSION, CBI, and ALTRTE, which depend on the value of fields DIR and PROTOCOL, is outlined prior to the datafill description for each subfield. External protocol AISUP is used by Australian switching units. Signaling protocol ATUP is used by Australian switching units. Signaling protocols BTUP, Q764, Q767, and TUPPLUS are used by switching units in the United Kingdom.

Field descriptions for conditional datafill (Sheet 10 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	PROTOCOL (continued)		When field PROTOCOL is datafilled Q767 (ETSI ISUP), datafill subfield VERSION with BLUE, WHITE, MTX_BLUE, MTX_WHITE, AVENTEL, GSM_BLUE, GSM_WHITE, 100_BLUE, 100_WHITE, or 100_EIV3. Note: The relevant trunk or PM must be returned to service to make this change effective. Signaling protocol CCITT is used by international switching units. CTUP is not a valid entry from BCS33 forward. Enter TUP_RED instead. Signaling protocol CTUP is used to specify the CTUP trunk for the switching units in China CTUP (Chinese Telephone User Part) and is supported on the DMS-100MMP and CS2KC. GSM (group special mobile) is based on the Q931 external protocol. External protocol GWIBN7 is used by gateway DMS-300.

Field descriptions for conditional datafill (Sheet 11 of 11)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)			Signaling protocol JPNISUP is used by switching units in Japan. Protocol NCCI allows the datafill of New Common Carrier Interface No. 7 Signaling protocol trunks. Signaling protocol Q764 is used by North American and United Kingdom switching units. Signaling protocol Q767 is used by North American, United Kingdom, and Australian switching units. Signaling protocol Q767 is used by European Telecommunications Standards Institute (ETSI) integrated services digital network (ISDN) European DMS-100 switches. TUPE is not a valid entry from BCS33 forward. Enter TUP_BLUE instead. Signaling protocol UCP provides ISUP connectivity between the DMS-250 switch and the MSL-100 switching units. Note: Protocols ATUP, BTUP, CCITT, IBNISUP, Q764, Q767, TUPPLUS, TUP_RED, and UCP can be used on DMS-300 switching units.

DIR = IC, 2W, or OG and PROTOCOL = AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP

DIR = 2W and PROTOCOL = TUP_RED

DIR = OG and PROTOCOL = ATUP or TUP_RED

Datafill subfield CONTCHK as described in the following table if one of the following conditions is true:

- The entry in field DIR is IC and the entry in field PROTOCOL is AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP.
- The entry in field DIR is 2W and the entry in field PROTOCOL is AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.
- The entry in field DIR is OG and the entry in field PROTOCOL is AISUP, ATUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CONTCHK	LOOPAROUN D, THRH, THRL, TLRH, or 2W2W	<i>Continuity check</i> Datafill this field to specify the type of continuity test to be performed if such a test is requested. Enter one of the following values: • LOOPAROUND • THRH - transmit high and receive high • THRL - transmit high and receive low • TLRH - transmit low and receive high • 2W2W - two-wire-two-way

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CONTCHK (continued)		If the entry in field PROTOCOL is ATUP or Q764, Q767, it is possible to datafill this field using the 2W2W entry. Because the signaling path is not the same as the voice path, the quality of the voice path on analog trunks must be checked. The voice path on a digital trunk is not a problem due to the internal carrier maintenance. The continuity check is done by connecting a tone and a receiver to the originating end and causing the tone to be looped back at the terminating end. The originating end checks the validity of the tone and, if the tone passes, the voice path is connected. If not, another attempt on another trunk is made. The default value for this field is THRH. The tone frequencies are as follows: High tone = 2000 Hz, Low tone = 1780 HZ Note: Continuity checking on ISDN user part (ISUP) trunks causes longer call setup times.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CONTCHK (continued)		The following types of continuity checks are available: LOOPAROUND - This test is used for an incoming four-wire continuity check, and is only acceptable for incoming trunks. Use this test only if the far end switching unit is four-wire. This entry indicates that the trunks are looped instead of each transmitting its own tone. THRH - Transmit high tone, receive high tone. This test is used for an outgoing four-wire continuity check only, and is only acceptable for outgoing and two-way trunks. It can be used if the far end switching unit is four-wire. If datafilled for a two-way trunk on which an incoming continuity test is being performed, the trunk loops the tone. Use this test if connected to a four-wire switching unit.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CONTCHK (continued)		THRL - Transmit high tone, receive low tone. This test is used for an outgoing continuity check only, and is only acceptable for outgoing or two-way trunks. It can be used only if the far end switching unit is two-wire. This option is not allowable for a Bellcore switching unit but can still be datafilled. If this option is datafilled on a two-way trunk group, and an incoming continuity test is being performed, the trunk monitors for the reception of the low tone before transmitting the high tone. TLRH - Transmit low tone, receive high tone. This test is used for an outgoing continuity check only, and is acceptable only for outgoing or two-way trunks. Use this test only if the far end switching unit is two-wire. If this option is datafilled on a two-way trunk group, and an incoming continuity test is being performed, the trunk monitors for the reception of the high tone before transmitting the low tone.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CONTCHK (continued)		2W2W - Two-wire-two-way. This test is allowed only on a two-way trunk subgroup. If this value is datafilled for a two-way trunk subgroup, the DMS switch performs a continuity test on the two-way trunk subgroup as if the DMS were a two-wire machine. If this value is specified for non two-way trunk subgroup, an error message is displayed. Note: The 2W2W entry is supported only for Bellcore ISUP (datafilled as ATUP or Q764, Q767, in field PROTOCOL).

DIR = 2W or OG, and PROTOCOL = AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP

DIR = OG and PROTOCOL = ATUP

Datafill subfield COTREQ as described in the following table if one of the following conditions is true:

- The entry in field DIR is 2W and the entry in field PROTOCOL is AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.
- The entry in field DIR is OG and the entry in field PROTOCOL is AISUP, ATUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	COTREQ	numeric (0 to 100) or blank	<i>Continuity test required</i> The continuity check indicator is determined by datafill in table TRKSGRP. Because continuity is not supported for AISUP trunks, a value other than 0 (zero) is not allowed if datafilling field COTREQ for AISUP trunks. If the trunk direction is outgoing or two-way, enter the percentage of calls on each trunk in this subgroup that requests a continuity test be performed during call setup. If the trunk direction is incoming, leave this field blank. If a continuity test is performed during a call, a significant time delay is made on the ISUP call (60 ms to 3 s). This is caused by the delay encountered at the near end waiting for the continuity to pass and the delay at the far end awaiting the reception of the continuity message. These tests are mainly used for commissioning and thereafter are used on a small sampling of the trunks.

DIR = IC, 2W, or OG, and PROTOCOL = AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP

DIR = 2W and PROTOCOL = TUP_RED

DIR = OG and PROTOCOL = ATUP or TUP_RED

Datafill subfield ADJNODE as described in the following table if one of the following conditions is true:

- The entry in field DIR is IC and the entry in field PROTOCOL is AISUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP.
- The entry in field DIR is 2W and the entry in field PROTOCOL is AISUP, ATUP, NCCI, CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.
- The entry in field DIR is OG and the entry in field PROTOCOL is AISUP, ATUP, CCITT, NCCI, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP.



CAUTION

Risk of service interruption

If DIR = IC, 2W, or OG, PROTOCOL = Q767 and VERSION = 100_WHITE, datafill field PRODUCT in table ADJNODE as OTHER.



CAUTION

Risk of service interruption

For MMP13, if DIR = IC, 2W, or OG and PROTOCOL = Q767, datafill field PRODUCT in table ADJNODE as DMS_ETSISUP.

Q767 trunks must reference a separate table ADJNODE entry to Q764 trunks.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ADJNODE	alphanumeric (1 to 12 characters) or NIL	<i>Adjacent node</i> Enter the 1- to 12-character name, previously datafilled as the key in table ADJNODE. Table ADJNODE also contains the adjacent node data used for this trunk subgroup. If the reference to table ADJNODE does not apply, enter NIL. Note: All 2W, IC, and OG CCITT ISUP, blue book TUP, and TUPPLUS trunks must reference a tuple in table ADJNODE to determine whether group unblocking messages can be sent to the far-end office.

DIR = IC, 2W, or OG, and PROTOCOL = AISUP

Datafill subfield VERSION as described in the following table if the entry in field DIR is IC, 2W, or OG, and the entry in field PROTOCOL is AISUP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	VERSION	AUST, INTRCONN, PTUP, or MISUP	<i>Version</i> This field determines the protocol version of the Australian ISUP (AISUP) signaling system. Enter AUST to specify that the signaling protocol is Australian ISUP. Enter INTRCONN to specify that the signaling protocol is Interconnect ISUP (I-ISUP). Enter PTUP to specify that the signaling protocol is Philippines telephone user part (PTUP). Enter MISUP to specify that the signaling protocol is Malaysian ISUP (MISUP).

DIR = 2W or OG, and PROTOCOL = CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP

Datafill subfield ACO as described in the following table if one of the following conditions is true:

- The entry in field DIR is 2W and the entry in field PROTOCOL is CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP.
- The entry in field DIR is OG and the entry in field PROTOCOL is CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, or UCP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ACO	Y or N	<i>Answer charge</i> This field determines if an answer charge is applied on BTUP to ISUP calls. Enter Y if the type of answer sent by the DMS switch is always chargeable. Enter N if the type of answer is not modified and is therefore mapped from the BTUP answer message (ANM).

DIR = 2W or OG and PROTOCOL = CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP

DIR = OG and PROTOCOL = ATUP

Datafill subfield OVLP as described in the following table if one of the following conditions is true:

- The entry in field DIR is 2W and the entry in field PROTOCOL is CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.
- The entry in field DIR is OG and the entry in field PROTOCOL is ATUP, CCITT, Q764, Q767, TUPPLUS, TUP_BLUE, TUP_RED, or UCP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OVLP	Y or N	<i>Overlap signaling</i> This field is for use with the DMS-300 switch. Enter Y if overlap signaling is permitted. Enter N if digits are outputted en bloc, that is, outputting does not begin until all digits have been received from the incoming trunk. The default is N.

DIR = IC, 2W or OG, and PROTOCOL = CCITT or Q767

Datafill subfield VARIANT as described in the following table if the entry in field DIR is IC, 2W, or OG, and the entry in field PROTOCOL is CCITT or Q767.



CAUTION

Risk of XPM outage

VARIANT entries V15 to V20 are for future use. Do not use these entries. Use of these entries causes XPM outages.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
SGRPVAR	VARIANT	BASE, GERMANY, FRANCE, SPAIN, BELGIUM, ITALY, ISRAEL, PNG, SPARE, UK, CHILE, COSTA_RICA, NORWAY, NEW_ZEALAND, ETHIOPIA, GEORGIA, MYANMAR, VIETNAM, ISDEFO, SAUDI, ACIF_AUSTRALIA, BRAZIL, MEXICO, TURKEY, PORTUGAL, DENMARK, SPIROU, SWEDEN, AUSTRIA, EGYPT, JPN_INTERCONN, PERU, ARGENTINA, POLAND, CZECH, HUNGARY, CA30_AUSTRALIA, HONGKONG, TAIWAN, SINGAPORE, CHINA, BANGLADESH, RUSSIA, GISUP, TISUP, HONDURAS, MOROCCO	<i>Variation</i> This field is used if the user part of ISUP is datafilled against the trunk subgroup to identify the variation of ISUP. The default is BASE. Note 1: Entries V15 to V20 are for future use. Do not use these entries. Use of these entries causes XPM outages. Note 2: The entry BRAZIL indicates Brazilian TUP.

DIR = IC, 2W or OG, and PROTOCOL = Q767 (ETSI ISUP) or NCCI

Datafill subfield VERSION as described in the following table if the entry in field DIR is IC, 2W, or OG, and the entry in field PROTOCOL is Q767 or NCCI.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	VERSION	V1 or V2	<i>Version</i> Enter V1 to specify that the signaling protocol is NCCI No. 7 Version 1.
	VERSION	BLUE, WHITE, MTX_BLUE, MTX_WHITE, AVENTEL, GSM_BLUE, GSM_WHITE, 100_BLUE, 100_WHITE, or 100_EIV3	Enter BLUE, WHITE, MTX_BLUE, MTX_WHITE, AVENTEL, GSM_BLUE, GSM_WHITE, 100_BLUE, 100_WHITE, or 100_EIV3 for ETSI ISDN trunks. Note: If this field is datafilled as 100_WHITE, field PRODUCT in the appropriate tuple in table ADJNODE must be datafilled as OTHER.

DIR = IC, 2W or OG, and PROTOCOL = RBTUP

Datafill subfield VERSION as described in the following table if the entry in field DIR is IC, 2W, or OG, and the entry in field PROTOCOL is RBTUP.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	VERSION	DEFAULT, BRAZIL, SSUTR2	<i>Version</i> Enter DEFAULT to indicate a standard Redbook telephone user part (RTUP). Enter SSUTR2 to indicate French telephone user part (FTUP).

DIR = 2W or OG, and PROTOCOL = BTUP

If the entry in field PROTOCOL is BTUP, datafill fields CBI and ALTRTE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CBI	Y or N	<i>Cross border indicator</i> Enter Y if the call is traversing the boundary between two networks. Otherwise, enter N. Note: Datafilling this option has no effect on the PNTK BTUP Version 2 functionality in the European market for releases EUR003 and up. Option CBI is replaced with the blocking indicator (BI) parameter in the initial address message (IAM) and final address message (IFAM).
	ALTRTE	Y or N	<i>Alternate routing</i> Enter Y if the succeeding switching unit is to attempt to re-route calls upon encountering congestion in a national network. Otherwise, enter N.

DIR = IC, 2W, or OG

If the entry in field DIR is 2W, IC, or OG, datafill subfields OPTIONS and TMRNAME as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTIONS	see subfield	<i>Options</i> This field consists of subfield OPTION.
	OPTION	ACO, ADMIN_CLI, ATPINDEX, BLOCK CCTOBDY, CRGDELAY, DCME, DEFITC, NO_HOP MBG, Q33SUP, RCGLI, REMDISP, TR2COL, VACT	<i>Option</i> Enter up to seven of the following options. If the entry in field PROTOCOL is BTUP, Q764, Q767, or TUPPLUS, enter ACO. Enter ADMIN_CLI to activate the request calling line identification (CLI) functionality in the European market. The ADMIN_CLI option allows the RCGLI option to override the BI parameter. For the ISUP access transport parameter information elements table index, enter ATPINDEX and datafill subfield ATPIDX. Enter BLOCK to block ISUP traffic rather than re-route during SS7 congestion.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION (continued)		For the call completion trunk optimization (CCTO) boundary option, enter CCTOBDY. This option, which can only be added to incoming or two-way ISUP trunks, specifies that the CCTO request from another office, in the form of an ISUP release message containing a service activation parameter, will not be passed on to the next office in the chain. Instead, the request will be processed by the current office. An incoming trunk with option CCTOBDY acts as the boundary for any backward traveling CCTO requests. If table TRKSGRP is datafilled as an NCCI No. 7 trunk, enter CRGDELAY to determine the charge message delay and datafill subfield INTERVAL. If the entry in field DIR is 2W or OG, enter DCME to indicate that all members of this trunk subgroup must terminate on a single enhanced digital carrier module (DCME). DCME can only be added or removed if there are no trunk members datafilled against the trunk group.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION (continued)		To specify the default information transfer capability option for ISUP trunks, enter DEFITC and datafill subfield INFO_TRANSFER_CAPABILITY. Enter the NO_HOP option to indicate that for this trunk subgroup, the hop counter (HC) parameter is not included in IAMs originating from this switch (outgoing direction). The HC value of an incoming IAM is not decremented if the IAM is being tandemed using an outgoing trunk subgroup with the NO_HOP option datafilled (the HC parameter is passed transparently). When the HC functionality is activated (by using a SOC keycode), it is activated for the entire exchange. It can be suppressed per trunk subgroup basis by adding the keyword NO_HOP to the corresponding trunk subgroup. This option is only valid for Q764, Q767 trunks in conjunction with a two-way (2W) or outgoing (OG) configuration. For Q767, the version must be 100_WHITE to support ETSI ISUP V2 trunks.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION (continued)		If the entry in field PROTOCOL is CCITT, ISUP, BTUP, TUPPLUS, or TUP_BLUE, enter Q33SUP to show Q33 failures on a trunk-by-trunk basis. This option indicates that circuit supervision is supported on all members of the trunk group. For multi-location business groups, enter MBG and datafill subfield MBG_PARAMETER. Note: North America does not support the MBG option. The Q33SUP option can be changed only if there are no trunk members datafilled in table TRKMEM against the trunk subgroup. Otherwise, the following error message is displayed: CANNOT CHANGE Q33 OPTION WITH TRUNKS DATAFILLED IN TABLE TRKMEM

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION (continued)		The Q33 timer must be datafilled in table LNSIGSYS before the Q33SUP option is datafilled in table TRKSGRP; otherwise, the following error message is displayed: Q33 TIMER NOT DATAFILLED IN TABLE LNSIGSYS Enter RCGLI to initiate a CLI request for BTUP-to-ISUP calls in the European market. Datafilling the RCGLI option requests a CLI only if the blocking indicator (BI) parameter in the initial address message (IAM)-initial and final address message (IFAM) is set to allow CLI requests. For calls that terminate to a Networked automatic call distribution (NACD) group, the CLI is requested regardless of the datafill in option RCGLI. If the trunk group is IBN or AUTOVON ISUP with signaling type C7UP datafilled in table TRKSGRP,

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTION (continued)		Enter REMDISP. This option provides IBN and AUTOVON ISUP trunks with the ability to include network CLLIDs in the initial address message (IAM) on calls originating from these trunks. The network CLLI ID (NETCLLID) ensures that unique CLLIs will exist across the network by mapping a local CLLI ID to a network CLLI ID. The NETCLLID will be added only to the IAM when the originator is a trunk and table NTWKCLLI is datafilled for the originator's trunk group CLLI. For vacant treatment, enter VACT and datafill subfield HANDLING.
	ATPIDX	numeric (0 to 15)	<i>ISUP access transport parameter information elements table index</i> If the option in field OPTION is ATPINDEX, datafill this field. Enter a number to index table ATPIES. Table ATPIES indicates which information elements are discarded in the received access transport parameter.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	INTERVAL	numeric (0 to 100)	<i>Delay interval</i> If the entry in field OPTION is CRGDELAY, datafill this field. Enter the value that represents the number of 10 ms increments. The time delay is the interval after transmitting the NCCI No. 7 CRG message before the next NCCI No. 7 message is transmitted if the call routes to treatment on NCCI No. 7 IAM receipt. The range of the delay interval following the CRG message is from 0 to 1. Enter 0 (zero) for no delay. The default is 50 for a time delay interval of 500 ms.
	INFO_TRANSFER_CAPABILITY	SPEECH or 3_1KHZ	<i>Handling</i> If the entry in field OPTION is DEFITC, datafill this field to specify a value that will override the value of office parameter DEFAULT_BEARER_CAPABILITY in table OFCENG. This option can be assigned only to outgoing or two-way ISUP trunks.
	HANDLING	GIVETRMT, RLSANDLG, or SENDRLS	<i>Handling</i> If the entry in field OPTION is VACT, datafill this field.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	MBG_PARAMETER	NONE NETINFO NETINFO2	<i>MBG parameter</i> If the value in field OPTION is MBG, datafill this field. If a NETINFO parameter needs to be generated on an outgoing IBN trunk, enter NETINFO. Otherwise, enter NONE. If the latest values of CUSTGRP and NCOS need to be generated, enter NETINFO2. If the NETINFO2 entry is not datafilled, the last redirecting line values of CUSTGRP and NCOS are sent in the IAM in the forward direction
	TMRNAME	alphanumeric (1 to 16 characters) or NIL	<i>Timer name</i> Enter the timer name previously datafilled in table C7UPTMR, which is the key to the tuple where the call processing and trunk maintenance timers for the trunk group are found. For each entry in table TRKSGRP, field TMRNAME must be a corresponding tuple with the same TMRKEY in table C7UPTMR. Enter NIL if the call processing and trunk maintenance datafillable timers are hard coded.

DIR = 2W

If the entry in field DIR is 2W, datafill subfield GLARE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	GLAREVAR	see subfield	<i>Variable glare control data</i> If the entry in field DIR is 2W, datafill this field. This field consists of subfield GLARETYP.
	GLARETYP	CIC or SGRPYLD	<i>Glare type</i> If the entry in field DIR is 2W, datafill this subfield. Enter CIC (circuit identification code) if glare is resolved using CICs. For example, given two switching units connected with two-way trunks, if glare occurs, the switching unit with the higher originating point code is granted control of all the trunks with even-numbered CICs. This other switching unit, with the lower originating point code, is granted control of all the trunks with odd-numbered CICs.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
			Enter SGRPYLD (subgroup yield) if glare is resolved on a trunk subgroup basis. For example, the switching unit administrators agree among themselves which trunk subgroups they are going to control and which they are going to yield. This is done on a trunk subgroup basis. The subgroup glare resolution method is available only if office parameter ISUP_SUBGRP_GLARE_AVAILABLE in table OFCOPT is set to Y. Note: If subfield GLARETYP is new, CIC is the default value since it retains the same glare yield method that was in effect before this field was added.
	GLAREYLD	Y or N	<i>Glare yield</i> If the entry in subfield GLARETYP is SGRPYLD, datafill this field. If the switching unit is to yield control of the trunks in this subgroup in a glare condition, enter Y. Otherwise, enter N. The far end office must enter N for this subfield correspondingly.

Additional information

Error and warning messages

Error and warning messages are as follows.

Notification, warning, and error messages for table TRKSGRP

Message	Description
Table TRKOPTS DYNAMIC option is assigned. Only trunk subgroup 0 is allowed.	Only one subgroup can be defined for dynamic trunk groups. Use the existing subgroup or add a subgroup for a different trunk group.
Table TRKOPTS DYNAMIC option is assigned. The PROTOCOL must be Q764.	The table TRKSGRP signaling data must be C7UP and the PROTOCOL must be Q764. Do not change PROTOCOL from Q764.
Table TRKOPTS DYNAMIC option is assigned. Continuity checking is not supported; COTREQ must be 0.	Table TRKSGRP field COTREQ must be 0. The COTREQ field is available only on outgoing and two-way trunks. Do not change COTREQ from 0.
Table TRKOPTS DYNAMIC OC option is assigned. The trunk group direction must be OG or 2W.	For the OC-IP application, TRKSGRP field DIR must be IC or OG, or the TRKOPTS DYNAMIC option can not exist. Do not change DIR from IC or OG.
Table TRKOPTS DYNAMIC OC option is assigned. No options are allowed in Table TRKSGRP.	No TRKSGRP options can be entered in table TRKSGRP for a dynamic trunking subgroup. Select another trunk subgroup that does not have any options.
Table TRKOPTS DYNAMIC OC option is assigned. Tuples for this CLLI must be deleted from Table TRKOPTS.	Table TRKOPTS has tuples for the same CLLI that must be deleted before the associated tuple in table TRKSGRP can be deleted.

Notification, warning, and error messages for table TRKSGRP

Message	Description
Table TRKOPTS DYNAMIC OC option is assigned. The SGRPVAR must be C7UP.	The DYNAMIC OC option in table TRKOPTS is only supported for an associated tuple in table TRKSGRP of type C7UP.
Table TRKOPTS DYNAMIC OC option is assigned. The glare method must be SGRPYLD N.	The DYNAMIC OC option in table TRKOPTS requires that the associated tuple in table TRKSGRP with field GLARETYP = SGRPYLD must have subfield GLAREYD = N.

Table history**ISN07**

Added new C7UP (Q767) variant HONDURAS, to support activity A00003410.

Added new C7UP (Q767) variant MOROCCO, to support activity A00004563.

ISN06 (TDM)

Added new CCITT (Q767) variant RUSSIA, to support activity A00000937.

Added CTUP to field PROTOCOL specifying CTUP trunk to support activity 89008212.

ISN04 (TDM)

Added CHINA to subfield VARIANT to support activity 59036494. The DMS-100MMP China ISUP feature provides the capability of datafilling the China variant for ISUP trunks.

TRKSGRP type ISDN

ISDN

If type of pulsing is Integrated Services Digital Network (ISDN), or if the trunk group type in table TRKGRP is primary rate interface (PRI), enter the data for table TRKSGRP.

Datafill

The following table lists the datafill for table TRKSGRP type ISDN.

Field descriptions (Sheet 1 of 13)

Field	Subfield	Entry	Explanation and action
SGRPKEY		see subfields	<i>Subgroup key</i> This field consists of subfields CLLI and SGRP.
	CLLI	alphanumeric(1 to 16 characters)	<i>Common language location identifier</i> Enter the code that is assigned in table CLLI to the trunk group to which the subgroup belongs. Note: With CLLI datafilled in table IPINV, there can be no changes to table TRKSGRP.
	SGRP	0	<i>Subgroup number</i> Enter the number assigned to the trunk subgroup. Only subgroup 0 (zero) is valid for ISDN signaling.
CARDCODE		DS1SIG	<i>Card code</i> Enter DS1SIG.

Field descriptions (Sheet 2 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR		see subfield	<i>Variable subgroup data</i> This field consists of subfield SIGDATA and subfields PSPDSEIZ, PARTDIAL, VERSION, CRLLENGTH, BCHNEG, BCHGLARE, IFCLASS, CONFIG, LOCATION, SAT, ECSELECT, TRKGRDTM, L1FLAGS, PARMNAME, DCHNL, and DCHBCKUP. Note: Primary and backup D-channels on PRI trunks must have the same datafill. Feature PRI NA008 MTC (AF6860) allows independent provisioning of the backup D-channel on ISDN PRI trunks. If any SGRPVAR variables on the backup D-channel are datafilled differently than the primary D-channels, the following error message is displayed and static data will not be loaded. ERROR: ONLY BACKUP D-CHANNEL DATAFILL ALLOWED. TO CHANGE OTHER DATA D-CHANNEL MUST BE INB.
	SIGDATA	ISDN	<i>Signaling data</i> Enter ISDN for ISDN type trunks.
	PSPDSEIZ	numeric (2 to 30)	<i>Permanent signal or partial dial on seizure timing</i> Enter the time, in seconds, that the trunk waits for reception of the first digit.

Field descriptions (Sheet 3 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	PARTDIAL	numeric (2 to 30)	<i>Partial dial timing</i> Enter the time, in seconds, that the trunk has to wait for reception of each digit, excluding the first digit.
	VERSION	87Q931 ANSI607 P41449 UNISPEC20 or 96ISOQSIG	<i>Protocol version</i> Enter the version of the protocol. Value for all PRI variants. Value for all QSIG variants.
	CRLENGTH	numeric (1 or 2)	<i>Call reference length</i> Enter the number of octets in the call reference.
	BCHNEG	Y or N	<i>B-channel negotiation</i> Enter Y (yes) if B-channel negotiation is allowed. Otherwise, enter N (no).
	BCHGLARE	YIELD or STAND	<i>B-channel glare</i> Enter YIELD if the B-channel is used in set-up messages, simultaneously in both directions, or if the call must be taken down by this switch. Enter STAND if the switch must wait for the other switch to yield.

Field descriptions (Sheet 4 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	IFCLASS	NETWORK or USER	<i>Interface class</i> Enter NETWORK if it is the network end. If the datafilled protocol in table LTDEF is INS500, then the interface class must be NETWORK. For the National ISDN primary rate interface (NIPRI) variant only the value NETWORK can be datafilled. Enter USER if the PRA link is considered the user end of the protocol. If the operating company personnel attempts to enter the data for the interface class as USER and the protocol in table ADJNODE is datafilled as INS1500, then the following error message is displayed: USER IFCLASS IS NOT SUPPORTED ON INS1500. If you enter the data for the interface class as USER, and the ECT option is selected in table LTDATA, the following error message is displayed: Field IFCLASS must be set to NETWORK in table TRKSGRP or ECT must be removed from table LTDATA.

Field descriptions (Sheet 5 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	CONFIG	PT_MLT_PT or PT_PT	<i>Configuration</i> If broadcast procedures are to be used on this interface, enter PT_MLT_PT (point-to-multipoint). Otherwise, enter PT_PT (point-to-point).
	LOCATION	LOCALEO PVTNET USER or LOC_MAP	<i>Location</i> Enter the location to be used if creating CAUSE information elements. The following CAUSE information elements are contained in release messages that map to a specific treatment: • LOCALEO - local end office (public network) location • PVTNET - private network location • USER - user location • LOC_MAP - location map
	SAT	Y or N	<i>Satellite</i> Enter Y (yes) if the trunk subgroup is configured to switch by satellite. Otherwise, enter N (no).
	ECSELECT	see subfield	<i>Echo canceler selector</i> This field consists of subfield ECSTAT.

Field descriptions (Sheet 6 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ECSTAT	EXTERNAL INNOTONE INTERNAL or UNEQ	<i>Echo canceler status</i> This field indicates the status of the echo canceler status on the trunk subgroup. Enter EXTERNAL if echo cancellations on this trunk subgroup are performed by external echo canceler status equipment, and no call processing control is involved. Field ABCNTL must be checked. Enter INNOTONE if internal echo canceler status are used for the trunk subgroup, but the use of 2100-Hz tone disabling is turned off. This value is not allowed if the echo suppressor is instrumented on the trunk subgroup. Enter the data for refinement NSMATCH.

Field descriptions (Sheet 7 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ECSTAT (continued)		Enter INTERNAL if the echo canceler status on this trunk subgroup are equipped on the NT6X50EC card in the digital trunk controller (DTC) frame, and are enabled by call processing if the call is not a data call. This value is not allowed if echo suppressor is instrumented on the trunk subgroup. Enter the data for subfields NSMATCH and AUTOON. Enter UNEQ (unequipped) if echo canceler status is not equipped on this trunk subgroup. Enter UNEQ if the echo canceler status remains OFF.
	NSMATCH	Y or N	<i>Noise match control</i> If the entry in subfield ECSTAT is INNOTONE or INTERNAL, enter the data for this field. Enter Y to show that noise matching is ON, indicating that background noise levels are maintained if internal echo canceler status is actively cancelling echoes. Enter N to indicate that background noise is not maintained if internal echo canceler status is actively cancelling echoes. The default is N.

Field descriptions (Sheet 8 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	AUTOON	Y or N	<i>Auto reenable control</i> If the entry in subfield ECSTAT is INTERNAL, enter the data for this field. Enter Y to show that auto reenable is ON, the echo canceler status is automatically turned on after the 2100-Hz tone is removed upon absence of energy. Enter N to indicate that the echo canceler status is not automatically turned on after the 2100-Hz tone control is removed. This option is similar to the END OF CALL option for tone disablers in external echo canceler status. The default is Y.

Field descriptions (Sheet 9 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	TRKGRDTM	numeric (1 to 255)	<i>Trunk lock-out timeout</i> If the entry in field DIR is OG, enter the time, in 10-ms intervals, that the trunk waits to receive on-hook from the far-end before reporting lock-out on the trunk. The timer begins on sending an on-hook signal to the far-end. If a new outgoing call is attempted on a trunk before on-hook is received from the far-end, the peripheral will delay outgoing trunk seizure until on-hook is received from the far-end. If on-hook is received from the far-end before this lock-out timer expires, the new call is immediately attempted on the trunk; otherwise, the trunk reports lock-out and the call is reattempted on another trunk. If the trunks are PX/FX, the entry is a 160 ms increment.

Field descriptions (Sheet 10 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	ADJNODE	alphanumeric (1 to 12 characters)	<i>Adjacent node</i> Enter the data for this field for switch loads prior to BCS36. Enter the index into table ADJNODE. Table ADJNODE provides information regarding the connected or adjacent switch and must be datafilled before table TRKSGRP. This field cannot be changed if it affects the associated PRODUCT in table ADJNODE.
	L1FLAGS	Y or N	<i>Layer 1 flags</i> This field is used by ISDN primary rate access (PRA) trunks to indicate whether or not the ISDN DTC (DTCI) sends layer 1 flags if the D-channel is in flagfill mode. Enter Y if the connection is between DMS and a different vendor. Enter N for DMS-to-DMS PRA connections. This field is automatically set to Y if a PRA node is selected and the node is defined as SL1 in table ADJNODE.

Field descriptions (Sheet 11 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	L1FLAGS (continued)	alphanumeric (1 to 8 characters) or DEFAULT	<i>ISDNPARM name</i> Enter a name in table ISDNPARM. This field associates the information found in table ISDNPARM with the primary rate interface defined by the table TRKSGRP tuple. The default is DEFAULT.

Field descriptions (Sheet 12 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	DCHNL	see subfield	<i>D-channel</i> The entries in this field define the main D-channel to be used for this PRA interface. The D-channel that serves an interface can be changed so that the interface is served by a new D-channel. This is accomplished by changing the field DCHLOC in table TRKSGRP. If such a change is made, the B-channels that were formerly associated with the old D-channel must be reassociated with the new D-channel. This is accomplished by sending a bulk format B-channel static data tuple. The bulk tuple performs the necessary association, while removing the association that previously existed. This field consists of subfield PMTYPE.

Field descriptions (Sheet 13 of 13)

Field	Subfield	Entry	Explanation and action
SGRPVAR (continued)	PMTYPE	DTCI, GWC, IAC, ICP, LTC, PDTC, PRA_ADTC	<i>Peripheral module type</i> Enter the peripheral module (PM) type. <i>DTCI - ISDN DTC</i> Enter the data for subfields DTCINO, DTCICKTNO, DTCICKTTS, and fields DCHRATE and HDLCTYPE. <i>Gateway controller</i> No subfields are required for this entry type. <i>IAC - ISDN access controller</i> Enter the data for subfields IACNO, IACCKTNO, and IACCKTTS. <i>ICP - integrated cellular peripheral</i> Enter the data for subfields ICPNO, ICPCKTNO, and ICPCKTTS, and field DCHRATE. <i>LTC - line trunk controller</i> Enter the data for subfields LTCNO, LTCCKTNO, LTCCKTTS, and fields DCHRATE and HDLCTYPE. <i>PDTC - PCM30 digital trunk controller (DTC)</i> Enter the data for fields P30NO, P30CKTNO, and P30CKTTS, and fields DCHRATE, and HDLCTYPE. <i>PRA_ADTC - primary rate access Austrian DTC</i> No subfields are required for this entry type.

PMTYPE = DTCI

If the entry in subfield PMTYPE is DTCI, enter the data for subfields DTCINO, DTCICKTNO, and DTCICKTTS as described below, then go to field DCHRATE to continue datafill for SIGDATA = ISDN.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	DTCINO	numeric (0 to 511)	<i>ISDN digital trunk controller number</i> If the entry in field PMTYPE is DTCI, enter the data for this field. Enter the DTCI number of the D-channel.
	DTCICKTNO	numeric (0 to 19)	<i>ISDN digital trunk controller circuit number</i> If the entry in field PMTYPE is DTCI, enter the data for this field. Enter the DS-1 span (DS-1 circuit number) on the DTCI used for the D-channel.
	DTCICKTTS	numeric (0 to 24)	<i>ISDN digital trunk controller circuit time slot</i> If the entry in field PMTYPE is DTCI, enter the data for this field. Enter the time slot of the DS-1 span (DS-1 circuit number) used for the D-channel. Go to field DCHRATE to complete datafill for DTCI.

PMTYPE = IAC

If the entry in subfield PMTYPE is IAC, enter the data for subfields IACINO, IACICKTNO, and IACICKTTS as described below, then go to field DCHRATE to continue datafill for SIGDATA = ISDN.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	IACNO	numeric (0 to 127)	<i>ISDN access controller number</i> If the entry in field PMTYPE is IAC, enter the data for this field. Enter the IAC number of the D-channel.
	IACCKTNO	numeric (0 to 19)	<i>ISDN access controller circuit number</i> If the entry in field PMTYPE is IAC, enter the data for this field. Enter the IAC DS-1 circuit number used for the D-channel.
	IACCKTTS	numeric 1 to 24)	<i>ISDN access controller circuit time slot</i> If the entry in field PMTYPE is IAC, enter the data for this field. Enter the time slot of the DS-1 circuit number used for the D-channel.

PMTYPE = ICP

If the entry in subfield PMTYPE is ICP, enter the data for subfields ICPINO, ICPICKTNO, and ICPICKTTS as described below, then go to field DCHRATE to continue datafill for SIGDATA = ISDN.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ICPNO	numeric (0 to 511)	<i>Integrated cellular peripheral number</i> If the entry in field PMTYPE is ICP, enter the data for this field. Enter the ICP number of the D-channel.
	ICPCKTNO	numeric (0 to 19)	<i>Integrated cellular peripheral circuit number</i> If the entry in field PMTYPE is ICP, enter the data for this field. Enter the ICP DS-1 circuit number used for the D-channel.
	ICPCKTTS	numeric (1 to 24)	<i>Integrated cellular peripheral circuit time slot</i> If the entry in field PMTYPE is ICP, enter the data for this field. Enter the time slot of the DS-1 circuit number used for the D-channel. Go to field DCHRATE to complete datafill for ICP.

PMTYPE = LTC

If the entry in subfield PMTYPE is LTC, enter the data for subfields LTCNO, LTCCKTNO, and LTCCKTTS as described below, then go to field DCHRATE to continue datafill for SIGDATA = ISDN.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	LTCNO	numeric (0 to 511)	<i>Line trunk controller</i> Enter the LTCI number of the D-channel.
	LTCCKTNO	numeric (0 to 19)	<i>Line trunk controller circuit number</i> Enter the DS-1 span (DS-1 circuit number) on the LTC used for the D-channel backup.
	LTCCKTTS	numeric (1 to 24)	<i>Line trunk controller circuit time slot</i> Enter the time slot of the DS-1 circuit number used for the D-channel. Go to field DCHRATE in Field descriptions table in section "PMTYPE = all PM types" to complete datafill for LTCI.

PMTYPE = PDTC

If the entry in subfield PMTYPE is PDTC, enter the data for subfields P30NO, P30CKTNO, and P30CKTTS as described in the following table, then go to refinement DCHRATE to continue datafill for SIGDATA = ISDN.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	P30NO	numeric (0 to 511)	<i>P30 number</i> If the entry in field PMTYPE is PDTC, enter the data for this field. Enter the PDTC number of the D-channel. The D-channel location can be on any port from 0 (zero) to 15 for a PDTC.
	P30CKTNO	numeric (0 to 19)	<i>P30 circuit number</i> If the entry in field PMTYPE is PDTC, enter the data for this field. Enter a number to indicate the PCM30 circuit range.
	P30CKTTS	numeric (1 to 31)	<i>P30 circuit time slot</i> If the entry in field PMTYPE is PDTC, enter the data for this field. Enter a number from 1 to 31 representing the circuit number time slot.

PMTYPE = all PM types

For all peripheral modules types, datafill refinement DCHRATE as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
DCHRATE		56K or 64K	<i>D-channel data rate</i> Enter the data rate of the D-channel, 56K or 64K. The data transmission rate of the carrier (DS-1) and of the D-channel on it must be compatible. If the carrier is datafilled to transmit at 56K, then the entry in field DCHRATE must also be 56K. If the entry in subfield PMTYPE is IAC or ICP, datafill is complete for table TRKSGRP, SIGDATA = ISDN.

PMTYPE = DTCl, LTC, PDTC

If the entry in subfield PMTYPE is DTCl, LTC, or PDTC, enter the data for refinement HDLCTYPE as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	HDLCTYPE	HDLC or INVHDLC	<i>High level data link type</i> If the entry in field PMTYPE is DTCl, LTC, or PDTC, enter the data for field HDLCTYPE. This field specifies how the LTC or DTCl sends and/or receives D-channel messages. If the entry in field PMTYPE is DTCl or LTC, enter HDLC for high level data link or INVHDLC for inverted high level data link. Note: The inverted HDLC is a format in which all 0s (zeros) are changed to 1s and all 1's are changed to 0's (zeros). Some ISDN vendors use the inverted HDLC for PRA interfaces.

For all tuples

For all tuples, enter the data for the remaining fields as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
DCHBCKUP		see subfield	<i>D-channel backup</i> The entries in this field define the backup D-channel used for this PRA interface. This field consists of subfield PMTYPE.
	PMTYPE	DTCI, GWC, IAC, ICP, LTC, PDTC, PRA_ADTC	<i>Peripheral module type</i> Refer to field PMTYPE for a complete description of entries and fields.
OPTION		OVLOPOFF, OVLIPOFF	<i>Option</i> Enter any of the following options if required. Enter OVLOPOFF to disable overlap outpulsing on ETSI PRI trunks. When entered, all outgoing calls are sent using Enbloc. Enter OVLIPOFF to disable overlap inpulsing on ETSI PRI trunks. When entered, incoming calls are rejected if there are insufficient digits in the SETUP message to route the call.

Table history**CR Q00839922**

Added PMTYPE=GWC in table TRKSGRP type ISDN.

NA012

Added the information that CLLI datafill in table IPINV blocks changes to table TRKSGRP.

MMP12

Added a warning to IFCLASS. IFCLASS must be set to NETWORK or ECT must be removed from table LTDATA.

NA011

Added LOC_MAP option to the LOCATION subfield in table TRKSGRP type ISDN (AF7769).

EUR009

Added OVLOPOFF and OVLIPOFF options to the OPTION field in table TRKSGRP type ISDN (AU2834).

NA008

Added warning to SGRPVAR when datafilling backup D-channels for PRI NA008 maintenance feature (AF6860).

EUR006

The 96ISOQSIG option was added to the range of values for subfield VERSION in table TRKSGRP type ISDN.

VIRTGRPS

ATTENTION

This table applies to new or modified content for SN06 (DMS) that is valid through the current release.

Virtual Facility Group Table

The virtual facility group (VFG) tables consist of table VIRTGRPS, table VFCDATA, and table VFGENG.

For switching units with the Partitioned Table Editor, non-operating company users cannot change entries in table VIRTGRPS. They cannot change entries because each entry in the table can contain data for up to three different owners. Tables VFCDATA and VFGENG were created to give non-operating company users access to the data in table VIRTGRPS.

Non-operating company users only have access to tables VFCDATA and VFGENG. Changing the data in table VIRTGRPS affects the data in tables VFCDATA and VFGENG.

Calls via a Virtual Facility Group cannot be routed to make a Network Speed Call or an ESN-Network Speed Call.

Table VIRTGRPS provides a mechanism to eliminate loop-around trunks. Loop-around trunks are used to implement Integrated Business Networks (IBN) inward wide area telephone service (INWATS) and outward wide area telephone service (OUTWATS) and to provide equal access capabilities.

To simulate finite resources (lines or trunks) in software, a facility called virtual facility group (VFG) is provided. When a facility group is accessed from table IBNRTE, the switch checks if there are any virtual facilities available. If none are available, the call is blocked. If a virtual

facility is available, it is marked as used. The call is then retranslated through the VIRTGRPS table and one of the following events occurs:

- If the type of incoming call is nil, no new attributes are given to the call.
- If the type of incoming call is plain ordinary telephone service (POTS), a new billing number (if datafilled) and a new line attribute index are used for the next leg of the call.
- If the type of incoming call is IBN, a new billing number (if datafilled), a customer group and subgroup number, a terminating restriction code, a network class of service, and other attributes are used for the next leg of the call.

Billing numbers can be from 1 to 11 digits. It is recommended that the billing code be a ten-digit number. Under certain conditions, billing numbers of less than ten digits can cause traps.

If Station Message Detail Recording (SMDR) is specified, an SMDR record is generated. If SMDR is not specified, an SMDR record is not generated.

If Call Detail Recording (CDR) is specified, regardless of whether SMDR is specified or not, an SMDR record is generated.

The VFG can be assigned one or more of the following options:

- automatic message accounting (AMA) calling entry identification (ENTRYID)
- customer group (CUSTGRP)
- equal access (EA)
- Integrated Business Network Primary Inter-local access and transport access (LATA) carrier (IBNPIC)
- international primary carrier (INTPIC)
- primary billing directory number (PRIBILDN)
- primary interLATA carrier (PIC)
- primary intraLATA carrier (LPIC)
- routing characteristic name (RCNAME)
- special billing directory number (SPBDN)
- terminating billing option (TBO)
- toll restriction (TOLLRST)
- virtual facility group alternate line screening code (VFGALSC)

- virtual facility group automatic message accounting (VFGAMA)
- virtual facility group line screening code (VFGLSC)

A brief description of each of these options is provided in the following.

Automatic Message Accounting (AMA) calling entry identification (ENTRYID)

This option provides the ability to specify whether AMA calling entry identification is provided for AMA billable calls originated from the virtual facility group.

Customer group (CUSTGRP)

This option is required if the VFG is assigned to an attendant console for VFG access control or VFG group busy. This option specifies the customer group to which the VFG is assigned.

Equal access (EA)

This option provides equal access capabilities to IBN stations and incoming trunks. The IBN stations include attendant consoles, data units, P-phone sets, and standard IBN 500/2500 sets. These stations can reside in a dedicated SL-100 private branch exchange (PBX) or part of a customer group in a class 5 switching unit that has the IBN feature.

The EA option can only be used for entries that have POTS in field INCTYPE. It specifies whether the calling party can manually choose the PIC. This is determined by the entry in subfield CHOICE.

If the entry is N (no), the PIC must be specified in table VIRTGRPS. If the entry is Y (yes), the PIC is optional and can be manually chosen.

If the PIC is not specified, the called number must be prefixed by digits 10XXX. If digits 10XXX are used to manually choose a PIC, the digits 10XXX must not be deleted in table IBNXLA.

Integrated Business Network Primary Inter-local access and transport access (LATA) carrier (IBNPIC)

This option allows a line PIC or customer group PIC that is used in the first leg of translations to carry over to the second leg of translations. The VFG PIC, if present, is ignored. If the IBNPIC option is not present, the VFG PIC is used.

If the IBNPIC option is present and neither the line nor the customer group has a PIC assigned, the call proceeds to reorder treatment whether or not the VFG has a PIC assigned.

International Primary Carrier (INTPIC)

This option allows Equal Access End Office (EQEO) subscribers to use a presubscribed long distance carrier for international calls. It is only valid if option EA is also assigned.

When prompted for the option, datafill option INTPIC, the name of the desired international carrier in subfield CARRIER, and Y or N to allow or disallow the choice for Carrier Access Code (CAC) dialing in subfield CHOICE.

If the subscriber makes an international call and option INTPIC is not assigned in table VIRTGRPS, then the call defaults to the carrier specified in option EA in table VIRTGRPS.

Note: World Zone 1 calls do not use option INTPIC. These calls use option PIC to choose a carrier.

Inter-local access and transport area (LATA) primary carrier (PIC)

This option provides an equal access carrier for inter-LATA calls. It is only valid if option EA is also assigned.

Intra-local access and transport area (LATA) primary carrier (PIC)

This option provides an equal access carrier for intra-LATA calls. It is only valid if the EA option has been assigned.

Billing directory number (BILLDN)

This option spills the PRI trunk group's Billing Directory Number (BILLDN) over an E911 VFG.

Routing characteristic name (RCNAME)

This option provides integrated services digital network (ISDN) translation with an optional new routing characteristic name (RCNAME) for the retranslation of an ISDN originated VFG call.

If the RCNAME option is not present in table VIRTGRPS for an ISDN originated call, then the call's original RCNAME is used for the call's retranslation. If the RCNAME option is present for a non-ISDN originated call, then the option is ignored.

Special billing directory number (SPBDN)

This option spills the Calling DN's SPBDN over an E911 VFG.

Terminating billing option (TBO)

This option provides a billable method for charging the end user for a call. When a call terminates to a line assigned the TBO option, an AMA

record with a call code between 800 and 999 is generated. The call code is assigned when the TBO option is added to the line.

Toll restriction (TOLLRST)

This option allows a toll restriction for a call to carry through to the second leg of translations. The option is used when a call terminates to a virtual facility group (VFG) and retranslation occurs.

Virtual facility group alternate line screening code (VFGALSC)

This option is required when the VFG is assigned to an attendant console for VFG access control. With this option, the group is assigned an alternate line screening code flag number in table LSCFLAGS and an alternate IBN treatment number in table IBNTREAT. The alternate line screening and IBN treatment are used when the VFG access control is activated. Calls are routed to the IBN treatment when they fail screening.

Virtual facility group automatic message accounting (VFGAMA)

This option is required for Bellcore AMA recording. It identifies the VFG as being a member of a common control switching arrangement (CCSA) network or a tandem tie trunk (TDMTT).

With this option, an incoming IBN group is designated as a member of a CCSA network or a TDMTT. This AMA record is uniquely identified with call code 21 or call code 032, respectively. Each call that is routed through the VFG generates a detailed AMA recording for analysis.

Virtual facility group line screening code (VFGLSC)

This option provides line screening for the VFG. With this option, the VFG is assigned a line screening code flag number in table LSCFLAGS and an IBN treatment number in table IBNTREAT. Calls are routed to the IBN treatment when they fail screening.

Datafill sequence and meaning

Table RCNAME must be datafilled before table VIRTGRPS.

Interaction with office parameters

If office parameter E911_PSAPS_USING_1_INFO_DIGIT in table OFCSTD is set to Y and office parameter E911_NPD_TO_NPA_CONV_IN_EFFECT is set to N, datafill table E911NPD prior to datafilling field NPA in table VIRTGRPS for INCTYPE E911.

If office parameter E911_PSAPS_USING_1_INFO_DIGIT in table OFCSTD is set to Y and office parameter E911_NPD_TO_NPA_CONV

_IN_EFFECT is set to Y, table E911 does not need to be datafilled prior to datafilling field NPA in table VIRTGRPS for INCTPE.

If office parameter E911_CHECK_DEFAULT_ESN in table OFCVAR is set to Y (yes), table E911ESN must be datafilled before an E911 VFG entry can be datafilled in table VIRTGRPS.

If office parameter E911_PSAPS_USING_1_INFO_DIGIT in table OFCVAR is set to Y, table E911NPD must be datafilled before an E911 VFG entry can be datafilled in table VIRTGRPS.

Table size

0 to 8092 tuples

Memory is allocated dynamically. Because of dynamic memory allocation, each tuple is assigned a numeric index. Deleting tuples from table VIRTGRPS can change the index numbers used to populate SMDR records and Operational Measurements.

Datafill



CAUTION

Increased CPU occupancy

Each virtual facility group and its members are scanned every 10 s in order to compute OM group VFGIWUSE register VFGIWTRU. CPU occupancy may increase when several large virtual facility groups are added to table VIRTGRPS.

The following table lists datafill for table VIRTGRPS.

Field, subfield, and refinement descriptions for table VIRTGRPS (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
Key		see subfield	<i>Virtual facility group (VFG) key</i> This field is the key to table VIRTGRPS and consists of subfield VIRTGRP.
	VIRTGRP	alphanumeric (1 to 6 characters) or blank	<i>Virtual facility group</i> If the entry is the first entry for the VFG, enter a user-defined name. The addition of a tuple defines the name that is used in other tables that need VFGs. If the entry is not the first entry for the VFG, leave this field blank.
DATA		see subfields	<i>Virtual facility group data</i> This field consists of subfields MEMBERS and INCTYPE.

Field, subfield, and refinement descriptions for table VIRTGRPS (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	MEMBERS	see subfields	<i>Virtual facility group members</i> This subfield consists of refinement VFGTYPE, and subfields USESGRP and SIZE.
	VFGTYPE	SIZE or USES	<i>Virtual facility group type</i> If this is the first entry for the VFG, enter SIZE. If this is not the first entry, enter USES.
	USESGRP	alphanumeric or nil	<i>Virtual facility group name</i> Datafill this refinement if the value of VFGTYPE is USES. The VFG name is the name of the VFG specified in table VIRTGRPS. This entry provides the means to have virtual two-way trunks or to associate more than one set of screening data with the same set of virtual circuits, or both. If the entry is not the first for the VFG, enter NILVFG.

Field, subfield, and refinement descriptions for table VIRTGRPS (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
DATA (continued)	SIZE	0 to 2048	<i>Size</i> Datafill this refinement if the value of subfield VFGTYPE is SIZE. Enter the number of simultaneous accesses allowed for the VFG.
	INCTYPE	E911, IBN, NIL, or blank	<i>Incoming type</i> If this is the first entry for the VFG, do one of the following steps: Enter E911 to terminate 911 calls from an end office to an E911 tandem through incoming ISDN user part (ISUP) or super centralized automatic message accounting (SuperCAMA) trunks. The calls are translated to an E911 VFG and selectively routed to a primary public safety answering point (PSAP) based on the subscriber's directory number (DN). Enter IBN if the call is entering the Integrated Business Network (IBN) translation environment. Enter NIL if the VFG has no associated screening information.

INCTYPE = POTS

If the entry in subfield INCTYPE is POTS and it is the first entry for the VFG, datafill subfields BILLNUM, LINEATTR, and LINECDR as described in the following table. Otherwise leave the subfields blank.

Note 1: European market: Calls terminating to a POTS VFG do not support the IBN universal translation system.

Note 2: If a non 10-digit number is datafilled in field BILLNUM for POTS VFGs the following warning message is displayed:

Warning: billing numbers should be 10 digits in length

Field descriptions for POTS conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
POTS	BILLNUM	numeric (vector of up to 11 digits) or N	<i>Billing number</i> Enter the billing number to which the next leg of the call is charged. If the call is charged to the originator's billing number for the next leg of the call, enter N.
	SNPA	3 digit integer	<i>Serving numbering plan area</i> Enter a 3 digit integer to prefix to the standard 7 digit billing number.
	LINEATTR	alphanumeric (1 to 16 characters)	<i>Line attribute index</i> Enter the line attribute index that specifies the translations and screening tables used for the next leg of the call.
	XLAPLAN	alphanumeric (1 to 16 characters)	<i>Translation plan index</i> Enter the index into the XLAPLAN table.
	RATEAREA	alphanumeric (1 to 16 characters)	<i>Rate area index</i> Enter the index into the RATEAREA table.
	LINECDR	Y or N	<i>Line call detail recording</i> Enter Y if CDR is required to record virtual line type calls. Enter N if CDR is not required.

INCTYPE = IBN

If the entry in subfield INCTYPE is IBN and it is the first VFG entry, datafill subfields BILLNUM and CUSTNAME as described in the following table.

Note: If a non 10-digit number is datafilled in field BILLNUM for IBN VFGs the following warning message is displayed:

Warning: billing numbers should be 10 digits in length

Field descriptions for IBN conditional datafill if it is the first VFG entry

Field	Subfield or refinement	Entry	Explanation and action
	BILLNUM	numeric (vector of up to 11 digits) or N	<i>Billing number</i> Enter the billing number to which the next leg of the call is charged. If the call is charged to the originator's billing number for the next leg of the call, enter N.
	SNPA	3 digit integer	<i>Serving numbering plan area</i> Enter a 3 digit integer to prefix to the standard 7 digit billing number.
	CUSTNAME	alphanumeric (1 to 16 characters)	<i>Customer group name</i> Enter the customer group name.

INCTYPE = IBN

If the entry in subfield INCTYPE is IBN and it is the second VFG entry, datafill subfields SUBGRP, TRC, NCOS, INTRAGRP, SMDR and CDR as described in the following table.

Field descriptions for IBN conditional datafill if it is the second VFG entry

Field	Subfield or refinement	Entry	Explanation and action
	SUBGRP	0 to 7	<i>Subgroup number</i> Enter the subgroup number within the customer group being entered.
	TRC	0 to 7	<i>Terminating restriction code</i> Enter the TRC that determines whether a trunk can terminate on a specific line.
	NCOS	0 to 511	<i>Network class of service (NCOS)</i> Enter the NCOS number that screens and translates the next leg of the call.
	INTRAGRP	Y or N	<i>Intragroup</i> If the call is intragroup, enter Y. If the call is not intragroup, enter N.

Field descriptions for IBN conditional datafill if it is the second VFG entry

Field	Subfield or refinement	Entry	Explanation and action
	SMDR	Y or N	<i>Station message detail recording</i> If translation data requests SMDR records for this leg of the call, enter Y. Enter N to indicate that SMDR records are not generated.
	CDR	Y or N	<i>Call detail recording</i> If CDR records are produced unconditionally for this leg of the call, enter Y. If CDR records are not generated for the next leg of the call, enter N.

INCTYPE = E911

If the entry for subfield INCTYPE is E911, datafill subfields ESN, ESCO, SNPA, ECPHTIME, ORIGHOLD, and RESTRICT as described in the following table.

Field descriptions for E911 conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
E911	ESN	0 to 15999	<i>Emergency service number (ESN)</i> Enter a default ESN that is used to route a call if an ESN cannot be found by querying optional table E911SRDB or if an automatic number identification (ANI) fail condition occurs. ESN must be present in table I911ESN.
	ESCO	Table of 4 {1, 2, 3, 4, 5, 6, 7, 8, 9, 0} (4 digits)	<i>Emergency service central office code (ESCO)</i> Enter an ESCO in case an ANI fail condition occurs. If the calling party directory number (DN) cannot be obtained, an ESCO is displayed at the public safety answering point (PSAP).
	SNPA	numeric (3 digits)	<i>Serving numbering plan area</i> Enter the serving NPA of the E911 trunk group that has a numbering plan digit (NPD) datafilled in table E911NPD.

Field descriptions for E911 conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
E911 (continued)	ECPH TIME	0 to 255	<i>Enhanced called party hold (ECPH) time</i> This entry is used to indicate the number of seconds ECPH will be active. Default value is 0.
	ORIGHOLD	Y or N	<i>Originator hold (ORIDGHOLD)</i> Enter Y to activate E911 originator hold for calls routed through this VFG. When ORIGHOLD is active, the originator of an E911 call cannot disconnect the call. Enter N to indicate ORIGHOLD is not active.
	RESTRICT	Y or N	<i>Restrict</i> Enter Y to indicate that an E911 caller, whose call is routed through an E911 VFG, has the same restrictions as if the call were routed through an emergency services (ES) trunk. N is not valid. For example, the caller cannot activate call waiting or do a call transfer.
	BILLDN	Y or N	<i>Billing Directory Number</i> Enter Y to spill the PRI trunk group's BILLDN over the E911 VFG.

Field descriptions for E911 conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
E911 (continued)	SPBDN	Y or N	<i>Special Billing Directory Number</i> Enter Y to spill the Calling DN's SPBDN over the E911 VFG.
	OFBSR	Y or N	<i>Off-Board Selective Routing Database</i> Enter Y to use the OFBSR for routing of E911 calls The default is N.

All tuples

For all tuples, datafill subfield OPTIONS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		see subfield	<i>Options</i> This field consists of subfield OPTION. Subfield OPTION is a vector of up to 11 multiples.
	OPTION	CUSTGRP, EA, ENTRYID, IBNPIC, INTPIC, LPIC, NOMDR, PRIBILDN, SPBDN, RC, TBO, TOLLRST, VFGALSC, VFGAMA, VFGLSC, or NOLNPAMA	<i>Option</i> Enter the list of options assigned to the VFG. Each option and its refinement must be separated by a space. Use as many records as required to datafill the list of options and associated refinements. If an option is not provided, no datafill for that option is required.

OPTION = CUSTGRP

If the entry in subfield OPTION is CUSTGRP, datafill subfield CUSTGRP as described in the following table.

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 customer group name to which the VFG is assigned.

OPTION = EA

If the entry for subfield OPTION is EA, datafill subfields PIC and CHOICE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
EA	PIC	alphanumeric (1 to 16 characters)	<i>Primary Inter-LATA carrier</i> Enter the name assigned to the primary inter-LATA carrier (PIC) in table OCCNAME. Enter NONE if a PIC is not required.
	CHOICE	Y or N	<i>Choice</i> If the caller is allowed to dial a 10XXX prefix to choose a carrier manually, enter Y. If the caller is not allowed, enter N

OPTION = ENTRYID or IBNPIC

If the entry for subfield OPTION is ENTRYID or IBNPIC, no additional datafill is required.

OPTION = INTPIC

Option INTPIC provides the ability to choose a presubscribed carrier for international calls. This option can only be set if option EA is also assigned.

If the entry for subfield OPTION is INTPIC, datafill field CARRIER as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
INTPIC	CARRIER	alphanumeric (up to 16 characters)	<i>Carrier name</i> Enter the name of the presubscribed carrier for international calls. Table OCCNAME contains a list of valid carrier names.
	CHOICE	Y or N	<i>Choice</i> Enter Y to allow the choice for Carrier Access Code (CAC) dialing. Enter N to disallow CAC dialing.

OPTION = LPIC

The intra-LATA PIC (LPIC) option provides an equal access (EA) carrier for intra-LATA calls. This option can only be set if the EA option has also been assigned.

If the entry for subfield OPTION is LPIC, datafill fields IPIC and LCHOICE as described in the following table.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LPIC		MCI, ITT, SSO, or NILC	<i>Intra-LATA Carrier name</i> Enter the intra-LATA carrier name for this VFG. The carrier name must be datafilled in table OCCNAME before it can be datafilled in table VIRTGRPS.
	IPIC	alphanumeric (1 to 16 characters)	<i>Intra-LATA (local access and transport area) primary identification code (IPIC)</i> The IPIC option allows the user to choose a primary carrier for intra-LATA service. For the intra-LATA primary inter-LATA carrier option, enter LPIC and datafill refinement IPIC. Enter the name of the subscriber's intra-LATA carrier. This name must be datafilled in field CARRIER in table OCCNAME before it can be used here.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
LPIC (continued)			The datafill of the IPIC option prompts for the LCHOICE field. Note: There are special checks made when SOC goes from IDLE to ON to see if it is the first time that the SOC has been turned on after a one night process (ONP) and a TABXFR have occurred. If it is the first time, SOC changes the LPIC option to match the existing PIC option if the PIC option exists.
	LCHOICE	Y or N	LPIC choice The LCHOICE entry (Y or N) determines if the LPIC subscriber is permitted to dial 10XXX/101XXXX codes. In the LCHOICE field, either Y or N must be entered; this field does not have a default value.

OPTION = NETINFO

If the entry for subfield OPTION is NETINFO, datafill subfields NCOS and CUSTGRP as described in the following table.

Note: The new option NETINFO can be datafilled only if the field incoming type (INCTYPE) in table VIRTGRPS is IBN. If the NETINFO

option subfields are both datafilled as N for a VFG, then the NETINFO option is not added to that VIRTGRPS tuple.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
NETINFO	NCOS	Y or N	<i>Choice</i> If the NCOS subfield is set to Y, the NCOS of the last VFG datafilled to Y is used. If the NCOS parameter is set to N, the system searches through the VFGs previously routed. The first VFG found to have the NCOS subfield set to Y has its NCOS put into the NETINFO parameter of the IAM. If none of the VFGs have the NCOS option set to Y, the NCOS of the originator is used.
	CUSTGRP	Y or N	<i>Choice</i> If the CUSTGRP subfield is set to Y, the last VFG with CUSTGRP set to Y is used. If the CUSTGRP subfield is set to N, the system searches through the VFG(s) previously routed. The system uses the first VFG found to have CUSTGRP set to Y. The system puts this CUSTGRP data into the NETINFO parameter of the IAM. If none of the VFGs have the CUSTGRP option set to Y, the CUSTGRP of the originator is used.

OPTION = NOMDR

Option NOMDR allows suppression of message detail records to avoid double billing. If the entry for subfield OPTION is NOMDR, no additional datafill is required.

OPTION = RC

If the entry in subfield OPTION is RC, datafill subfield RCNAME as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
RC	RCNAME	alphanumeric	<i>Routing characteristic name</i> Enter a routing characteristic name. For ISDN calls routed through VFS, RCNAME overrides the RCNAME originally attributed to the call (before retranslation). If a new RCNAME is not specified, then the old RCNAME applies for retranslation.

OPTION = TBO

If the entry in subfield OPTION is TBO, either subfield TBOVARS or CALLCODE will appear. Datafill subfield TBOVARS or CALLCODE as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TBO	TBOVARS	see subfields	<i>TBO variables</i> This field consists of subfields CALLCODE, SFPRSNT, and SFVAL.
	CALLCODE	800 to 999	<i>Call code</i> Enter the call code for the automatic message accounting (AMA) record.
TBO (continued)	SFPRSNT	Y or N	<i>Service feature code present</i> Enter Y to indicate that there is a service code associated with the feature that is printed on the AMA record. If this field is set to Y, subfield SFVAL must be datafilled. Enter N to indicate that a service code is not associated with the feature.
	SFVAL	800 to 999	<i>Service feature value</i> Enter the code associated with the feature printed on the AMA record.

OPTION = TOLLRST

If the entry in subfield OPTION is TOLLRST, no additional datafill is required.

OPTION = VFGAMA

If the entry in subfield OPTION is VFGAMA, datafill subfield FACILITY as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
VFGAMA	FACILITY	CCSA, ETS, FX, or TDMTT	<i>Facility</i> Enter the facility from the following list. • CCSA (common control switching arrangement) • ETS (electronic telephone set) • FX (foreign exchange) • TDMTT (tandem tie trunk)

OPTION = VFGALSC

If the entry in subfield OPTION is VFGALSC, datafill subfields ALSC and ALSCINT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
VFGALSC	ALSC	0 to 255	<i>Alternate line screening code</i> Enter the alternate line screening code flag number assigned to the VFG.
	ALSCINT	0 to 63	<i>Alternate line screening code intercept number</i> Enter the treatment number to which a call is routed if line screening fails. The data for the treatment number is assigned in table IBNTREAT.

OPTION = VFGLSC

If the entry in subfield OPTION is VFGLSC, datafill subfields LSC and LSCINT as described in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
VFGLSC	LSC	0 to 255	<i>Line screening code</i> Enter the alternate line screening code flag number assigned to the VFG.
	LSCINT	0 to 63	<i>Line screening code intercept number</i> Enter the treatment number to which a call is routed if line screening fails. The data for the treatment number is assigned in table IBNTREAT.

Table history**SN07**

Table VIRTGRPS migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 12 of 12*, 297-8021-351.09.03.

SN06 (DMS)

added option E911 ESCO expansion to four digits as per feature A89007692.

NA015 (SN02)

Added the Off-Board Selective Routing database (OFBSR) subfield under the E911 INCTYPE. This subfield allows routing and translations to be processed through an OFBSR.

VOWINV

Virtual Office Worker Inventory

Table Virtual Office Worker Inventory (VOWINV) is used to store data associated with VOW functionality. It contains the physical or virtual LEN(s) associated with a VOW's dedicated DN and associated data, his or her personal ID code, and his or her primary DN.

As VOW log in and log out of their dedicated DNs, this table is automatically updated to keep the information up-to-date. VOWINV also contains information identifying the physical sets which have the VOWDN line option assigned.

Datafill sequence and meaning

There is no specific datafill sequence required for table VOWINV.

Table size

0 to 41 000 tuples.

Datafill

The following table lists the datafill for table VOWINV.

Field, subfield, and refinement descriptions for table VOWINV (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
VOWKEY		VOW or VOWDN	VOWKEY is the table key and uniquely identifies a tuple through a customer group (CUSTGRP) and VOW_TUPLE_TYPE value (VOWTYPE).
VOWDATA		See subfields.	VOW data area VOWDATA contains the remaining data for the tuples. VOWTYPE within VOWDATA matches the value of VOWTYPE within VOWKEY.
	FWTYPE	FW or DLL	Firmware type. FW for ROM baseline. DLL for DLL baseline.

Field, subfield, and refinement descriptions for table VOWINV (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	VOWPID	vector, 4 to 10 digits	VOW personal ID. VOWPID provides the associated VOW passcode value.
	VOWLEN	EXT_LEN	VOW LEN VOWLEN provides the pre-assigned virtual VOW LEN for use by the associated VOW user.
	VOWMATE	Y or N	VOW Mate VOWMATE provides the pre-assigned virtual VOW mate LEN for use by the associated VOW user, if appropriate.
	LOGGEDIN	Y or N	Logged in. LOGGEDIN specifies whether or not the associated VOW user is logged in or not.
	PHYSLEN	EXT_LEN	Physical LEN. If LOGGEDIN is set to Y, then PHYSLEN provides the physical LEN through which the VOW user is logged in.
	PHYSMATE	MATE: Y or N and MATELEN: EXT_LEN	Physical mate LEN. If LOGGEDIN is set to Y, then PHYSMATE provides the physical mate LEN, if appropriate.

Additional information

Virtual VOW LENS are pre-assigned when the VOW line option is added to a set through Servord and a tuple is created in table VOWINV. Virtual VOW LENS are un-assigned only when the VOW line option is removed from a set through Servord and the corresponding tuple is deleted from table VOWINV.

Table history

SN07

Table VOWINV was added in SN07 by feature AX1236.

XAFWLOAD

XA-Core firmware load

The system uses table XAFWLOAD to control firmware versions and to detect a firmware version mismatch.

Table XAFWLOAD contains the following information:

- firmware (FW) load file locations and names
- field-replaceable unit (FRU) product equipment codes (PECs)
- FW soak times
- valid FW versions

Datafill sequence and meaning

There is no specific datafill sequence required for table XAFWLOAD.

Table size

0 to 40 tuples.

Datafill

The following table lists the datafill for table XAFWLOAD.

Field, subfield, and refinement descriptions for table DNMAP (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
FRU		PE, IOP or CMIC	Indicates the type of card or packet.
PEC		alphanumeric (up to 8 characters)	Indicates the product equipment code (PEC).
VERSION		alphanumeric (up to 8 characters)	Indicates the FW version.
VOLUME		alphanumeric (up to 20 characters)	Indicates the volume name.
FILE		alphanumeric (up to 32 characters)	Indicates the file name.

Field, subfield, and refinement descriptions for table DNMAP (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
STATUS		new, current, or old	The system uses the status entry to indicate which volume and filename to retrieve when executing the LoadFW command. All tuples have a unique combination of FRU, PEC and STATUS except when status = OLD.
SOAK		0 to 240	Indicates the time period in hours that the system soaks the firmware. The default entry is 48.

Table history
SN07

Table XAFWLOAD was added in SN07 by CR Q01005058-01.

Additional information

Table XAFWLOAD does not use translation verification tools.

The system uses the tuple with volume as unknown_volume_name and file as unknown_file_name for version control and to set the soak time for LOADFW clone option.

Do not delete this tuple.

XLABILL

XLAGRP Translation Refinement for Billing Types

Table XLAGRP Translation Refinement for Billing Types (XLABILL) provides the mechanism to refine the XLAGRP based on the billing type when using the XLAGRP method of translations through new table XLABILL.

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- Table XLAGRP
- Table TOPSDP
- Table XLABILL

Table size

0 to 57 330 tuples.

Datafill

The following table lists the datafill for table XLABILL.

Field, subfield, and refinement descriptions for table XLABILL

Field	Subfield or refinement	Entry	Explanation and action
XLAGRP		None	Translations group. Contains the current XLAGRP associated with the call.
BILLTYPE		UNSPEC PAID COLLECT CCARD THIRD SPLCLG SPLCLD	Billing type. Enter the billing type.
NEWXLGRP		None	New translations group. Contains the new XLAGRP.

Table history**SN07**

Table XLABILL was added in SN07 by feature A00002765.

XLACCLASS

XLAGRP Translation Refinement for Calling Service Class

Table XLAGRP Translation Refinement for Calling Service Class (XLACCLASS) provides the mechanism to refine the XLAGRP based on the calling service class when using the XLAGRP method of translations through new table XLACCLASS.

Datafill sequence and meaning

The following tables must be datafilled in the sequence listed below:

- Table XLAGRP
- Table TOPSDP
- Table XLABILL

Table size

0 to 40 950 tuples.

Datafill

The following table lists the datafill for table XLACCLASS.

Field, subfield, and refinement descriptions for table XLACCLASS

Field	Subfield or refinement	Entry	Explanation and action
XLAGRP		None	Translations group. Contains the current XLAGRP associated with the call.
CLGCLASS		UNKNOWN STATION COIN HOTEL RESTRICTED	Calling service class. Enter the calling service class.
NEWXLGRP		None	New translations group. Contains the new XLAGRP.

Table history

SN07

Table XLACCLASS was added in SN07 by feature A00002765.

XLAPLAN

ATTENTION

This table applies to new or modified content for NA015 (SN02) that is valid through the current release.

Translation Plan

Feature AU3279, LINEATTR Servord Enhancements, split table LINEATTR (Line Attribute) into three tables to make data management easier:

- LINEATTR
- RATEAREA
- XLAPLAN

Table Translation Plan (XLAPLAN) receives initial datafill in a one night process (ONP) from table LINEATTR. If a specific tuple from table LINEATTR results in a tuple that exists in table XLAPLAN, the tuple is not added to table XLAPLAN and the XLAPLAN key copies back to table LINEATTR. If a specific tuple from table LINEATTR does not result in a tuple that exists in table XLAPLAN, the tuple is added to table XLAPLAN and the XLAPLAN key copies back to table LINEATTR.

Note: You can delete tuples in table XLAPLAN that other tables do not reference.

The LINEATTR Compression Tool feature (59017776) checks for duplicate tuples during the ADD, CHA, and REP commands. A warning message appears before the confirmation to provide an alert of a duplicate tuple. The message only generates if table OFCVAR table parameter XLAPLAN_RATEAREA_SERVORD_ENABLED (XRSE) is set to MANDATORY_PROMPTS. This warning does not prevent datafill validation.

Datafill sequence and meaning

The following tables must be datafilled before table XLAPLAN:

- CUSTENG
- SUBGRP
- NCOS
- SCRNCCLAS

- SNPANAME
- POSNAME
- STDPRTCT

Table size

0 to 32 000 tuples.

Datafill

The following table lists the datafill for table XLAPLAN.

Field, subfield, and refinement descriptions for table XLAPLAN (Sheet 1 of 3)

Field	Subfield or refinement	Entry	Explanation and action
XLAPIDX		alphanumeric (up to 16 characters)	XLAPLAN log key. Enter the index into table XLAPLAN.
SCRNCL		alphanumeric (up to 4 characters) or NSCR	Screening class. If screening by class of service is required, enter the name of the class of service subtable assigned to the LINEATTR key. If screening by class of service is not required, enter NSCR.
HSTS		numeric (0 to 999)	Serving translation scheme. Enter the serving numbering plan area (SNPA) assigned to the LINEATTR key. The HSTS of an existing tuple cannot be changed.
PRTNM		alphanumeric (up to 4 characters) or NPRT	Pretranslator name. If pretranslation of digits is required, enter the name of the standard pretranslator subtable assigned to the LINEATTR key. If standard pretranslation is not required, enter NPRT.

Field, subfield, and refinement descriptions for table XLAPLAN (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
ZEROMPOS		alphanumeric (up to 10 characters) or NONE	Zero minus position. If a LINEATTR is configured for operator (0-) and special toll (0+) dialing, enter the position in the position table to which operator (0-) calls are routed. Otherwise, enter NONE.
RESINF		Y or N	Residential enhanced services information. Enter Y (yes) if the LINEATTR key is required to support RES lines (the LCC must be 1FR, 1MR, OWT, EOW, INW, 2WW, ETW, CCF, CDF, CFD, CSP, ZMD, or ZMZPA). Datafill subfields refinements CUSTGRP, SUBGRP, and NCOS. Otherwise, enter N (no), and leave CUSTGRP, SUBGRP, and NCOS blank.
	CUSTGRP	alphanumeric (up to 16 characters)	Customer group. Enter the customer group name assigned to the LINEATTR key. This name must appear in table CUSTENG field CUSTNAME.
	SUBGRP	numeric (0 to 7)	Customer subgroup. Enter the subgroup within the customer group associated with the LINEATTR key. This subgroup must appear in table SUBGRP.
	NCOS	numeric (0 to 511)	Network class of service. Enter the network class of service (NCOS) number in the customer group associated with the LINEATTR key. This number must appear in table NCOS field NCOS.

Field, subfield, and refinement descriptions for table XLAPLAN (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
OPTIONS		SECDT or \$	Options. Enter SECDT to enable a secondary dial tone for wireless features that require that the subscriber enter more digits. Enter \$ to end the option entry.
ADMININF		alphanumeric (up to 32 characters)	Administration information. Enter any string containing alphabetic characters, numeric characters, or underscores up to 32 characters. This entry provides a short explanation or note regarding the use of the LINEATTR tuple. The operating company defines the content of this entry.

Table history**SN07**

Table XLAPLAN migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 12 of 12*, 297-8021-351.09.03.