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Carrier Voice Over IP Operational Configuration: Data Schema Reference Volume 1

What's new for (I)SN09?

The following data schema tables have been revised:

- AMAOPTS
- CUSTNTWK
- ISERVOPT
- LTDATA

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.

Understanding data schema table reference information

This document is divided into modules; each module describes one table. As new software features are added, or capabilities are enhanced, existing table documents are revised, or new tables are written.

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.

Each data schema module in this document contains the following information:

- **Full table name**
- **Functional description** - a detailed description of the purpose and structure of the table
- **Datafill sequence and meaning** - a list of table dependencies that includes
  - tables that provide prerequisite datafill (provisioning) entries for the described table
  - tables that use the datafill entries in the described table for their provisioning requirements
- **Table size** - information about the number of tuples (rows of datafill) the table can support, and about memory allocation where applicable
- **Datafill** - a reference table describing the field names and parameter values that the tuples use
- **Table history** - a change history for the data schema table
- **Additional information** - any details about the table not covered in the previous sections

In this document

The Carrier Voice Over IP Data Schema Reference uses two volumes to describe the data schema tables associated with Carrier VoIP components. Tables are listed alphabetically. Volume 1 contains tables whose names begin with the letters A through M. Volume 2 contains tables whose names begin with the letters N through Z.

The following table lists the data schema tables in Volume 1. This table also lists data schema tables common to the DMS that apply to Carrier VoIP as well. For a description of a table, click on the name.

Data schema tables in this volume (Sheet 1 of 6)

Name	Description	Device, Manager or Application
AABSFILT	Automated Alternate Billing Service Filter Table	Common
AABSOST	Automated Alternate Billing Service Originating Station Treatment Table	Common
ACBTAB	All Circuits Busy Table	Common
ACCINDEX	Accounting Route Index Table	Common
ACCODE	Access Code Table	Common
ACDMISPL	Automatic Call Distribution MIS Pool	Common
ACDRTE	Automatic Call Distribution Routing	Common
ALMSC	Alarm Scan	MG4K
ALMSCGRP	Alarm Scan Group	MG4K
ALMSD	Alarm Signal Distribution Point	MG4K
ALMSDGRP	Alarm Signal Distribution Group	MG4K
AMAOPTS	Automatic Message Accounting Options	Common
ANNS	Announcements	Common
AUDIO	Audio Interlude	Common
AUDPRGM	Automatic Dial Key Program	Common
AUTHCDE	Authorization Code	Common
AUTHGRP	Authorization Group	Common
BCDEF	Bearer Capability Definition	Common

Data schema tables in this volume (Sheet 2 of 6)

Name	Description	Device, Manager or Application
C6TRKMEM	CCIS6 Trunk Member	Common
C7NETWRK	CCS7 Network	Common
C7TIMER	CCS7 Timer	Common
C7TRKMEM	CCS7 Trunk Member	MG4K, SPM
C7TRKMEM	CCS7 Signaling ISUP Timers	Common
CGBLDADD	Calling Party Number Address-Type Screening	Common
CGBLDDGL	Calling Party Number Digit-Length Screening	Common
CGBLDDIG	Calling Party Number Digit Screening	Common
CGBLDNI	Calling Party Number NI Screening	Common
CGBLDPI	Calling Party Number PI Screening	Common
CGBLDSIN	Calling Party Number Small Integer Screening	Common
CGPNBLDR	Calling Party Number Builder	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

Data schema tables in this volume (Sheet 3 of 6)

Name	Description	Device, Manager or Application
CTHEAD	Country Code Head	Common
CUSTNTWK	Customer Group Network	Common
CUSTPROT	Customer Protection	Common
CUSTSTN	Customer Group Station	Common
CUSTSTN option CNDBO	Customer Group Station option Calling Number Delivery Blocking Override	Common
DIRPPOOL	Device Independent Recording Package	CS 2000 Core Manager
DIRPPOOL2	Device Independent Recording Package Pool 2	Common
DIRPSSYS	Device Independent Recording Package Subsystem	CS 2000 Core Manager
DNINV	Directory Number Inventory	MG9K
DNMAP	Directory Number Mapping	Common
DNROUTE	Directory Number Route	Common
DPCMAP	Destination Point Code Mapping	Common
E911ALI	Enhanced 911 Direct Access to ALI Controller	Common
E911ESN	Enhanced 911 Emergency Service Number	Common
E911NPD	Enhanced 911 Numbering Plan Digit	Common
E911PSAP	Enhanced 911 Public Safety Answering Point	Common
E911RCER	Enhanced 911 Remote Call Event Record	Common

Data schema tables in this volume (Sheet 4 of 6)

Name	Description	Device, Manager or Application
E911SRDB	Enhanced 911 Selective Routing Database	Common
EADAS	Enhanced Automatic Data Acquisition System	Common
EMMCDATA	Enhanced Meet-Me Conference Data	Common
ENCDINV	Enhanced Network Card Inventory	SPM
ENINV	Enhanced Network Node Inventory	IW SPM ATM, IW SPM IP, SPM
FACODE	Foreign Area Code	Common
FAHEAD	Foreign Area Code Head	Common
FLXCMAP	Flexible ISDN User Part Cause to Treatment Mapping	CS 2000 Management Tools
FTCODE	Utility Code	Common
FTHEAD	Utility Code Head	Common
FWINV	Firmware Inventory	Common
HNPACONT	Home Numbering Plan Area Code	Common
HUNTGRP	Hunt Group	Common
IBNFEAT feature SimRing	Simultaneous Ringing	Common
IBNLINES	IBN Line Assignment	SPM
IBNLINES option STN	IBNLINES Option Station	Common
IBNRT2	IBN Second Route	Common
IBNRT3	IBN Third Route	Common

Data schema tables in this volume (Sheet 5 of 6)

Name	Description	Device, Manager or Application
IBNRT4	IBN Fourth Route	Common
IBNRTE	IBN Route Table	Common
ILRCLASS	International Line Restriction Class	Common
IOC	Input/Output Controller	Common
ISDNPARM	ISDN Trunk Subgroup Parameter	SPM
ISDNPROT	ISDN Protocol Variant Timer	SPM
ISERVOPT	International Service Option	Common
ISUPDEST	CCS7 ISDN User Part Destination	MG4K, SPM
KSETINV	Business Set and Data Unit Inventory	Common
LGRPINV	Logical Group Inventory	Common
LINEATTR	Line Attribute	SPM
LIUINV	Link Interface Unit Inventory	Common
LOGTHROT	Logs Throttling	Common
LTCALLS	Logical Terminal Calls	MG4K
LTCINV	Line Trunk Controller Inventory	MG9K
LTDATA	Logical Terminal Data	Common
LTDEF	Logical Terminal Definition	MG4K, SPM
LTMAP	Logical Terminal Mapping	MG4K, SPM
MNCKTPAK	Management Network Circuit Pack	DPT SPM ATM, IW SPM ATM, MG4K, SPM
MNIP	Management Network Internet Protocol	MG4K

Data schema tables in this volume (Sheet 6 of 6)

Name	Description	Device, Manager or Application
MNLINK	Management Network Link	DPT SPM ATM, IW SPM ATM, SPM
MNNODE	Management Network Node	DPT SPM ATM, IW SPM ATM, MG4K, SPM
MNPRIIID	PRI Interface Identification	MG4K, SPM
MNPRTGRP	Management Network Protection Group	DPT SPM ATM, IW SPM ATM, MG4K, SPM
MNSHELF	Management Network Shelf	DPT SPM ATM, IW SPM ATM, MG4K
MPC	Multiprotocol Controller	Common
MPCFASTA	Multiprotocol Controller Fast Applications	Common
MPCLINK	Multiprotocol Controller Link	Common
MPCLSET	Multiprotocol Controller LINKSET	Common
MSCIDMAP	Mobile Switching Center Identifier Mapping	Common
MULTITM	Multi Time Zone Support (M)	Common
MULTITZ	Multi Time Zone Support (Z)	Common

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

AABSFILT

Automated Alternate Billing Service Filter Table

Table AABSFILT expands feature AJ0914 (Traffic Operator Position System [TOPS] terminating code screening) to include the feature AF1104 (Automated Alternate Billing Service [AABS]) so that calling card placed calls can be screened without operator intervention.

Table AABSFILT contains billed numbers for AABS collect and third-party billed calls. These billed numbers can be used to filter future calls for potential fraud or low quality voice transmission or both.

The table allows screening for numbers up to 18 digits in length. This gives the operating company the flexibility to screen individual calling card numbers (14 digits) for fraud, or in the case of low quality voice transmission, a three-digit numbering plan area (NPA) could be used as a screening number.

For related information, refer to table VSNOPT.

Datafill sequence and meaning

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

The parameter AABS_FRAUD_FILT in table VSNOPT must be set to Y (yes) to allow for potential fraud screening in table AABSFILT.

Table size

0 to 10 000 tuples

Datafill

The following table lists the datafill for table AABSFILT.

Field, subfield, and refinement descriptions for table AABSFILT

Field	Subfield or refinement	Entry	Explanation and action
BILLNUM		numeric (1 to 18 digits)	Billed number. Enter the number that is to be filtered.
SCRNFOR		PFRAUD BADVOICE BOTH, or NONE	Screen number condition. Enter the condition that the number is screened for. Enter PFRAUD to screen for potential fraud. Enter BADVOICE to screen for poor quality voice transmission. Enter BOTH to screen for poor quality voice transmission and potential fraud. Enter NONE to skip screening for a number. The option NONE is used so that the operating company can turn the screening off for a particular number, instead of deleting the tuple from the table.

Table history

SN08

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

AABSOST

Automated Alternate Billing Service Originating Station Treatment Table

Table AABSOST allows the operating company to specify which Traffic Operator Position System (TOPS) trunks are eligible for Automated Alternate Billing Service (AABS). Table AABSOST contains one entry for each incoming or two-way TOPS trunk group in the office. Each tuple in table AABSOST consists of two parts. The first part specifies whether calls from public stations arriving over that trunk group are eligible for AABS handling; the second part specifies whether calls from private stations arriving over that trunk group are eligible for AABS handling. For both public and private stations, the following attributes can be specified:

- No AABS service is provided for calls over that trunk group. In this case, 0+ calls over this trunk group are routed to an operator.
- AABS service is provided for calls over that trunk group, in which case, the originating station treatment (OST) must be specified. The OST choices are tone or tone and announcement.
- AABS service eligibility is determined based on the results of a query to a billing validation authority (BVA). In this case, the operating company needs to identify a default OST in case the query to the BVA fails.

Datafill sequence and meaning

The following tables must be datafilled after table AABSOST.

- CLLI
- TRKGRP

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

Table size

0 to 8191 tuples

The size of table AABSOST is controlled by the entry for table TRKGRP in table DATASIZE.

Datafill

The following table lists the datafill for table AABSOST.

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

Field	Subfield or refinement	Entry	Explanation and action
GRPKEY		see subfields	Group key. This field consists of subfield CLLI.
	CLLI	alphanumeric (1 to 16 characters)	Common language location identifier. Enter the CLLI of the Traffic Operator Position System (TOPS) trunk group. The CLLI name must be previously datafilled in tables CLLI and TRKGRP.
PUBLIC		see subfields	Public station. This field consists of subfield STAT. This is the first part of the tuple. It specifies whether Automated Alternate Billing Service (AABS) is provided on public telephones (hotel, coin, and restricted).
	STAT	BVCLOOK, NOSERV, or SERV	Public station status. This field specifies whether AABS is provided for telephone calls from public stations over that trunk group. Enter BVCLOOK if a database query must be made to determine whether AABS is provided and datafill refinement OST. Enter NOSERV if AABS is not provided. Go to field PRIVATE. Enter SERV if AABS is provided and datafill refinement OST.

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

Field	Subfield or refinement	Entry	Explanation and action
	OST	NOAABS, TONE, or TONEANN	Originating station treatment. This field specifies the type of OST to apply to the line if AABS is provided. Enter NOABBS if no AABS service is provided to the line. Enter TONE if only a tone is applied to the line. Enter TONEANN if both tone and announcement are applied to the line. If field STAT is set to SERV, refinement OST must be set to TONE or TONEANN.
PRIVATE		see subfield	Private station. This field consists of subfield STAT. This is the second part of the tuple. It specifies whether AABS is provided on private telephones.

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

Field	Subfield or refinement	Entry	Explanation and action
	STAT	BVCLOCK, NOSERV, or SERV	Private station status. This field specifies whether AABS is provided for telephone calls from private stations over that trunk group. Enter BVCLOOK if a database query must be made to determine whether AABS is provided, and datafill refinement OST. Enter NOSERV if AABS is not provided. No further datafill is required. Enter SERV if AABS is provided, and datafill refinement OST.
OST		NOAABS, TONE, or TONEANN	Originating station treatment. This field specifies the type of OST to apply to the line if AABS is provided. Enter NOABBS if no AABS service is provided to the line. Enter TONE if only a tone is applied to the line. Enter TONEANN if both tone and announcement are applied to the line. If field STAT is set to SERV, refinement OST must be set to TONE or TONEANN.

Table history

SN08

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

ACBTAB

All Circuits Busy Table

Table ACBTAB sets the threshold values and hysteresis functions for real-time route status functionality.

Datafill sequence and meaning

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

Tuples are deleted from table TRKSGRP after deletion of the entry that corresponds in table ACBTAB occurs. The values that use table ACBTAB must be calculated again before tuples are added to table TRKMEM.

Table size

0 to 3072 tuples

Datafill

The following table lists the datafill for table ACBTAB.

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

Field	Subfield or refinement	Entry	Explanation and action
CLLI		alphanumeric (1 to 16 characters)	Common language location identifier. This field contains the common language location identifier.
SCANNUM		numeric (0 to 3271)	Scanning number. Enter a numeric value to identify the trunk group position for the scanning process.
MINACB		numeric (0 to100)	Minimum all circuits busy. Enter a percentage value to indicate the lower state boundary.
MAJACB		numeric (0 to 100)	Major all circuits busy. Enter a percentage value to indicate the middle state boundary.
CRITACB		numeric (0 to 100)	Critical all circuits busy. Enter a percentage value to indicate the highest state boundary.

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

Field	Subfield or refinement	Entry	Explanation and action
ACBDELTA		numeric (0 to 5)	All circuits busy delta. Enter a number to represent a percentage increase and decrement for each of the percentage values entered in fields MINACB, MAJACB and CRITACB. This percentage increase is for hysteresis purposes and acts as a band around each state boundary. This band must be fully crossed before recognition of a change from one state to another can occur. The band is fully crossed to prevent oscillation between states and reduces the amount of output.
ACBSCANS		numeric (0 to 5)	All circuits busy scans. Enter a number to indicate the number of scans for which a changed state must remain constant. The state must remain constant before the scanning process identifies the state change.

Table history

SN08

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

ACCINDEX

Accounting Route Index Table

Table ACCINDEX maps an accounting route index (ARI) to the accounting route number (ARN). The switch uses the map to identify a specified call accounting route. Involvement of a TIE route means call accounting purposes require this mapping. The ARN assigned to a specified call accounting route is for only one switch. The specified ARI is different. Performance of the billing occurs on the ARN.

Datafill sequence and meaning

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

Table size

1 to 5001 tuples

Datafill

The following table lists the datafill for table ACCINDEX.

Field, subfield, and refinement descriptions for table ACCINDEX

Field	Subfield or refinement	Entry	Explanation and action
ACCINDEX		0 to 5000	Accounting route index. This field is the key to the table. Enter an accounting route index.
ARI		0 to 4294967295	Accounting route index. This field contains two sections. The first section (bits 0 to 11) contains an engineering route for a specified switch. The second section (bits 12 to 15) contains a value that identifies the switch. This value gives a specified value to the accounting route index (field ARN). This value identifies the ARN between a maximum of 16 different switches. Field ARI is the index for this table. Field ARI is passed in the telephone user part (TUP)(E) or ISDN user part (ISUP)(E) message. This message is received from a TIE route. The field ARN value taken from the TIE route is for accounting purposes.
ARN		0 to 320	Accounting route number. Field ARN represents an integer count. Enter 0 (zero) to represent the null condition. Enter a value from 1 to 320 to represent the route of the incoming call.

Table history

SN08

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

ACCODE

Access Code Table

The following table lists all of the “CODE” tables. Throughout this document, “xxCODE” represents one of the CODE tables.

Universal translation tables

Table name	Form title
ACCODE	Access Code Table Record
AMCODE	Ambiguous Code Table Record
CTCODE	Country Code Table Record
FACODE	Foreign Area Code Table Record
FTCODE	Utility Code Table Record
NSCCODE	Number Service Code Table Record
OFCCODE	Office Code Table Record
PXCODE	Prefix Code Table Record

Each xxCODE table has a corresponding xxHEAD table and xxRTE table. (There is no table AMRTE.) Each type of table is datafilled identically.

The starting point for translations is the xxCODE table given in the trunk data or table NETATTR, using the translation selector UNIV followed by the appropriate translation system and table name. Before the table name can be datafilled, it must be defined in the xxHEAD table of the appropriate translation system. The path through the translation tables is given exclusively by option XLT. Option XLT is specified in selectors CONT or DMOD in the xxCODE table, and in selectors DFOP or DFLT of the xxHEAD table.

In general, if the same option is found in two different tuples during a pass through translations, the value in the last tuple is used. For example, if field CLASS is set to LCL in table PXCODE, it can be reset to NATL in table FACODE.

For related information, refer to table ACHEAD.

Datafill sequence and meaning

The following tables must be datafilled before table xxCODE:

- TERMINFO
- xxHEAD
- xxCODE
- MDESTIDX (only for the Advice of Charge feature)
- SERVPROF
- BCDEF
- NSCDEFS (if translation selector DBQ is used)
- TRKSGRP (if optional selector CGNDM for translation selector DMOD is used)
- LNETWORK (only for the Advice of Charge feature)
- CDNCHAR
- CLISERV

Only automatic number identification (type ANI) and international metering (type MTR) trunk group originations support the option selector CAMA. All other call types ignore this translation option.

For emergency calls translation, class EMRG must be datafilled. This can be done before or after translation selector CONT with option selector CLASS. This requirement differentiates between normal mobile originated calls and emergency calls set up by a conventional SETUP message.

Optional selector CGNDM can be used with translation selector DMOD if the switch is equipped with module IXLACLI and the default Calling Line Identification (CLI) is datafilled in table TRKSGRP. Different default CLIs can be datafilled on requirements. Optional selector CGNDM must also be datafilled in table ACCODE to activate the feature.

The following office parameters affect table xxCODE:

- ICAMA_REQUESTED in table OFCVAR
- IAA_REQUESTED in table OFCVAR
- IMEI_ACCEPTABLE_FOR_EMRG_CALL in table OFCVAR

For option selector CAMA (used in translation selectors CONT, DNRTE, and RTE), set office parameter ICAMA_REQUESTED in table

OFCVAR to Y (yes) if international centralized automatic message accounting (ICAMA) detailed call recording is required.

An inter-administration accounting (IAA) record can be generated by selecting office parameter IAA_REQUESTED in table OFCVAR, and selector CAMA.

Office parameter IMEI_ACCEPTABLE_FOR_EMRG_CALL in table OFCVAR provides an option for the network operator to accept emergency call setups from mobile stations that transmit the international mobile equipment identity (IMEI) instead of the international mobile subscriber identity (IMSI) or temporary mobile subscriber identity (TMSI). The default value allows emergency call setups with IMEI as the identifier if, for example, no serial interface module (SIM) is present.

Option NETINFO can only be added to selectors CONT and RTE if the option QFT ON is datafilled in the same tuple for which the NETINFO option is added.

Table size

There is no fixed maximum number of tuples in each table, but the maximum total number of tuples is 32 768. The number of tuples is allocated dynamically. Memory is allocated when field XLANAME is datafilled in the xxHEAD table.

Note 1: The maximum number of tuples may vary due to compression and expansion of tuples.

Note 2: Depending on the range of “from digits” and “to digits” within each tuple, the table can run out of room before the maximum of 32 768 tuples is reached. This is due to the number of digilator blocks used by all the tuples in the table.

Note 3: The DMSMON DBLOCKS tool can be used to monitor the size of this table.

Tuple compression

Starting in release TL006, the CONSUME option is always datafilled. If it is not datafilled by the operating company personnel, the universal translation (UXLA) system's write procedure automatically adds the

datafill and sets it to the original key length. This action is taken for the following reasons:

- The UXLA system only has access to the key length in the write procedure for table xxCODE. It is done at this time so the key length is available if required during call processing.
- If tuple compression or expansion changes the key length, the consume value cannot be updated to reflect these changes. The result is that translations consume the original key length, not the current key length, during call processing. CONSUME is forced to be datafilled to make the operating company personnel aware of the number of digits that are consumed. Therefore, the default option (DFOP) CONSUME is not used.

When a tuple is initially added to table xxCODE, the key length is stored. If the tuple is then split, the new tuple's length is stored for that tuple. At this point, there are three tuples, two of one length, and a third of a different length. If the tuple that is now out of the first range of digits is changed to the original value, it will not compress because the original length of the three tuples is different. See the following examples. (The consume option is not on for any of the tuples in these examples.) The entry “exp_tuple” represents the XLANAME table entry.Original tuple: add exp_tuple 0181 0181 feat...The tupleissplit:repexp_tuple01818100181810dnrte...Resultingtuples:

```
exp_tuple 0181 0181809 feat... (hidden consume = 4)

exp_tuple 0181810 0181810 dnrte..(hidden consume = 7)

exp_tuple 0181811 0181811 feat...(hidden consume = 4)
```

If the middle tuple is changed back to the original value the result is as follows:`rep exp_tuple 0181810 0181810`

Resulting tuples:

```
exp_tuple 0181 0181809 feat... (hidden consume = 4)

exp_tuple 081810 0181810 feat... (hidden consume = 7)

exp_tuple 0181811 0181 feat... (hidden consume = 4)
```

The tuples did not compress because the tuples must be identical in content and key length. To compress the tuple see the following:

Enter:

rep exp_tuple 0181000 018809 feat...

rep exp_tuple 0181811 0181999 feat...

Resulting tuple:

```
exp_tuple 0181 0181 feat...
```

If a tuple is added, for example:

add exp_tuple 0182 0182 feat...

Resulting tuples:

```
exp_tuple 0181 0181 feat... (hidden consume = 7)

exp_tuple 0182 0182 feat... (hidden consume = 4)
```

To compress these tuples, enter:

rep exp_tuple 0182000 0182999 feat...

Resulting tuple:

```
exp_tuple 0181 0182 feat... (hidden consume = 7)
```

Datafill

The following table lists the datafill for table ACCODE.

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

Field	Subfield or refinement	Entry	Explanation and action
XLANAME		alphanumeric (1 to 8 characters)	Translation name. Enter the name from the corresponding head table.
FROMD		numeric (1 to 11 digits)	From digit. Enter the digit or digits that represent a single number or the first in a block of consecutive numbers that have the same result given in field XLADATA. See the following notes.

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

Field	Subfield or refinement	Entry	Explanation and action
TOD		numeric (1 to 11 digits)	To digits. If field FROMD represents a single number, enter the number that is equal to the number in field FROMD. If field FROMD represents the first number of a block of consecutive numbers, enter the last number in the block. See notes below.
Note 1: Adding or changing a tuple affects all digit combinations between fields FROMD and TOD; however, command DELETE only deletes the tuple at field FROMD. ***Note 2:*** Because of the way the FROM and TO digit key is implemented, the operation of table control requires additional explanation. For example, a tuple is datafilled with the value in field TOD greater than the value in field FROMD (field FROMD is set to 3 and field TOD is set to 8). If a user positions on a tuple with fields FROMD and TOD within the datafilled range, the tuple is displayed as if only those digits are datafilled as the key. In this example, the user positions on the tuple with fields FROMD and TOD both equal to 5. The tuple is displayed with both fields equal to 5. The information is being requested for the given key. If the user then displays the previous tuple, fields FROMD and TOD contain the digits originally datafilled before the current FROMD digit. In this example, the FROMD and TOD digits are 3 and 8. If the user now displays the next tuple, the digits following the currently displayed TOD field are displayed, 5 and 8.			
XLADATA		see subfield	Universal translations data. This field consists of subfield XLASEL. Subfield XLASEL and its refinements are described following the description of field CONTMARK.
CONTMARK		+ or $	Continuation mark. Enter + if additional information for this tuple is contained in the next record. Otherwise, enter $ to indicate the end of the tuple.

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

Field	Subfield or refinement	Entry	Explanation and action
	XLASEL	CONT, DBQ, DMOD, DNRTE, FEAT, FEATINFO, HRC, IAC, RTE, or TRMT	Translation selector. Enter one of the following values: Enter CONT and datafill its refinements if further translation is required. Enter DBQ and datafill its refinements to perform a database query. Enter DMOD and datafill its refinements if the input digit stream requires modification. Enter DNRTE and datafill its refinements if the input digits are routed—normally to a line. Enter FEAT and datafill its refinements if access to a feature is required. Enter FEATINFO and datafill its refinements to trigger the screening function. Enter HRC and datafill its refinements if the home routing code selector is required for local number portability applications. Enter IAC and datafill its refinements if the insertion of own area code is required when an ambiguous area code is found through translations. Enter RTE and datafill its refinements if the call is routed to a trunk. Enter TRMT and datafill its refinements if a call is routed to treatment.

XLASEL=CONT

If the entry in field XLASEL is CONT, datafill the following refinements.

This selector is used if more translation is required. The next table to use is given by option XLT. Option CON in the xxHEAD table entry for the current XLANAME determines whether the digits that were used to index the current table are to be consumed (that is, ignored by the next table). For example, in a pretranslator, the digits are not usually consumed, but they are consumed when continuing from the office code table (OFCCODE) to table DNINV. The consumed digits are not deleted from the digit register; they are ignored for the moment.

Note: If translation continues and no next translation table is specified (with option XLT), UXLA reenters the same table it is currently in. If option CON is set in the xxHEAD table, a new translation results because different digits are used. If a next translation table is not specified and option NOCON is set, UXLA reenters the same table with the same digits, gets the same result, and continues looping through the table.

It is possible to datafill the tables so that the same table is explicitly reentered, but it is not recommended because it makes the sequence very difficult to follow and prone to error. (The same table refers to the same table in the same translation system. It is correct to enter a different table in the same translation system if option XLT is used.) If the same table is entered, it is datafilled explicitly. If selector CONT is used, option XLT must be datafilled in the xxCODE table tuple or in the default options (DFOP) of the corresponding xxHEAD table.

If selector CONT is used in the default tuple (DFLT), option XLT must be datafilled. The selector DMOD does not use the default options from the xxHEAD table, so option XLT must also be datafilled in the xxCODE table tuple.

Table AMAXLAID must be datafilled prior to selecting option AMAXLAID.

If options CDNRTE and CPCRTE are both present in one tuple in table xxCODE, call processing accesses routing tables in the following order: table CPCUXLA is accessed first. If no match is found, table CDNUXLA is accessed next.

If options SETCDN and CDNRTE are both present in one tuple in table xxCODE, call processing accesses table CDNUXLA first, before the SETCDN option sets the called number name (CDNNAME).

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, and the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	OSEL	ACF, AMAXLAID, CALLCTRL, CALLDUR CAMA, CATRTE, CDN, CDNRTE, CHGIND, CLASS, CLIOVRD, CONSUME, CPCRTE, CPMCALL, DDIDX, DEST, DESTOM, DFT, EXTCIC, IAA, LNET, MM, MZONE, NETINFO, NETSRV, NICRF, NOANSTIM, NTAIO, NTAIT, OSS, PCC, PF, PNRF, PORTED, PRESEL, PRIVL, QFT, SETCDN, TELETAXE, TOC, VPN, or XLT	Option selector. The following options can be selected: Enter ACF, followed by a space, and datafill refinement ACF if the area code fence is defined. Enter AMAXLAID, followed by a space, and datafill refinement XLAID to specify an automatic message accounting (AMA) identity from within table AMAXLAID. Enter CALLCTRL, followed by a space, and datafill refinement CALLCTRL. The entry in refinement CALLCTRL indicates who has control of the call: the calling party, the called party, or both. Enter CALLDUR, followed by a space, and datafill requirement CALL_DURATION_TIMER. The entry in refinement CALL_DURATION_TIMER defines the call time limit for Premium Rate Service calls

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			. Enter CAMA, followed by a space, and datafill refinement CLDFMT. The entry in field CLDFMT indicates whether the international centralized automatic message accounting (ICAMA) record is generated with the originally signaled directory number (DN) or the final public switched telephone network (PSTN) number. Enter CATRTE to allow charge category routing in IBN translations. Enter CDN, followed by a space, and datafill refinement CDN to select the nature of address field. This field is used to identify the called party of the initial address message (IAM). This selector is used for Australian ISDN user part (AISUP) call translations. Enter CDNRTE to route using the called number name (CDNNAME) from table CDNCHAR. If the CDNNAME is present on the incoming call or is set by the SETCDN option, translation proceeds to table CDNUXLA. Enter CHGIND, followed by a space, and enter refinement CHGIND. Enter CLASS, followed by a space, and datafill refinement CLASS if the class of the dialed digits can be determined. For the Japan market, if both the CLASS and IAA options are in use, IAA must precede CLASS in the datafill order.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Enter CLIOVRD, followed by a space, and datafill refinement CLIOVRD to block or allow per-call delivery of a calling line identity (CLI). The entry in refinement CLIOVRD indicates whether the CLI can be blocked per-call, CNB (calling number blocked), or CNA (calling number allowed). Enter CONSUME, followed by a space, and datafill refinement CONDIGS to specify the number of digits that are consumed during translation. Enter CPCRTE to route using the calling party category (CPCNAME) from table CPCCHAR. If the CPCNAME is present on the incoming call, translation proceeds to table CPCUXLA. Enter CPMCALL, followed by a space, and datafill refinement CPMCALL to specify call billing against the called party instead of the calling party for intra-office calls. Enter DDIDX, followed by a space, and datafill refinement DDIDX if a destination discount applies. Enter DEST, followed by a space, and datafill refinement DEST if the destination is known. Enter DESTOM in order to associate a destination OM name with a particular destination. Enter DFT for DPNSS feature transparency functionality. Operates in conjunction with the QFT option (see later). QFT must be ON.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Enter EXTCIC, followed by a space, and datafill refinements SOURCE, SKIPDIGS, and CICSIZE. EXTCIC is the external carrier identification code that indicates a long distance carrier in the global environment. This option is only supported for TOPS calls. For further information, refer to functionality Global Competitive Access, GOS00006. Enter IAA and the datafill refinement IAA_INDEX to generate or modify IAA message parameters based on datafill in table IAACTRL. ***Note:*** For the Japan market, if both the IAA and CLASS options are in use, IAA must precede CLASS in the datafill order. Enter LNET, followed by a space, and datafill refinement LNET if a logical network is required for metering. Enter MM, followed by a space, and datafill refinements MIN and MAX if the minimum and maximum dialed digits are known. ***Note:*** The Attendant Console does not abide by normal digit collection timers. When the max digits in translations have not been dialed, a ten second post dial delay (PDD) occurs. Long and short timers are ignored.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Enter MZONE, followed by a space, and datafill refinement MZONE if metering is to be done on the call. Enter NETINFO to ensure that the customer group identifier and NCOS are transported to the terminating node to trigger the private IBN translations in a VPN. The private IBN translations are invoked only if options VPNXLT and IBNRX are datafilled at the terminating node. Enter NETSRV and datafill refinement NETSRV_NAME to indicate a Japan network service. Enter NICRF to activate the Network Identification Code (NIC) routing function. Enter NOANSTIM to the CONT selectors. This turns the T9 timer off in the outgoing ISUP trunk, if encountered. Enter NTAIO to mark the call destination. Enter NTAIT to mark the call destination. Enter OSS to indicate Operator Services Signaling is necessary. The OSS option does not have subfields. Enter PCC, followed by a space, and datafill refinement PCCDR if a pseudo country code is required. Enter PF, followed by a space, and datafill refinement PFDIGS if there are prefix digits in the digit stream.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Enter PNRF to invoke the ported number recognition function. Enter PORTED to indicate that a previous node detected the service number of this call to have been ported. Enter PRESEL, followed by a space, if the call is to be treated as a preselected carrier case. Enter PRIVL, followed by a space, and datafill refinement PRIVL if the user is a privileged user (for example, operators). Enter QFT followed by ON or OFF to indicate if an outgoing route is capable of QSIG Feature Transparency. Enter SETCDN to trigger the setting of outgoing called party characteristics. This option assigns the called number name (CDNNAME) from table CDNCHAR to the call. If the CDNRTE option is subsequently encountered, the CDNNAME is used to route the call. You can use the SETCDN option to allow CDN routing when incoming agents such as DPNSS or BTUP are not available in table CDNCHAR. Enter TELETAXE. The TELETAXE option does not have subfields. Enter TOC, followed by a space, and datafill refinement CHG for the type of charge if the type of charge messaging is selected.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Enter VPN, followed by a space, and datafill refinements ONNET and BILLABLE if the call routes through a service switching point (SSP) and the Australian VPN SSP feature is in the switching unit. Enter XLT, followed by a space, and datafill refinement XLASYS if the call is to proceed to another translation system.
	ACF	0 to 29	Area code fence. If the entry in subfield OSEL is ACF, datafill this refinement. Enter the number of digits between the beginning of the digits to currently index the table, and the end of the area code.
	BILLABLE	Y or N	Virtual private network billable call. If the entry in subfield OSEL is VPN, datafill this refinement. Enter Y if an AMA record is required for each VPN call. Otherwise, enter N. An AMA record is not generated if an address complete message (ACM) of address complete—no charge is returned, or if the call terminates in the SSP on a line with the free number terminating (FNT) option.
	CALLCLASS	PRESELECT OVERRIDE, CALLTYPE, CSN,TRUNK	Call class. If the entry in subfield OSEL is PRESEL, enter PRESELECT to treat the DN as a preselected call. Enter OVERRIDE to permit the DN to use override codes. For charge category routing, enter CALLTYPE. Enter CSN to treat the DN as a carrier specific number. Enter TRUNK to permit access to trunk originated calls.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	CALLCTRL	CALLED, CALLING, LAST, or MUTUAL	Call control. If the entry in subfield OSEL is CALLCTRL, datafill this refinement. Enter one of the following values to specify the party controlling the call: • If the entry is CALLED and the called party goes on-hook first, the call is released immediately. If the calling line goes on-hook first and does not reanswer, the connection is not released until the called line goes on-hook. There are no time-outs, and the calling party is allowed to reanswer until the called line goes on-hook. Calls to lines with option ESG must have CALLCTRL(CALLED). Calls terminating on an International Traffic Operator Position System (ITOPS) must have CALLCTRL (CALLED) • If the entry is CALLING and the calling line goes on-hook first, the call is released immediately. If the called line goes on-hook first, the called party is allowed to reanswer within a datafilled reanswer time-out or until the calling line goes on-hook. If the time-out expires or if the calling line goes on-hook, the calling party releases the call and the called party is set to idle.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
			Call control (continued). Enter one of the following values to specify the party controlling the call: • If the entry is LAST, the call is released when the later of the called party or the calling party goes on-hook. If either party goes on-hook, that party is allowed to reanswer within a datafilled reanswer time-out or until both parties go on-hook. • If the entry is MUTUAL and either line goes on-hook, the call is released immediately.
	CATRTE	CATRTE	Enter CATRTE to allow charge category routing in IBN translations.
	CDNNAME	alphanumeric string	If the entry in subfield OSEL is SETCDN, enter data for the CDNNAME refinement to allow CDN routing.
	CHG	SEND_ CHARGE or SEND_NO_ CHARGE	Charge. If the entry in subfield OSEL is TOC, datafill this refinement. Enter **SEND_CHARGE** to set the answer message (BTUP ANM) type of answer (TOA) string sent from a node to SEND_CHARGE. Enter **SEND_NO_CHARGE** to set the answer message (BTUP ANM) type of answer (TOA) string sent from a node to SEND_NO_CHARGE.
	CHGIND	ASIS, CHG, or NOCHG	If the entry in subfield OSEL is CHGIND, enter data for refinement CHGIND. The CHGIND refinement indicates whether to override the value of the charge indicator in the Backward Call indicators. Datafill the CHGIND field with the following values: • ASIS—treat charge indicator as is • CHG—treat charge indicator as charge • NOCHG—treat charge indicator as no charge

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	CICSIZE1 to 4	1 to 4	CIC size. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field indicates the number of digits in the CIC. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number. The MAP display indicates the range is 0 to 4; however, the system does not allow 0.
	CLDFMT	CURRENT or POSTXLA	Called format. If the entry in subfield OSEL is CAMA, enter either CURRENT or POSTXLA to produce the required ICAMA record format. If the entry is CURRENT, an ICAMA record is produced with the signaled DN (without translation). If the entry is POSTXLA, an ICAMA record is produced with a public switched telephone network (PSTN) number resulting from translations.
	CLDFMT	CURRENT or POSTXLA	Called format. If the entry in subfield OSEL is CAMA, enter either CURRENT or POSTXLA to produce the required ICAMA record format. If the entry is CURRENT, an ICAMA record is produced with the signaled DN (without translation). If the entry is POSTXLA, an ICAMA record is produced with a public switched telephone network (PSTN) number resulting from translations.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, COLL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC, UNKW, or URBAN	Translation CLASS. If the entry in subfield OSEL is CLASS, datafill this refinement. Enter the translation class determined by the dialed digits, as listed below. (This can be used for screening or billing purposes as described under CLASS in screening and charging options.) • ATT (attendant console) • CNTL (continental) • COLL (collect) • DATT (dial attendant) • EMRG (emergency) • IAGRP (interagent group) • ICNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted)
			• LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown) • URBAN (urban) Entry Explanation and action
	CLIOVRD	CNA, CNB	If the entry in subfield OSEL is CLIOVRD, enter data for the CLIOVRD refinement to block or allow delivery of a calling line identity for each call. Enter CNA (calling number allowed) or CNB (calling number blocked).

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	CONDIGS	0 to 29 digits	Consumed digits. If the entry in subfield OSEL is CONSUME, datafill this refinement. Enter a number to explicitly define the number of digits consumed during call processing.
	CONTINUE	CONT or NOCONT	Continue. If the entry in subfield OSEL is PRESEL, enter CONT to continue translations through UXLA. Enter NOCONT to immediately route translations through PCIXLA or PCITRK.
	CPMCALL	Y or N	Called party metering. If the entry in subfield OSEL is CPMCALL, datafill this refinement. Enter Y (yes) if calls are billed against the called party for intra-office calls. Enter N (no) for the default value of billing against the calling party for intraoffice calls.
	DDIDX	1 to 63, or DEFAULT	Destination discount index. If the entry in subfield OSEL is DDIDX, datafill this refinement. Enter the destination discount index number, which is an index in table AOCOPT.
	DEST	0 to 1023	Destination route list index. If the entry in subfield OSEL is DEST, datafill this refinement. Enter the number in the route list of the translation system that the call is routed to.
	DESTOM	Destination OM names that are datafilled in table TERMINFO (16 character vector).	Destination and route based OMs. If the entry in subfield OSEL is DESTOM, datafill this refinement.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	IAA_INDEX	0 to 1024	Interadministration accounting index. If the entry in subfield OSEL is IAA, datafill this refinement. Enter the value that indexes the corresponding tuple in table IAACTRL.
	LNET	alphanumeric (1 to 8 characters)	Logical network. If the entry in subfield OSEL is LNET, datafill this refinement. Enter the logical network name that the call is on. The logical network name must be previously datafilled in table LNETWORK. The entry in this field is used by the international metering system to determine a tariff for the call.
	MAX	0 to 30	Maximum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the maximum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MIN	0 to 30	Minimum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MZONE	0 to 63	Metering zone. If the entry in subfield OSEL is MZONE, datafill this refinement. Enter the metering zone of the call, in the logical network as defined by selector LNET. The entry in this field is an index (DESTZONE) in table MDESTIDX.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	NETSRV_ NAME	IPHS, DPHS, MOBILE, DA, TELEGRAM, or NCC	Network service name. If the entry in subfield OSEL is NETSRV, datafill this refinement. The entry in this field determines the parameters in an outgoing IAM message. Enter IPHS to indicate a call to an independent personal handyphone system subscriber. Enter DPHS to indicate a call to a dependent personal handyphone system subscriber. Enter MOBILE to indicate a call to a mobile subscriber. Enter DA to indicate a call to the directory assistance operator. Enter TELEGRAM to indicate a call to the Telegram office. Enter NCC to indicate a call routed to one of the following networks: • New Common Carrier serving international toll traffic • New Common Carrier serving national toll traffic
	NICRF	NICRF	NIC routing function. This option allows transit calls prefixed with the NIC to access table PNINFO to route the call based on the NIC. Note that the NICRF and PNRF options are incompatible and cannot be datafilled on the same tuple.
	NOA	INTL, LOCAL, NATL, or NET	Nature of address. Enter the required called party nature of address as follows: • INTL (international) • LOCAL (local) • NATL (national) • NET (Intelligent Network Services)

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	ONNET	Y or N	Call on virtual private network. If the entry in subfield OSEL is VPN, datafill this refinement. Enter Y if the call stays within the defined virtual private network. Otherwise, enter N. Overlapped outpulsing is supported only on off-network calls. Calls processed without subfield ONNET set to Y are off-network calls. Meridian Digital Centrex (MDC) calls are treated as off-network calls, and therefore overlapped outpulsing is supported for MDC calls.
	PCCDR	0 to 9, B, C, D, E (1 to 3 digits)	Pseudo country code digits. If the entry in subfield OSEL is PCC, datafill this refinement. Enter the three-digit pseudo country code (PCC). If a two-digit PCC is required, it must be padded by a leading zero. The pseudo country code is used to record a particular pseudo country code. This can be extracted for use by system logic later, for example, two-stage outpulsing.
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they do remain stored in call detail records (CDR). ***Note:*** If refinements PF and CONSUME are both datafilled for the same tuple, only the entry for the greater of the two values is processed; the other entry is ignored.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	PFXAMA	0 to 4 digits, or N	Called party number prefix in AMA. If NOA is set to NTL, datafill PFXAMA with 0011. If NOA is set to NATL, datafill PFXAMA with 0. If NOA is set to LOCAL or NET, datafill PFXAMA with N.
	PNRF	PNRFOPTS	Ported number recognitions function. Datafill the PNRFOPTS options vector and the INSNNG subfields:
	INSNNG	See subfields PREFIX and TRUNK_ ACC ESS_DIG	
	PREFIX	0 to 11	PREFIX indicates the number of leading digits to be copied from an originator's DN and prefixed to the translating number.
	TRUNK_ ACCE SS_ DIG	0 to 9, or N	TRUNK_ACCESS_ DIG enables the specification of a trunk access digit to be prefixed to the translating number after the INSNNG_PREFIX function has been completed.
	PORTED	PORTED or blank	Number portability indicator. This entry indicates that the service number for this call has been ported.
	PRIVL	Y or N	Privileged user. If the entry in subfield OSEL is PRIVL, datafill this refinement. Enter Y (yes), if the user is a privileged user (for example, operator). Otherwise, enter N (no).

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	SKIPDIGS	0 to 24	Skip digits. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field indicates the number of digits to skip before extracting the carrier digits from the digit stream. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number.
	SOURCE	PRESUB or DIALED	Carrier identification code source. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field specifies the source of the CIC as follows: • PRESUB—presubscribed. The CIC is defined in table TRKGRP • DIALED—dialed. The CIC is entered by the subscriber when dialing a call
	STOPRTMR	Y or N	Stop remote timer. Enter Y to disable the address complete message (ACM) timer of the remote switch. The default value is N.
	XLAID	FREE, GENERIC1, GENERIC2, GENERIC3	AMA translation identifier. If the entry in subfield OSEL is AMAXLAID, datafill this refinement. Enter the AMA translation identifier to be used against table AMAXLAID.

Field, subfield, and refinement descriptions for XLASEL=CONT

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, FA, FT, NSC, OFC, PX	Translation system. If the entry in subfield OSEL is XLT, datafill this refinement. Enter the next translation system to use, followed by a space, then datafill refinement XLANAME. Enter one of the following: • AC (access) • AM (ambiguous) • CT (country) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix) ***Note:*** NIL is not a valid entry. NIL is used only to satisfy internal software functionality. NSC is not used in GL03.
	XLANAME	alphanumeric (1 to 8 characters)	Translation name. If the entry in subfield OSEL is XLT, datafill this refinement. Enter the translation name of the table within the XLASYS to which the call is routed.

XLASEL=DBQ

If the entry in field XLASEL is DBQ, datafill the following refinements.

Field, subfield, and refinement descriptions for XLASEL=DBQ

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, then the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.
	OSEL	MM, NSC, or PF	Option selector. The following options can be selected: Enter MM, followed by a space, and datafill refinements MIN and MAX, if the minimum and maximum dialed digits are known. Enter NSC, followed by a space, and datafill refinement NSCODE, if a number service code operation is to be performed on a call. Enter PF, followed by a space, and datafill refinement PFDIGS if there are prefix digits in the digit stream.
	MAX	0 to 30	Maximum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the maximum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.

Field, subfield, and refinement descriptions for XLASEL=DBQ

Field	Subfield or refinement	Entry	Explanation and action
	MIN	0 to 30	Minimum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	NSCODE	AIN, 800P, E008, E800, MAP_HLR, MAP_MSC, MAP_VLR, PVN, MAPHLR, REPLDIGS, or VPN	Number service code. If the entry in subfield OSEL is NSC, enter the required number service code for the operation to be performed on the call, as follows: AIN (advanced intelligent network) 800P (800+) E008 (Enhanced 008) E800 (Enhanced 800) MAP_HLR (mobile application part home location register) MAP_MSC (mobile application part mobile service switching center) MAP_VLR (mobile application part visitor location register) • MAPHLR (appears only if the MAP Interworking to BTUP feature is present on the switch) • PVN (private virtual network) • REPLDIGS (replace digits) VPN (Australian virtual private network)

Field, subfield, and refinement descriptions for XLASEL=DBQ

Field	Subfield or refinement	Entry	Explanation and action
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they do remain stored in call detail records (CDR).

XLASEL=DMOD

If the entry in subfield XLASEL is DMOD, datafill the following refinements.

If options CDNRTE and CPCRTE are both present in one tuple in table xxCODE, call processing accesses routing tables in the following order: table CPCUXLA is accessed first. If no match is found, table CDNUXLA is accessed next.

If options SETCDN and CDNRTE are both present in one tuple in table xxCODE, call processing accesses table CDNUXLA first, before the SETCDN option sets the called number name (CDNNAME).

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, and the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	OSEL	AFTER, CATRTE, CDNRTE, CGNDM, CHGIND, CONSUME, COODM, CPCRTE, DEL, DESTOM, EXTCIC, INSRT, PF, RBP, REPL, SETCDN, VPNREPL, VPNXLT, or XLT	Option selector. The following options can be selected: Enter AFTER, followed by a space, and datafill refinement AFTER if a certain number of digits must be skipped before modifying the digit stream. Enter CATRTE to allow charge category routing in IBN translations. Enter CDNRTE to route using the called number name (CDNNAME) from table CDNCHAR. If the CDNNAME is present on the incoming call or is set by the SETCDN option, translation proceeds to table CDNUXLA. Enter CGNDM, followed by a space, and datafill refinements PREFXCLI and INSRTCLI to remove digits from the calling line identification (CLI) and insert a datafilled digit string of up to five digits in the prefix string. The total length of the CLI and the digit string can be up to 18 digits. A modified CLI and digit string of more than 18 digits routes the call to treatment. Enter CONSUME, followed by a space, and datafill refinement CONDIGS to specify the number of digits that are consumed during translation. Enter COODM, followed by a space, and datafill refinement SERVICE to replace the dialed emergency code by the emergency number stored in table LAC.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
			Note: Option selector COODM must be combined with option XLT to guarantee that translation continues with the modified number. Selector COODM cannot be combined with any other option. Enter CPCRTE to route using the calling party category (CPCNAME) from table CPCCHAR. If the CPCNAME is present on the incoming call, translation proceeds to table CPCUXLA. Enter DEL, followed by a space, and datafill refinement DELDIGS. Further digits are accepted from the agent, and overlapped outpulsing is not affected. Digits being deleted are processed before those being inserted. Enter DESTOM in order to associate a destination OM name with a particular destination. Enter EXTCIC, followed by a space, and datafill refinements SOURCE, SKIPDIGS, and CICSIZE. EXTCIC is the external carrier identification code that indicates a long distance carrier in the global environment. This option is only supported for TOPS calls. For further information, refer to functionality Global Competitive Access, GOS00006.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
			Enter INSRT, followed by a space, and datafill refinement INSRDIGS. Further digits are accepted from the agent, and overlapped outpulsing is not affected. Digits being deleted are processed before those being inserted. ***Note:*** Digit insertion is done in the actual digit stream, and the changes are reflected in call detail records. Replacement and insertion cannot be datafilled in the same tuple. If both options are datafilled, the second option in the tuple is used. Enter PF, followed by a space, and datafill refinement PFDIGS, if there are prefix digits in the digit stream. Enter RBP without refinements. The entry RBP is used when a call is to be marked as Ringback Price. The RBP entry in table ACCODE suffixes a hexadecimal E to the calling digits for a call that translates using a tuple with option RBP. Enter REPL and datafill refinement REPLDIGS. Overlapped outpulsing is disabled, and all digits are collected before continuing. ***Note:*** Digit replacement occurs in the actual digit stream, and the changes are reflected in call detail records. Replacement and insertion cannot be datafilled in the same tuple. If both options are datafilled, the second option in the tuple is used.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
			Enter SETCDN to trigger the setting of outgoing called party characteristics. This option assigns the called number name (CDNNAME) from table CDNCHAR to the call. If the CDNRTE option is subsequently encountered, the CDNNAME is used to route the call. You can use the SETCDN option to allow CDN routing when incoming agents such as DPNSS or BTUP are not available in table CDNCHAR. Enter VPNREPL to replace the called party digits with the VPN called party digits conveyed across the public network by the QSIG Feature Transparency mechanism. Enter VPNXLT to replace the current translation system and translator name with the values stored in table BGIDMAP. The entry to table BGIDMAP is addressed by the NNI BGID and SIGNIFICANCE information received in the originating signaling for the call. ***Note:*** The VPNXLT and XLT options must not both exist in the same tuple. Enter XLT, followed by a space, and datafill refinement XLASYS if the call proceeds to another translation system.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	AFTER	0 to 29	After. If the entry in subfield OSEL is AFTER, datafill this refinement. Enter the number of digits to skip before doing the modification. The default case is to calculate the new prefix fence, and replace, insert, or delete digits after the fence (for example, starting at the next digit). Option AFTER is an additional number of digits to skip before doing the modification. Option AFTER refers to the option datafilled immediately before it. For example: **>DMOD DEL 3 AFTER 2 INSRT 11** skips two digits, deletes the next three, and inserts digits 11 at the beginning of the digit string. The result when applied to 234567 is 23117. ***Note:*** Datafilling this refinement with 0 (the default value), displays the following error message: `Too few digits for AFTER UNSUPPORTED OPTION AT: # PROCESSING ERROR UNEXPECTED ERROR CONDITION`
	CATRTE	CATRTE	Enter CATRTE to allow charge category routing in IBN translations.
	CDNNAME	alphanumeric string	If the entry in subfield OSEL is SETCDN, enter data for the CDNNAME refinement to allow CDN routing.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	CHGIND	ASIS, CHG, or NOCHG	If the entry in subfield OSEL is CHGIND, enter data for refinement CHGIND. The CHGIND refinement indicates whether to override the value of the charge indicator in the Backward Call indicators. Datafill the CHGIND field with the following values: • ASIS—treat charge indicator as is • CHG—treat charge indicator as charge • NOCHG—treat charge indicator as no charge
	CICSIZE	1 to 4	CIC size. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field indicates the number of digits in the CIC. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number. The MAP display indicates the range is 0 to 4; however, the system does not allow 0.
	CONDIGS	numeric (0 to 29 digits)	Consumed digits. If the entry in subfield OSEL is CONSUME, datafill this refinement. Enter a number to explicitly define the number of digits consumed during call processing.
	DELDIGS	0 to 29	Delete digits. If the entry in subfield OSEL is DEL, datafill this refinement. Enter the number of digits to be deleted, after skipping digits to be left unprocessed.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	DESTOM	Destination OM names that are datafilled in table TERMINFO (16 character vector).	Destination and route based OMs. If the entry in subfield OSEL is DESTOM, datafill this refinement.
	INSRDIGS	numeric (0 to 29 digits)	Insert digits. If the entry in subfield OSEL is INSRT, datafill this refinement. Enter the digits to be inserted, after skipping digits to be left unprocessed.
	INSRTCLI	1 to 5 digits or $	Insert calling line identification. If the entry in subfield OSEL is CGNDM, datafill this refinement. Enter the new string to insert as the prefix onto the CLI. Enter $ to specify that no digit string is inserted.
	PTDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they do remain stored in call detail records (CDR). ***Note:*** If refinements PF and CONSUME are both datafilled for the same tuple, only the entry for the greater of the two values is processed; the other entry is ignored.
	PREFXCLI	0 to 18	Prefix calling line identification. If the entry in subfield OSEL is CGNDM, datafill this refinement. Enter the number of prefix digits to delete.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	REPLDIGS	numeric (0 to 30 digits)	Replace digits. If the entry in subfield OSEL is REPL, datafill this refinement. Enter the digits that replace the existing digits, after skipping digits to be left unprocessed.
	SERVICE	alphanumeric (1 to 8 characters)	COODM service. If the entry in subfield OSEL is COODM, datafill this refinement. Enter the emergency service name. Emergency service names are listed in field EMRGSERV in table LAC.
	SKIPDIGS	0 to 24	Skip digits. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field indicates the number of digits to skip before extracting the carrier digits from the digit stream. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number.
	SOURCE	PRESUB or DIALED	Carrier identification code source. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field specifies the source of the CIC as follows: • PRESUB—presubscribed. The CIC is defined in table TRKGRP. • DIALED—dialed. The CIC is entered by the subscriber when dialing a call.

Field, subfield, and refinement descriptions for XLASEL=DMOD

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, FA, FT, NSC, OFC, or PX	Translation system. If the entry in subfield OSEL is XLT, datafill this refinement. Enter the next translation system to use, followed by a space, and datafill subfield XLANAME (the instance of the translation system). The choice of translation systems is as follows: • AC (access) • AM (ambiguous) • CT (country) • FA (foreign area) • FT (utility) • NSC (number service code) • OFC (office) • PX (prefix) ***Note:*** NIL is not a valid entry. NIL is used only to satisfy internal software functionality. NSC is not used in GL03.
	SLANAME	alphanumeric (1 to 8 characters)	Translation name. If the entry in subfield OSEL is XLT, datafill this refinement. Enter the translation name of the table within the XLASYS to which the call is routed.

XLASEL=DNRTE

If the entry in subfield XLASEL is DNRTE, datafill the following refinements. Selector DNRTE allows translation to continue in table DNINV. Through this translation, calls can be terminated at directory numbers (DN) datafilled in table DNINV. After datafilling table ACHEAD, table DNINV must be datafilled before selector DNRTE is datafilled in table ACCODE.

Table AMAXLAID must be datafilled prior to selecting option AMAXLAID in field OSEL.

Field, subfield, and refinement descriptions for XLASEL=DNRTE

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, and the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.
	OSEL	AMAXLAID, CAMA, CLASS, DN, MM,PF, SF, or ALLOWOVLP	Option selector. The following options can be selected: Enter ALLOWOVLP to allow call routing based on MIN digits instead of MAX. The ALLOWOVLP option does not have subfields. Enter AMAXLAID, followed by a space, and datafill refinement XLAID to specify an automatic message accounting (AMA) identity from within table AMAXLAID. Enter CAMA, followed by a space, and datafill refinement CLDFMT. The entry in CLDFMT indicates whether the international centralized AMA (ICAMA) record is generated with the originally signaled DN or the final public switched telephone network (PSTN) number. Enter CLASS, followed by a space, and datafill refinement CLASS if the class of the dialed digits is determined.

Field, subfield, and refinement descriptions for XLASEL=DNRTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter DN, followed by a space, and datafill refinements SNPA and OFC for the DN that the call is routed to. Enter MM, followed by a space, and datafill refinements MIN and MAX if the minimum and maximum dialed digits are known. Enter PF, followed by a space, and datafill refinement PFDIGS if there are prefix digits in the digit stream. Enter SF, followed by a space, and datafill refinement SFDIGS to indicate the beginning of the station code digits.
	CLDFMT	CURRENT or POSTXLA	Called format.If the entry in subfield OSEL is CAMA, enter either CURRENT or POSTXLA to produce the required ICAMA record format. If the entry is CURRENT, an ICAMA record is produced with the signaled DN (without translation). If the entry is POSTXLA, an ICAMA record is produced with the public switched telephone network (PSTN) number resulting from translations.

Field, subfield, and refinement descriptions for XLASEL=DNRTE

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, COLL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC,UNKW, or URBAN	Translation class. If the entry in subfield OSEL is CLASS, datafill this refinement. Enter the translation class determined by the dialed digits. This can be used for screening or billing purposes as described under CLASS in screening and charging options. • ATT (attendant console) • CNTL (continental) • COLL (collect) • DATT (dial attendant) • EMRG (emergency) • IAGRP (interagent group) • ICNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown) • URBAN (urban)
	OFC	numeric (1 to 7 digits)	Seven-digit office code. If the entry in subfield OSEL is DN, enter the office code for the DN that the call is routed to.

Field, subfield, and refinement descriptions for XLASEL=DNRTE

Field	Subfield or refinement	Entry	Explanation and action
	MAX	0 to 30	Maximum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the maximum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MIN	0 to 30	Minimum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	OFC	numeric (1 to 7 digits)	Seven-digit office code. If the entry in subfield OSEL is DN, enter the office code for the DN that the call is routed to.
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they do remain stored in call detail records (CDR).
	SFDIGS	0 to 29	Station fence digits. If the entry in subfield OSEL is SF, datafill this refinement. Enter a number to indicate the number of digits to advance past the start of the digits that index into the tuple. During call processing, the station code digits consist of all digits beyond this indicator to the end of the dialed digits. If option SF is not datafilled, the last four digits are used as the station code.

Field, subfield, and refinement descriptions for XLASEL=DNRTE

Field	Subfield or refinement	Entry	Explanation and action
	SNPA	000 to 999 (3 digits)	Serving number plan area. If the entry in subfield OSEL is DN, enter the required serving number plan area (SNPA). This number must be datafilled in table HNPACONT or in table SNPANAME.
	XLAID	FREE, GENERIC1, GENERIC2, GENERIC3	AMA translation identifier.If the entry in subfield OSEL is AMAXLAID, enter the AMA translation identifier to be used against table AMAXLAID.

XLASEL=FEAT

If the entry in field XLASEL is FEAT, datafill the following refinements.

Field, subfield, and refinement descriptions for XLASEL=FEAT

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, and the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.

Field, subfield, and refinement descriptions for XLASEL=FEAT

Field	Subfield or refinement	Entry	Explanation and action
	OSEL	FTR, FUNC, MM, or PF	Option selector. The following options can be selected: Enter FTR, followed by a space, and datafill refinement FTR to identify the international line feature. Enter FTR, followed by a space, and datafill refinement VSC to indicate that the international line feature needs translation in table XLA. Enter FUNC, followed by a space, and datafill refinement FUNC to identify the international line feature function. Enter MM, followed by a space, and datafill refinements MIN and MAX if the minimum and maximum dialed digits are known. Enter PF, followed by a space, and datafill refinement PFDIGS if there are prefix digits in the digit stream.
	FTR	CALLBACK, CALLCHAR, CCBS,CLCT DIGS, FOC, FTD, FTR, JES, NTC, TLC, VALIDATE, VMWI, or VSC	Feature name. If the entry in subfield OSEL is FTR, enter an international line feature name shown below. • CALLBACK (Call Back) • CALLCHAR (Call Characters) • CCBS (Call Completion to Busy Subscriber) for CEPT • CLCTDIGS (Collect Digits) • FOC (Faultsman Line Open Circuit Test) • FTD (Faultsman Digit Test) • FTR (Faultsman Ring Back) • JES (Japan Emergency Service) • NTC (Notify Time Charges)

Field, subfield, and refinement descriptions for XLASEL=FEAT

Field	Subfield or refinement	Entry	Explanation and action
			• TLC (Trunk Logic Circuit) • VALIDATE (not used in GL03) • VMWI (Voice Mail Waiting Indication) • VSC (Vertical service code)
	FUNC	ACT, DEACT, DELETE, INTER, PROG, or USAGE	Feature function code. If subfield OSEL is set to FUNC, enter one of the international line feature function codes from the following list: • ACT (activate) • DEACT (deactivate) • DELETE (delete) • INTER (interrogate) • PROG (programming) • USAGE (usage)
	MAX	0 to 30	Maximum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the maximum number of digits expected following MIN entry and a space. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MIN	0 to 30	Minimum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.

Field, subfield, and refinement descriptions for XLASEL=FEAT

Field	Subfield or refinement	Entry	Explanation and action
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they remain stored in call detail records (CDR).

XLASEL=FEATINFO

If the entry in subfield XLASEL is FEATINFO, datafill the following refinements. Selector FEATINFO makes use of table DNSCRN to store information against DNs, which is used during call processing to determine how to proceed with the call. The screening function is triggered by selector

FEATINFO in the universal translation tables. The options available with this selector are shown below.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	FTR	CALLBACK, CALLCHAR, CLCTDIGS, JES, NTC, PATH_REPLACEMENT TLC, VALIDATE, or VMWI	Feature name. Enter CALLBACK to enable originator callback during translations. Datafill subfield CALLBACK_OPTION and its refinements, then datafill subfields PFDIGS, MINDIGS, MAXDIGS, and TABREF. Enter CALLCHAR to modify all signaling characteristics. Datafill subfields CLLCHROP, ISPPRFIND, ACMCGIND, ANMCGIND, ISPRELCS, PFDIGS, MINDIGS, MAXDIGS, and TABREF. Enter CLCTDIGS to collect digits from the call originator and add them to the called digits stream for translation. Datafill subfields CLDGMIN, CLDGMAX, CLCTDIGS_OPTION, PFDIGS, MINDIGS, MAXDIGS, and TABREF. Enter JES to activate the Japan Emergency Service feature. Datafill refinements PFDIGS and TABREF. Enter NTC to notify the originating subscriber of applicable time and charges after the call terminates. Datafill subfield SUBOPT_NAME and its refinement, then datafill subfields PFDIGS, MINDIGS, MAXDIGS, and TABREF. Enter PATH_REPLACEMENT for translations to terminate on the Path Replacement feature.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
			Enter TLC to enable the test line call feature, which provides audible ringback tone followed by dial tone after specified durations. Datafill subfields RING_BACK_TONE_DUR, DIAL_TONE_DUR, TLC_PREFIX_DIGS, TLC_NUM_DIGS, and TLC_CHARGE. Enter VALIDATE, and datafill subfield VALADTOP and its refinements. Datafill subfields PFDIGS, MINDIGS, MAXDIGS, and TABREF. Enter VMWI, followed by a space, and enter data for subfields STATUS, VMDN, or PFDIG. This command routes message waiting or cleared indication calls to the VMWI.
	CALLBACK_ OPTION	CLCTDEST or NIL	Callback option. If the entry in field FTR is CALLBACK, datafill this option. Enter CLCTDEST to call back the subscriber and collect destination digits. Datafill subfields CLDGMIN, CLDGMAX, DISC_ANNC_TRK, PROMPT_ANNC_TRK, and SEND_ANM. Otherwise, enter NIL.
	CLDGMIN	1 to 24	Minimum collected digits. Enter the minimum number of digits to be collected and entered into the called digit stream.
	CLDGMAX	1 to 24	Maximum collected digits. Enter maximum number of digits to be collected and written into the called digit stream. The value cannot be less than CLDGMIN.
	DISC_ANNC_ TRK	alphanumeric (1 to 16 characters)	Disconnect announcement trunk. Enter trunk common language location identifier (CLLI).

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	PROMPT_ ANNC_ TRK	alphanumeric (1 to 16 characters)	Prompt announcement trunk. Enter trunk the common language location identifier (CLLI).
	SEND_ANM	Y or N	Send answer message. Enter Y (yes) or N (no).
	CLLCHROP	NOCHGMSG or EARLYCPG	Call characteristics. If the entry in field FTR is CALLCHAR, datafill this option. Enter NOCHGMSG to block backward CHG message. Enter EARLYCPG to specify that a call progress (CPG) message is issued in the backwards direction before an address complete message (ACM) is sent. The CPG message is permitted before an ACM in certain ISDN user part (ISUP) variants to establish a bidirectional speech path and to stop the T7 timer.
	ISPPRFIND	see Explanation and action	ISUP preference indicator. Enter ISDN_UP_PREF_ALL_THE_WAY if ISUP is the preferred signalling system for the whole connection. Enter ISDN_UP_PREF_NOT_REQD if ISUP is not required. Enter ISDN_UP_REQD_ALL_THE_WAY if ISUP is the required signalling system for the whole connection. ISDN_PREF_SPARE is a spare value.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	ACMCGIND	see Explanation and action	ACM charge indicator. This field specifies the charge indication in the BCI parameter of the ACM message. Enter CI_NO_INDICATION for no charge indication. Enter CI_NO_CHARGE if no charging is to be done at this node. Enter CI_CHARGE if charging is to be done at this node. CI_SPARE is a spare value.
	ANMCGIND	see Explanation and action	ANM charge indicator. This field specifies the charge indication in the BCI parameter of the ANM message Enter CI_NO_INDICATION for no charge indication. Enter CI_NO_CHARGE if no charging is to be done at this node. Enter CI_CHARGE if charging is to be done at this node. CI_SPARE is a spare value.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	ISPRELCS	see Explanation and action	ISUP release cause. This field specifies the cause location in the cause indicator parameter of the REL (release) message. Enter USER to specify the user. Enter PRIVNET to specify a private switch serving the local user. Enter LOCLNET to specify a public switch serving the local user. Enter TRANSNET to specify a transit switch. Enter RLOCNET to specify a public switch serving the remote user. Enter RPRIVNET to specify a private switch serving the remote user. Enter LICBS to specify a local interface controlled by a signaling link. Enter INTLNET to specify an international switch. SP1 is a spare value. SP2 is a spare value. Enter UNKNOWN to specify an unknown location. Enter NIL for no location.
	CLCTDIGS_ OPTION	NIL or $	Collect digits option. If the entry in field FTR is CLCTDIGS, datafill this option. Enter NIL or enter $ to proceed to the next option.
	SUBOPT_ NAME	DUR_ADJ	Suboption name. If the entry in field FTR is NTC, datafill this option. Enter DUR_ADJ to specify the duration adjustment for NTC and datafill subfield DURATION_ADJ.
	DUARATIN_ ADJ	0 to 99	Duration adjustment. Enter the time in seconds.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	RING_BACK_ TONE_DUR	1 to 255	Ringback tone duration. If the entry in field FTR is TLC, datafill this option. Enter the time, in seconds, that ringback tone is provided to the originator.
	DIAL_TONE_ DUR	1 to 255	Dial tone duration. If the entry in field FTR is TLC, datafill this option. Enter the time, in seconds, that dial tone is provided to the originator.
	TLC_PREFIX _ DIGS	0 to 18	Prefix digits in called number. If the entry in field FTR is TLC, datafill this option. Enter the number of digits to advance the prefix fence to detect the charge message digits when CPC = PAYPHONE.
	TLC_NUM_ DIGS	numeric (3 or 4) Japan only	Test line call number of digits. Enter the number of dialed digits to be transferred to the NCCI#7 CHG message. This is also the number of digits stored in the LMNNUM field of the SMDR #DE record.
	TLC_ CHARGE	Y or N	Test line call charge indicator. The TLC_CHARGE field indicates the billing status of an ISUP test call. Enter Y if the call is billable. Enter N if the call is not billable. The default value for this field is N
	OPT	see subfield VALDATOP	Options. If the entry in field FTR is VALIDATE, datafill this option. This field is a vector consisting of up to five options. Each option consists of subfield VALDATOP, and refinements that depend on the entry in subfield VALDATOP. For each option, specify VALDATOP, followed by a space, then the refinements, each separated by a space. The entry is concluded by a $ and datafill continues with field DFOP.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	VALDATOP	BCSCRN, CALLED, CLDTOCLG, CLISERV CUSTMOD, LCASCRN, NOCHARGE, PRESEL, SCRNLNTH, SUBSCRN, TCNOTSCR, THIRDPTY, VERDEST, V3PTYBIL	Validate option. Enter a list of up to five options. The options specify what characteristics are to be considered when screening the call. Enter $ to signify the end of the list. ***Note:*** Selector VALIDATE is traversed only once for each call. Enter BCSCRN and datafill refinement BCOPTS to identify the bearer capability name. Enter CALLED to indicate the number to be used for screening. The SUBSCRN options are used to specify the subscriber types allowed to receive the call. ***Note:*** When using option CALLED, there must be no further digit manipulation after selector VALIDATE is encountered in translations. If option CALLED is not entered, then the calling party number is used for screening and the SUBSCRN options are used to specify the subscriber types allowed to make the call. ***Note:*** Pay phone subscribers are treated as general subscribers if option CALLED is specified. Enter CLDTOCLG, followed by a space, to copy digits from the called to the calling digit stream, and datafill options OFFSET and COUNT. Enter CLISERV, followed by a space, and enter data for subfield SERVNAME. The CLISERV field indicates the name of the client server.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
			Enter CUSTMOD, followed by a space, to alter the internal network class of service (NCOS) and customer group to new value for a given directory number (DN) based on the CUSTINFO attribute in table DNSCRN. The source of the DN used as an index into table DNSCRN is determined by the VALIDATE datafill. Datafill refinement CUSTSCRN. Enter LCASCRN, followed by a space, to enable local calling area screening. The called and calling numbers are checked against tables LCARNAME and LCASCRCN to determine if the numbers are local to each other, and whether the call should be denied or allowed to continue routing. Enter NOCHARGE, followed by a space, to indicate that the call is nonbillable. ***Note:*** If both NOCHARGE and THIRDPTY options are specified, NOCHARGE takes precedence. Enter PRESEL to allow screening for the PRESEL attribute in table DNSCRN. Enter SCRNLNTH, followed by a space, and datafill refinement MINLNGTH to specify the minimum length of the number being screened. Enter SUBSCRN, followed by a space, and datafill up to three multiples of the following subscriber types: GENERAL, PAYPHONE, PERSONAL, and MOBILE. Enter $ after entering SUBSCRN to indicate that no subscriber types are permitted to make or receive the call. Enter TCNOTSCR to indicate that calls with CPC set to Test Call are not screened.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
			Enter THIRDPTY to indicate that automatic third party billing is used. Table DNSCRN is checked for attribute UNPAID. ***Note 1:*** If both NOCHARGE and THIRDPTY options are specified, NOCHARGE takes precedence. ***Note 2:*** Payphone subscribers are treated as general subscribers if option CALLED is specified. Enter VERDEST to verify the destination of a call. Called digits are checked against ADDCODE entries in table DNSCRN. ***Note:*** NIL appears on the switch range but is not a valid entry. The value NIL is used only to satisfy internal software requirements.
	STATUS	WAITING or CLEARED	VMWI status type Enter WAITING for message waiting indication. Enter CLEARED for message cleared indication.
	VMDN	numeric0 to 18 digits	Digit register. Enter the voice mail DN used to retrieve messages from the voice platform. The DN can contain up to 18 digits.
	PFDIG	numeric,0 to 24 digits	Extended digit count. Enter the subscriber's DN.
	BCOPTS	alphanumeric (1 to 8 characters)	Bearer capability option. If the entry in field VALDATOP is BCSCRN, datafill this refinement. Enter up to four bearer capability names.
	COUNT	0 to 13	If the entry in field VALDATOP is CLDTOCLG, enter data for this refinement. Enter a maximum of 13 digits for the called to calling number.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	CUSTSCRN	Y or N	Customer screen. Enter Y to block calls that are not subscribed to the switched on-net services if attempting a switched on-net call. If the DN being screened is not present in table DNSCRN, the call is rejected with the Call Not Allowed (CNAD) treatment. The internal NCOS and CUSTGRP associated with the call are altered to the values found in the CUSTINFO attribute if present for the given DN in table DNSCRN. The DN used to index table DNSCRN can be the subscriber calling line identification (CLI) or the dialed number. The source of the DN is determined by the datafill of field VALIDATE. Enter N if no screening is performed.
Note: Note: The FEATINFO values CCANN, CCARD, CCSDT, DAFOP, FAXSUP, FAXTEST, INBFAX, INBFD, INTLFD, ISD, ISDTST, ISDVRE, OUTBFAX, OUTBFD, PB3RDPTY, PBCALL, PBISD, PBISDVRE, and PBTST are valid only in DMS-250 switching offices. Additional DMS-250 parameters are listed in the DMS-250 specific data schema NTPs.			
	MINLNGTH	0 to 18; values from 0 to 30 are possible in APC software loads	Minimum length. If the entry in field VALDATOP is SCRNLNTH, enter the minimum number of digits required in number being screened.
	OFFSET	0 TO 30	If the entry in field VALDATOP is CLDTOCLG, enter data for this refinement. Enter a maximum of 30 digits.
	SERVNAME	alphanumeric string	If the entry in field VALDATOP is CLISERV, enter data for this refinement. Enter the name of a client server.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	SUBSCTYP	GENERAL, PAYPHONE, PERSONAL, or MOBILE	Subscriber type. Enter subscriber type, followed by a space, and datafill refinements WHITLIST, CHKBLKCL, CHKUNPD, and CHKCCR. This option allows you to specify which subscriber types are permitted to make or receive a call and whether the subscriber's standing is important for a call.
	WHTLIST	Y or N	Whether it list. Enter Y (yes) to indicate that the subscriber's directory number must be datafilled in table DNSCRN. Otherwise, enter N (no).
	CHKBLKCL	Y or N	Check block call. Enter Y to check if the subscriber has subscribed to all services for which this tuple is being used (BLKCALL attribute in table DNSCRN). Otherwise, enter N.
	CHKUNPD	Y or N	Check unpaid. Enter Y to check if the subscriber has paid his bills. Otherwise, enter N.
	CHKCCR	Y or N	Check cumulative call restriction. Enter Y to check the subscriber's cumulative charge limit. Otherwise, enter N.
	PFDIGS	0 to 24	Prefix digits. Enter the number of prefix digits present at this point in the call. Prefix digits are not used to index any further translation tables and are not outpulsed, but they remain stored in call detail records (CDR).
	MINDIGS	0 to 30	Minimum digits. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.

Field, subfield, and refinement descriptions for XLASEL=FEATINFO

Field	Subfield or refinement	Entry	Explanation and action
	MAXDIGS	0 to 30	Maximum digits. Enter the maximum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	TABREF	see subfields	Table reference. This field consists of subfields XLASYS and XLANAME.
	XLASYS	AC, AM, CT, FA, FT, NSC, OFC, or PX	Translation system. Enter the next translation system to use, followed by a space, and datafill subfield XLANAME (the instance of the translation system). The choice of translation systems is as follows: AC (access) AM (ambiguous) CT (country) FA (foreign area) FT (utility) NSC (number service code) OFC (office) PX (prefix) ***Note:*** NIL is not a valid entry. NIL is used only to satisfy internal software functionality.
	XLANAME	alphanumeric (1 to 8 characters)	Translation name. Enter the translation name of the table instance within the XLASYS to which the call is routed.

XLASEL=HRC

If the entry in subfield XLASEL is HRC, datafill the following refinements.

Field, subfield, and refinement descriptions for XLASEL=HRC

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field contains subfield OSEL, and refinements that depend on the entry in subfield OSEL. The entry is concluded by a $ and datafill continues with field DFOP.
	OSEL	XLT, PFBILL	Option selector. If the call proceeds to another translation system, enter XLT, followed by a space, and datafill refinement XLASYS. Also complete an entry for option selector PFBILL.
	XLASYS	AC, AM, CT, FA, FT, NSC, OFC, PX	Translation system. If option selector XLT is entered in subfield OSEL, datafill this refinement. Enter the next translation system to use, followed by a space, then datafill refinement XLANAME. Enter one of the following: AC (access) AM (ambiguous) CT (country) FA (foreign area) FT (utility) NSC (number service code) OFC (office) PX (prefix) ***Note:*** NIL is not a valid entry. NIL is used only to satisfy internal software functionality. NSC is not used in GL03.

Field, subfield, and refinement descriptions for XLASEL=HRC

Field	Subfield or refinement	Entry	Explanation and action
	XLANAME	alphanumeric (1 to 8 characters)	Translation name. If XLT is entered in subfield OSEL, datafill this refinement. Enter the translation name of the table within the XLASYS to which the call is routed.
	PFBIL	Y or N	Prefix billing option. Enter PFBILL, followed by a space, and then enter either Y or N. If Y is entered, the home routing code specified in the tuple is included in the billing record. If N is entered, the home routing code is not included in billing records.

XLASEL=IAC

If the entry in subfield XLASEL is IAC, datafill the following refinements.

Field, subfield, and refinement descriptions for XLASEL=IAC

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector list consisting of up to ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. The entry is concluded by a $ and datafill continues with field DFOP.
	OSEL	PF	Option selector. Enter PF, followed by a space, and datafill refinement PFDIGS if there are prefix digits in the digit stream.

Field, subfield, and refinement descriptions for XLASEL=IAC

Field	Subfield or refinement	Entry	Explanation and action
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they remain stored in call detail records (CDR).

XLASEL=RTE

If the entry in subfield XLASEL is RTE, datafill the following refinements.

Table AMAXLAID must be datafilled prior to selecting option AMAXLAID in field OSEL.

If options CDNRTE and CPCRTE are both present in one tuple in table xxCODE, call processing accesses routing tables in the following order: table CPCUXLA is accessed first. If no match is found, table CDNUXLA is accessed next.

If options SETCDN and CDNRTE are both present in one tuple in table xxCODE, call processing accesses table CDNUXLA first, before the SETCDN option sets the called number name (CDNNAME).

Conditional datafill for XLASEL = RTE is shown in the table below.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of a maximum of ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space and the refinements, each separated by a space. The entry is concluded by a $. Datafill continues with field DFOP.
	OSEL	ACF, AMAXLAID, BLKOVLP, CALLCTRL, CAMA, CATRTE, CDN, CDNRTE, CHGIND, CLASS, CONSUME, CPCRTE, CPMCALL, DDIDX,DEST, DESTOM, DFT, EXTCIC, IAA, LNET, MM, MZONE, NETINFO, NETSRV, NICRF, NOANSTIM, NTAIO, NTAIT, PCC, PF, PIP, PORTED, PNRF, PRESEL, PRESELRTE PRIVL, QFT, SETCDN, TELETAXE, TOC, VPN, or VPNPAN	Option selector. The following options can be selected: Enter ACF, followed by a space, and datafill refinement ACF if the area code fence is defined. Enter AMAXLAID, followed by a space, and datafill refinement XLAID to specify an automatic message accounting (AMA) identity from within table AMAXLAID. Enter BLKOVLP, followed by a space, and datafill refinement XLADATA, to prevent calls from being outpulsed until all CDN digits are collected. Enter CALLCTRL, followed by a space, and datafill refinement CALLCTRL. The entry in refinement CALLCTRL indicates who has control of the call: the calling party, the called party, or both. Enter CAMA, followed by a space, and datafill refinement CLDFMT. The entry in refinement CLDFMT indicates whether the international centralized automatic message accounting (ICAMA) record is generated with either the originally signaled directory number (DN) or the final public switched telephone network (PSTN) number.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter CATRTE to allow charge category routing in IBN translations. Enter CDN, followed by a space, and datafill refinement CDN to select the nature of address field. This field is used to identify the called party of the initial address message (IAM). It is used for Australian ISDN user part (AISUP) call translations. Enter CDNRTE to route using the called number name (CDNNAME) from table CDNCHAR. If the CDNNAME is present on the incoming call or is set by the SETCDN option, translation proceeds to table CDNUXLA. The CDNRTE option does not apply to table AMCODE. Enter CHGIND, followed by a space, and enter data for refinement CHGIND. This field indicates if the system applies a charge against the call. Enter CLASS, followed by a space, and datafill refinement CLASS if the class of the dialed digits is determined. ***Note:*** For the Japan market, if both the CLASS and IAA options are in use, IAA must precede CLASS in the datafill order. Enter CONSUME, followed by a space, and datafill refinement CONDIGS to specify the number of digits that are consumed during translation.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter CPCRTE to route using the calling party category (CPCNAME) from table CPCCHAR. If the CPCNAME is present on the incoming call, translation proceeds to table CPCUXLA. The CPCRTE option does not apply to table AMCODE. Enter CPMCALL, followed by a space, and datafill refinement CPMCALL to specify call billing against the called party instead of the calling party for intraoffice calls. Enter DDIDX, followed by a space, and datafill refinement DDIDX if a destination discount applies. Enter NETINFO to ensure that the customer group identifier and NCOS are transported to the terminating node to trigger the private IBN translations in a VPN. The private IBN translations are invoked only if options VPNXLT and IBNRX are datafilled at the terminating node. Enter NETSRV and datafill refinement NETSRV_NAME to indicate a Japan network service. Enter DEST, followed by a space, and enter data for refinement DEST. Enter data for the field if the destination is known. Enter DESTOM in order to associate a destination OM name with a particular destination. Enter DFT for DPNSS feature transparency functionality. Operates in conjunction with the QFT option (see later). QFT must be ON.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter EXTCIC, followed by a space, and datafill refinements SOURCE, SKIPDIGS, and CICSIZE. EXTCIC is the external carrier identification code that indicates a long distance carrier in the global environment. This option is only supported for TOPS calls. For further information, refer to functionality Global Competitive Access, GOS00006. Enter IAA and the datafill refinement IAA_INDEX to generate or modify IAA message parameters based on datafill in table IAACTRL. ***Note:*** For the Japan market, if both the IAA and CLASS options are in use, IAA must precede CLASS in the datafill order. Enter LNET, followed by a space, and datafill refinement LNET if a logical network is required for metering. Enter MM, followed by a space, and datafill refinements MIN and MAX if the minimum and maximum number of expected digits dialed are known. These values include the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Note: For fast interdigital timing to function properly, MM can only be used with the RTE selector whenever the value in refinement MIN is not equal to the value in refinement MAX. In other words, if MIN=MAX,MM can be used with the CONT selector in table PXCODE; if the value in refinement MIN is not equal to the value in refinement MAX, MM cannot be used until the RTE selector is used (which is usually in either table FACODE or table OFCCODE). If refinements MIN and MAX are set in table PXCODE when they are not equal to each other, partial dial timing is used after MIN digits are dialed to determine the end of dialing. Enter MZONE, followed by a space, and datafill refinement MZONE if metering is done on the call. Enter NICRF to activate the Network Identification Code (NIC) routing function. Enter NOANSTIM, to the RTE selectors. This turns the T9 timer off in the outgoing ISUP trunk, if encountered. Enter NTAIO to mark the call destination. Enter NTAIT to mark the call destination. Enter PCC, followed by a space, and datafill refinement PCCDR if a pseudo country code is required.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter PF, followed by a space, and datafill refinement PFDIGS, the prefix fence. This is the number of prefix digits associated with this tuple (that is, if some prefix digits were identified in a previous table, the number here is added to the existing value). Prefix digits are not used to index any further translation tables and are not outpulsed, but they remain stored in call detail records (CDR). Enter PNRF to invoke the ported number recognition function. Datafill the PNRFOPTS options vector and associated subfields. Enter PIP, followed by a space, to perform a residency check for the digits being translated. The residency check is used by the local number portability feature to ensure that calls to DNs which have been ported in to the office are not routed out of the office. ***Note:*** You must complete entries in fields MIN and MAX before entering the PIP option. Enter PORTED to indicate that a previous node detected the service number of this call to have been ported. Enter PRESEL, followed by a space, if the call is to be treated as a preselected carrier case. Enter PRESELRTE, followed by a space, and datafill refinement PRESELRTE, the index into the route table of the current XLASYS and XLANAME.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
			Enter PRIVL, followed by a space, and datafill refinement PRIVL if the user is a privileged user (for example, operators). Enter QFT followed by ON or OFF to indicate if an outgoing route is capable of QSIG Feature Transparency. ***Note:*** The QFT ON option must not be added to a route unless the far-end node is QFT-capable. Enter SETCDN to trigger the setting of outgoing called party characteristics. This option assigns the called number name (CDNNAME) from table CDNCHAR to the call. If the CDNRTE option is subsequently encountered, the CDNNAME is used to route the call. You can use the SETCDN option to allow CDN routing when incoming agents such as DPNSS or BTUP are not available in table CDNCHAR. Enter TOC, followed by a space, and datafill refinement CHG for the type of charge where the type of charge messaging is to be selected. Enter VPN, followed by a space, and datafill refinements ONNET and BILLABLE if the call routes through a service switching point (SSP) and the Australian VPN-SSP feature is present on the switch. Enter VPNPAN to indicate that the PINX is to act as the PAN for an outgoing route. ***Note:*** if VPNREPL or VPNXLT have been entered in the DMOD selector, the VPNPAN option is ignored.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	ACF	0 to 29	Area code fence. If the entry in subfield OSEL is ACF, datafill this refinement. Enter the number of digits between the beginning of the digits to index the table, and the end of the area code.
	BILLABLE	Y or N	Virtual private network billable call. If the entry in subfield OSEL is VPN, enter Y if an automatic message accounting (AMA) record is required for each VPN call. Otherwise, enter N. An AMA record is not generated if an address complete message (ACM) of address complete, no charge is returned, or if the call terminates in the SSP on a line with the free number terminating (FNT) option.
	CALLCLASS	PRESELECT OVERRIDE, CALLTYPE, CSN, TRUNK	Call class. If the entry in subfield OSEL is PRESEL, enter PRESELECT to treat the DN as a preselected call. Enter OVERRIDE to permit the DN to use override codes. For charge category routing enter CALLTYPE. Enter CSN to treat the DN as a carrier specific number. Enter TRUNK to permit access to trunk originated calls. CALLCLASS does not apply to Global loads.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	CALLCTRL	CALLED, CALLING, LAST, or MUTUAL	Call control. If the entry in subfield OSEL is CALLCTRL, datafill this refinement. Enter one of the following values to specify the party controlling the call: if the entry is CALLED and the called line goes on-hook first, the call is released immediately. If the calling line goes on-hook first and does not reanswer, the connection is not released until the called line goes on-hook. There are no time-outs, and the calling party is allowed to reanswer until the called line goes on-hook. Calls to lines with option ESG must have CALLCTRL(CALLED). Calls terminating on an ITOPS position must have CALLCTRL(CALLED) If the entry is CALLING and the calling line goes on-hook first, the call is released immediately. If the called line goes on-hook first, the called party is allowed to reanswer within a datafilled reanswer time-out or until the calling line goes on-hook. If the time-out expires or if the calling line goes on-hook, the calling party releases the call and the called line is set to idle. If the entry is LAST, the call is released when the later of the called party or the calling party goes on-hook. If either party goes on-hook, that party is allowed to reanswer within a datafilled reanswer time-out or until both parties go on-hook. If the entry is MUTUAL and either line goes on-hook, the call is released immediately.
	CATRTE	CATRTE	Enter CATRTE to allow charge category routing in IBN translations.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	CDNNAME	alphanumeric string	If the entry in subfield OSEL is SETCDN, enter data for the called number name (CDNNAME).
	CHG	SEND_ CHARGE or SEND_NO_ CHARGE	Charge. If the entry in subfield OSEL is TOC, enter SEND_CHARGE to set the answer message (BTUP ANM) type of answer (TOA) string sent from a node to SEND_CHARGE. Enter SEND_NO_CHARGE to set the answer message (BTUP ANM) type of answer (TOA) string sent from a node to SEND_NO_CHARGE.
	CHGIND	CHARGE or NO_CHARGE	If the entry in subfield OSEL is CHIND, enter data for refinement CHGIND. This refinement determines if the system applies a charge to the call.
	CICSIZE	1 to 4	CIC size. If the entry in subfield OSEL is EXTCIC, enter data for this refinement. This field indicates the number of digits in the CIC. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number. The MAP display indicates the range is 0 to 4; however, the system does not allow 0.
	CLDFMT	CURRENT or POSTXLA	Called format. If the entry in subfield OSEL is CAMA, enter either CURRENT or POSTXLA to produce the required ICAMA record format. If the entry is CURRENT, an ICAMA record is produced with the signaled DN (without translation). If the entry is POSTXLA, an ICAMA record is produced with a PSTN number resulting from translations.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	CLASS	ATT, CNTL, COLL, DATT, EMRG, IAGRP, ICNTL, INTL, IOPRA, LCL, NATL, OPRA, RURAL, SPEC,UNKW, or URBAN	Translation class. If the entry in subfield OSEL is CLASS, enter the translation class determined by the dialed digits. This can be used for screening or billing as described under CLASS in screening and charging options. The translation classes are defined as follows: • ATT (attendant console) • CNTL (continental) • COLL (collect) • DATT (dial attendant) • EMRG (emergency) • IAGRP (interagent group) • ICNTL (intercontinental) • INTL (international) • IOPRA (international operator assisted) • LCL (local) • NATL (national) • OPRA (operator assisted) • RURAL (rural) • SPEC (special) • UNKW (unknown) • URBAN (urban)
	CONDIGS	numeric (0 to 29 digits)	Consumed digits. If the entry in subfield OSEL is CONSUME, datafill this refinement. Enter a number to explicitly define the number of digits consumed during call processing.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	CONTINUE	CONT or NOCONT	Continue. If the entry in subfield OSEL is PRESEL, enter CONT to continue translations through universal translations. Enter NOCONT to immediately route translations through PCIXLA or PCITRK.
	CPMCALL	Y or N	Called party metering. If the entry in subfield OSEL is CPMCALL, enter Y (yes) if calls are billed against the called party for intraoffice calls. Enter N (no) for the default value of billing against the calling party for intraoffice calls.
	DDIDX	1 to 63 or DEFAULT	Destination discount index. If the entry in subfield OSEL is DDIDX, datafill this refinement. Enter the destination discount index number, which is an index into table AOCOPT.
	DEST	0 to 1023	Destination route list index. If the entry in subfield OSEL is DEST, enter the number in the route list of the translation system that the call is routed to.
	DESTOM	Destination OM names that are datafilled in table TERMINFO (16 character vector).	Destination and route based OMs. If the entry in subfield OSEL is DESTOM, datafill this refinement.
	IAA_INDEX	0 to 1024	Interadministration accounting index. If the entry in subfield OSEL is IAA, datafill this refinement. Enter the value that indexes the corresponding tuple in table IAACTRL.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	LNET	alphanumeric (1 to 8 characters)	Logical network. If the entry in subfield OSEL is LNET, enter the logical network name that the call is on. The logical network name must be previously datafilled in table LNETWORK. The entry in this field is used by the international metering system to determine a tariff for the call.
	MAX	0 to 30	Maximum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the maximum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MIN	0 to 30	Minimum digits. If the entry in subfield OSEL is MM, datafill this refinement. Enter the minimum number of digits expected. This value includes the digits used to index the current tuple and must also include the prefix digits specified in the current tuple.
	MZONE	0 to 63	Metering zone. If the entry in subfield OSEL is MZONE, datafill this refinement. Enter the metering zone of the call, in the logical network as defined by selector LNET. The entry in this field is an index (DESTZONE) in table MDESTIDX.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	NETSRV_ NAME	IPHS, DPHS, MOBILE, DA, TELEGRAM, or NCC	Network service name. If the entry in subfield OSEL is NETSRV, datafill this refinement. The entry in this field determines the parameters in an outgoing IAM message. Enter IPHS to indicate a call to an independent personal handyphone system subscriber. Enter DPHS to indicate a call to a dependent personal handyphone system subscriber. Enter MOBILE to indicate a call to a mobile subscriber. Enter DA to indicate a call to the directory assistance operator. Enter TELEGRAM to indicate a call to the Telegram office. Enter NCC to indicate a call routed to one of the following networks: • New Common Carrier serving international toll traffic • New Common Carrier serving national toll traffic
	NICRF	NICRF	NIC routing function. This option allows transit calls prefixed with the NIC to access table PNINFO to route the call based on the NIC. Note that the NICRF and PNRF options are incompatible and cannot be datafilled on the same tuple.
	NOA	INTL, LOCAL, NATL, or NET	Nature of address. Enter the required called party nature of address: • INTL (international) • LOCAL (local) • NATL (national) • NET (Intelligent Network Services)

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	ONNET	Y or N	Call on virtual private network. If the entry in subfield OSEL is VPN, enter Y if the call stays within the defined virtual private network. Otherwise, enter N. Overlapped outpulsing is supported only on off-network calls. Calls processed without subfield ONNET set to Y are off-network calls. Meridian Digital Centrex (MDC) calls are treated as off-network calls, and therefore overlapped outpulsing is supported for MDC calls.
	PCCDR	0 to 9, B, C, D, E (1 to 3 digits)	Pseudo country code digits. If the entry in subfield OSEL is PCC, enter the three-digit pseudo country code (PCC). If a two-digit PCC is required, it must be padded by a leading zero. The pseudo country code is used to record a particular pseudo country code. This can be extracted for use by system logic later, for example, two-stage outpulsing.
	PFDIGS	0 to 24	Number of prefix digits. If the entry in subfield OSEL is PF, datafill this refinement. Enter the number of prefix digits. If prefix digits are identified in a previous table, this number is added to the existing value. Prefix digits are not used to index any further translation tables and are not outpulsed, but they remain stored in call detail records (CDR). ***Note:*** If refinements PF and CONSUME are both datafilled for the same tuple, the entry for the greater of the two values is processed; the other entry is ignored.

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	PFXAMA	0 to 4 digits or N	Called party number prefix in AMA. If NOA is set to NTL, datafill PFXAMA with 0011. If NOA is set to NATL, datafill PFXAMA with 0. If NOA is set to LOCAL or NET, datafill PFXAMA with N.
	PORTED	PORTED or blank	Number portability indicator. This entry indicates that the service number for this call has been ported.
	PNRF	PNRFOPTS	Ported number recognitions function. Datafill the PNRFOPTS options vector and the INSNNG subfields:
	INSNNG	See subfields PREFIX and TRUNK_ACCESS_DIGS	
	PREFIX	0 to 11	PREFIX indicates the number of leading digits to be copied from an originator's DN and prefixed to the translating number.
	TRUNK_ACCESS_ DIG	0 to 9, or N	TRUNK_ACCESS_ DIG enables the specification of a trunk access digit to be prefixed to the translating number after the INSNNG_PREFIX function has been completed.
	PRIVL	Y or N	Privileged user. If the entry in subfield OSEL is PRIVL, enter Y (yes), if the user is a privileged user (for example, operator). Otherwise, enter N (no).

Field, subfield, and refinement descriptions for XLASEL=RTE

Field	Subfield or refinement	Entry	Explanation and action
	SKIPDIGS	0 to 24	Skip digits. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field indicates the number of digits to skip before extracting the carrier digits from the digit stream. This field operates on the B (called) number, so it is assumed that the CIC is signaled as part of the B number.
	SOURCE	PRESUB or DIALED	Carrier identification code source. If the entry in subfield OSEL is EXTCIC, datafill this refinement. This field specifies the source of the CIC as follows: • PRESUB—presubscribed, the CIC is defined in table TRKGRP • DIALED—dialed, the CIC is entered by the subscriber when dialing a call
	STOPRTMR	Y or N	Stop remote timer. Enter Y (yes) to disable the address complete message (ACM) timer of the remote switch. The default value is N (no).
	XLAID	FREE, GENERIC1, GENERIC2, GENERIC3	AMA translation identifier. If the entry in subfield OSEL is AMAXLAID, enter the AMA translation identifier to be used against table AMAXLAID.

XLASEL=TRMT

If the entry in subfield XLASEL is TRMT, datafill the following refinements.

Route to the specified treatment. A treatment is a known exception or failure condition. The action taken terminates translation, returning an indication that a treatment was encountered and decoded into a route.

Field, subfield, and refinement descriptions for XLASEL=TRMT

Field	Subfield or refinement	Entry	Explanation and action
	OPT	see subfield	Options. This field is a vector consisting of up to ten options. Each option consists of subfield OSEL, and refinements that depend on the entry in subfield OSEL. For each option, specify the option selector (OSEL), followed by a space, and the refinements, each separated by a space. The entry is concluded by a $ and datafill continues with field DFOP.
	OSEL	OFC	Option selector. Enter OFC, followed by a space, and datafill refinement OFC, if a treatment name is required.
		DESTOM	Enter DESTOM in order to associate a destination OM name with a particular destination.
	OFC	alphanumeric (1 to 4 characters)	Office treatment. Enter a treatment name that is contained in the office treatment subtable, TMTCNTL.TREAT.
	DESTCOM	Destination OM names that are datafilled in table TERMINFO (16 character vector).	Destination and route based OMs. If the entry in subfield OSEL is DESTOM, datafill this refinement.

Table history

SN08

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

ACDMISPL

Automatic Call Distribution MIS Pool

Functional description

Table ACDMISPL establishes pools and their associated passwords and protocols.

The Automatic Call Distribution (ACD) Management Information System (ACDMIS) interface provides protocols that enable a downstream processor (DSP) to request ACD information. The system collects and uses this information to provide historical reports or real-time statistics.

Although the system sends the ACD information as soon as possible, heavy switch traffic can delay transmission.

ACD call event messages include information on all ACD calls that the system offers, answers, abandons, releases, or blocks.

ACD position event messages provide information on agent-related events. ACD subpool data messages include information on mapping from an internal subpool number to a subpool common language location identifier (CLLI).

ACD group data messages provide information on mapping from an internal ACD group number to an ACD group CLLI and primary ACD_DN. In addition, ACD group data messages provide information on the current attributes of the ACD group.

You can use the ACDMIS interface to do the following tasks:

- use session control remote operations (RO) to log on to or log off from a session
- specify a pool of ACD groups targeted for event information collection or change in a session
- request to transmit the ACD configuration of the pool associated with the switched virtual circuit (SVC) to the DSP
- request the current date and time of day (TOD) from the switch
- start and stop the transfer of ACD call event information

ACDMIS Message Bundling is an option that combines multiple event messages within a single MIS message packet before transmission. Message bundling increases message throughput over the X.25 enhanced multiprotocol controller (EMPC) link by up to 100%.

Data links

X.25-based communication links are used for two-way data transportation between the DSP and the switch. X.409- and X.401-based network operations protocol (NOP) provides application protocol for machine-to-machine interface.

ACDMIS data stream protocol

The DSP and the switch communicate through Remote Operations (ROs). The NOS_LOGON command sent by the DSP establishes a session. When the switch receives a NOS_LOGON request, the system allocates incoming and outgoing message buffers and creates an incoming message process.

The incoming message buffer stores DSP command requests that are waiting for processing. This buffer can contain up to ten remaining DSP command requests.

The outgoing message buffer stores DSP replies and ACDMIS command requests. This buffer can contain up to 150 remaining replies and ACDMIS command requests.

The incoming message process stops the DSP command requests from the buffer and calls the application to process the commands. This process is idle when the buffer is empty.

When the RO service receives a DSP command request, it decodes the message according to the application specification. Then the request is queued in the incoming message process.

The following information defines protocol services:

- when features are supported by each of the remote operations
- when remote operations are active
- when parameters are required

The ACDMIS Remote Operations are categorized as follows:

- An RO prefixed with Network Operations System (NOS) is a session control RO sent from the DSP to the switch.
- An RO prefixed with DSP is sent from the DSP to the switch to enable functionality for the DSP, like an MIS initiated request.
- An RO prefixed with SWITCH is sent from the switch to the DSP to enable functionality to the switch, like a switch initiated request.

No more than ten ROs generated by the DSP requiring a reply from the switch can be outstanding without a response at any time. If the DSP

generates another RO requiring a reply, the switch cancels the X.25 session.

A reject operation protocol data unit (OPDU) can be sent in response to any of the ROs outlined in this protocol.

Protocol version BCS43 enables the ACDMIS to use certain remote load management request messages, event messages, and modified call event messages.

ACDMIS data stream requirements

The ACDMIS data stream protocol supports the following configurations:

- multiple ACDMIS data streams on each switch and each data stream on its own SVC
- multiple ACD customers for each data stream and multiple ACD customers for each SVC
- one ACD customer for each data stream and one ACD customer for each SVC

The ACDMIS data stream protocol is not required to support multiple data streams for each SVC. The ACDMIS uses the X.409 formal notation and X.410 ROs for protocols.

An X.25 SVC is a virtual communication link, which is all or part of an actual physical communication link. The switch and the DSP use protocol commands to communicate with each other.

Before multiple ACDMIS data streams can be established in the switch, the ACD configuration must be partitioned between data streams. The ACD groups must be associated with a data stream. This association is necessary in order to establish the data stream in which the switch can send information for a particular ACD group.

Partitioning

The ACD groups can be partitioned between different data streams by defining pools of ACD groups within the switch. Guidelines for partitioning pools are as follows:

- An ACD group can only belong to one pool at a time.
- A pool can only be associated with one data stream at a time.

- Only one pool of ACD groups can be associated with a data stream at a time.
- The DSP must specify the pool of ACD groups that is associated with the data stream.

Security

Security for the ACDMIS data stream is required for both single and multiple ACD customers. The switch must support multiple ACD customers for each data stream. You must ensure security by strictly enforcing boundaries between customer groups.

Security is handled through ACD group subpools within a pool. All ACD groups belonging to an ACD customer are grouped within a subpool. If there is only one ACD customer on a data stream, only one subpool is defined within the pool of ACD groups. If there are multiple ACD customers on a single data stream, multiple subpools are defined. Subpools are established using the following guidelines:

- All ACD customer groups in a subpool must belong to the same pool.
- An ACD customer group can only belong to one subpool at a time.

Datafill sequence and meaning

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

The following tables must be datafilled after table ACDMISPL.

- ACDMISSP
- ACDGRP

Table size

The table size for ACDMISPL is 0 to 60 tuples.

The data store for table ACDMISPL is allocated on a pool-by-pool basis.

Datafill

The following table lists the datafill for table ACDMISPL.

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

Field	Subfield or refinement	Entry	Explanation and action
POOL		alphanumeric (1 to 16 characters)	*Pool name* Enter the pool name that defines a pool.
PASSWORD		alphanumeric (5 to 8 characters)	*Password* Enter the password associated with the pool. Any entry outside the range indicated for this field is invalid.
PROTOCOL		BCSnn	*Protocol version* Enter the BCS increment in which the protocol was implemented. Protocol version BCS43 enables the ACDMIS system to use re-enqueue event messages.

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

Field	Subfield or refinement	Entry	Explanation and action
OUTEVENT		10 to 200	*Out event buffer size* Enter the ACDMIS out event queue size for the customer group. ***Note:*** The value in field OUTEVENT defines the size of each ACDMIS pool out event buffer. Use the following formula to calculate the total memory impact of OUTEVENT. Apply the formula to each pool and then add together all of the pool values. Value for each pool = value of field OUTEVENT / 192 Total = value for pool A + value for pool B + ... + value for pool n, where pool n is the last tuple in the table. The memory impact is in bytes.
BUNDLING		Y or N	*Message bundling* This field specifies if the ACDMIS message bundling option has been assigned to the pool.
LNKSEL		X25 or TCP	Indicates whether this pool will use X25 or TCP transport.
X25			If X25 is chosen, no additional refinements are needed, as existing X25 tables and datafill are used.
TCP	IP_ADDR		*IP address* Enter the remote system's IP address.

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

Field	Subfield or refinement	Entry	Explanation and action
	ALT_IP_ADDR		*Alternate IP address* Mandatory field. Enter the remote system's alternate or backup IP address. If there is no alternate IP address, enter the same address used in field IP_ADDR.
	USER_ID	alphanumeric (5 to 8 characters)	*User ID* Mandatory field used to verify the Userid field of the nosLogon message.
	LOGIN_PASSWD	alphanumeric (5 to 16 characters)	*Login password* Mandatory field used to verify the Password field of the nosLogon message

Table history

SN08

Field LNKSEL was added through feature A00007250. This field defines which remote IP addresses are allowed access to the DMS-100/CS2K. It also defines the relationship between the pool and session link.

SN07

Table ACDMISPL was added in SN07.

Additional information

SN08

Changes in the LNKSEL field from TCP to X25 will require the standard X25 datafill that has always been used when establishing an ACD MIS X25 link. This will involve changes or additions to the datafill in table MPCLINK.

CSP06

The parameter ACD_MIS_OUT_EVENT_BUFFER_SIZE is now hardcoded to its maximum recommended value (200). It is no longer accessible to the user.

ACDRTE

Automatic Call Distribution Routing

Table ACDRTE defines automatic call distribution (ACD) groups.

Up to four ACD groups can be specified in table ACDRTE as overflow groups for a given ACD group, all within the same switch. In the event of an overflow condition on an incoming call queue, these groups are examined and the overflowed call is terminated on the first available group. If no groups are available, the call is rerouted to the default overflow route, as datafilled in field THROUTE in table ACDGRP.

All ACD groups must be on the same switch. When an ACD call comes into the specified ACD group and cannot be queued because the maximum call queue size or the maximum call wait time is exceeded, the system looks at each of the designated overflow ACD groups. The call is terminated on the first available group. Termination restrictions for the overflow groups are the same as for the source group; the call may terminate on a group only if the call queue threshold has not been exceeded, the maximum call queue wait time has not been exceeded, or the group is not in night service.

If a call terminates on one of the overflow groups, it does not overflow again. A call terminating on an overflow group is placed in the same priority queue as the source ACD group.

An entry in table ACDRTE contains the following information for each ACD group with the overflow option:

- the ACD source group
- a list of one to four ACD groups examined during overflow condition

Table ACDRTE can also contain a list of valid audio groups that can be datafilled in option AUDIO of table ACDGRP, as well as a list of valid routes for night service, threshold routing, and controlled interflow routing.

An optional night service announcement can be specified using table ACDRTE. If this option is selected, a special announcement is given to the ACD caller prior to rerouting the call to the night service route.

An optional forced announcement can be specified for incoming and overflow calls. If a forced announcement for incoming calls is selected, every incoming call arriving on the ACD group is forced to an announcement. If a forced announcement for overflow calls is selected, a forced announcement is provided for every call overflowed because

values have been exceeded for either field MAXWAIT or MAXCQSIZ in table ACDGRP. If either of the forced audio options is selected, a corresponding audio group must be datafilled in table AUDIO.

If a forced announcement for Network ACD (NACD) overflow calls is selected, a forced announcement is provided for every call overflowed under the following conditions:

- the best group is not identical to the source group, and one of the following is true:
  - — the QTHRESH and WTHRESH values in table NACDGRP are met or exceeded
  - — the source group is in night service
  - — all agents are in a make set busy (MSB) state
- the MAXWAIT or MAXCQSIZ values in table ACDGRP are exceeded and the NETOVFL option is selected in table NACDGRP
- a best group could not be determined, and the MAXWAIT and MAXCQSIZ values in table ACDGRP are exceeded

An optional route can be specified for the re-enqueue route for the ACD group. This is the route to which the re-enqueued ACD calls for that group will be routed, on expiration of the re-enqueue timer. In addition, an optional message can be specified for the re-enqueue announcement of the audio group.

Optional enhanced routing of ACD re-enqueued calls can be specified. The re-enqueue route for the ACD group can be specified. This route must be a valid route in routing tables. The audio group used for the re-enqueue announcement can be specified. The audio group specified must be datafilled in Table AUDIO and assigned to the ACD feature.

For more information about ACD, see Table ACDGRP.

Datafill sequence and meaning

Table ACDGRP must be datafilled before datafilling Table ACDRTE.

Table size

0 to 2048 tuples

Datafill

The following table shows the datafill for table ACDRTE.

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

Field	Subfield or refinement	Entry	Explanation and action
ACDGRP		alphanumeric (1 to 16 characters)	*Automatic call distribution group* Enter the name of an automatic call distribution (ACD) group that is datafilled in field ACDNAME of Table ACDGRP.
OPTNAME		AUDIO, CIFROUTE, FIAUDIO, FOAUDIO, NSAUDIO, OVFL, RENQRTE, RENQAUD, TABEN, TMDTHRTE	*Option name* Enter one of the following options: • AUDIO - Audio • CIFROUTE - Controlled interflow • FIAUDIO - Forced announcement for incoming calls • FOAUDIO - Forced announcement for overflow calls • NSAUDIO - Night service audio group • OVFL - Overflow • RENQRTE - Re-enqueue route • RENQAUD - Re-enqueue audio • TABEN - Table entry • TMDTHRTE - Time display threshold routing

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

Field	Subfield or refinement	Entry	Explanation and action
OPTION		AUDIO, CIFROUTE, FIAUDIO, FOAUDIO, NSAUDIO, OVFL, RENQRTE, RENQAUD, TABEN, TMDTHRTE	*Option* Enter an option. The options are described in field OPTNAME. If the entry in field OPTION is AUDIO, datafill refinement VECTOR. If the entry in field OPTION is CIFROUTE, datafill refinements TABNAME and INDEX. If the entry in field OPTION is FIAUDIO, datafill refinement FIAUDGRP. ***Note:*** Option FIAUDIO cannot be added to a CDN ACD group. If the entry in field OPTION is FOAUDIO, datafill refinement FOAUDGRP. ***Note:*** Option FOAUDIO cannot be added to a CDN ACD group. If the entry in field OPTION is NSAUDIO, datafill refinement NSAUDGRP. ***Note:*** Option NSAUDIO cannot be added to a CDN ACD group. If the entry in field OPTION is OVFL, datafill refinement OVFLLIST. If the entry in field OPTION is RENQRTE, datafill refinement ROUTE.

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

Field	Subfield or refinement	Entry	Explanation and action
			If the entry in field OPTION is RENQAUD, datafill refinement RENQAUDGRP. If the entry in field OPTION is TABEN, datafill refinements RTETABLE and INDEX. If the entry in field OPTION is TMDTHRTE, datafill refinements TABNAME, INDEX, and TIME.
	VECTOR	alphanumeric (vector of up to 8 names)	*Audio entry vector* If the entry in field OPTION is AUDIO, datafill this refinement. Enter up to 8 audio group names.
	TABNAME	IBNRTE, IBNRT2, IBNRT3, IBNRT4, IRTE, OFRT, OFR2, or OFR4	*Table name* If the entry in field OPTION is CIFROUTE, datafill this refinement. Enter the name of the table to which translation is routed. If the entry in this field is any entry other than IRTE; datafill refinement INDEX; otherwise, datafill refinements XLASYS, XLANAME, and RETREF.
	INDEX	1 to 1023	*Index* If the entry in field OPTION is CIFROUTE, and the entry in field TABNAME is any entry other than IRTE, datafill this refinement. Enter the number assigned to the route list in the table to which translation is routed. ***Note:*** Zero (0) is not a valid entry for this field.

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

Field	Subfield or refinement	Entry	Explanation and action
	XLASYS	AC, AM, CT, FA, FT, NIL, NSC, OFC, PX	*Translations system* If the entry in field TABNAME is IRTE, datafill this refinement. Specify the translation system and datafill refinement XLANAME.
	XLANAME	NIL	*Translations name* If the entry in field TABNAME is IRTE, datafill this refinement, then datafill refinement RTEREF. Enter the translations name.
	RTEREF	0 to 1023	*Route reference* If the entry in field TABNAME is IRTE, datafill this refinement. Enter a numeric value to specify the route.
	NSAUDGRP	AUDIO1 to AUDIO512	*Night service audio group* If the entry in field OPTION is NSAUDIO, datafill this refinement. Enter the night service audio group name.
	FIAUDGRP	AUDIO1 to AUDIO512	*Forced announcement for incoming calls* If the entry in field OPTION is FIAUDIO, datafill this refinement. Enter the forced announcement audio group name.
	FOAUDGRP	AUDIO1 to AUDIO512	*Forced announcement for overflow calls* If the entry in field OPTION is FOAUDIO, datafill this refinement. Enter the forced announcement audio group name.

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

Field	Subfield or refinement	Entry	Explanation and action
	OVFLLIST	alphanumeric (1 to 16 characters)	*Overflow list* If the entry in field OPTION is OVFL, datafill this refinement. Enter the name of the destination ACD group(s) to which calls are overflowed. Up to 4 groups can be specified.
	RENQAUDGRP	AUDIO1 to AUDIO511	*Re-enqueue audio group* If the entry in field OPTION is RENQAUD, datafill this refinement. Enter the audio group used for the re-enqueue announcement. Datafill the specified audio group in table AUDIO and assign it to the ACD feature.
	ROUTE	TABNAME {OFRT, OFR2, OFR3, OFR4, IBNRTE, IBNRT2, IBNRT3, IBNRT4} INDEX: {0 to 1023}	*Route* If the entry in field OPTION is RENQRTE, datafill this refinement. Enter the route to which the re-enqueued ACD calls for that group will be routed, on expiration of the re-enqueue timer. This route must be a valid route in routing tables.
	RTETABLE	IBNRTE, IBNRT2, IBNRT3, IBNRT4, IRTE, OFRT, OFR2, OFR4	*Route table* If the entry in field OPTION is TABEN, datafill this refinement. Enter the table to which translation is routed. Up to ten routes can be entered.

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

Field	Subfield or refinement	Entry	Explanation and action
	INDEX	1 to 1023	*Index* If the entry in field OPTION is TABEN, datafill this refinement. Enter the number assigned to the route list in the table to which translation is routed. ***Note:*** Zero (0) is not a valid entry for this field.
	TABNAME	IBNRTE, IBNRT2, IBNRT3, IBNRT4, IRTE, OFRT, OFR2, OFR4	*Table name* If the entry in field OPTION is TMDTHRTE, datafill this refinement. Enter the name of the table to which translation is routed. If the entry in this field is any entry other than IRTE, datafill refinement INDEX; otherwise, datafill refinements XLASYS, XLANAME, and RTEREF.
	INDEX	1 to 1023	*Index* If the entry in field OPTION is TMDTHRTE, datafill this refinement. Enter the number assigned to the route list in the table to which translation is routed. ***Note:*** Zero (0) is not a valid entry for this field.
	XLASYS	AC, AM, CT, FA, FT, NIL, NSC, OFC, PX	*Translations system* If the entry in field TABNAME is IRTE, datafill this refinement. Specify the translation system and datafill refinement XLANAME.

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

Field	Subfield or refinement	Entry	Explanation and action
	XLANAME	NIL	*Translations name* If the entry in field TABNAME is IRTE, datafill this refinement, then datafill refinement RETREF. Enter the translations name.
	RTEREF	0 to 1023	*Route reference* If the entry in field TABNAME is IRTE, datafill this refinement. Enter a numeric value to specify the route.
	TIME	0 to 1800	*Time* If the entry in field OPTION is TMDTHRTE, datafill this refinement. Enter the amount of time a call is enqueued at the original ACD group or overflow ACD group before being transferred to the specified route.

Table history

SN08

Option FIAUDIO was updated in SN08 as part of CR Q00975400-01.

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
PDCFAIL	Power distribution center failure
RDBALM	Remote distribution bay alarm
RDTALRMCO	Remote digital terminal alarm cut-off
REMOTEAR	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.

SC 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 OAUs 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	PDCFAIL	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 Distribution 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 Distribution 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 Distribution 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:

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- 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.

SC 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 OAUs 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 3X82AA 3X82AB 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.

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.

AMAOPTS

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

Automatic Message Accounting Options

Table AMAOPTS is used to control the activation and scheduling of the recording options for automatic message accounting (AMA). Table AMAOPTS contains one tuple for every option, and initially contains the default values for each of these options. The default values of these options are dependent on the entry in field FORMAT in table CRSFMT where entry in field KEY is AMA. The entry in field FORMAT can be BCFMT (Bellcore format) for Bellcore offices, NTFMT (Nortel Networks format), or another format type for non-Bellcore offices. Some of the options replace office parameters that were used in earlier software releases.

These options cannot be deleted. Adds are performed to force a display of the contents of the table and to make the tuple known to the table editor to allow for changes to the tuple. By changing the scheduling information for the options, the operating company can activate, deactivate, and schedule the options at specified dates and times, and so control the output produced by the AMA system.

The initial contents of table AMAOPTS are defined at initial program load (IPL) time, but are not displayed in the table until the tuples have been added. To add entries without affecting the default scheduling values, use the selector DEFAULT in field AMASEL, and table control replaces the selector DEFAULT with the default value.

For example, to add the default entry DA411 to table AMAOPTS in field AMAOPT, enter the tuple DA411_DEFAULT. The entry DA411 OFF is displayed, indicating that the option is disabled as a default.

If the options that control unanswered call recording (UNANS_TOLL, UNANS_LOCAL, and UNANS_TOPS) are set to Y (yes), table BCCODES (formerly ATTCODES) must also be datafilled to route unanswered calls that are not equal access calls to the call recording. Call records are produced for all equal access calls, both answered and unanswered, regardless of the datafill in these tables. See table BCCODES for further explanation.

See the first table below for a description of available options. See the second and third tables below for the default schedule values for each option, and see the fifth table for the allowable values of field AMASEL for each option.

Description of available options

Option	Explanation
ACBAR_MOD_CO	This option provides a method of identifying any billable calls that are set up with Automatic Call Back (ACB) or Automatic Recall (AR) features, and includes a way of distinguishing calls to private numbers using ACB or AR. The setting of option ACBAR_MOD_CO determines whether features ACB and AR and the privacy status of a call are provided. The option ACBAR_MOD_CO is an ON or OFF parameter. If ACBAR_MOD_CO is set ON, features ACB and AR and the privacy status of a call are found in the appended module code 068. The information added to the billing record is interpreted by the downstream billing center. If it is a private number, the directory number (DN) is not printed on the subscriber's invoice. If option ACBAR_MOD_CO is set OFF, module code 068 is not appended; therefore, features ACB and AR and the privacy status information of a call are not provided. If option ACBAR_MOD_CO is set OFF, the DN of any private number is printed on the subscriber's invoice. The default value is OFF. Values other than ON, OFF, or DEFAULT are not valid.
ACBAR_STY_IN	This option provides a method of identifying any billable calls that are set up with ACB or AR features, and includes a way of distinguishing calls to private numbers using ACB or AR. The setting of option ACBAR_STY_IN determines whether features ACB and AR and the privacy status of a call are provided. The option ACBAR_STY_IN is an ON or OFF parameter. If option ACBAR_STY_IN is set ON, features ACB and AR and the privacy status of a call are found in character 5 of the study indicator. The information added to the billing record is interpreted by the downstream billing center. If it is a private number, the DN is not printed on the subscriber's invoice. If option ACBAR_STY_IN is set OFF, features ACB and AR and the privacy status of a call are not found in character 5 of the study indicator. If option ACBAR_STY_IN is set OFF, the DN of any private number is printed on the subscriber's invoice. The default value is OFF. Values other than ON, OFF, or DEFAULT are not valid.
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

Description of available options

Option	Explanation
AMATRKTG_ANS	This option controls the generation of the AMA record triggered by the option AMATTRKTG in table AMATKOPT for all calls or for answered calls only. If this option is on, the AMA records are generated only for answered calls.
APPEND_ISDN_ CKT_ID	This option controls the production of the ISDN channel identifier (module 180) and trunk identification (module 181) module codes. This option gives office-wide control of these module codes. The module codes are produced for originating and terminating BRI and PRI ISDN calls. To turn on the recording of modules 180 and 181, set APPEND_ISDN_CKT_ID to ON. To stop the recording of modules 180 and 181, set APPEND_ISDN_CKT_ID to OFF. The default value for this option is OFF.
APPEND_PRI_ MODULE	This option controls the addition of AMA module 070/071 to billing records for PRI originating calls. This option can be set to ON or OFF. The default value is OFF. To turn on the recording of module 070 or 071, set APPEND_PRI_MODULE to ON. To turn off the recording of module 070 or 071, set APPEND_PRI_MODULE to OFF.
AUDIT	This option controls the resetting of the internal AMA counts for the operational measurements (OM) tracer record and sets up the accumulated time change for the new day. This option cannot be changed, and appears for information only.
BACK_CHARGE	This option controls the addition of module 611 for backwards charging information on French Telephony User Part (FTUP). This activity sends charging information during the call to the (calling subscriber's) switch that performs the billing. This option allows the service provider to control the billing of the call.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
BCLID_USPAUD	This option controls the generation of AMA records by the Bulk Calling Line Identification usage-sensitive pricing audit (BCLID_USPAUD) that is scheduled in table AMAOPTS. Option SUSP (subscriber usage-sensitive pricing) must be turned on to obtain BCLID_USP records. If a DN used as a BCLID group billing DN is also used as a Custom Local Area Signaling Services (CLASS) line with at least one CLASS display feature, then two AMA records are generated for the DN. Field USP in table BCLIDGRP controls the collection of AMA information for each group of BCLID subscribers. If field USP is datafilled Y (yes), AMA counts are collected for the group. The peg counts store the number of full calling DNs delivered and the combined number of PRIVATE and OUT-OF-AREA indications delivered. An AMA record is generated for each BCLID group that is datafilled for usage-sensitive pricing (USP). BCLID groups that are datafilled with N (no) in field USP in table BCLIDGRP are not billed on a usage-sensitive basis. No AMA records are generated for these BCLID groups.
BCLONGCALL	This option allows setting of the record generation time for long-duration Bellcore format records.
CALL_FWD	This option controls the usage recording of Call Forwarding (CFW/CFX).
CALL_TIMECHG	This option governs the triggering of the new time-change module on the AMA record. There are three possible values: • ON: Enables this functionality if a time change (CI commands SETTIME or SETDATE) occurs during a call, the time-change module is appended to the resultant AMA record. • OFF: disables this functionality. This is the initial value. • DEFAULT: equates to OFF in all cases. When datafilling this tuple, option UNIVERSAL_AMA_BILLING in table OFCENG must be set to Y and option TIMECHANGE in table AMAOPTS must be set to OFF.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
CAPTURE_ CKTSZ_UNANS	This option controls the generation of MCI 098 for unanswered calls. When set to ON, the terminating circuit seizure date and time will be captured in MCI 098.
CAPTURE_ CLASS_SERV	This option controls the capture of the Class of Service (COS) Index. When set to ON, the most recent Class of Service Index assigned to the originating trunk group will be captured in BCD char 6-9 of MCI 611. The MCI 611 together with the new Context ID (80058) will be attached to the AMA record. If table control is set to OFF a dummy value of Hex F will be captured in BCD char 6-9. By default the COS captured in MCI 611 will be the one entered in the table TRKOPTS. If the COS is overridden during the translations then the COS captured in the MCI 611 will be the COS entered in the table CLISRVPF. The COS value assigned to the call can range from 0 - 1023. If all the three table controls (CAPTURE_CLASS_SERV, CAPTURE_COMPL_CODE and CAPTURE_SAT_IND) are set to OFF then the MCI 611 with the new context ID (80058) will not be attached to the AMA record.
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

Description of available options

Option	Explanation
CAPTURE_ COMPL_CODE	This option controls the capture of the Completion code, representing the reason for the call termination. The completion code will be captured for either the: release cause, treatment or called/calling party disconnect. If the Release Cause is available, then the completion code corresponding to the Release Cause will be captured. If the Release Cause is not available, then the Treatment Code, if available, will be captured as the Completion Code. If neither are available, the Calling Party/Called Party disconnect information will be captured as the Completion Code. Completion Code Information is captured for the following protocols: • ETSI ISUP V1 • ETSI ISUP V2 • IBN7 • FST R1 • FST R2 • RBTUP • BTUP • DPNSS When set to ON, the reason for the call termination will be added to MCI 611 (BCD char 2-4) with the new Context ID (80058), and will be attached to the AMA record. The BCD char 1 will indicate the event in the call for which the completion code is captured. If table control is set to OFF a dummy value of Hex F will be captured in BCD char 1-4. If all the three table controls (CAPTURE_CLASS_SERV, CAPTURE_COMPL_CODE and CAPTURE_SAT_IND) are set to OFF then the MCI 611 with the new context ID (80058) will not be attached to the AMA record.
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

Description of available options

Option	Explanation
CAPTURE_ INAP_CPC	This option controls the capture of INAP CPC. If the option is turned ON and if the call involves INAP, the INAP CPC, if it exists, is captured in the AMA module code 611 (Context ID: 80027).
CAPTURE_ SAT_IND	This option controls the capture of Satellite Indicator information. If the call involved a satellite circuit then this one bit flag is set to 1 (ON). Information in this field is based on the SAT field value that is datafilled against the originating trunk in table TRKSGRP. For ISUP (ETSI ISUP V1, ETSI ISUP V2, IBN7) and RBTUP protocols this information is based on the satellite information carried by the incoming IAM and the SAT field value that is datafilled against the originating trunk in the table TRKSGRP. The satellite circuit information is captured in the BCD char 5 of the MCI 611. MCI 611 with the new Context ID (80058) will be attached to the AMA record. If table control is set to '0' (OFF) a dummy value of Hex F will be captured. If all the three table controls (CAPTURE_CLASS_SERV, CAPTURE_COMPL_CODE and CAPTURE_SAT_IND) are set to OFF then the MCI 611 with the new context ID (80058) will not be attached to the AMA record.
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

Description of available options

Option	Explanation
CCBS_BILLING	This option controls CCBS (Call Completion to Busy Subscriber) billing, adding usage billing for CCBS calls. It is possible to mark the billing record to indicate CCBS usage thereby providing the ability to charge for the successful usage of CCBS. The option can be set to either ON or OFF. If the option is set to ON, it indicates that CCBS usage billing indication will be provided in AMA records for CCBS originated calls. If the option is set to OFF, no CCBS usage billing will be provided. ***Note:*** CCBS is a world trade (WT) feature and is not available in North American loads. Indication of CCBS usage is provided for the following scenarios where CCBS has been initiated and the called party has become free: • Originator ignores the ring back. • Originator answers the ring back call and disconnects immediately (before or after the called party has rung). • Ringing is applied to the called party and he doesn't answer. • A complete call setup occurs between the originator and the called party. In this scenario if an answer message is received with no charge indication then the record will be marked as unanswered with CCBS usage marked. ***Note:*** This option applies to both IBN and EBS lines. The Service Feature field (Field 012) is used to indicate that CCBS usage has been successful. CCBS usage is marked with a service feature code of ‘029’ in the billing record. ***Note:*** The service feature code value of ‘029’ is also used to indicate BTUP CBWF usage.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
CCSADATA	This option controls the precedence of Call Code 021 over Call Code 072 for Common Control Switching Arrangement (CCSA) data calls. It has no effect on non-data calls. A Call Code 072 record is produced for a CCSA data call if the CCSADATA option is set to the default value OFF. A Call Code 072 record is replaced by Call Code 021 if the call is a CCSA data call and the CCSADATA option is set to ON.
CDAR	This option controls the recording of customer-dialed account codes.
CDAR_ EXTENDED	This option controls the generation of the AMA module code 850 for the capture of account codes.
CDRDUMP	This option controls the generation of an audit that provides a billing record for all calls in progress on the DMS-100E at a specified time. The default value for this option is OFF, which requires that the audit be explicitly set. Once the specified time for the audit run is reached, a copy of the call detail recording (CDR) for all calls in progress at that time is generated and sent to the respective AMA process.
CDRLONGCALL	This option controls the scheduling of a new audit to produce long-duration call CDRs (46-byte CDR format only). The first check occurs at the time specified by field START, followed by periodic checks with a period specified by field PERIOD. The option cannot be set with a period less than eight hours. ON enables the functionality. OFF disables the functionality. DEFAULT is PERIODIC with a period of eight hours, starting at the next occurrence of either 05:15, 13:15, or 21:15.
CDRSYNC	This option allows synchronization records (code 1B) to be added to the CDR data stream at intervals specified by the user. The option can be datafilled as OFF or PERIODIC. The CDR stream must be datafilled in field KEY of table CRSFMT before setting option CDRSYNC to PERIODIC. The default for this option is OFF and the format is CDR300FMT.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
CHG411	This option controls charging for 411 directory assistance (DA) calls. Option DA411 must be set ON along with option CHG411 before local DA calls are written as charged. Local DA records are written as study records if option DA411 is set ON and option CHG411 is OFF.
CHG555	This option controls charging for seven-digit (555-1212) DA calls. Option DA555 must be set ON along with option CHG555 before 555 DA calls are written as charged. DA calls are written as study records if option DA555 is set ON and option CHG555 is OFF.
CIDSUSPAUD	This option controls the calling information delivery (CID) subscription usage-sensitive pricing (SUSP) audit that generates a billing record (for each Calling Number Delivery (CND), Dialable Number Delivery (DDN) and/or Calling Name Delivery (CNAMD) feature subscriber) that contains peg counts for each of the CLASS SUSP display options. If option SUSP in table AMAOPTS is ON or has been ON at any point during the audit period, then at the datafilled start time and interval, the audit produces a record for each subscription CNAMD or CND/DDN subscriber. A subscription option is one that has its billing option field set to AMA. If option SUSP in table AMAOPTS is OFF and has not been ON during the audit period, then the audit is not run and no records are produced. If a subscriber has not received any calls that increment the delivery counts for a CLASS SUSP display, then a record that contains 0 (zero) in the available and unavailable count fields for that option is produced if • the CLASS SUSP display option is currently active • the CID options are enabled in table RESOFC • option SUSP was ON in table AMAOPTS during the last audit period

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
	After the audit is complete, the AMA registers that are associated with each subscriber are set to 0 (zero) in preparation for the next audit period. Since this audit can produce many AMA records, we recommend that the operating company schedule the audit during low traffic hours and on a 24-h basis. The audit is not the only source of billing records. If a CLASS SUSP display option is changed to flat-rate or removed from the line, the delivery counts stored for the CLASS SUSP display option are reported in an AMA record appropriately. Value DEFAULT in NTFMT (Northern Telecom format) AMA switching units is OFF and cannot be changed. Value DEFAULT in BCFMT (Bellcore format) AMA switching units is PERIODIC and set to run once a day at midnight. Although option CIDSUSPAUD in table AMAOPTS cannot be turned off in a BCFMT switching unit, the audit does not run if option SUSP has been turned off since the last time the audit ran.
CITYWIDE	This option allows generation of billing records for intra-citywide virtual private network (VPN) calls that are normally non-billable. Value ON turns billing on. The default value is OFF. Values other than ON, OFF, or DEFAULT are not valid.
CLI_DELV	This option controls the capture of the CLI delivery indicator. If the option is turned ON, the CLI delivery indicator is captured in the AMA module code 611 (Context ID: 80058).
CMCICWK	For a terminating central message control (CMC) call, the carrier connect time is the time the incoming CMC trunk is seized. If option CMCICWK is set to ON, the carrier connect time on a CMC to feature group D (FGD) carrier call is the time of billing wink from the FGD carrier. A CMC access record is not created unless a billing wink is received from the FGD carrier.
CMCORIG	This option controls the generation of originating CMC billing records (call codes 63 and 64). If this option is set OFF, no call code 63 or 64 records are created.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
CMCTERM	This option controls the generation of terminating CMC billing records (call codes 65 and 66). If this option is set to OFF, no call code 65 or 66 records are made.
COIN	This option controls the recording of all local coin calls.
COLL_SVC_BILL_INFO	This option controls the use of Japan billing enhancements. These enhancements have an effect on module codes 611 and 612. To enable Japan billing enhancements, set option COLL_SVC_BILL_INFO to ON. If this option is OFF, the switch ignores AMAOPTS options RECORD DIALED_DIGS and MC611_80005.
CRSEQNUM	This option controls the generation of a call record sequence number for each call record.
CRT_BILLING	This parameter controls billing records for the call redirect feature on an office-wide basis. CRT_BILLING set to ON creates a billing record for the redirected call. With CRT_BILLING set to OFF, a billing record does not generate for the redirected call.
CSMI	This option can be set to ON or OFF in order to enable or disable billing for CSMI.
DA411	This option controls the recording of calls to a local DA operator. Local DA calls are recorded as study records if option DA411 is set ON. DA calls are written as charged if options DA411 and the CHG411 are both set to ON.
DA555	This option controls the recording of seven-digit (555-1212) directory assistance calls. Ten-digit (NPA-555-1212) DA calls are always recorded as station-paid calls. DA 555 calls are recorded as study records if option DA555 is set ON. DA 555 calls are written as charged if options DA555 and CHG555 are both set ON.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
DISABLE_MCD_ AMA	This option activates the Minimum Call Duration parameter used on DMS switches in Israel. DISABLE_MCD_AMA supports special functionality for short calls that can be used by other customers. If the option is set ON, the Minimum Call Duration is activated. The default value is OFF.
ENABLE_SCI500	This option sets the AMA environment for DMS switches in Israel. ENABLE_SCI500 provides structure code 500 in Bellcore AMA records. If the option is set ON, the AMA environment is set up for the Israeli market. Option ENABLE_TLR_BILLING must be set ON before option ENABLE_SCI500 is activated. The default value is OFF. Any change in this option requires a reload restart.
ENABLE_TLR_ BILLING	This option sets the AMA environment for DMS switches in Israel. If the option is set ON, the AMA environment is set up for the Israeli market. The default value is OFF. This option controls TIV logs, generation of AMA record as a result of successful wake up request activation, generation of RBP log, implementation of OGINFO option in AMATKOPT, special Telrad implementation of CAMA, special service features in records of BOOMERANG and VML calls, sending of AMA records via MPC card, supporting of a special structure for BEARER_CAPABILITIES and SERVICE_FEATURE fields in the AMA record, implementation of FLEXCLI option in TRKOPTS table. If there is FLEXCLI option for the trunk group in TRKOPTS table, the modification of the CLI is done as written in FLEXDIGS table and the new DN is written in the record unit for AMA. Any change in this option requires a reload restart.
ENFIA_B_C	This option controls the AMA recording of ENFIA B and ENFIA C calls (for example, 950-10xx).
FREECALL	This option controls the recording of all local calls that terminate on a free number.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
FTRCODE	This option indicates whether the originating and terminating feature codes in Bellcore AMA are required for international billing. Setting the tuple FTRCODE to ON results in module code 509 being appended to the 510 structure code if one of the recorded features is activated by either the calling or called party. TIMED and PERIODIC are not valid values, and are blocked when entered. The value DEFAULT sets the tuple to OFF.
GFTBILL	This option counts transport activities that have a generic function. This option appends the activities to the AMA billing record. Value ON turns billing on. The default value is OFF.
HIGHREV	This option suppresses the generation of all AMA data except for call types that are listed as high revenue in table BCCODES.
IC_CDPN_INFO_REQD	This option controls the capture of Incoming Called Party Number NPI and NOA or TON information. The FLEXCPNI option (subfield IC_CDPN_INFO) in tables AMAXLAID and FLEXAMA activates this capture.
IC_CGPN_INFO_REQD	This option controls the capture of Incoming Calling Party Number (CGPN) Numbering Plan Indicator (NPI) and Nature Of Address (NOA) or Type Of Number (TON) information. The FLEXCPNI option (subfield IC_CGPN_INFO) in tables AMAXLAID and FLEXAMA activates this capture.
IC_CGPN_PI_REQD	This option provides a means to capture the incoming calling party's Presentation Indicator (PI) in AMA records and conveys the information about the Calling Line Identity (CLI) presentation or restriction.
INFO_DIGIT	This option controls whether an extra digit in the calling_dr field of the translation block in the CCB is copied into the calling_dr of the AMA PRU. When the option INFO_DIGIT is ON, the extra digit is not copied. When the option INFO_DIGIT is OFF, the extra digit is copied.
INTL_ICR_REQD	This option provides office-wide ICR activation for all IBN and BRI lines.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
INTRASITE	This option allows generation of billing records for normally non-billable intra-site VPN calls. Value ON turns billing on. The default value is OFF. Values other than ON, OFF, or DEFAULT are not valid.
INWATS	This option controls the recording of all inward wide area telephone service (INWATS) calls.
ISDN_ACCIND	When set to ON, this option provides the correct ISDN access indicator value in the Module code 611 AMA billing record for the supported interworkings, providing the options COLL_SVC_BILL_INFO and MC611_80005 are also ON. When the ISDN_ACCIND option is set to OFF, the terminating ISDN indicator is recorded as 'unknown' for some of the supported interworkings in the Japan market.
ISDN_ETSI_BS	When set to ON, this option specifies that all ISDN PRI and BRI calls have a module code 030 appended to their AMA billing record.
ISDNBBGBILL	This option allows the production of billing records for basic business group (BBG) facilities and services on ISDN BRI lines. If ISDNBBGBILL is ON, the switch appends module code 074 to all ISDN BRI AMA records. Module code 074 identifies • the BBG call type • the billing number of the BBG customer • the associated virtual facility group (VFG) or trunk group number (TGN) used in the call This option applies only to ISDN BRI lines, and it controls the production of BBG billing records office-wide.
ISDNCIRCUIT	This option controls the production of the ISDN circuit structures and philosophies office-wide. The structures consist of ISDN core module 070/071 and ISDN terminating user service module 073. The philosophies consist of call types and allow the operating company to specify signaling capabilities that are considered a basis for originating or terminating detailed billing.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
LNID	This option can only be OFF. This tuple is forced to OFF during a dump and restore or when operating company personnel attempt to change its value. This option controls the inclusion of a coded representation of the line ID in the AMA record. This option has no effect if entry in field FORMAT, in table CRSFMT, where field KEY = AMA, is NTFMT.
LNP_721	This option creates an LNP record for Bellcore call code 721. The option has values of ON, OFF, and DEFAULT. The default is OFF.
LNP_721_Use_ SC0500	This option creates an LNP record for Bellcore call type code 721 with structure code 500. The option has values of ON, OFF, and DEFAULT. The default is OFF. With this option OFF, LNP721 records generate with structure code 0001.
LNP_721_ PortedDNOnly	This option creates an LNP record for Bellcore call code 721 only when the dialed DN is ported. The option has values of ON, OFF, and DEFAULT. The default is OFF.
LNP_722	This option creates a last resort LNP record, Bellcore call code 722. Last resort AMA is generated when last resort routing to a recipient switch occurs at a donor switch and an AMA record is not already being generated at the donor switch. The option has values of ON, OFF, and DEFAULT. The default is OFF.
LNP_BILL_ DONOR	This option is used to trigger AMA billing records at the donor exchange in LNP QoR calls.
LNP_MODULE_ 719	This option controls the kind of module that LNP appends to an AMA record. The default is OFF, which means that LNP stores portability information in module 720.
LOG117_ CALLING_DN	This option controls whether the calling DN is copied into the AMAB117 log. ON copies the DN to AMAB117. OFF does not record the DN.
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

Description of available options

Option	Explanation
LOGAMA	This option controls the generation of AMAB117 log reports. If this option is set ON, AMAB117 log reports are generated for each record that is put on the AMA tape. (This is used instead of office parameter SPECIAL_AMA_REPORT in table OFCVAR.)
LOGOPT	This option controls the generation of a log outlining the status of the AMA recording options such as active or inactive.
LOGTEST	This option controls the generation of AMAB200 log reports. If it is set ON, AMAB200 log reports are generated for AMA billable calls to or from a line with the line option AMATEST enabled in table LENLINES.
LONGCALL	This option controls the production of AMA records periodically during the course of long-duration calls.
LUSORIG	This option controls the recording of all calls that originate on a line with line usage study (LUS) as defined in table LENFEAT.
LUSTERM	This option controls the recording of all calls that terminate on a line with LUS as defined in table LENFEAT.
MC130_FOR_CLF	This option allows module code 130 to be appended on tandem or terminating DMS-100 offices when a call is normally clear forwarded before the terminator goes off hook. The option is set to ON to activate the feature. If it is set to OFF, MC130 is appended for only rejected calls. When activating and deactivating this option, a caution is printed to indicate the change in functionality as shown below: • For activation (ON state): "This change results MC130 generation for unanswered calls clear forwarded normally" • For deactivation (OFF state): "This change prevents MC130 generation for unanswered calls clear forwarded normally"
MC611_80005	This option controls the addition of module code 611 (80005) to AMA billing records for the office. To enable the recording of module code 611 (80005), set option MC611_80005 to ON. To disable the recording of module code 611 (80005), set option MC611_80005 to OFF. The default value for this option is OFF.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
MWIC_AUDIT	This option provides the DMS-100 switch the ability to generate daily AMA records of aggregate counts of successful MWI control activations and deactivations on an MSRID basis. The MWIC_AUDIT option works in conjunction with the BILLNUM option of table MSRTAB. MWIC_AUDIT schedules the audit to capture the metrics of the new BILLNUM option.
NTAI	This option controls the generation of AMA Module 611 NTAI information switch-wide depending on the subfield ON/OFF setting.
OBSERVED	This option controls the recording of all calls that originate on a line with complaint observed studies (OBS) as defined in table LENFEAT.
OCCOVFL	This option controls the recording of equal access overflow calls (call code 120). Option OCCOVFL is dependent on the use of fixed pseudo-code EAPEG, which must be added to table CLLI and must be datafilled in table OFRT. When EAPEG is encountered in the route list of table OFRT, an overflow count is pegged against the destination carrier in table OCCINFO.
OCCTERM	This option controls the recording of terminating equal access calls (call code 119). If option OCCTERM is ON, these records are produced. If OCCTERM is OFF, these records are not produced. ***Note:*** The only option supported by GSF031 release for equal access is OCCTERM.
OUTWATS	This option controls the recording of all OUTWATS calls.
OVERFLOW	This option controls the recording of all INWATS or LUS calls that failed to terminate for any reason.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
RECORD_ DIALED_DIGS	This option controls the addition of module code 040 to AMA billing records for the office. Module code 040 records the dialed digits received at call setup. To enable the recording of module code 040, set option RECORD_DIALED_DIGS to ON. To disable the recording of module code 040, set option RECORD_DIALED_DIGS to OFF. The default value for this option is OFF.
RECORD_LSPI	This option enables the generation of LSPI recording on a switch-wide basis.
RECORD_ NATIVE_LSPI	This option enables the generation of module codes 338 and 125, and LSPI call type codes 126, 127, and 128 on a switch-wide basis for native agents. Turn on the RECORD_LSPI option before using this option.
RECORD_ RESOLD_LSPI	This option enables the generation of module codes 338 and 125, and LSPI call type codes 126, 127, and 128 on a switch-wide basis for resold agents. Turn on the RECORD_LSPI option before using this option.
RECORD_ SIGNAL_LSPI	This option lets users add the MC338 (LSPI) module to the generated billing record on a switch-wide basis. The default value for this option is OFF, which deactivates the option. Note that users must also activate the RECORD_LSPI option in table AMAOPTS to activate the RECORD_SIGNAL_LSPI option. When both options are ON, the switch records the signaled LSPAO and LSPSO information in module 338 and adds it to the billing record.
RECORD_ TERMINATION	This option controls the recording of terminating information on trunk calls routed from the VPN trunk calls encountering busy or no-circuit problems.
RECORD_TRUNK _LSPI	This option controls the generation of trunk-related LSPI recording for selected inter-switch public trunk types. The default value is OFF, indicating that recording of trunk-related LSPI information is inactive on the switch. Turn on the RECORD_LSPI option before using this option.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
RECORD_ UNBUND_LSPI	This option enables the generation of module codes 338 and 125, and LSPI call type codes 126, 127, and 128 on a switch-wide basis for unbundled agents. Turn on the RECORD_LSPI option before using this option.
SAID_MOD_ SUPPR	This option controls the production of module 047 on an office-wide basis. Module 047 is appended for Speech Activated Intelligent Dialing calls. To stop the generation of module 047, set SAID_MOD_SUPPR to ON. To enable the generation of module 047, set SAID_MOD_SUPPR to OFF.
STORE_ CALLREF	This option enables the capture of Call identity and Point code in the AMA billing record. These values are obtained from the Call Reference Parameter in the IAM message. The default value is OFF, which deactivates this option. The STORE_CALLREF option works in conjunction with the TRKOPTS option CALLREF for ETSI ISUP V2 trunks.
STORE_ LRN	This option is used to trigger additional AMA billing module 612 for ported-in number originated calls.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
SUSP	This option controls SUSP. If option SUSP is OFF (the default) • no SUSP billing occurs • service order prompting for SUSP is suppressed If option SUSP is ON • service order prompting for BILLING_OPTION is enabled • SUSP billing is enabled for the office (and SUSP billing takes place on lines that have the AMA BILLING_OPTION) SUSP records are not recorded under any conditions if parameter AMA_FORMAT is NT. SUSP is also provided for the screening list editing (SLE) features: Selective Call Forwarding (SCF), Selective Call Rejection (SCRJ), Selective Call Acceptance (SCA), and Distinctive Ringing/Call Waiting (DRCW). The usage-sensitive context here means generating billing records each time the subscriber accesses an SLE USP feature screening list or activates or deactivates a SLE USP feature. Billing records are not generated each time a terminating call is screened by a subscriber's SLE USP feature. To enable usage-sensitive pricing (USP) for SLE features • the feature or features must be enabled in table RESOFC • the feature or features must be assigned to a line • the SUSP entry in table AMAOPTS must be set ON • the BILLING_OPTION prompt, which is displayed when adding or changing an SLE feature, must be set to AMA
TIMECHANGE	This option controls the generation of time-change records if the time or date on the switch is set by the command interpreter (CI) commands SETTIME or SETDATE at a maintenance and administration position (MAP) terminal.
TRACER	This option controls the production of an AMA tracer record containing peg counts of several AMA events such as originations or records output.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
TRKID	This option can only be OFF. This tuple is forced to OFF during a dump and restore or when operating company personnel attempt to change its value. This option controls the inclusion of a coded representation of the terminating trunk ID in the AMA record. This option has no effect when parameter AMA_FORMAT is NT.
TRMTID_ CAPTURE	This option controls the capture of the treatment ID applied to calls that have failed to be routed out of the DMS-100 switch. With this option ON, any billable calls that fail on 2-way or incoming ISUP, BTUP, FST R1, FST R2, RBTUP, ETSI PRI and DPNSS trunks result in the generation of an AMA module code130 with call characteristic value 10.
TWC	This option controls the usage recording of three-way calling (3WC).
U3WC	This option controls the usage recording of three-way calling - usage sensitive (U3WC).
UNANS_AIN	This option controls Advanced Intelligent Network (AIN) specific unanswered call recording. If option UNANS_AIN is turned on, an AMA record is produced for every unanswered billable AIN call whose call type is datafilled in tuple AIN in table BCCODES. If switch-based unanswered call recording is in effect for a certain call type, then unanswered AIN calls of that call type are recorded, regardless of whether or not UNANS_AIN is turned ON. The default value is OFF.
UNANS_LOCAL	This option controls the recording of unanswered local calls. Only those local calls that generate AMA records are recorded. The call is defined as toll, local, high revenue, or Traffic Operator Position System (TOPS) in table BCCODES. The unanswered calls must have the associated call code datafilled in table BCCODES. If option UNANS_LOCAL is set ON, answered and unanswered local calls are recorded. (Equal access calls are unaffected; see note.) If the unanswered call is a billable Capability Set 1 Revised (CS-1R) call, an AMA record is generated regardless of what UNANS_LOCAL is set to. A CS-1R call is billable if a furnish charging information (FCI) operation is received from the SCP for that call.

Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.

Description of available options

Option	Explanation
UNANS_TOLL	This option controls the recording of unanswered toll calls. Only those toll calls that generate AMA records are recorded. The call is defined as toll, local, high revenue, or TOPS in table BCCODES. The unanswered calls must have the associated call code datafilled in table BCCODES. If option UNANS_TOLL is set to ON, answered and unanswered toll calls are recorded. Option UNANS_TOLL is used instead of office parameter, NO_ANS_CALLS_ONTAPE in table OFCENG. (Equal access calls are unaffected; see note.) If the unanswered call is a billable CS-1R call, an AMA record is generated regardless of what UNANS_TOLL is set to. A CS-1R call is billable if a furnish charging information (FCI) operation is received from the SCP for that call.
UNANS_TOPS	This option controls the recording of unanswered TOPS calls. Only those TOPS calls that generate AMA records are recorded. The call is defined as toll, local, high revenue, or TOPS in table BCCODES. The unanswered calls must have the associated call code datafilled in table BCCODES. If the option UNANS_TOPS is set ON, answered and unanswered TOPS calls are recorded. (Equal access calls are unaffected; see note.)
Note: Originating equal access calls, both answered and unanswered, generate AMA records regardless of the datafill in tables AMAOPTS and BCCODES. For offices that require billing for all E800 calls, ensure that call codes 141 and 142 are datafilled against UNANS_TOLL.	

In table CRSFMT, if the entry in field KEY is AMA, and the entry in field FORMAT is BCFMT (Bellcore format), the default values for the options in table AMAOPTS are as listed in the following table.

Default schedule values for Bellcore format options

Option	Default schedule
ACBAR_MOD_CO	OFF
ACBAR_STY_IN	OFF
AMATRKTG_ANS	OFF
Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.	

Default schedule values for Bellcore format options

Option	Default schedule
APPEND_ISDN_CKT_ID	OFF
APPEND_PRI_MODULE	OFF
AUDIT	PERIODIC yymmdd 0000 24 HRS
BCLID_USPAUD	PERIODIC yymmdd 0000 24 HRS
BCLONGCALL	PERIODIC yymmdd 0000 24 HRS
CALL_FWD	ON
CALL_TIMECHG	OFF
CAPTURE_CKTSZ_UNANS	OFF
CAPTURE_CLASS_SERV	OFF
CAPTURE_COMPL_CODE	OFF
CAPTURE_INAP_CPC	OFF
CAPTURE_SAT_IND	OFF
CCBS_BILLING	OFF
CCSADATA	OFF
CDAR	OFF
CDAR_EXTENDED	OFF
CDRDUMP	OFF
CDRLONGCALL	PERIODIC
CHG411	OFF
CHG555	OFF

Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.

Default schedule values for Bellcore format options

Option	Default schedule
CIDSUSPAUD	PERIODIC yymmdd 0000 24 HRS
CITYWIDE	OFF
CLI_DELV	OFF
CMCICWK	OFF
CMCORIG	OFF
CMCTERM	OFF
COIN	OFF
COLL_SVC_BILL_INFO	OFF
CRSEQNUM	OFF
CRT_BILLING	OFF
CSMI	ON
DA411	OFF
DA555	OFF
DSCWID_CONF_AUDIT	OFF
ENFIA_B_C	ON
FREECALL	OFF
FTRCODE	OFF
GFTBILL	OFF
HIGHREV	OFF
INTL_ICR_REQD	OFF
INTRASITE	OFF

Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.

Default schedule values for Bellcore format options

Option	Default schedule
INWATS	OFF
ISDN_ACCIND	OFF
ISDNBBGBILL	OFF
ISDNCIRCUIT	OFF
LNID	OFF
LNP_BILL_DONOR	OFF
LOGAMA	OFF
LOGOPT	PERIODIC yymmdd 1200 24 HRS
LOGTEST	OFF
LONGCALL	PERIODIC yymmdd 0000 24 HRS
LUSORIG	OFF
LUSTERM	OFF
MC130_FOR_CLF	OFF
MC611_80005	OFF
MWIC_AUDIT	PERIODIC yymmdd 0000 24 HRS
NTAI	OFF
OBSERVED	OFF
OCCOVFL	PERIODIC yymmdd 2300 1 HRS
OCCTERM	ON
OUTWATS	OFF

Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.

Default schedule values for Bellcore format options

Option	Default schedule
OVERFLOW	PERIODIC yymmdd 2300 24 HRS
RECORD_DIALED_DIGS	OFF
RECORD_LPSI	OFF
RECORD_NATIVE_LSPI	OFF
RECORD_RESOLD_LSPI	OFF
RECORD_SIGNAL_LSPI	OFF
RECORD_TERMINATION	OFF
RECORD_TRUNK_LSPI	OFF
RECORD_UNBUND_LSPI	OFF
SAID_MOD_SUPPR	OFF
STORE_CALLREF	OFF
STORE_LRN	OFF
SUSP	OFF
TIMECHANGE	OFF
TRACER	PERIODIC yymmdd hh00 1 HRS
TRKID	OFF
TWC	ON
U3WC	ON
UNANS_AIN	OFF
UNANS_LOCAL	OFF

Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.

Default schedule values for Bellcore format options

Option	Default schedule
UNANS_TOLL	OFF
UNANS_TOPS	OFF
Note: yymmdd is the date at initial program load (IPL) time, and hh00 is the time at IPL.	

In table CRSFMT, if the entry in field KEY is AMA, and the entry in field FORMAT is NTFMT (Nortel Networks format) or another non-Bellcore format, the default values for the options in table AMAOPTS are listed in the following table.

Default schedule values for non-Bellcore format options

Option	Default schedule
AUDIT	PERIODIC yymmdd 0000 24 HRS
CALL_FWD	OFF
CCSADATA	OFF
CDAR	OFF
CDRDUMP	OFF
CDRLONGCALL	PERIODIC
CDRSYNC	OFF
CHG411	OFF
CHG555	OFF
CIDSUSPAUD	OFF
COIN	OFF
DA411	OFF
DA555	OFF
Note: yymmdd is the date at IPL time, and hh00 is the time at IPL.	

Default schedule values for non-Bellcore format options

Option	Default schedule
ENFIA_B_C	ON
FREECALL	OFF
HIGHREV	OFF
INWATS	OFF
LNID	OFF
LOGAMA	OFF
LOGOPT	OFF
LONGCALL	PERIODIC yymmdd hhmm 1 HRS
LUSORIG	OFF
LUSTERM	OFF
OBSERVED	OFF
OCCOVFL	PERIODIC yymmdd 2300 1 HRS
OCCTERM	ON
OUTWATS	OFF
OVERFLOW	OFF
STORE_CALLREF	OFF
TIMECHANGE	OFF
TRACER	OFF
TRKID	OFF
TWC	OFF
UNANS_LOCAL	OFF

Note: yymmdd is the date at IPL time, and hh00 is the time at IPL.

Default schedule values for non-Bellcore format options

Option	Default schedule
UNANS_TOLL	OFF
UNANS_TOPS	OFF
Note: yymmdd is the date at IPL time, and hh00 is the time at IPL.	

In table CRSFMT, if the entry in field KEY is AMA, and the entry in field FORMAT is BCFMT (Bellcore format), the allowable values for field AMASEL in table AMAOPTS are as listed in the following table.

Allowable AMASEL values for each Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
ACBAR_MOD_CO	X	X			X
ACBAR_STY_IN	X	X			X
AMATRKTG_ANS	X	X			X
APPEND_ISDN_CKT_ID	X	X			X
APPEND_PRI_MODULE	X	X			X
AUDIT					X
BCLID_USPAUD	X	X	X		X
BCLONGCALL				X	X
CALL_FWD	X	X	X		X
CALL_TIMECHG	X	X			X
CAPTURE_CKTSZ_UNANS	X	X			X
CAPTURE_CLASS_SERV	X	X			X
CAPTURE_COMPL_CODE	X	X			X

Allowable AMASEL values for each Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
CAPTURE_INAP_CPC	X	X			X
CAPTURE_SAT_IND	X	X			X
CCBS_BILLING	X	X			X
CCSADATA	X	X			X
CDAR	X	X	X		X
CDAR_EXTENDED	X	X			X
CDRDUMP		X		X	X
CDRLONGCALL	X	X		X	X
CHG411	X	X	X		X
CHG555	X	X	X		X
CIDSUSPAUD				X	X
CITYWIDE	X	X			X
CLI_DELV	X	X			X
CMCICWK	X	X	X		X
CMCORIG	X	X	X		X
CMCTERM	X	X	X		X
COIN	X	X	X		X
COLL_SVC_BILL_INFO	X	X			X
CRSEQNUM	X	X			X
CRT_BILLING	X	X			X
CSMI	X	X			X
DA411	X	X	X		X

Allowable AMASEL values for each Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
DA555	X	X	X		X
DSCWID_CONF_AUDIT		X		X	X
ENFIA_B_C	X	X	X		X
FREECALL	X	X	X		X
FTRCODE	X	X			X
HIGHREV		X	X		X
INTL_ICR_REQD	X	X			X
INTRASITE	X	X			X
INWATS	X	X	X		X
ISDN_ACCIND	X	X			X
ISDNBBGBILL	X	X			X
ISDNCIRCUIT	X	X	X		X
LNID		X			X
LNP_BILL_DONOR	X	X			X
LOGAMA	X	X	X		X
LOGOPT		X		X	X
LOGTEST	X	X			X
LONGCALL				X	X
LUSORIG	X	X	X		X
LUSTERM	X	X	X		X
MC130_FOR_CLF	X	X			
MC611_80005	X	X			X

Allowable AMASEL values for each Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
MWIC_AUDIT		X		X	X
OBSERVED	X	X	X		X
OCCOVFL	X	X	X	X	X
OCCTERM	X	X	X		X
OUTWATS	X	X	X		X
OVERFLOW		X		X	X
RECORD_DIALED_DIGS	X	X			X
RECORD_LPSI	X	X			X
RECORD_NATIVE_LSPI	X	X			X
RECORD_RESOLD_LSPI	X	X			X
RECORD_SIGNAL_LSPI	X	X			X
RECORD_TRUNK_LSPI	X	X			X
RECORD_UNBUND_LSPI	X	X			X
SAID_MOD_SUPPR	X	X			X
STORE_CALLREF	X	X			X
STORE_LRN	X	X			X
SUSP	X	X	X		X
TIMECHANGE	X	X			X
TRACER		X		X	X
TRKID		X			X

Allowable AMASEL values for each Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
TWC	X	X	X		X
U3WC	X	X	X		X
UNANS_AIN	X	X	X		X
UNANS_LOCAL	X	X	X		X
UNANS_TOLL	X	X	X		X
UNANS_TOPS	X	X	X	X	X

In table CRSFMT, if the entry in field KEY is AMA, and in field FORMAT is NTFMT (Nortel format) or other non-Bellcore format, the allowable values for field AMASEL in table AMAOPTS are as listed in the following table.

Allowable AMASEL values for each non-Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
AUDIT					X
APPEND_ISDN_CKT_ID	X	X			X
CALL_FWD		X			X
CCSADATA	X	X			X
CDAR		X			X
CDRDUMP		X		X	X
CDRLONGCALL	X	X		X	X
CDRSYNC		X		X	X
CHG411		X			X
CHG555		X			X
CIDSUSPAUD		X			X

Allowable AMASEL values for each non-Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
COIN		X			X
DA411		X			X
DA555		X			X
ENFIA_B_C		X			X
FREECALL		X			X
HIGHREV		X			X
INWATS		X			X
LNID		X			X
LOGAMA		X			X
LOGOPT		X			X
LONGCALL				X	X
LUSORIG		X			X
LUSTERM		X			X
OBSERVED		X			X
OCCOVFL	X	X	X	X	X
OCCTERM	X	X	X		X
OUTWATS		X	X		X
OVERFLOW		X		X	X
SAID_MOD_SUPPR	X	X			X
STORE_CALLREF	X	X			X
TIMECHANGE		X			X
TRACER		X			X
TRKID		X			X

Allowable AMASEL values for each non-Bellcore format option

Option	ON	OFF	TIMED	PERIODIC	DEFAULT
TWC		X			X
UNANS_LOCAL		X			X
UNANS_TOLL		X			X
UNANS_TOPS		X			X

Datafill sequence and meaning

Table CRSFMT must be datafilled before table AMAOPTS.

Table size

Table size is determined by the number of options currently supported. This number is static.

Datafill

The following table lists datafill for table AMAOPTS.

Field descriptions

Field	Subfield	Entry	Explanation and action
OPTION		see subfield	*Option* This field consists of subfield AMAOPT.
	AMAOPT	alphanumeric	*AMA option* Enter one of the option values listed in the first table in this chapter.
SCHEDULE		see subfields	*Schedule* This field consists of subfields AMASEL, ONDATE, OFFDATE, SCHED, ONTIME, and OFFTIME.

Field descriptions

Field	Subfield	Entry	Explanation and action
	AMASEL	ON, OFF, DEFAULT, PERIODIC, TIMED	*AMA selector* Enter one of the values listed in the fourth and fifth tables in this chapter. • ON: Activate the option immediately. • OFF: Deactivate the option immediately. • DEFAULT: Use the default schedule for the option. The value DEFAULT never appears in table AMAOPTS, since table control replaces it with the actual default value; details are shown in the cross-reference tables in this chapter. The DEFAULT selector can be used at any time and the switch recalculates the default value if the default AMASEL value is PERIODIC. • PERIODIC: Activate the option at the specified date and time and perform the activity periodically at the interval specified. Datafill subfields ONDATE and ONTIME to specify the date and time for activation, and datafill SCHED for the time intervals at which to perform the activity. For PERIODIC refinements, refer to AMASEL=PERIODIC conditional datafill table. • TIMED: Activate the option between the specified dates and times. Datafill refinements ONDATE and ONTIME to activate the option, and refinements OFFDATE and OFFTIME to deactivate the option. For TIMED refinements, refer to AMASEL=TIMED conditional datafill table.

AMASEL = PERIODIC

If the entry in subfield AMASEL is PERIODIC, datafill refinements ONDATE, ONTIME, SCHED, TV, and TU as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ONDATE	0 to 9(6 digits)	*Activation on date* Enter the year, followed by the month, followed by the day (yymmdd) on which the activation of the option is set to ON. For example, 821105.
	ONTIME	0 to 9(4 digits)	*Activation on time* Enter the hour, followed by the minute (hhmm) on which the activation of the option is set to ON. For example, an ON time of 1:45 p.m. is entered as 1345.
	SCHED	see subfields	*Periodic schedule* This field consists of subfields TV and TU.
	TV	0 to 255	*Time value* Enter the time value for periodic scheduling. For example, an entry of 9, activates the option for the period of time units selected in subfield TU.
	TU	HRS, MINS, or SECS	*Time unit* Enter the time unit for the time value selected in subfield TV.

Note: Years 82 to 99 mean 1982 to 1999, while years 00 to 81 mean 2000 to 2081. Dates that are past cannot be entered in this field by the commands CHANGE or ADD.

AMASEL = TIMED

If the entry in subfield AMASEL is TIMED, datafill refinements ONDATE, ONTIME, OFFDATE, and OFFTIME, as described in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ONDATE	0 to 9 (maximum 6 digits)	*Activation on date* Enter the year, followed by the month, followed by the day (yymmdd) on which the activation of the option is set to ON. For example, 821105.
	ONTIME	0 to 9 (maximum 4 digits)	*Activation on time* Enter the hour, followed by the minute (hhmm) on which the activation of the option is set to ON. For example, an ON time of 1:45 p.m. is entered as 1345.
	OFFDATE	0 to 9 (maximum 6 digits)	*Activation off date* Enter the year, followed by the month, followed by the day (yymmdd) on which the activation of the option is set to OFF. For example, 821106.
	OFFTIME	0 to 9 (maximum 4 digits)	*Activation off time* Enter the hour, followed by the minute (hhmm) on which the activation of the option is set to OFF. For example, an OFF time of 11:00 p.m., is entered as 2300.
Note: Years 82 to 99 mean 1982 to 1999, while years 00 to 81 mean 2000 to 2081. Dates that are past cannot be entered in this field by commands CHANGE or ADD.			

Table history

(I)SN08

Feature A00006980

MC130_FOR_CLF option added.

ISN04 (TDM)

Feature 59034909

CCBS_BILLING option added for feature 59034909.

Feature 59034058
Added options LNP_BILL_DONOR and STORE_LRN for activity 59034058.

Feature 59034050
Added option ISDN_ACCIND for activity 59034050.

Feature 59034042
Added options AMATRKTG_ANS, CAPTURE_INAP_CPC, CDAR_EXTENDED and CLI_DELV for activity 59034042.

MMP16

Added option CAPTURE_CKTSZ_UNANS, CAPTURE_CLASS_SERV, CAPTURE_COMPL_CODE and CAPTURE_SAT_IND for activity 59027758.

Modified option TRMTID_CAPTURE for 59027758.

MMP15

Added option INTL_ICR_REQD for activity 59021950.

Added option IC_CGPN_PI_REQD for activity 59022630.

Added option NTAI for activity 59022245. This option permits the inclusion of Module 611 in AMA records.

Added option STORE_CALLREF for activity 59023264.

Added options DISABLE_MCD_AMA, ENABLE_SCI500, and ENABLE_TLR_BILLING for activity 59022865.

MMP14

Added option TRMTID_CAPTURE for activity 59017299.

MMP13

Added options IC_CGPN_INFO_REQD and IC_CDPN_INFO_REQD for activity 59014037.

NA013

Added option CRT_BILLING for activity 59012144.

MMP12

Added options INFO_DIGIT and LOG117_CALLING_DN for S10172770.

WT011

Added option COLL_SVC_BILL_INFO for activity S10172770.

EUR010

Added option BACK_CHARGE for activity AU3283.

NA011

Added options RECORD_SIGNAL_LSPI and MWIC_AUDIT.

NA010

Added error messages. Added options ISDNBBGBILL and RECORD_TRUNK_LSPI.

APC010

Added options GFTBILL, MC611_80005, and RECORD_DIALED_DIGS.

EUR008

Added option BT_CBWF_BILL.

NA009

Added options for table AMAOPTS, call types LNP 721 and LNP 722. Added option for LNP addendum module code 719.

Added RECORD_LSPI, RECORD_NATIVE_LSPI, RECORD_RESOLD_LSPI, RECORD_TRUNK_LSPI, and RECORD_UNBUND_LSPI options for TRA.

NA008

Added option CCSADATA.

EUR006

Added option ISDN_ETSI_BS.

NA007

Added options APPEND_ISDN_CKT_ID, APPEND_PRI_MODULE, and SAID_MOD_SUPPR.

GL03

Added CS-1R information to options UNANS_LOCAL and UNANS_TOLL.

NA005

Added option CSMI for Call Screening, Monitoring, and Intercept.

NA004

Added options U3WC and DSCWID_CONF_AUDIT.

UK002

Added option CDRLONGCALL.

AP03

Added option RECORD_TERMINATION.

BCS36

Added options CITYWIDE, FTRCODE, INTRASITE, and UNANS_AIN. Revised explanations for options ACBAR_MOD_CODE and ACBAR_STY_IN.

ANNS

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

Announcements

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 ANNPHLST.

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 mulit-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 VPSA 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.

AUDIO

Audio Interlude

Table AUDIO defines the audio interlude broadcasts. These broadcasts are for specified features for the Integrated Business Network (IBN). These broadcasts can include any of the following broadcast elements:

- announcement
- music
- silence
- ringing

Each tuple in the table specifies the audio broadcast issued for an audio group and feature name. The common language location identifier (CLLI) names of the announcement and music trunks appear in table AUDIO. The CLLI names must appear in tables ANN and ANNMEMS also.

Feature AD1128 is Second and Third Delay Announcement. This feature helps to provide a second and third announcement for calls that wait to be answered. With this feature, six different broadcast selections, connection selections, are available.

You can enter six connection selections in the route list. You can enter a total of two delay intervals. These intervals must occur between announcement routes. Subsequent announcements are permitted. You can enter a maximum of six subsequent announcements if delay intervals are not inserted.

The system allows a new route selection, ringing, during the delay time between announcements and the final route selection. If you specify ringing, the system prompts the delay time between announcements. This delay time is the delay threshold. A similar delay threshold field is also added to the music and silence route selectors. If the delay threshold is at 0 (zero), the treatment continues until the line is answered or abandoned. You cannot follow a selection of ringing, silence, or music by another selection of ringing, silence, or music.

Announcement cycles can repeat through the use of option REPEAT. Option repeat is only correct as the final selection. If you use option repeat, specify the route selection that needs to repeat. Only routes 2, 3, and 4 are correct.

Music, silence, or ringing can follow the final announcement. If the final selection is not music, silence, ringing, or repeat, silence is the default.

If you enter music, silence, or ringing as the final selection, the delay time must be 0 (zero). When you enter music, silence, or ringing with a delay time of 0, you cannot enter any more selections.

You cannot enter delay intervals for attendant consoles. Ringing and repeat options are not allowed. Music and silence are allowed as final choices only.

Announcements in audio interlude always start from the beginning of a cycle. This action applies to calls that arrive over a trunk or line. Some features have a known duration for ringback tone before the features switch to announcement. In these occurrences, the system adds the allowed time the announcement recording uses to reach the beginning of the cycle to the predetermined ringback time. This time is the total time available for ringing before switching. For example, consider the condition where a caller must hear audible ringing for 10 s, an announcement and music. The announcement cycle is 6 s long. If, after 10 s of ringing, the announcement is in mid-cycle, an additional 3 s of ringing is available. After the additional 3 s of ringing, the system switches to the beginning of the announcement.

To prevent cross talk, SILENCE tone must be assigned after the announcement or music CLLI.

Table AUDIO can specify the following features:

- Attendant Camp-on (CAMPON).

  For calls the attendant extends to a busy station, this feature defines the broadcast specified before the busy station became idle. The Attendant Camp-on (ACO) feature in table CUSTCONS enables or disables the broadcast.

- Attendant Hold with Audio (ACHOLD).

  This feature defines the broadcast specified to calls that the attendant put on hold. The attendant presses the HOLD key or another loop key. The Attendant Hold with Audio (ACHOLD) feature in table CUSTCONS enables or disables the broadcast.

- Attendant Queue (ATTQ).

  This feature defines the broadcast specified to calls that waits in the attendant queue. The Music On Hold (MHOLD) feature in table CUSTHEAD enables or disables the broadcast.

- Automatic Call Distribution Queue (ACDQ).

  This feature defines the broadcast specified to calls waiting in the queue for each Automatic Call Distribution (ACD) group. The ACD feature in table ACDGRP enables or disables the broadcast.

  If an audio group associated with an ACD public safety answering point (PSAP) group changes, a check runs. This check runs to verify that the AUDIO group does not specify MUSIC as an entry in field CHOICE. This check is done only if the optional E911 ACD software is present. The entry MUSIC is not allowed in an AUDIO group that associates with an ACD PSAP group.

  The following warning message appears if an attempt is made to add MUSIC to an ACDQ tuple. The following warning message appears if the associated ACD group has option ACDPSAP entered in table ACDGRP:

  ```
  THE ACD PSAP REFERENCES THE SPECIFIED AUDIO GROUP IN
  TABLE ACDGRP.  MUSIC IS NOT ALLOWED AS AN AUDIO CHOICE.
  ```

- Call Hold (CHD).

  This feature defines the broadcast specified to calls put on hold by IBN stations. This feature flashes the hook switch and dials the call-hold access code entered in table IBNXLA for 500/2500 sets to activate the Call Hold. The Call Hold with Music (CHD) feature in table CUSTSTN enables or disables the broadcast.

- Call Park (CPARK).

  This feature defines the broadcast specified to calls 500/2500 sets and business sets park. This feature flashes the hook switch and dials the call-park access code for 500/2500 sets to activate Call Park. Another method to activate Call Park is to press the key assigned to the Call Park feature for business sets. The Call Park (CPK) feature in table CUSTHEAD enables or disables the broadcast.

- Call Waiting Originating (CWO).

  For stations with Call Waiting Originating assigned in table IBNLINES, this feature defines the broadcast specified before a busy line becomes idle. The Call Waiting Originating (CWO) feature in table CUSTSTN enables or disables the broadcast.

- Dial Call Waiting (CWD).

  This feature defines the broadcast specified to stations with Dial Call Waiting (CWD) that waits for a busy line to become idle. The Dial Call Waiting (CWD) feature in table CUSTSTN enables or disables the broadcast.

- Key Set Music On Hold (KSMOH).

  This feature defines a music broadcast for calls put on hold. Feature KSMOH in table CUSTSTN enables or disables the broadcast. Enter feature KSMOH in table IVDINV for integrated voice and data (IVD) telephones. Enter feature KSMOH in table KSETINV for business sets.

  Table AUDIO supports entry KSMOH in field FTRINDEX for ISDN keysets.

- Meridian Business Set Camp-on (MBSCAMP).

  This feature allows feature MBSCAMPO in table CUSTSTN to provide music, announcement, ringing, or silence. These options are for calls to Meridian Business Sets (MBS) that are camped-on. Enter feature MBSCAMP in tables CUSTSTN, KSETFEAT, KSETLINE, LCCOPT, OPTOPT, and REASONS.

- Multiple Position Hunt with Queue (MPHQ).

  This feature distributes calls evenly across multiple non-data link attendant consoles. The system presents calls to the consoles in the order that the calls arrive at the DMS-100 Family switch. The DMS-100 switch enqueues calls that the system cannot present to any console. The This feature places these calls in a queue until a console is available to serve that call.

- Permanent Hold (PHOLD).

  This feature defines the broadcast specified to calls that IBN stations put on permanent hold. This feature flashes the hook switch and dials the permanent-hold access code in table IBNXLA to activate Permanent Hold. The Permanent Hold (PHOLD) feature in table CUSTSTN enables or disables the broadcast. Feature Permanent Hold is not available to business set stations.

- Single Line Queue (SLQQ).

  This feature defines the broadcast specified to calls that wait to be served in the SLQ queue. This feature allows SLQ lines to select an announcement type.

- Uniform Call Distribution Queue (UCDQ).

  This feature defines the broadcast specified to calls that wait to be served in the UCD queue. This condition occurs if the predicted delay exceeds the customer preset threshold. The Audio feature in table UCDGRP enables or disables the broadcast.

Datafill sequence and meaning

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

- CLLI
- ANNS
- ANNMEMS

Table size

0 to 511 tuples

Table size is a string range. The number of entries in field GROUP determines the table size. You can enter a maximum of 512 audio group names (field GROUP).

Datafill

Datafill for table AUDIO appears in the following table.

Field descriptions

Field	Subfield	Entry	Explanation and action
AUDIOKEY		see subfields	*Audio key.* This field contains subfields GROUP and FTRINDEX.
	GROUP	AUDIO1to AUDIO512	*Group.* Enter the audio group name required.

Field descriptions (Continued)

Field	Subfield	Entry	Explanation and action
	FTRINDEX	ACDQ, ACHOLD, ATTQ, CAMPON, CHD, CPARK, CWD, CWO, KSMOH, MBSCAMP, MPHQ, PHOLD, SLQQ, or UCDQ	*Feature index*. Enter a maximum of six features that require a broadcast. See the Functional description section for a description of each feature. If less than six features are required, end the list with a $. Enter KSMOH for ISDN keysets. The valid feature entries are as follows: • ACDQ (Automatic Call Distribution Queue) • ACHOLD (Attendant Hold with Audio) • ATTQ (Attendant Queue) • CAMPON (Attendant Camp-on) • CHD (Call Hold) • CPARK (Call Park) • CWD (Dial Call Waiting) • CWO (Call Waiting Originating) • KSMOH (Key Set Music On Hold - also used by ETSI Call Hold (HOLD)) • MBSCAMP (Meridian Business Set Camp-on) • MPHQ (Multiple Position Hunt with Queue) • PHOLD (Permanent Hold) • SLQQ (Single Line Queue) • UCDQ (Uniform Call Distribution Queue)

Field descriptions (Continued)

Field	Subfield	Entry	Explanation and action
ROUTES		see subfield	Routes. This field consists of up to 6 occurrences of subfield CHOICE and refinements.
	CHOICE	ANN, MUSIC, SILENCE, RINGING, or REPEAT	*Audio choice.* Enter ANN for announcement and datafill refinements AR, CYCLE and ANNCLLI in the next section on this page. Enter MUSIC for continuous music and datafill refinements MUSICLLI and TIME on the next page. Enter REPEAT to repeat a sequence and datafill refinement ROUTE on the next page. Enter RINGING for ringing and datafill refinement TIME on the next page. Enter SILENCE for absence of announcement or music and datafill refinement TIME on the next page.

CHOICE = ANN

If the entry in subfield CHOICE is ANN, enter refinements AR, CYCLES, and ANNCLLI as refinements appear below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	AR	Y or N	*Audible ringing.* Enter N if audio announcements will be provided by a universal audio server (UAS) or by a Media Server 2000 Series device. If audio announcements will not be provided by a universal audio server (UAS) or by a Media server 2000 Series device, then set the audible-ringing value as follows. If audible ringing is required before the announcement reaches the beginning of its cycle, enter Y. If you require silence, enter N.
	CYCLES	1 to 30	*Announcement cycles.* Enter the number of announcement cycles required.
	ANNCLLI	alpha-numeric (1 to 16 characters)	*Announcement common language location identifier.* Enter the CLLI of the announcement trunk, that must appear in tables ANN and ANNMEMS.

CHOICE = MUSIC

If the entry in subfield CHOICE is MUSIC, enter refinements MUSICLLI and TIME as these refinements appear in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	MUSICLLI	alpha-numeric (1 to 16 characters)	*Music common language location identifier.* Enter the CLLI of the audio trunk, that must appear in table ANN and ANNMEMS.
	TIME	0 to 1800	*Time.* Enter the delay threshold time, in seconds. An entry of 0 (zero) provides continuous music and is correct as the last entry only.

CHOICE = REPEAT

If the entry in subfield CHOICE is REPEAT, enter refinement ROUTE as this refinement appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	ROUTE	2 to 4	*Route.* Enter the route number where the repeat sequence begins.

CHOICE = RINGING or SILENCE

If the entry in subfield CHOICE is RINGING or SILENCE, enter refinement TIME as this refinement appears in the following table.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	TIME	0 to 1800	*Time.* Enter the delay threshold time, in seconds. If the entry in subfield CHOICE is RINGING, enter 0 to provide continued ringing. This entry is correct as a final entry only. If the entry in subfield CHOICE is SILENCE, an entry of 0 provides continued silence and is correct as a final entry only.

Datafill example

Sample datafill for table AUDIO appears in the following example.

This example contains broadcasts defined for audio group AUDIO1 as follows:

- Announcement, ringing, and silence are applied for the Attendant Queue feature (ATTQ).
- Announcement, second announcement, music, and silence are applied for Uniform Call Distribution Queue (UCDQ).

Broadcasts that are defined for audio group AUDIO2 are Announcement, ringing, music, and silence applied for feature Call Hold (CHD).

MAP example for table AUDIO

```
AUDIOKEY
                                                                ROUTES
_____________________________________________________________________________
AUDIO1     ATTQ
                                    (ANN Y 1 ANN1)   (SILENCE   0)$
AUDIO1     UCDQ
(ANN N 1 ANN1)   (ANN N 1 ANN2)   (MUSIC MUSIC1 6)  (SILENCE 0)  $
AUDIO2      CHD
(ANN Y 1 ANN2)                   (MUSIC MUSIC1 12)  (SILENCE 0)  $

AUDIO1     SLQQ                                      (SILENCE 0)$
```

Table history

EUR006

This release adds the following items to table AUDIO:

- a reference that the ETSI Call Hold feature re-uses FTRINDEX KSMOH in EUR006
- a field description for field ROUTES

CSP02

Added feature SLQ to the list of features in the FTRINDEX subfield, the feature descriptions, and the MAP example in CSP02.

SN08

Added instructions about how to set the AR subfield if audio announcements will be provided by a universal audio server (UAS) or by a Media Server 2000 Series device.

AUDPRGM

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

Automatic Dial Key Program

Table AUDPRGM is used by an operating company to translate the digits datafilled on an automatic dial (AUD) key. The key to this table is a Meridian Digital Centrex (MDC) customer group name and a character string that determines what digits are translated when the AUD key is pressed.

A total of 16 feature names are allowed in table AUDPRGM. These names must be used for all customer groups. However, the digits associated with the feature name can be different for each customer group.

Tuples must not be deleted from table AUDPRGM while there are Meridian business sets (MBS) with AUD keys referencing the deleted tuple.

Datafill sequence and meaning

Table CUSTENG must be datafilled before table AUDPRGM.

Table size

0 to 32767 tuples.

Datafill

The following table defines datafill for table AUDPRGM.

Field, subfield, and refinement descriptions for table AUDPRGM

Field	Subfield or refinement	Entry	Explanation and action
AUDKEY		see subfields	*Automatic dial key* This field is the key to the table. This field consists of subfields CUSTGRP and FEATNAME.

Field, subfield, and refinement descriptions for table AUDPRGM

Field	Subfield or refinement	Entry	Explanation and action
	CUSTGRP	alphanumeric (1 to 16 characters)	*Customer group name* Enter a Meridian Digital Centrex (MDC) customer group name previously datafilled in table CUSTENG.
	FEATNAME	alphanumeric (1 to 16 characters)	*Feature name* Enter a feature or service name. A maximum of 16 feature names can be defined at any one time.
AUDDIGS		vector of up to 30 digits, *, and #	*Automatic dial key digits* This field contains the digits that are programmed on an automatic dial (AUD) key in the customer group for the feature. Up to 30 digits are allowed. The asterisk (*) character is allowed as the first character entered in this field, if field FEATNAME does not contain the entry STD. * is represented by the alphabetic character b in the DMS-100 switch. The # sign is represented by the alphabetic character c.

Table history

SN07

Table AUDPRGM migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.10.02.

NA04

Field AUDDUGS was increased from 24 digits to 30 digits.

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:

data store bytes = {(SW × 22) + (SSAC × 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 AUTHCDE.

Field, subfield, and refinement descriptions for table AUTHCDE (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 AUTHCDE (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_DIGITS	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 AUTHCDE 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.

AUTHGRP

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

Table name

Authorization Code Group table

Table AUTHGRP

Table **AUTHGRP** allows a group of directory numbers to be given authorization code screening service. A tuple in this table represents a directory number group. Each tuple contains an indication (Y or N) of whether validation of the authorization codes is to occur, and the size of the authorization codes (in digits) for this group. If validation is to occur, the tuple further provides a list of code ranges which are valid for the group.

A default tuple, key 0, is provided and cannot be altered or deleted. This is a nil tuple, and references to it from table DNSCRN indicate that the directory number is not eligible for authorization code screening service.

Datafill sequence and meaning

Table AUTHGRP must be datafilled before its index can be used in table DNSCRN.

Table size

0 to 32767 tuples.

The store is dynamically allocated and deallocated as needed.

Datafill

The following table defines datafill for table AUTHGRP.

Field, subfield, and refinement descriptions for table AUTHGRP

Field	Subfield or refinement	Entry	Explanation and action
AUTHKEY		see subfield IDX	*Authorization key* This field is the key into the table and consists of subfield IDX. This key field is indexed from field AUTHGRP in table DNSCRN when field ATTROPTS = TOPSDB.
	IDX	0 to 32766	Index into this table.
AUTHVALA		see subfield VALIDATE	*Authorization validation area* This field consists of subfield VALIDATE.
	VALIDATE	Y or N	*Validate* Indicate whether authorization codes for this directory number group are to be validated against a list of code ranges in subfield AUTH_CODES that follows. If validation is required, enter Y and datafill refinements CODESIZE and AUTH_CODES. Otherwise, if no validation is required, enter N and no further datafill is required.
	CODESIZE	2 to 8	*Code size* If VALIDATE = Y, datafill this field. Enter the number of digits for the authorization codes (given is following subfield AUTH_CODES) for this group.
	AUTHFORM	see subfield FORMAT	*Authorization format* This field consists of subfield FORMAT.

Field, subfield, and refinement descriptions for table AUTHGRP

Field	Subfield or refinement	Entry	Explanation and action
	FORMAT	RANGE or DISTINCT	*Format* This field indicates where the authorization codes are datafilled: • RANGE - Codes are datafilled as ranges in field AUTH_CODE of this table AUTHGRP. • DISTINCT - Codes are datafilled as non-consecutive unique values in table AUTHSGRP. If FORMAT = RANGE, datafill subfield AUTH_CODES. If FORMAT = DISTINCT, no further datafill is required.
	AUTH_CODES	see subfields MIN and MAX	*Authorization codes* This subfield is only populated if VALIDATE = Y. Enter up to 10 pairs of MIN and MAX values of authorization code ranges for validation. MIN and MAX range from 0 to n 9's, where n is the value of the CODESIZE field. For example, if CODESIZE = 5, then MIN and MAX may be any value between 0 and 99,999. Values entered with less than n digits are considered to have prefixed 0's. For example, if n = 5 and 478 is entered, the value is considered to be 00478. The MAX value of a pair must be equal to or greater than the MIN value. Pairs should not overlap another code pair and should progress from lower values to higher values. Overlapping pairs are allowed, but not advised.
	MIN	0 to n 9's (where n = CODESIZE)	*Minimum* Enter the authorization code range minimum value. See comments under subfield AUTH_CODES.

Field, subfield, and refinement descriptions for table AUTHGRP

Field	Subfield or refinement	Entry	Explanation and action
	MAX	0 to n 9's (where n = CODESIZE)	*Maximum* Enter the authorization code range maximum value. See comments under subfield AUTH_CODES.

Error messages

The following error messages apply to table AUTHGRP.

Error messages for table AUTHGRP

Error message	Explanation and action
Tuple 14 is referenced by table DNSCRN	Table AUTHGRP must be datafilled before its index can be used in table DNSCRN. If a tuple in AUTHGRP is referenced in DNSCRN and a delete operation is attempted in AUTHGRP, an error message is displayed and the operation is denied.
TUPLE 0 CANNOT BE DELETED OR CHANGED	An attempt is made to delete or change the default tuple for table AUTHGRP
IF VALIDATE IS Y YOU MUST ENTER AUTH CODES	Field VALIDATE is set to Y but invalid ranges are entered for field AUTH_CODES. Change VALIDATE from Y to N and enter valid ranges for AUTH_CODES.

Error messages for table AUTHGRP

Error message	Explanation and action
AUTHORIZATION CODE SIZE MUST BE 2, 3, OR 4.	An invalid value is entered for field CODESIZE. tHE VALID RANGE IS 2-4.

Error messages for table AUTHGRP

Error message	Explanation and action
WARNING! DUPLICATE TUPLE. THIS DATE IS PRESENT IN TUPLE n	The data entered is duplicated in another tuple. If a tuple is associated with table AUTHSGRP or a tuple in table DNSCRN, a delete operation is not allowed on the tuple in AUTHGRP. The operation is denied and an error message is displayed. All of the associated tuples in AUTHSGRP and DNSCRN must be deleted before this operation is permitted. If a change operation is attempted on the FORMAT field from DISTINCT to RANGE, all of the associated tuples in table AUTHSGRP must be deleted before the change is permitted. If a change operation is attempted on the FORMAT field from RANGE to DISTINCT, a warning message is displayed indicating that all of the authcode range information will be lost once the change is completed. If a change operation is attempted on the CODESIZE field in which the tuple is associated with tuple(s) in table AUTHSGRP, the operation is denied if the new CODESIZE is less than the existing CODESIZE. If a change operation is attempted on the VALIDATE field in which there are associated tuples datafilled in table AUTHSGRP, the operation is denied.

Table history

SN07

Table AUTHGRP migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 2 of 12*, 297-8021-351.10.02.

NA05

Table introduced by functionality TOPS Authorization Code Billing.

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.

C7NETWRK

CCS7 Network Table

Table C7NETWRK describes the signaling networks in use in a switching office. Data in table C7NETWRK defines the identity of all routesets in the switching office, with reference to network information. Common Channel Signaling 7 (CCS7) software uses this information to respond to changes in specifications between different network types. Many other CCS7 tables depend on the data in this table.

Note: When office parameter USP_ACTIVE_IN_NETWORK is set to Y, the system displays table information, but does not allow the use of the DMS table editor to add, delete, or change a tuple in this table. If attempts are made to access this table, a message is generated referring the user to the Graphical User Interface (GUI) on the Universal Signaling Point (USP) for proper access to data for table C7NETWRK.

Field NETNAME (network name) is the key to table C7NETWRK. For each network and network type, the originating point code (OPC) of the office and the network indicator (NI) are specified. Each NI can have multiple signaling transfer point (STP) nodes datafilled. The STP point codes that have the same NI can have different network types.

Table C7NETWRK describes network options. The options specify the number of congestion levels used. The options also specify if signaling link selection (SLS) rotation is a part of the routing function, and if the transfer-restricted protocol is a part of the messaging protocol in the network.

Multiple CCS7 network address (MNA7) capability supports message transfer part (MTP) and signaling connection control part (SCCP) specifically for the DMS-STP/SSP Integrated Node (DMS-INode).

Datafill sequence and meaning

Table C7TIMER must be datafilled before table C7NETWRK.

There is no requirement to datafill network names in table CLLI before using them in table C7NETWRK.

Table size

0 to 31 tuples

Datafill

The following table lists the datafill for table C7NETWRK.

Field, subfield, and refinement descriptions for table C7NETWRK (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
NETNAME		alphanumeric (1 to 16 characters)	Network name This field, which is the key to table C7NETWRK, contains the name of the defined network. Enter a network name that is unique to the switching office. This name can be up to 16 characters. An 11-character restriction applies under the following conditions outlined below: If STP-SEAS (Signaling, Engineering and Administration System) is present in the load, the entry in this field must be exactly 11 characters. if the network being datafilled has a field NI value of NATL and a field NETTYPE value of ANSI7, then the entry in field NETNAME must consist of the last 11 characters of office parameter SEAS_UAL_STP_NODE_NAME in table OFCENG.
NODE TYPE		SSP, STP, SCP, SCP_STP, SCP_SSP_STP, SCP_SSP, or SSP_STP	Node_type This field indicates the node functionality for the tuple entry.

Field, subfield, and refinement descriptions for table C7NETWRK (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
PTCODE		see subfield	Office point code This field, which defines the address of the office in the network, consists of subfield NETTYPE and its refinements. Subfield NETTYPE specifies the type of network. The NETTYPE refinements specify a unique originating point code (OPC) in the network.
	NETTYPE	ANSI7, CCITT7, JPN7, NTC7, TTC7	Network type The value of the network type subfield determines which refinements specify the OPC for the network. If the network type is the North American variant, enter ANSI7 and datafill refinements NETWORK, CLUSTER, and MEMBER. If the network type is the international variant, enter CCITT7 and datafill refinement FORMAT. If the network type is the Japanese Public Network 7 variant, enter JPN7 and datafill refinements MAINAREA, SUBAREA, and AREAUNIT. If the network type is the NTC7 variant, enter NTC7 and datafill subfields NMAINAREA, NSUBAREA, and NSIGPOINT. If the network type is the Telecommunication Technology Committee System 7, enter TTC7 and datafill refinements MAINAREA, SUBAREA, and AREAUNIT. STP point codes with the same NI can have different network types.

NETTYPE=ANSI7

If the entry in subfield NETTYPE is ANSI7, datafill refinements NETWORK, CLUSTER, and MEMBER.

Field, subfield, and refinement descriptions for NETTYPE=ANSI7

Field	Subfield or refinement	Entry	Explanation and action
	NETWORK	0 to 255	Network identifier Enter the network identifier assigned to the office for the specified network.
	CLUSTER	0 to 255	Cluster Enter the number of the cluster in the network assigned to the office for the specified network.
	MEMBER	0 to 255	Member Enter the number of the member in the cluster assigned to the office for the specified network.

NETTYPE=CCITT7

If the entry in subfield NETTYPE is CCITT7, datafill subfield FORMAT and its refinements.

Field, subfield, and refinement descriptions for NETTYPE=CCITT7 (Sheet 1 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	FORMAT	AUSTRIA, BASIC, CHINA, GERMAN, INTL, INTL2, or TURK	CCITT format This field specifies the CCITT7 point code refinements for the network. If the point code used is for Austria, enter AUSTRIA and datafill subfields ZONE, REGION, and SIGPOINT. If the point code used is based on one field, enter BASIC and datafill subfield PC. If the point code used is for China, enter CHINA and datafill subfields ZONE, EXCHANGE, and SIGPOINT. If the point code used is for Germany, enter GERMAN and datafill subfields NUMAREA, HVST, KVST, and SIGPOINT. If the point code used is international, enter INTL and datafill subfields ZONE, AREANETW, and SIGPOINT. If the point code used is international-2 with a 4-3-4-3 bit format, enter INTL2 and datafill refinements NETWORK, REGION, GROUP, and MEMBER. If the point code used is for Turkey, enter TURK and datafill subfields ZONE, REGION, and SIGPOINT.

Field, subfield, and refinement descriptions for NETTYPE=CCITT7 (Sheet 2 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	ZONE	0 to 31	Zone identifier This field specifies the assigned zone identifier to the destination office and the specified network. If the entry subfield FORMAT is AUSTRIA, enter a number in the range 0 to 31. if the entry in subfield FORMAT is CHINA, enter a number in the range 0 to 15. If the entry in subfield FORMAT is INTL, enter a number in the range 0 to 7. If the entry in subfield FORMAT is TURK, enter a value in the range 0 to 15.
	AREANETW	0 to 255	Area network identifier If the entry in subfield FORMAT is INTL, enter the assigned number of the area/network identifier in the zone to the destination office for the specified network.
	REGION	0 to 15	Region identifier If the entry in subfield FORMAT is AUSTRIA, enter the number of the region identifier in the zone assigned to the destination office for the specified network. If the entry in subfield FORMAT is TURK, enter a value in the range 0 to 7.
	EXCHANGE	0 to 127	Exchange If the entry in subfield FORMAT is CHINA, enter the number of the exchange in the zone assigned to the destination office for the specified network.
	NUMAREA	0 to 15	Numbering Area If the entry in subfield FORMAT is GERMAN, enter the area number assigned to the office.

Field, subfield, and refinement descriptions for NETTYPE=CCITT7 (Sheet 3 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	HVST	0 to 7	Hauptvermittlungsstelle (Tandem Level Switching Exchange) If the entry in subfield FORMAT is GERMAN, enter the HVSt area assigned to the office.
	KVST	0 to 15	Knotenvermittlungsstelle (Trunk Tandem Switching Exchange, regional exchange, 3rd level of transit/long distance network) If the entry in subfield FORMAT is GERMAN, enter the KVSt area assigned to the office.
	SIGPOINT	0 to 127	Signaling point identifier If the entry in subfield FORMAT is INTL, enter a numeric value between 0 and 7 for the signal point in the area/network assigned to the destination office for the specified network. If the entry in subfield FORMAT is AUSTRIA, enter a numeric value between 0 and 31 for the signal point in the region assigned to the destination office for the specified network. If the entry in subfield FORMAT is CHINA, enter a numeric value between 0 and 7 for the signal point in the exchange assigned to the destination office for the specified network. If the entry in subfield FORMAT is GERMAN, enter a numeric value between 0 and 7 specifying the signal point code of the exchange. If the entry in subfield FORMAT is TURK, enter a value in the range 0 to 127.
	NETWORK	0 to 15	Network If the entry in subfield FORMAT is INTL2, enter the network assigned to the office.

Field, subfield, and refinement descriptions for NETTYPE=CCITT7 (Sheet 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
	REGION	0 to 7	Region If the entry in subfield FORMAT is INTL2, enter the region area assigned to the office.
	GROPUP	0 to 15	Group If the entry in subfield FORMAT is INTL2, enter the group assigned to the office.
	MEMBER	0 to 7	Member If the entry in subfield FORMAT is INTL2, enter a numeric value between 0 and 7 for the member assigned to the destination office for the specified network.

NETTYPE=NTC7

If the entry in subfield NETTYPE is NTC7, datafill refinements NMAINAREA, NSUBAREA, and NSIGPOINT.

Field, subfield, and refinement descriptions for NETTYPE=NTC7

Field	Subfield or refinement	Entry	Explanation and action
	NMAINAREA	0 to 255	NTC7 main area Enter the number of the main area assigned to the far-end switching unit for the specified network.
	NSUBAREA	0 to 255	NTC7 subarea Enter the number of the subarea of the main area assigned to the far-end switching unit for the specified network.
	NSIGPOINT	0 to 255	NTC7 signaling point Enter the number of the signaling point in the subarea assigned to the far-end switching unit for the specified network.

NETTYPE=JPN7 or TTC7

If the entry in subfield NETTYPE is has value JPN7 or TTC7, datafill refinements MAINAREA, SUBAREA, and AREAUNIT.

Field, subfield, and refinement descriptions for NETTYPE=JPN7 or TTC7

Field	Subfield or refinement	Entry	Explanation and action
	MAINAREA	0 to 31	Main area Enter the number of the main area assigned to the far-end switching unit for the specified network.
	SUBAREA	0 to 15	Subarea Enter a numeric value for the subarea in the main area assigned to this office for the specified network.
	AREAUNIT	0 to 127	Area unit Enter a numeric value for the area unit in the subarea assigned to this office for the specified network.

For all NETTYPE values

For all subfield NETTYPE entry values, datafill the following additional fields.

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 1 of 6)

Field	Subfield or refinement	Entry	Explanation and action
NI		INTL, INTLSPARE, NATL, or NATLSPARE	Network indicator Enter the type of network in this field. For an international network, enter INTL. For an international spare network, enter INTLSPARE. For a national network, enter NATL. For a national spare network, enter NATLSPARE. Both a network indicator (NI) and a network type (NETTYPE) are required to uniquely identify a network. Each NI can support up to 16 STP point codes. ***Note:*** STP nodes sharing the same NI and network type must have unique point codes. STP point codes with the same NI can have different network types.

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
SLSENH		Y or N	SLS enhancement Enter N to use the original SLS to link mapping algorithm. Enter Y to implement a new SLS to link algorithm. The new SLS to link mapping is deterministic and provides correct balancing when vendors that use other methods send a non-full distribution of SLS values. The default value for SLSENH is N. If patch SSG20/PFY20 is active before the ONP, it is recommended that this value be set to Y after the ONP has been completed. This field is only applicable to CCITT networks.
SLSROT		Y or N	SLS rotation This field determines if signaling link selection (SLS) rotation, for load sharing across links and combined linksets, is used as a part of the routing function. If the rotation of links in a linkset is required for loadsharing purposes, enter Y (yes). Otherwise, enter N (no). This field must be assigned Y in an ANSI network. If the field is assigned N in an ANSI network, the following error message displays: `SLS ROTation has to be Y in ANSI network.` Set this field to N for the following: • JPN7 networks • CCITT7 networks used in Australia • NTC7 networks • international networks

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
TFR		Y or N	Transfer restricted This field determines if transfer restricted is a part of the messaging protocol in the network. Enter Y if transfer restricted is a part of the messaging protocol in the network. Otherwise, enter N. Set this field to N for the following: • CCITT7 networks used in Australia • JPN7 networks
MCS		1 to 3	Multiple congestion This field determines the number of congestion levels used. Enter 1 if one level of congestion is required. Enter 3 if three levels of congestion are required. Set North American networks to 1 or 3. Set this field to 1 for the following: • CCITT7 networks used in Australia • NTC7 networks • international networks Set this field to 3 for JPN7 networks.

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
CLUSTERS		Y or N	Cluster messages This field determines if clustering is a part of the messaging protocol in the network. Enter Y if cluster messages (see note below) can be received. Otherwise, enter N. Set this field to Y for JPN7 networks. Set this field to N for the following: • CCITT7 networks used in Australia • NTC7 networks ***Note:*** Cluster messages types include: TCR - transfer cluster restricted TCP - transfer cluster prohibited TCA - transfer cluster allowed
RCTEST		Y or N	Routeset congestion test This field determines if the routeset congestion test is used to relieve remote route congestion. Enter Y if a routeset congestion test is used. Otherwise enter N. Set this field to N for the following: • CCITT7 networks used in Australia • JPN7 networks

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action

MTPRES		Y or N	Message transfer part restart
			Enter Y to enable the MTP restart procedure. Otherwise, enter N.
			The default value is Y.
			The MTP restart procedure can be enabled if the network type is ANSI7, CCITT7 or NTC7. The MTP restart procedure is disabled if the network type is TTC7 or JPN7.
			Note: If an MTP restart procedure is in progress, the changed value for field MTPRES takes effect after the completion of the in-progress MTP restart procedure. The following message is issued.
			`If an MTP Restart procedure is in progress, the modified control parameter shall be effective at the completion of that procedure.`
			Note: The value of field MTPRES is the same for all tuples of network types ANSI7, CCITT7 and NTC7. If an attempt is made to add a tuple with a different value of MTPRES to network types ANSI7, CCITT7 or NTC7 the following message appears:
			`WARNING`
			`The MTPRES value must be the same for all networks that support MTP restart.The MTPRES has been updated same as other networks.`

Field, subfield, refinement descriptions for NETTYPE=all values (Sheet 6 of 6)

Field	Subfield or refinement	Entry	Explanation and action

			Note: The value of field MTPRES is the same for all tuples of network types ANSI7, CCITT7 and NTC7. If an attempt is made to change a tuple with a different value of MTPRES to network types ANSI7, CCITT7 or NTC7 the following message appears.
			`WARNING`
			`MTPRES has been changed for all network types that support MTP restart.`
			
			Note: The value of field MTPRES must be set to N for network types JNP7 and TTC7. If an attempt is made to add a MTPRES field set to Y the following message will be issued.
			`WARNING`
			`MTP restart is not supported for this network type, MTPRES must be set to N.`

PACERATE		0 to 10	For ANSI STP networks, enter a value from 0 to 10. These values, expressed in tenths of a second, represent the pacing rate used when pacing transfer-allowed (TFA) / transfer-cluster-allowed (TCA) messages. The default value is 10. For non-ANSI and non-STP networks the default value is 0 and cannot be changed.

Supplementary information

This section provides additional information on datafilling table C7NETWRK.

If STP Signaling, Engineering, and Administration System (SEAS) software is present in the load, the following restrictions apply:

- The name selected to represent the network name (field NETNAME) must be exactly 11 characters. If an attempt is made to datafill a name that is not 11 characters, the tuple is rejected and the following error message is displayed:
  Example of a MAP display:
  ```
  SEAS IS PRESENT ON THE STP. NETNAME MUST BE 11
  CHARACTERS.
  ```
- If the network being datafilled has a network indicator (field NI) of NATL and a network type (field NETTYPE) of ANSI7, the network name (field NETNAME) must consist of the last 11 characters of office parameter SEAS_UAL_STP_NODE_NAME in table OFCENG. If it does not, the tuple is rejected and the following error message is displayed:
  Example of a MAP display:
  ```
  SEAS IS PRESENT ON THE STP. NETNAME MUST BE
  <nnnnnnnnnnn>.
  ```

  In the actual error message displayed, the character string depicted as <nnnnnnnnnnn> is replaced with the first 11 characters of office parameter SEAS_UAL_STP_NODE_NAME in table OFCENG.

  Note: If MPC (TEL00012) is active, this restriction applies only to the first ANSI7 NATL tuple.

If MNA7 capability is present in the load, the following restrictions apply:

- When a tuple is added to table C7NETWRK, its type is verified against “C7_current_node_type”. The node type supports SSP, STP, SCP or any combination. The following is an example of the node type that is displayed when an incorrect node type is added or modified:
  Example of a MAP display:
  ```
  The network node type must be a subset of the
  office node type. The office node type is an SSP.
  ```
- If the node type within a tuple is being changed, a check is performed against the link types datafilled in table C7LKSET. Only the transition from SSP to/from SSP/STP is allowed. The following error message is displayed if the transition is not allowed:
  Example of a MAP display:
  ```
  The node type change is not a valid transition.
  ```
- Tuples with the same NI must be the same network type. The following error message is displayed:
  Example of a MAP display:

```
Tuples with the same network indicator must
contain the same network type.
```

- Depending on the previously datafilled tuple of the same NI, one of the following messages is displayed:
  Examples of a MAP display:
  ```
  Expecting CCITT Standard network type.
  Expecting ANSI Standard network type.
  Expecting NTC Standard network type.
  Expecting Japan TTC Standard network type.
  Expecting Japan Public Standard network type.
  ```
- The OPC for each tuple with the same NI cannot be the same. Other tuples with a different NI within table C7NETWRK can have the same OPC data filled. If the OPC for a tuple is identical to the NI, the following error message is displayed:
  Example of a MAP display:
  ```
  The point code is already in use for the given
  network indicator.
  ```
- When you first datafill multiple network addresses, software optionality control (SOC) must be enabled. If SOC is not enabled, you can only activate links within one node of the two nodes with the same NI. If you have not enabled SOC, the following warning message is displayed:
  Example of a MAP display:
  ```
  WARNING: Datafill for multiple network addresses
  will be created.
  Only one network can contain active links if MNA7
  SOC is not enabled.
  ```
- MNA7 tuples cannot be datafilled in a network if those tuples are datafilled in GATEPC tables. MNA7 tuples exist if two or more C7NETWRK tuples contain the same NI.
- The last tuple with a specific NI cannot be deleted if the NI contains a tuple in table GATEPC.
- Only one node of the same type can be datafilled for a network. You cannot have two STP nodes in the same network. If you attempt to datafill two nodes in the same network, the following error message is displayed:
  Example of a MAP display:
  ```
  The node type is already in use for the given
  network indicator.
  ```

  Note: The above restriction does not apply when MPC (TEL00012) is active.

- When MPC (TEL00012) is active, the maximum number of nodes for each network is 31. If this limit is exceeded, the following error message is displayed:
  Example of a MAP display:
  ```
  The maximum number of STP nodes already exists for
  the given NI.
  ```
- The maximum number of SSP nodes in a network is one. An SSP and an INode cannot exist under the same NI as they are considered to be alike. The following error message is displayed:
  Example of a MAP display:
  ```
  Only one node with SSP capability is supported for
  a given network indicator.
  ```

  Note: The above restriction does not apply when MPC (TEL00012) is active.

- A network must contain only an SSP, STP or SSP/STP node type. An SSP/STP is considered to be an SSP node. Therefore, an SSP/STP and STP combination is a valid set, but an SSP/STP and SSP is not.
- The only transitions allowed when changing node types are changing an SSP to an SSP/STP, and changing an SSP/STP to an SSP.
- STP nodes must only contain A, B, C, D, or E links.
- SSP/SCP nodes must only contain A, E, or F links.
- An SSP or a service control point (SCP) do not support all linksets supported by an STP. The node type cannot be modified if the new node type does not support the links datafilled in table C7LKSET. The following error message is displayed:
  Example of a MAP display:
  ```
  An SSP or SCP cannot support the B, C, or D link
  type defined in table C7LKSET.
  ```
- An STP does not support all linksets supported by other node types. The node type cannot be modified if the new node type does not support the links datafilled in table C7LKSET. The following error message is displayed:
  Example of a MAP display:
  ```
  An STP cannot support the F link type defined in
  table C7LKSET.
  ```
- An SSP and STP does not support all linksets supported by other node types. The node type cannot be modified if the new node type does not support the links datafilled in table C7LKSET. The following error message is displayed:
  Example of a MAP display:

```
An INode cannot support the F link type defined in
table C7LKSET.
```

- Tuples in table C7NETWRK with the same NI will be verified to have the same point code format. A warning message indicates if there is an incorrect point code format.
- If you attempt to add a multiple STP entry to an NI with an unsupported network type, the following error message is displayed:
  Example of a MAP display:
  ```
  The following network types are only supported for
  multiple STP nodes per NI: ANSI, ITU and NTC7.
  ```
- When the multiple point code (MPC) SOC (TEL00012) is on, you can add national ANSI networks to table C7NETWRK. However, if the name of the network you add does not match the office parameter SEAS_UAL_STP_NODE_NAME, SEAS displays a warning message to indicate that SEAS cannot interact with the added network.
  Example of a MAP display:
  ```
  Warning: Network name does not match the office
  parameter SEAS_UAL_STP_NODE_NAME. SEAS cannot
  interact with this network.
  ```
- When you perform a one-night process (ONP), SEAS displays a warning message when there is no national ANSI network name in table C7NETWRK that matches the office parameter SEAS_UAL_STP_NODE_NAME.
  Example of a MAP display:
  ```
  Warning:
  Office parameter does not match a NATL, ANSI
  network name in table C7NETWRK. SEAS will not
  function with any network.
  ```
- If you attempt to use the C7RENAME command to rename a network in table C7NETWRK that is not a national ANSI network to the same network name in office parameter SEAS_UAL_STP_NODE_NAME, the system displays the following error message:
  Example of a MAP display:
  ```
  Error: Non-ANSI, non-NATL networks cannot have
  network names that match the office parameter
  SEAS_UAL_STP_NODE_NAME
  ```
- If the network you attempt to add to table C7NETWRK from the MAP terminal is not a national ANSI network, and has the same network name as office parameter SEAS_UAL_STP_NODE_NAME, the system displays the following error message:

Example of a MAP display:

```
Error: Non-ANSI, non-NATL networks cannot have
network names that match the office parameter
SEAS_UAL_STP_NODE_NAME.
```

- If the network name you attempt to change in office parameter SEAS_UAL_STP_NODE_NAME matches a network name in table C7NETWRK that is not a national ANSI network, the system displays the following error message:
  Example of a MAP display:

```
Error: Office parameter must belong to an ANSI,
NATL network.
```

- If office parameter USP_ACTIVE_IN_NETWORK is set to Y, the system displays the following message when you try to add, delete, or change a tuple:
  Example of a MAP display:

```
*************************************************
*             WRITE ACCESS DENIED               *
*************************************************
* The USP is now used to administer the SS7 data.
* Network information can only be displayed for
* this table. Go to the GUI on the USP to modify
* this data.
*************************************************
```

Adding a network to table C7NETWRK

To add a network to table C7NETWRK, the following information must be specified:

- the name of the network
- the type of network
- the office's OPC
- a unique network indicator that is unique to the network
- whether SLS rotation is used
- the number of congestion levels used
- if clustering is a part of the network messaging protocol
- if MTP is enabled or disabled for the network

Deleting a network from table C7NETWRK

A network cannot be deleted until all linksets and routesets have been deleted from that network. Use table control to delete linksets and routesets from tables C7LKSET and C7RTESET.

Additional dependencies apply when deleting linksets and routesets. Refer to the table descriptions for tables C7LKSET and C7RTESET.

Table history

SN08

Table C7NETWRK migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 1 of 12*, 297-8021-351.09.03.

C7TIMER

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

Common Channel Signaling 7 Timer

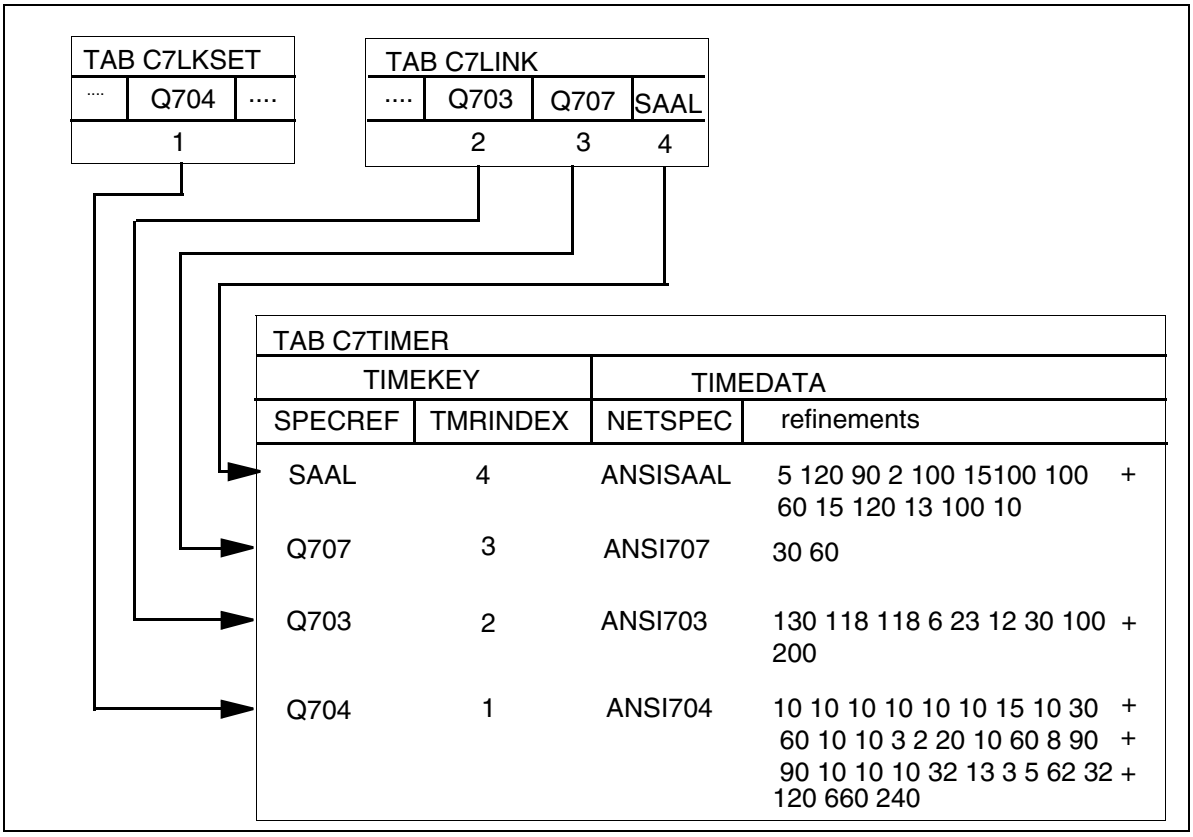
Table C7TIMER contains the timers for message transfer part (MTP) levels two and three. The table is divided into four sets or groups of tuples: Q703 Q704, Q707, and the signaling ATM adaptation layer (SAAL) level for high-speed links (HSL). Each tuple in a set is accessed by its index.

Datafill for table C7TIMER includes the following items:

- datafill of all Q704 timers for each linkset
- datafill of Q707 timers for each link
- datafill of SAAL timers for each SAAL link
- datafill of Q703 timers for each MTP2 link

The following figure illustrates the dependencies between tables C7LKSET, C7LINK, and C7TIMER.

Timer table control dependencies



The following is a brief explanation of the figure above:

- Field SPECREF indicates the set of specification reference timers that is accessed. The four sets of reference timers are Q703, Q704, Q707 and SAAL.
- Field TMRINDEX points to a particular entry in a SPECREF set.
- Field NETSPEC indicates the network type and the timer values used.

Adding, modifying, and deleting entries in table C7TIMER

Table C7TIMER is not write protected. Operating companies can change timer values in this table to suit their needs. Consult Nortel's

engineering office for information concerning these timer values and how they can be modified.

CAUTION
Possible system disruptions and system failure
Changing table C7TIMER timers from the recommended values to other values can cause system disruptions and possible system failure. Caution must be used when changing these timer values from the defaults.

Adding a set of timers
Fields SPECREF and TMRINDEX are used to add timers to table C7TIMER. Field SPECREF identifies the timer specification set to be accessed and field TMRINDEX uniquely identifies the entries within the given SPECREF. Range checking ensures that the timer value does not go outside the timer limits specified for the network type. An entry must exist in table C7TIMER before it can be referenced by field Q704 in table C7LKSET and fields Q703, Q707, and SAAL_INDEX in table C7LINK.

Modifying a timer table entry that is not in use
If an entry in table C7TIMER is not referenced by any entry in tables C7LINK or C7LKSET, it is not in use. Any entry in table C7TIMER that is not in use can be modified.

Deleting a timer table entry that is not in use
Any entry in table C7TIMER that is not in use can be deleted.

Modifying a timer table entry that is in use
The following rules apply for modification of a timer table entry that is in use:

- All table C7LINK links that reference a Q703, Q707 or SAAL table entry must be offline for the entry to be modified. The links obtain the new timer values when they are activated.
- All table C7LKSET linksets that reference a Q704 table entry must be offline for the entry to be modified except for MTP Restart timers (T22 to T30) which can be changed when the linksets are in service. The values (except for the MTP Restart timers T22 to T30) are sent to all peripheral modules connected to links in the affected linkset, and the stored values are updated.

Deleting a timer table entry that is in use
The following rules apply for deletion of a timer table entry that is in use:

- Prior to deleting a Q703, Q707, or SAAL table entry, all links in table C7LINK that reference the entry must be taken offline and changed to reference a different tuple in table C7TIMER. When no table C7LINK entries reference the tuple in table C7TIMER, it can be deleted.
- Prior to deleting a Q704 table entry, all linksets in table C7LKSET that reference a Q704 table entry must be taken offline and changed to reference a different table C7TIMER tuple. When no table C7LKSET entries reference the tuple in table C7TIMER, it can be safely deleted.

Modifying a large number of timers
The value of a timer cannot be changed unless all links that reference the timer tuple are offline. If a large number of timers need to be changed, taking the links offline results in an unacceptable service interruption.

The preferred approach is to add a new timer tuple, then change the links or linksets one-by-one to use the new tuple. Then only one link or linkset is temporarily out of service.

Datafill sequence and implications

There is no requirement to datafill other tables before table C7TIMER.

The following tables must be datafilled after table C7TIMER:

- C7LINK
- C7LKSET
- C7NETWRK

A table C7TIMER tuple for the Q703, Q704, and Q707 set types must exist before the entries in fields Q703 and Q707 of table C7LINK and field Q704 of table C7LKSET can reference it.

Table size

0 to 96 tuples

The maximum SPECREF set size is 32 tuples for each SPECREF. The minimum table size with no active links is 0 tuples. The minimum table size with at least one active link is 3 tuples. If only high-speed links (HSL) are present, only 1 SAAL tuple is required. The minimum SPECREF set size with at least one active link is 1 tuple.

Datafill

The following table lists datafill for table C7TIMER.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
TIMEKEY		see subfields	*Timer key* This field, which is the key to table C7TIMER, consists of subfields SPECREF and TMRINDEX.
	SPECREF	Q703, Q704, Q707 or SAAL	*Specification reference* Enter Q703, Q704, Q707, or SAAL to specify the set of specification reference timers.
	TMRINDEX	0 to 31	*Timer index* Enter a number to specify a C7TIMER index value that can be referenced by tables C7LKSET and C7LINK.
TIMEDATA		see subfields	*Timer data* This field consists of subfield NETSPEC and refinements.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
	NETSPEC	ANSI703 ANSI704 ANSI707 ANSISAAL CCITT703 CCITT704 CCITT707 NTC703 NTC704 NTC707 JPN703 JPN704 JPN707 TTC703 TTC704 TTC707	*Network type and specification reference* Enter the network type and the last two digits of the specification reference. ***Note:*** Network type ANSISAAL does not require the last two digits of the specification reference. If the network is the North American variant (ANSI7) and the entry in field SPECREF is Q703, enter ANSI703 and datafill refinements described in the table of section “NETSPEC = ANSI703”. If the network is the North American variant (ANSI7) and the entry in field SPECREF is Q704, enter ANSI704 and datafill refinements described in the table of section “NETSPEC = ANSI704”. If the network is the North American variant (ANSI7) and the entry in field SPECREF is Q707, enter ANSI707 and datafill refinements described in the table of section “NETSPEC = ANSI707”. If the network is the North American variant (ANSI7) and the entry in field SPECREF is SAAL, enter ANSISAAL and datafill refinements in the table of section “NETSPEC = ANSISAAL”. If the network is CCITT7 and the entry in field SPECREF is Q703, enter CCITT703 and datafill refinements described in then table of section “NETSPEC = CCITT703”.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
			If the network is CCITT7 and the entry in field SPECREF is Q704, enter CCITT704 and datafill refinements described in the table of section “NETSPEC = ANSI704”. If the network is CCITT7 and the entry in field SPECREF is Q707, enter CCITT707 and datafill refinements described in the table of section “NETSPEC = CCITT707”. If the network is NTC7 and the entry in field SPECREF is Q703, enter NTC703 and datafill refinements described in the table of section “NETSPEC = NTC703”. If the network is NTC7 and the entry in field SPECREF is Q704, enter NTC704 and datafill refinements described in the table of section “NETSPEC = NTC704”. If the network is NTC7 and the entry in field SPECREF is Q707, enter NTC707 and datafill refinements described in the table of section “NETSPEC = NTC707”. If the network is the Japan Public Network variant (JPN7) and the entry in field SPECREF is Q703, enter JPN703 and datafill refinements described in the table of section “NETSPEC = JPN703”. If the network is the Japan Public Network variant (JPN7) and the entry in field SPECREF is Q704, enter JPN704 and datafill refinements described in the table of section “NETSPEC = JPN704”.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
			If the network is the Japan Public Network variant (JPN7) and the entry in field SPECREF is Q707, enter JPN707 and datafill refinements described in the table of section “NETSPEC = NTC707”. If the network is the Japanese variant (TTC7) and the entry in field SPECREF is Q703, enter TTC703 and datafill refinements described in the table of section “NETSPEC = TTC703”. If the network is the Japanese variant (TTC7) and the entry in field SPECREF is Q704, enter TTC704 and datafill refinements described in table of section “NETSPEC = TTC704”. If the network is the Japanese variant (TTC7) and the entry in field SPECREF is Q707, enter TTC707 and datafill refinements described in the table of section “NETSPEC = TTC707”.

NETSPEC = ANSI703

If the entry in field NETSPEC is ANSI703, datafill refinements T1, T2, T3, T4E, T4N, T5, T6, and T7 as described in the following table.

When a new tuple is added in table C7TIMER, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	100 to 3200	*Aligned ready timer* Enter the aligned ready time-out value in 100-ms units. The default time-out value is 130 (13 s).
	T2	50 to 3000	*Not-aligned timer* Enter the not-aligned time-out value in 100-ms units to define the period that the system waits for the alignment process to start at the other end of the signaling link before timing out (for example, when waiting for service information octet (SIO), normal alignment (SIN), or emergency alignment (SIE) status indications). Assign a different T2 value to each end of the Common Channel Signaling 7 (CCS7) signaling link to assist in the alignment process. The recommended values are 118 for one end of the linkset and 235 for the other end of the linkset. The default value is 118 (11.8 s).
	T3	10 to 3000	*Aligned timer* Enter the aligned time-out value in 100-ms units. The default time-out value is 118 (11.8 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4E	4 to 150	*Emergency proving period timer* Enter the emergency proving period time-out value in 100-ms units. The default time-out value is 6 (600 ms).
	T4N	15 to 600	*Normal proving period timer* Enter the normal proving period time-out value in 100-ms units. The default time-out value is 23 (2.3 s).
	T5	8 to 500	*Sending status indication busy timer* Enter the sending status indication busy (SIB) time-out value in 10-ms units. The default time-out value is 20 (200 ms).
	T6	20 to 750	*Remote congestion timer* Enter the remote congestion time-out value in 100-ms units. The default time-out value is 30 (3 s).
	T7	50 to 2500	*Excessive delay of acknowledgement timer* Enter the excessive delay of acknowledgement time-out value in 10-ms intervals. The default time-out value is 100 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = CCITT703

If the entry in field NETSPEC is CCITT703, datafill refinements T1, T2, T3, T4E, T4N, T5, T6, and T7 as described in the following table.

When a new tuple is added in table C7TIMER, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	100 to 3200	*Aligned ready timer* Enter the aligned ready time-out value in 100-ms units. The default time-out value is 400 (40 s).
	T2	50 to 3000	*Not-aligned timer* Enter the not-aligned time-out value in 100-ms units to define the period that the system waits for the alignment process to start at the other end of the signaling link before timing out (for example, when waiting for service information octet (SIO), normal alignment (SIN), or emergency alignment (SIE) status indications). Assign a different T2 value to each end of the Common Channel Signaling 7 (CCS7) signaling link to assist in the alignment process. The recommended values are 50 (5 s) for one end of the linkset and 99 (9.9 s) for the other end of the linkset. The default value is 50 (5 s).
	T3	10 to 3000	*Aligned timer* Enter the aligned time-out value in 100-ms units. The default time-out value is 15 (1.5 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4E	4 to 150	*Emergency proving period timer* Enter the emergency proving period time-out value in 100-ms units. The default time-out value is 5 (500 ms).
	T4N	15 to 600	*Normal proving period timer* Enter the normal proving period time-out value in 100-ms units. The default time-out value is 82 (8.2 s).
	T5	8 to 500	*Sending status indication busy timer* Enter the sending status indication busy (SIB) time-out value in 10-ms units. The default time-out value is 20 (200 ms).
	T6	20 to 750	*Remote congestion timer* Enter the remote congestion time-out value in 100-ms units. The default time-out value is 30 (3 s).
	T7	50 to 2500	*Excessive delay of acknowledgement timer* Enter the excessive delay of acknowledgement time-out value in 10-ms intervals. The default time-out value is 100 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = NTC703

If the entry in field NETSPEC is NTC703, datafill refinements T1, T2, T3, T4E, T4N, T5, T6, and T7 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	400 to 500	*Aligned ready timer* Enter the aligned ready time-out value in 100-ms units. The default time-out value is 450 (45 s).
	T2	50 to 1500	*Not-aligned timer* Enter the not-aligned time-out value in 100-ms units to define the period that the system waits for the alignment process to start at the other end of the signaling link before timing out (for example, when waiting for service information octet (SIO), normal alignment (SIN), or emergency alignment (SIE) status indications). Assign a different T2 value to each end of the Common Channel Signaling 7 (CCS7) signaling link to assist in the alignment process. The default time-out value is 1320 (132 s).
	T3	10 to 15	*Aligned timer* Enter the aligned time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4E	4 to 6	*Emergency proving period timer* Enter the emergency proving period time-out value in 100-ms units. The default time-out value is 5 (500 ms).
	T4N	75 to 95	*Normal proving period timer* Enter the normal proving period time-out value in 100-ms units. The default time-out value is 82 (8.2 s).
	T5	8 to 12	*Sending status indication busy timer* Enter the sending status indication busy (SIB) time-out value in 10-ms units. The default time-out value is 10 (100 ms).
	T6	30 to 60	*Remote congestion timer* Enter the remote congestion time-out value in 100-ms units. The default time-out value is 50 (5 s).
	T7	50 to 200	*Excessive delay of acknowledgement timer* Enter the excessive delay of acknowledgement time-out value in 10-ms intervals. The default time-out value is 200 (2 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = JPN703

If the entry in field NETSPEC is JPN703, datafill refinements T1, T2, T3, T4E, T5, T6, T7, and TF as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	10 to 300	*Aligned ready timer* Enter the aligned ready time-out value in 100-ms units. The default time-out value is 30 (3 s).
	T2	50 to 4800	*Not-aligned timer* Enter the not-aligned time-out value in 100-ms units to define the period that the system will wait for the alignment process to start at the other end of the signaling link before timing out (for example, when waiting for service information octet (SIO), normal alignment (SIN), or emergency alignment (SIE) status indications). Assign a different T2 value to each end of the CCS7 signaling link to assist in the alignment process. The default time-out value is 4800 (480 s).
	T3	50 to 4800	*Aligned timer* Enter the aligned time-out in 100-ms units. The default time-out value is 4800 (480 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4E	4 to 30	*Emergency proving period timer* Enter the emergency proving period time-out value in 100-ms units. The default time-out value is 30 (3 s).
	T5	10 to 150	*Sending status indication busy timer* Enter the sending status indication busy (SIB) time-out value in 10-ms units. The default time-out value is 20 (200 ms).
	T6	30 to 200	*Remote congestion timer* Enter the remote congestion time-out value in 100-ms units. The default time-out value is 200 (20 s).
	T7	50 to 300	*Excessive delay of acknowledgement timer* Enter the excessive delay of acknowledgement time-out value in 10-ms intervals. The default time-out value is 200 (2 s).
	TF	1 to 252	*Flag count* Enter the flag count value to specify the rate at which repeated link status signal units (LSSU) or fill-in signal units (FISU) are transmitted by the local signaling terminal (ST). This value indicates the number of flags. The default value is 137 (137 flags). ***Note:*** The flag count value is specific to the JPN7 network.
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = TTC703

If the entry in field NETSPEC is TTC703, datafill refinements T1, T2, T3, T4E, T5, T6, and T7 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	100 to 3200	*Aligned ready timer* Enter the aligned ready time-out value in 100-ms units. The default time-out value is 130 (13 s).
	T2	50 to 4800	*Not-aligned timer* Enter the not-aligned time-out value in 100-ms units to define the time period that the system waits for the alignment process to start at the other end of the signaling link before timing out (for example, when waiting for service information octet (SIO), normal alignment (SIN), or emergency alignment (SIE) status indications). Enter a T2 different value at each end of the CCS7 signaling link to assist in the alignment process. The recommended values are 118 for one end of the linkset and 235 for the other end of the linkset. The default time-out value is 4800 (480 s).

Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T3	10 to 4800	*Aligned timer* Enter the aligned time-out value in 100-ms units. The default time-out value is 4800 (480 s).
	T4E	4 to 30	*Emergency proving period timer* Enter the emergency proving period time-out value in 100-ms units. The default time-out value is 30 (3 s).
	T5	8 to 500	*Sending status indication busy timer* Enter the sending status indication busy (SIB) time-out value in 10-ms units. The default time-out value is 20 (200 ms).
	T6	30 to 200	*Remote congestion timer* Enter the remote congestion time-out value in 100-ms intervals. The default time-out value is 200 (20 s).
	T7	50 to 300	*Excessive delay of acknowledgement timer* Enter the excessive delay of acknowledgement time-out value in 10-ms units. The default time-out value is 200 (2 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = ANSI704

If the entry in field NETSPEC is ANSI704, datafill refinements T1, T2, T3, T4, T5, T6, T7, T8, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T33, and T34 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

CAUTION
Nodal timers are automatically changed for all ANSI704 networks
Timers T22, T23, T24, and T26 are nodal. Each nodal timer is to be datafilled the same in all ANSI704 networks. When one of these nodal timers is changed in one ANSI704 network, the following warning message is issued indicating it has been changed for all ANSI704 networks.

```
***WARNING***
Nodal timers must be the same in all tuples for
a network
All other tuples for this network type will be
modified
```

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 250	*Mis-sequence changeover timer* Enter the mis-sequence changeover time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T2	5 to 250	*Changeover acknowledgement timer* Enter the changeover acknowledgement time-out value in 100-ms units. The default time-out value is 10 (1 s).

Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T3	5 to 250	*Mis-sequence changeback timer* Enter the mis-sequence changeback time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T4	5 to 250	*Changeback acknowledgement timer (first attempt)* Enter the changeback acknowledgement time-out value (first attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T5	5 to 250	*Changeback acknowledgement timer (second attempt)* Enter the changeback acknowledgement time-out value (second attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T6	5 to 250	*Controlled rerouting timer* Enter the controlled rerouting time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T7	10 to 400	*Signaling data link connection acknowledgement timer* Enter the signaling data link connection acknowledgement time-out value in 100-ms units. The default time-out value is 15 (1.5 s).
	T8	5 to 250	*Transfer prohibited timer* Enter the transfer prohibited time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T10	20 to 750	*Signaling routeset test message timer* Enter the signaling routeset test message time-out value in 1-s units. The default time-out value is 30 (30 s). ***Note:*** The default time-out value must be increased to 60 (60 s) if more than 511 routesets are enabled with software optionality control (SOC).
	T11	30 to 1700	*Transfer restricted timer* Enter the transfer restricted time-out value in 1-s units. The default time-out value is 90 s.
	T12	5 to 250	*Uninhibit acknowledgement timer* Enter the uninhibit acknowledge time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T13	5 to 250	*Forced uninhibit timer* Enter the forced uninhibit time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T14	2 to 80	*Inhibit acknowledgement message timer* Enter the inhibit acknowledgement message time-out value in 1-s units. The default value is 3 (3 s).
	T15	1 to 60	*Repeat routeset congestion test timer* Enter the repeat routeset congestion test time-out value in 1-s units. The default time-out value is 2 (2 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T16	5 to 500	*Routeset congestion status update timer* Enter the routeset congestion status update time-out value in 100-ms units. The default time-out value is 20 (2 s).
	T17	5 to 250	*Initial alignment failure and link restart timer* Enter the initial alignment failure and link restart time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T18	30 to 1500	*Transfer cluster restricted timer* Enter the transfer cluster restricted time-out value in 1-s units. The default value is 60 (60 s).
	T19	7 to 200	*Failed link craft referral timer* Enter the failed link craft referral time-out value in 1-min units. The default value is 8 (8 min).
	T20	70 to 2200	*Local inhibit test timer* Enter the local inhibit test time-out value in 1-s units. The default value is 90 (90 s).
	T21	70 to 2200	*Remote inhibit test timer* Enter the remote inhibit test time-out value in 1-s units. The default value is 90 (90 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T22	1 to 60	*Signaling link available timer* Enter the waiting for signaling links available at restarting node time-out value in 1-s units. One timer entered for the node. The default value is 40 (40 s).
	T23	1 to 60	*Receiving TRA messages timer* Enter the receiving TRA (traffic restart allowed) messages time-out value in 1-s units. One timer entered for the node. The default value is 10 (10 s).
	T24	1 to 60	*Broadcasting status messages timer* Enter the broadcasting status time-out value in 1-s units. One timer entered for the node. The default value is 10 (10 s).
	T25	1 to 60	*Adjacent node waiting for TRA message timer* Enter the adjacent node to restart node waiting for TRA (traffic restart allowed) message time-out value in 1-s units. One timer entered per linkset. The default value is 32 (32 s).
	T26	5 to 20	*Waiting to repeat TRW message timer* Enter the waiting to repeat TRW (traffic restart waiting) message time-out value in 1-s units. One timer entered for the node. The default value is 13 (13 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T27	2 to 5	*Minimum duration of unavailability for full restart timer* Enter the minimum duration of unavailability for full restart time-out value in 1-s units. One timer entered for the node. The default value is 3 (3 s).
	T28	1 to 60	*Adjacent node waiting for TRW message timer* Enter the waiting for TRW (traffic restart waiting) message at node adjacent to restart node time-out value in 1-s units. One timer entered per linkset. The default value is 5 (5 s).
	T29	60 to 90	*TRA message sent in response to unexpected TRA or TRW timer* Enter the TRA (traffic restart allowed) message sent in response to unexpected TRA or TRW (traffic restart waiting) message time-out value in 1-s units. One timer entered per linkset. The default value is 62 (62 s).
	T30	1 to 60	*Limit sending TFP and TFR in response to unexpected TRA or TRW timer* Enter the limit sending of TFP (transfer prohibited) and TFR (transfer restricted) messages in response to unexpected TRA or TRW (traffic restart waiting) message time-out value in 1-s units. One timer entered per linkset. The default value is 32 (32 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T31	10 to 120	*Limit the time a link remains in false congestion* Enter the maximum time a link will remain in false congestion before the system restarts it. Enter one timer per linkset. Enter the value in 1s units. The default value is 120 (120 s).
	T33	60 to 660	*Link probation timer* Enter the probation time for the link brought into service. If the link becomes system busy (SysB) before the expiration of this timer, the system starts timer T34. The link remains in SysB state until timer T34 expires. Enter the value in 1-s units. The default value is 660 (660 s).
	T34	5 to 240	*Link penalty timer* Enter the maximum time a link will remain in SysB state before the system tries to return the link to service. Enter the value in 1-s units. The default value is 240 (240 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = CCITT704

If the entry in field NETSPEC is CCITT704, datafill refinements T1, T2, T3, T4, T5, T6, T7, T8, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23 and T24 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

CAUTION
Nodal timers are automatically updated for all non-ANSI704 networks
Timers T18 and T20 are nodal. Each nodal timer is to be datafilled the same in all non-ANSI704 networks. When one of these nodal timers is changed in one non-ANSI704 network, the following warning message is issued indicating it has been changed for all non-ANSI704 networks.

```
***WARNING***
Nodal timers must be the same in all tuples for
a network
All other tuples for this network type will be
modified
```

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 250	*Mis-sequence changeover timer* Enter the mis-sequence changeover time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T2	5 to 250	*Changeover acknowledgement timer* Enter the changeover acknowledgement time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T3	5 to 250	*Mis-sequence changeback timer* Enter the mis-sequence changeback time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4	5 to 250	*Changeback acknowledgement timer (first attempt)* Enter the changeback acknowledgement time-out value (first attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T5	5 to 250	*Changeback acknowledgement timer (second attempt)* Enter the changeback acknowledgement time-out value (second attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T6	5 to 250	*Controlled rerouting timer* Enter the controlled rerouting time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T7	10 to 400	*Signaling data link connection acknowledgement timer* Enter the signaling data link connection acknowledgement time-out value in 100-ms units. The default time-out value is 15 (1.5 s).
	T8	5 to 250	*Transfer prohibited timer* Enter the transfer prohibited time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T10	20 to 750	*Signaling routeset test message timer* Enter the signaling routeset test message time-out value in 1-s units. The default time-out value is 30 (30 s). ***Note:*** The default time-out value must be increased to 60 (60 s) if more than 511 routesets are enabled with software optionality control (SOC).
	T11	30 to 1700	*Transfer restricted timer* Enter the transfer restricted time-out value in 1-s units. The default time-out value is 90 (90 s).
	T12	5 to 250	*Uninhibit acknowledgement timer* Enter the uninhibit acknowledge time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T13	5 to 250	*Forced uninhibit timer* Enter the forced uninhibit time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T14	2 to 80	*Inhibit acknowledgement message timer* Enter the inhibit acknowledgement message time-out value in 1-s units. The default value is 3 (3 s).
	T15	1 to 60	*Repeat routeset congestion test timer* Enter the repeat routeset congestion test time-out value in 1-s units. The default time-out value is 2 (2 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T16	5 to 500	*Routeset congestion status update timer* Enter the routeset congestion status update time-out value in 100-ms units. The default time-out value is 20 (2 s).
	T17	5 to 250	*Initial alignment failure and link restart time* Enter the initial alignment failure and link restart time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T18	5 to 60	*MTP restart STP TRA received timer* Enter the *MTP restart STP TRA received timer* value in 1-s units. The default value is 40 (40 s).
	T19	60 to 90	*MTP restart late TRA filter timer* Enter the MTP restart late TRA filter timer value in 1-s units. The default value is 67 (67 s).
	T20	5 to 120	*MTP restart overall timer* Enter the restart overall timer value in 1-s units. The default value is 60 (60 s).
	T21	5 to 120	*MTP restart adjacent node timer* Enter the MTP restart adjacent node timer value in 1-s units. The default value is 63 (63 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T22	70 to 2200	*Local inhibit test timer* Enter the local inhibit test time-out value in 1-s units. The default value is 180 (3 min).
	T23	70 to 2200	*Remote inhibit test timer* Enter the remote inhibit test time-out value in 1-s units. The default value is 180 (3 min).
	T24	7 to 200	*Failed link craft referral timer* Enter the failed link craft referral time-out value in 1-min units. The default value is 8 (8 min).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = NTC704

If the entry in field NETSPEC is NTC704, datafill refinements T1, T2, T3, T4, T5, T6, T7, T8, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T21, T22, and T23 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

CAUTION
Nodal timers are automatically updated for all non-ANSI704 networks
Timers T18 and T20 are nodal. Each nodal timer is to be datafilled the same in all non-ANSI704 networks. When one of these nodal timers is changed in one non-ANSI704 network, the following warning message is issued indicating it has been changed for all non-ANSI704 networks.

```
***WARNING***
Nodal timers must be the same in all tuples for
a network
All other tuples for this network type will be
modified
```

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 12	*Mis-sequence changeover timer* Enter the mis-sequence changeover time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T2	7 to 20	*Changeover acknowledgement timer* Enter the changeover acknowledgement time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T3	5 to 12	*Mis-sequence changeback timer* Enter the mis-sequence changeback time-out value in 100-ms units. The default time-out value is 10 (1 s).

Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4	5 to 12	*Changeback acknowledgement timer (first attempt)* Enter the changeback acknowledgement time-out value (first attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T5	5 to 12	*Changeback acknowledgement timer (second attempt)* Enter the changeback acknowledgement time-out value (second attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T6	5 to 12	*Controlled rerouting timer* Enter the controlled rerouting time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T7	10 to 20	*Signaling data link connection acknowledgement timer* Enter the signaling data link connection acknowledgement time-out value in 100-ms units. The default time-out value is 15 (1.5 s).
	T8	8 to 12	*Transfer prohibited timer* Enter the transfer prohibited time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T10	30 to 60	*Signaling routeset test message timer* Enter the signaling routeset test message time-out value in 1-s units. The default time-out value is 30 (30 s). ***Note:*** The default time-out value must be increased to 60 (60 s) if more than 511 routesets are enabled with software optionality control (SOC).
	T11	30 to 90	*Transfer restricted timer* Enter the transfer restricted time-out value in 1-s units. The default time-out value is 69 (69 s).
	T12	8 to 15	*Uninhibit acknowledgement timer* Enter the uninhibit acknowledge time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T13	8 to 15	*Forced uninhibit timer* Enter the forced uninhibit time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T14	2 or 3	*Inhibit acknowledgement message timer* Enter the inhibit acknowledgement message time-out value in 1-s units. The default value is 3 (3 s).
	T15	2 or 3	*Repeat routeset congestion test timer* Enter the repeat routeset congestion test time-out value in 1-s units. The default time-out value is 2 (2 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T16	14 to 20	*Routeset congestion status update timer* Enter the routeset congestion status update time-out value in 100-ms units. The default time-out value is 20 (2 s).
	T17	8 to 15	*Initial alignment failure and link restart timer* Enter the initial alignment failure and link restart time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T18	5 to 60	*Restart STP TRA received timer* Enter the STP TRA receiver timer value in 1s units. The default time-out value is 40 (40 s).
	T19	60 to 90	*Restart Late TRA filter timer* Enter the TRA filter timer value in 1s units. The default time-out value is 67 (67 s).
	T20	5 to 120	*Restart overall timer* Enter the overall timer value in 1s units. The default time-out value is 59 (59 s).
	T21	5 to 120	*Restart adjacent node timer* Enter the adjacent node timer value in 1s units. The default time-out value is 63 (63 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T22	180 to 360	*Local inhibit test timer* Enter the local inhibit test time-out value in 1-s units. The default value is 180 (3 min).
	T23	180 to 360	*Remote inhibit test timer* Enter the remote inhibit test time-out value in 1-s units. The default value is 180 (3 min).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = JPN704

If the entry in field NETSPEC is JPN704, datafill refinements T1, T2, T3, T4, T6, T10, T16, T17, T18,T19, T20 and T21 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

CAUTION
Nodal timers are automatically updated for all non-ANSI704 networks
Timers T18 and T20 are nodal. Each nodal timer is to be datafilled the same in all non-ANSI704 networks. When one of these nodal timers is changed in one non-ANSI704 network, the following warning message is issued indicating it has been changed for all non-ANSI704 networks.

```
***WARNING***
Nodal timers must be the same in all tuples for
a network
All other tuples for this network type will be
modified
```

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 250	*Mis-sequence changeover timer* Enter the mis-sequence changeover time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T2	5 to 250	*Changeover acknowledgement timer* Enter the changeover acknowledgement time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T3	5 to 250	*Mis-sequence changeback timer* Enter the mis-sequence changeback time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T4	5 to 250	*Changeback acknowledgement timer (first attempt)* Enter the changeback acknowledgement time-out value (first attempt) in 100-ms units. The default time-out value is 10 (1 s).
	T6	5 to 250	*Controlled rerouting timer* Enter the controlled rerouting time-out value in 100-ms units. The default time-out value is 10 (1 s).
	T10	20 to 750	*Signaling routeset test message timer* Enter the signaling routeset test message time-out value in 1-s units. The default time-out value is 30 (30 s). ***Note:*** The default time-out value must be increased to 60 (60 s) if more than 511 routesets are enabled with software optionality control (SOC).
	T16	1 to 100	*Transfer controlled congestion timer* Enter the transfer controlled (TFC) and link congestion time-out value in 1-s units. The default time-out value is 90 (90 s).
	T17	5 to 250	*Initial alignment failure and link restart timer* Enter the initial alignment failure and link restart time-out value in 100-ms units. The default time-out value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T18	5 to 60	*Restart STP TRA received timer* Enter the STP TRA receiver timer value in 1s units. The default time-out value is 40 (40 s).
	T19	60 to 90	*Restart Late TRA filter timer* Enter the TRA filter timer value in 1s units. The default time-out value is 67 (67 s).
	T20	5 to 120	*Restart overall timer* Enter the overall timer value in 1s units. The default time-out value is 59 (59 s).
	T21	5 to 120	*Restart adjacent node timer* Enter the adjacent node timer value in 1s units. The default time-out value is 63 (63 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = TTC704

If the entry in field NETSPEC is TTC704, datafill refinements T2, T4, T18, T19, T20, and T21 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

CAUTION
Nodal timers are automatically updated for all non-ANSI704 networks
Timers T18 and T20 are nodal. Each nodal timer is to be datafilled the same in all non-ANSI704 networks. When one of these nodal timers is changed in one non-ANSI704 network, the following warning message is issued indicating it has been changed for all non-ANSI704 networks.

```
***WARNING***
Nodal timers must be the same in all tuples for
a network
All other tuples for this network type will be
modified
```

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T2	5 to 250	*Changeover acknowledgement timer* Enter the changeover acknowledgement time-out value in 100-ms units. Any entry outside the range indicated for this field is invalid. The default time-out value is 10 (1 s).
	T4	5 to 250	*Changeback acknowledgement timer (first attempt)* Enter the changeback acknowledgement time-out value (first attempt) in 100-ms units. Any entry outside the range indicated for this field is invalid. The default value is 10 (1 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T18	5 to 60	*MTP restart STP TRA received timer* Enter the signaling links available and TRA received time-out value in 1-s units. The default value is 40 (40 s).
	T19	60 to 90	*MTP restart late TRA filter timer* Enter the late TRA filter time-out value in 1-s units The default value is 67 (67 s).
	T20	5 to 120	*MTP restart overall timer* Enter the MTP restart time-out value in 1-s units. The default value is 59 (59 s).
	T21	5 to 120	*MTP restart adjacent node timer* Enter the TRA message from the adjacent node time-out value in 1-s units. The default value is 63 (63 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = ANSI707

If the entry in field NETSPEC is ANSI707, datafill refinements T1 and T3 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 750	*Signaling link test acknowledgement timer* Enter the signaling link test acknowledgement time-out value in 100-ms units. Any entry outside the range indicated for this field is invalid. The default value is 30 (3 s).
	T3	30 to 750	*Signaling link test interval* Enter the signaling link test interval in 1-s units. The default value is 60 (60 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = CCITT707

If the entry in field NETSPEC is CCITT707, datafill refinements T1 and T3 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	5 to 750	*Signaling link test acknowledgement timer* Enter the signaling link test acknowledgement time-out value in 100-ms units. Any entry outside the range indicated for this field is invalid. The default value is 120 (12 s).
	T3	30 to 750	*Signaling link test interval* Enter the signaling link test interval in 1-s units. The default value is 90 (90 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = NTC707

If the entry in field NETSPEC is NTC707, datafill refinements T1 and T2 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

The value for each timer must be separated from the next by a single space.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T1	40 to 120	*Signaling link test acknowledgement timer* Enter the signaling link test acknowledgement time-out value in 100-ms units. Any entry outside the range indicated for this field is invalid. The default value is 40 (4 s).
	T2	30 to 90	*Signaling link test interval timer* Enter the signaling link interval time-out value in 1-s units. The default value is 60 (60 s).
Note: The above timers are described in the appropriate sections of the relevant CCS7 signaling specifications.			

NETSPEC = JPN707

If the entry in field NETSPEC is JPN707, datafill refinement T10 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC

is changed, the default values from DEFDATA are not automatically entered.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T10	30 to 100	*Signaling route test timer* Enter the signaling route test time-out value in 100-ms units. The default time-out value is 100 (10 s).
Note: The above timer is described in the appropriate section of the relevant CCS7 signaling specifications.			

NETSPEC = TTC707

If the entry in field NETSPEC is TTC707, datafill refinement T10 as described in the following table.

When a new entry is added in field NETSPEC, the default values from DEFDATA are automatically added. When the entry in field NETSPEC is changed, the default values from DEFDATA are not automatically entered.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	T10	30 to 100	*Signaling link test acknowledgement timer* Enter the signaling link test acknowledgement time-out value in 100-ms units. The default time-out value is 100 (10 s).
Note: The above timer is described in the appropriate section of the relevant CCS7 signaling specifications.			

NETSPEC = ANSISAAL

If the entry in field NETSPEC is ANSISAAL, datafill the refinements in the following table.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SAALT1	1 to 15	*SAAL T1* Enter the SSCF time (in units of 1 s) between the link release and the next re-establish action during alignment of the link. The default SAALT1 timer value is 5 (5 s).
	SAALT2	15 to 180	*SAAL T2* Enter the total time (in units of 1 s) the SSCF attempts to realign the link. The default SAALT2 timer value is 120 (120 s).
	SAALT3	72 to 2300	*SAAL T3* Enter the SSCF time between proving PDUs in units of 0.1 ms. The default SAALT3 timer value is 90 (9 ms).
	SAALTCC	1 to 20	*SAAL Timer Connection Controller* Enter the Connection Control timer value in units of 100 ms. The default SAALTCC timer value is 2 (200 ms).
	SAALKALV	25 to 500	*SAAL Keep Alive* Enter the maximum time (in units of 1 ms) that SSCOP can remain in the transient phase. The default SAALKALV timer value is 100 (100 ms).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SAALNORS	5 to 20	*SAAL No Response* Enter the maximum time interval during which at least one STAT PDU must be received. Enter the value in units of 100 ms The default SAALNORS timer value is 15 (1.5 s).
	SAALPOLL	25 to 500	*SAAL Poll* Enter the time (in units of 1 ms) between transmitting poll messages. The default SAALPOLL timer value is 100 (100 ms). ***Note:*** Nortel recommends using the default value. If you use any other value, the optimal operation of the link can be affected.
	SAALIDLE	25 to 1000	*SAAL Idle* Enter the maximum time (in units of 1 ms) that SSCOP can remain in the idle phase. The default SAALIDLE timer value is 100 (100 ms).
	SAALSREC	1 to 180	*SAAL Recovery* Enter the layer management timer (in units of 1 min) for repeat SSCOP recovery. The default SAALSREC timer value is 60 (60 min).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
	SAALNOCRD	10 to 60	*SAAL No Credit* Enter the maximum time a 0 credit condition can exist before layer management fails the link. Enter the value in units of 100 ms. The default SAALNOCRD timer value is 15 (1.5 s).
	SAALSUP	10 to 600	*SAAL Superblock* Enter the layer management superblock size timer value (in units of 1 s). The default SAALSUP timer value is 120 (120 s).
	SAALLOSS	5 to 100	*SAAL Loss* Enter the layer management status loss limit timer value in units of 100 ms. The default SAALLOSS timer value is 13 (1.3 s).
	SAALTAU	25 to 500	*SSCF T3* Enter the layer management error monitoring interval value (in units of 1 ms). The default SAALTAU timer value is 100 (100 ms).
	SAALPROV	1 to 20	*SSCF Proving* Enter the time (in units of 1 min) that layer management is to monitor the status of the link after proving and being placed into service. The default SAALPROV timer value is 10 (10 min).

Datafill example

The following example shows sample datafill for table C7TIMER.

The example shows datafill for network type and specification reference (field NETSPEC) values of ANSI703 and ANSI704, and ANSISAAL.

MAP display example for table C7TIMER

```
TIMEKEY   TIMEDATA

_____________________________________________________________________

Q703   0  ANSI703  130  118  118   6  23  12  30 100
Q704   0  ANSI704  10  10  10  10  10  10  15 10 30 69 10 10 3 2
                   20  10  60  8  90  90 10 10 10 32 13 3 5 62
                   32  120 660 240
SAAL   0  ANSISAAL  5 120 45 2 100 15 100 100 60 15 120 13 100 10
```

Table history

TL14

Added timers T33 and T34 for NETSPEC = ANSI704.

TL13

Updated timers' default values for NETSPEC = CCITT703, CCITT704, and CCITT707.

TL11

Removed the SAAL timers datafill restrictions. Added error messages.

TL10

Changed default value for field SAALT3 to 90.

TL09

Added timer T31 to specification reference (SPEC_REF) Q704.

STP04.0

Removed HLIU datafill restrictions.

TL07

Added information on SAAL timers. These fields are visible but not datafillable.

Changed default value for ANSI704 timer T11 to 90 seconds.

TL05

Added nine timers, T22 to T30, to the ANSI704 network type and specification.

STP03

Added four timers, T18 to T21, to the CCITT704, NTC704, TTC704, JPN704 network types and specifications.

Supplementary Information

Error messages

If the value in table C7TIMER subfield SAALT3 or the value in table C7LKPARM subfield RPDU is too low, the following error message appears:

```
EXCESSIVE PROVING PDU RATE
The following parameter relationship has been
violated for
one or more links using this tuple:
{100 000 / c7timer-saal-t3} * 1.2 <= c7lkparm-rpdu
100 000 is a unit conversion factor
1.2 provides a 20% safety margin
```

The error message includes an algebraic formula, in which:

- c7timer-saal-t3 indicates the value in table C7TIMER, parameter SAALT3.
- c7lkparm-rpdu indicates the value in table C7LKPARM, parameter RPDU.

To clear the error message increase one or both values. The following table indicates suggested values for each field.

Suggested values for parameters SAALT3 in table C7TIMER and RPDU in table C7LKPARM

C7TIMER-SAALT3	C7LKPARM-RPDU
90 - recommended value	1680 - recommended value
90	1335 to 1680
72 to 2300	1680
90 to 2300	1400

If the value in table C7TIMER subfield SAALT2 is too low or if the values in table C7TIMER subfield SAALT3 and table C7LKPARM subfield SSCFN1 are too high, the following error message appears:

```
EXCESSIVE PROVING TIME
The following parameter relationship has been
violated for
one or more links using this tuple:
{c7timer-saal-t3 * c7lkparm-sscfn1 * 1.2} / 10 000}
<= c7timer-saal-t2
10 000 is a unit conversion factor
1.2 provides a 20% safety margin
```

The error message includes an algebraic formula, in which:

- c7timer-saal-t3 indicates the value in table C7TIMER, parameter SAALT3.
- c7lkparm-sscfn1 indicates the value in table C7LKPARM, parameter SSCFN1.
- c7timer-saal-t2 indicates the value in table C7TIMER, parameter SAALT2.

To clear the error message do one or more of the following:

- increase the value in table C7TIMER subfield SAALT2
- decrease the value of table C7TIMER subfield SAALT3
- decrease the value of table C7LKPARM subfield SSCFN1

The following table indicates suggested values for each field.

Suggested values for parameters SAAL73 in table C7TIMER, SSCFN1 in table C7LKPARM, and SAALT2 in table C7TIMER

C7TIMER-SAALT 3	C7LKPARM-SSCFN1	C7TIMER-SAALT2
90 - recommended value	6250 - recommended value	120 - recommended value
90	6250	70 to 180
90	50 to 6250	120
90 to 160	6250	120

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.

CGBLDADD

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number Address-Type Screening

Calling Party Number Address-Type Screening Table (CGBLDADD) allows the operator to screen the type of the incoming address that is chosen to map into the outgoing Calling Party Number (CGPN).

Datafill sequence and meaning

Not applicable.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDADD	0	1023*6	

Datafill

The following table lists the datafill for table CGBLDADD.

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

Field	Subfield or refinement	Entry	Explanation and action
CGNADDRK			A key composed of two subfields: • CGNBDKEY • ADDRTYPE
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: SCRN_IC_ADDR.

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

Field	Subfield or refinement	Entry	Explanation and action
	ADDRTYPE	• CLI • RDN • CHARGE • PN • CONTRACTOR • GENERIC_NO	Indicates the type of the incoming address which is screened to map into the outgoing CGPN. The address types include: CLI, RDN, Charge Number, PN, Contractor Number, Generic Number.
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example SCRN_IC_CGPN.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

CGPNBLDR option DIGMAN was introduced by activity A00005315.

Table CGBLDADD migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CGBLDDGL

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number Digit-Length Screening

The Calling Party Number Digit-Length Screening Table (CGBLDDGL) allows the operator to screen the length of digits of the incoming address that is chosen to map into the outgoing CGPN.

Datafill sequence and meaning

Not applicable.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDDGL	0	1023*31	

Datafill

The following table lists datafill for table CGBLDDGL.

Field	Subfield	Entry	Explanation and action
CGNDGLK			A key composed of two subfields: • CGNBDKEY • DIGLEN
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: SCRN_IC_CGPN.

Field	Subfield	Entry	Explanation and action
	DIGLEN	A numeric string of up to 31 digits (0-30).	Indicates the length of digits to be screened in the incoming address.
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example IC_CGPN_LENGTH_10.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

CGPNBLDR option DIGMAN was introduced by activity A00005315.

Table CGBLDDGL migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CGBLDDIG

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number Digit Screening

The Calling Party Number Digit Screening Table (CGDLBDIG) allows the operator to screen the digits of the incoming address that is chosen to map into the outgoing CGPN.

Datafill sequence and meaning

Not applicable.

Table sizing

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDDIG	0	$1023*10^{15}$	Dynamically allocated

Datafill

The following table lists datafill for table CGBLDDIG.

Field	Subfield	Entry	Explanation and action
CGNDGKEY			A key containing three subfields: • CGNBDKEY • FROMDIGS • TODIGS
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: BASE.

Field	Subfield	Entry	Explanation and action
	FROMDIGS	A numeric string of 1 to 15 digits.	Together with TODIGS it indicates the digits to be screened in the incoming address.
	TODIGS	A numeric string of 1 to 15 digits.	Together with FROMDIGS it indicates the digits to be screened in the incoming address.
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example SCRN_RETURN.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

CGPNBLDR option DIGMAN was introduced by activity A00005315.

Table CGBLDDIG migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CGBLDNI

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number NI Screening

The Calling Party Number NI Screening Table (CGBLDNI) allows the operator to screen the Number Incomplete Indicator (NI) of the incoming address that is chosen to map into the outgoing Calling Party Number (CGPN). (If NI is missing, a default value of '0' is used instead, meaning complete.)

Datafill sequence and meaning

Not applicable.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDNI	0	1023*2	

Datafill

The following table lists datafill for table CGBLDNI.

Field	Subfield	Entry	Explanation and action
CGNDGKEY			A key containing two subfields: • CGNBDKEY • NI
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: BASE.

Field	Subfield	Entry	Explanation and action
	NI	• COMPLETE • INCOMPLETE	Contains the NI value.
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example NI_0.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

CGPNBLDR option DIGMAN was introduced by activity A00005315.

Table CGBLDNI migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CGBLDPI

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number PI Screening

The Calling Party Number PI Screening Table (CGBLDPI) allows the operator to screen the Presentation Indicator (PI) of the incoming address that is chosen to map into the outgoing Calling Party Number (CGPN).

Datafill sequence and meaning

Not applicable.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDPI	0	1023*4	

Datafill

The following table lists datafill for table CGBLDPI.

Field	Subfield	Entry	Explanation and action
CGNPIKEY			A key containing two subfields: • CGNBDKEY • PI
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: SCRN_IC_CGPN.

Field	Subfield	Entry	Explanation and action
	PI	• ALLOWED • RESTRICTED • NOT_AVAIL • SPARE	Contains the PI value. For example, ALLOWED.
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example PI_00.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

CGPNBLDR option DIGMAN was introduced by activity A00005315.

Table CGBLDPI migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CGBLDSIN

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number Small Integer Screening

The Calling Party Number Small Integer Screening Table (CGBLDSIN) allows the operator to screen the variable and its value assigned to the incoming trunk.

Datafill sequence and meaning

Information must entered into table VARDEF before this table.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
CGBLDSIN	0	4096*1023*256	

Datafill

The following table lists datafill for table CGBLDSIN.

Field	Subfield	Entry	Explanation and action
SINTVAR			A key composed of two subfields: • SINTVAR • CGNBDKEY • VALUE
	SINTVAR	An alphanumeric string of 1 to 8 characters	Variable name from the table VARDEF

Field	Subfield	Entry	Explanation and action
	CGNBDKEY	An alphanumeric string of up to 20 characters.	Contains the CGPN key in the incoming address. For example: SCRN_IC_ADDR.
	VALUE	0 to 255	
NEWBDKEY		An alphanumeric string of up to 20 characters.	Contains the new CGPNBLDR index. For example SCRN_IC_CGPN.
CBOPTION		CGPNBLDR options: • SETPI • SETNI • DIGMAN	Allows PI, NI and CLI values to be set in table CGPNBLDR for the outgoing CGPN.

Table history

(I)SN08

This table was introduced by activity A00005315.

CGPNBLDR

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

Calling Party Number Builder

The Calling Party Number Builder Table (CGPNBLDR) controls the screening required of an incoming address. Screening is determined by setting options. Each screening sub-option has a screening table associated with it which determines the screening to be carried out. Therefore this table is the master screen controlling table.

This table is accessed from TRKOPTS when the CGPNBLDR option is datafilled with an index into table CGPNBLDR. The CGPNBLDR processing procedures decide how to map the Presentation Indicator (PI) by accessing the relevant screening tables. The screening table is determined by the datafill.

Datafill sequence and meaning

Not applicable.

Table size

There is a limit of 1023 values for the number of CGPNBLDR indices. These indices are used for all of the screening tables so the maximum number of tuples in any table created by this feature is dependent on the overlap of CGPNBLDR keys used between all the tables.

Datafill

The following table lists datafill for table CGPNBLDR.

Field	Subfield	Entry	Explanation and action
CGNBDKEY		Alphanumeric string of 1 to 20 characters.	Contains an index into the incoming address screening tables.
CBOPTION		• IC_ADDR_SCRN • SETPI • SETNI • IC_VAR_SCRN • CND_GOTO • DIGMAN • ENHANCED_DIG SCRN	Lists up to 8 options.
	IC_ADDR_SCRN	• ADDRTYPE • DIGLEN • DIG • NI • PI	The IC_ADDR_SCRN option allows the operator to datafill any combination of up to 8 sub-options which are to be screened to map the PI (Presentation Indicator) and NI (Number Incomplete Indicator) values. Each sub-option is associated with a screening table.

Field	Subfield	Entry	Explanation and action
	ADDRTYPE	• CLI • RDN • CHARGE • PN • CONTRACTOR • GENERIC_NO	Contains the type of incoming address that is screened to map into the outgoing CGPN (Calling Party Number). The address types include CLI, RDN, Charge number, PN, Contractor Number, Generic Number. This number could also be chosen to be outpulsed in the outgoing CGPN (see feature 59023300). This sub-option is associated with table CGBLDADD.
	DIGLEN		Contains the length of the address to be screened. This sub-option is associated with table CGBLDDGL.
	DIG		Contains the digits of the address to be screened. This sub-option is associated with table CGBLDDIG.
	NI		Contains the NI of the address to be screened. This sub-option is associated with table CGBLDNI.
	PI		Contains the PI of the address to be screened. This sub-option is associated with table CGBLDPI.

Field	Subfield	Entry	Explanation and action
	SETPI	• ALLOWED (= 00) • RESTRICTED (= 01) • NOT_AVAIL (= 10) • SPARE (= 11)	The SETPI option is used to set the PI value of the outgoing CGPN. Four valid values are available.
	SETNI	• COMPLETE (= 0) • INCOMPLETE (= 1)	The SETNI option is used to set the NI value. Two values are available.
	IC_VAR_SCRN	• SMALLINT • NEWBDKEY • CONTINUE	Allows the operator to screen the variables that are datafilled in table VARDEF. This option currently only supports screening the small integer (0-255) type variables. The variable is specified by an alphanumeric string up of up to 8 characters. The value of the variable can be set for the incoming trunk using the SETVAR SMALLINT option in table CALLCNTL or one of its screening tables. The table CGBLDSIN is accessed to find if the match can be found for a given CGPNBLDR Index, variable and its value. Note that if a variable is not assigned to the incoming trunk, the screening returns a failed result by default.
	NEWBDKEY	String of up to 20 characters	A new CGPNBLDR index.

Field	Subfield	Entry	Explanation and action
	CONTINUE	Y or N	Indicates the action to be taken if screening fails: If CONTINUE = Y then the CGPNBLDR process continues. If CONTINUE = N then the CGPNBLDR process terminates.
	CND_GOTO	• CONDITION • NEWBDKEY	Allows the operator to change the CGPNBLDR index when the incoming call accords with the condition. Currently, only incoming IN call is checked.
	CONDITION	IC_INAP	CONDITION is used to control the usage condition of option CND_GOTO. Currently only IC_INAP can be datafilled. This option is used to restrict the incoming IN call.

Field	Subfield	Entry	Explanation and action
	DIGMAN	DMI (0 to 32767)	Allows the operator to change the CLI. And the field DMI is indexed to the table DIGMAN which is used to manipulate the CLI digits.
	ENHANCED_DIGSCRN	DMI (0 to 32767)	Indicates the digits of the address to be screen. This option is associated with table CGBLDDIG. And the field DMI is indexed to the table DIGMAN which is used to manipulate the CLI digits temporarily before entering the table CGBLDDIG. The manipulation can only be seen when processing in CGBLDDIG, it can not take effect to the real CLI after returning from CGBLDDIG.

Note:

- The screening sub-options can be added in any order, depending on the service requirement. But the CGPN Builder will screen the information in datafill order.
- The following table shows if there is screening support available for the incoming agent's parameters, for NI and/or PI values. A value of ’Yes’ signifies that the incoming parameter will be considered. A value of 'No' signifies that the default values for these parameters will be assumed. The default value for NI is 0 (= COMPLETE). The default value for PI is 00 (=ALLOWED).

Parameter	NI	PI
CGPN	Yes	Yes
RDN	No	Yes
Charge No.	No	No
PN	No	No

Parameter	NI	PI
Contractor No.	No	No
Generic No.	No	No

Table history

(I)SN08

CGPNBLDR options DIGMAN, IC_VAR_SCRN, CND_GOTO and ENHANCED_DIGSCRN were introduced by activity A00005315.

Table CGPNBLDR migrated from *DMS-100 Family DMS-100 MMP Customer Data Schema Reference Manual Volume 3 of 12*, 297-9051-351.07.02.

CISCPCPR

Commonwealth of 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, NPAnnnn911, 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
TOPSCOINCOLLECT	TOPS coin collect (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINDISABLE	TOPS coin key pad disable (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINENABLE	TOPS coin key pad enable (see note 4)	OFRT and all RTEREF subtables	None
TOPSCOINRETURN	TOPS coin return (see note 4)	OFRT and all RTEREF subtables	None
TRKLPBK	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
AOSSPOSDATA	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	CAMACSWS	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
ITOPSPOSDATA	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
OOCPOSDATA	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 SOCKT)	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
TOPSPOSDATA	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, ITOPSPOS, ITOPSPOSDATA, or ITOPSDEV 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, ITOPSPOS, or ITOPSDEV, 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 TRKLPBK 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
TRKLPBK	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. • SUFX - 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 MO6MODE 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 *Meridian Digital Centrex Station Message Detail Recording Reference Guide*.)

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 *Meridian Digital Centrex Station Message Detail Recording Reference Guide*.) • 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 .

Field	Subfield or refinement	Entry	Explanation and action
KEY		AOSS, CAMA, CDR,ICAMA,ITCR, ITOPS, LAMA, MCDR, MTX, OCC, SMDR, TOPS, or alphanumeric (a maximum of 16 characters)	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
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 DNREVXLA, 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)	*Customer group name* 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)	*Network name* 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)	*Network customer group identifier* 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 DNREVXLA 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
DNREVXLA		see subfields (up to 4 multiples)	*DN reverse translators* This field consists of subfields NETNAME, RXLANAME, and NUMDIGS.
	NETNAME	public or private	*Network name* 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)	*Reverse translator name* 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)	*Number of digits* 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 doe not use this field. The utility assumes a value of 10.
NADDRVX		NADDRVX	*Reverse translations* 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)	*Options* This field consists of subfield OPTION and refinements.
	OPTION	BTUP_CBWF, CFWPVT, CLID, COF, COSMAP, DFTVM, DTKDIV, DTKROP, ECM, EI, MBGDENY, NASOPT, NTWKCCBS, NTWKEMW, NTWKRAG, QSIG93, QSIGPR, REDIR, RNID, RLT and TCAPNM	*Option* 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 NTWKRAG 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 NTWKCCBS 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_NTWKCCBS. ***Note:*** CCBS is a world trade (WT) feature, and is not available in North American loads. Option NTWKEMW assigns the Network Executive Message Waiting feature. Option NTWKRAG assigns the Network Ring Again (RAG) feature. ***Note:*** Options NTWKRAG and BTUP_CBWF are related. Option BTUP_CBWF must be present if option NTWKRAG is present. You can add NTWKRAG and then BTUP_CBWF, or you can add both at once. Option NTWKRAG 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	*CLID option* 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)	*Class of service mapping in* 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)	*Class of service mapping out* 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	*Originating node options* See subfields.
	ROP_INT	numeric, 60 to 300 (seconds)	*ROP interval* 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	*Maximum ROP attempts* Enter the maximum number of times that ROP should be attempted. 0 indicates infinite attempts.
	ROP_ON_CON	ON or OFF	*ROP on congestion* 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_DIGS	numeric, 0 to 24	*ROP ID digits* 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			*Terminating node ROP* 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	*ROP billing (AMA record)* 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	*Calling line display* Enter CLID to specify that option MBGDENY applies to customer display for agents in the customer group.
	NAME	NAME	*Name* 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	*Network attendant services options* 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)	*Timer* 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	*Music* 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	*Private Call Completion to Busy Subscriber* Enter NTWKCCBS to enable private CCBS for the customer group. If private CCBS is not required for this customer group, leave this field blank. ***Note:*** CCBS is a world trade (WT) feature, and is not available in North American loads.

OPTION = NTWKRAG

If the entry in field OPTION is NTWKRAG, 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	*Time-out* 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)	*Originator duration time-out* 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)	*Originator retry time-out* 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)	*Terminator duration time-out* 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)	*Terminator guard time-out* 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)	*Terminator queue advance time-out* 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	*Network options* Enter INTRAGRP to indicate that option NTWKRAG is available only to those terminating agents in the same customer group as the originating agent. Enter ONNET to indicate that option NTWKRAG is available only to those terminating agents in the same network as the originating agent. Enter OFFNET to indicate that option NTWKRAG 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	*Rerouting number* 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	*TON for the rerouting number* This specifies the TON (Type of Number) for the Rerouting Number.
	NPI	any NPI of type QSIG_NPI_TYPE	*NPI for the Rerouting Number* This specifies the NPI (Numbering Plan Indicator) for the Rerouting Number.
	PR_BILL	BILL_ON or BILL_OFF	*PR Billing procedures* 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)	*Redirection timer* 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	*RNID option* 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	*TCAPNM* 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.

CUSTSTN

Customer Group Station Option Table

Table CUSTSTN is required for a switching unit with North American translations and the Meridian Digital Centrex (MDC) or Residential Enhanced Services (RES) feature.

For related information, refer to Table CUSTFAM.

Table CUSTSTN lists the station options assigned to each of the customer groups.

The following table shows the datafill required for each customer group in a switching unit with North American translations and the MDC or RES feature.

Field CUSTNAME is equal to the 1- to 16-character name assigned to the residential group.

Datafill required for each customer group

Customer name	Option name	Option
_____	AMBISC	AMBISC L8 Y
_____	CEPT	CEPT Y
_____	CFDATIM	CFDATIM 30
_____	CFWVAL	CFWVAL Y
_____	CFXFEAT	CFXFEAT Y
_____	CFXOPT	CFXOPT N N N N N N N N
_____	CNDB	CNDB
_____	CRRNOKSH	CRRNOKSH
_____	CSMI	CSMI A Y Y Y 30 DENYCFBL
_____	CXFER	CXFER CUSTOM NOCXFER NOCXFER NOCXFER NOCXFER N
_____	CXFERSUP	CXFERSUP ALLIBN CONF ALLPOTS CONF N

Datafill required for each customer group

Customer name	Option name	Option
_____	PCACIDS	PCACIDS PCACIDS N
_____	RAGTIM	RAGTIM 8
_____	SCVAL	SCVAL
_____	SOR	SOR
_____	USAID	USAID

If feature BC1459 (Partitioned Table Editor) is purchased, the ownership of each tuple in Table CUSTSTN is defined in Table DATAOWNR and Table OWNTAB.

The entries in Table DATAOWNR that are applicable to Table CUSTSTN are those that have the entry in field TABNAME equal to CUSTGRP and the entry in field CUSTNAME equal to the value of field CUSTNAME in Table CUSTSTN.

The entry in Table OWNTAB that is applicable to Table CUSTSTN is the one that has the entry in field TABNAME equal to CUSTSTN.

A customer group can be assigned one or more of the options listed in the following table. One entry is required for each option.

Option and title list (Sheet 1 of 6)

3WCSFLSH	Three-way Calling with Single Flash Drop
800EOD	800 Plus End Office Display
Note: Canada only	
ACB	Automatic Call Back
AIN	Advanced Intelligent Network
AINLATA	Advanced Intelligent Network Local Access and Transport Area

Option and title list (Sheet 2 of 6)

AMBISC	Variable Speed Calling Access Code
AMBZERO	Ambiguous Digit 0
AMSG	Access to Messaging
AMSGDENY	Access to Messaging Deny
AR	Automatic Recall
ASP	Alternate Service Provider
ASR	Automatic Set Relocation
AUTODISP	Automatic Display Mode
BRITONUM	Basic Rate Interface Type of Number Unknown
CCNTLIDX	Call Control Index
CBQ	Call Back Queuing
CEPT	Conference of European Postal and Telecommunications
CFCW	Call Forwarding of Call Waiting
CFDATIM	Call Forward Don't Answer Time-out
CFDCET	Call Forwarding Don't Answer Continue Existing Treatment Enhancements with SS7
CFIND	Call Forward Indication
CFRA	Call Forwarding—Remote Access
CFWVAL	IBN Call Forwarding Validation
CFXFEAT	Call Forwarding
CFXOL	Call Forwarding Optional Lines
CFXOPT	Call Forwarding Option
CHD	Call Hold with Audio

Option and title list (Sheet 3 of 6)

CMCF	Control of Multiple Call Forwarding
CNAB	Calling Name Delivery Blocking
CNDB	Calling Name and Number Delivery Blocking per Call ***Note:*** This option controls the Caller ID Delivery and Suppression (CIDS) Suppression (CIDSSUP) and CIDS Delivery (CIDSDLV) options for ISDN BRI subscribers.
CNDBO	Calling Number Delivery Blocking Override
CNDBRI	CND (Calling Name Delivery) Customer Group Control for BRI
COT	Customer Originated Trace
CPARK	Call Park
CRINTER	Call Request Intergroup
CRRNOKSH	Call Request Retrieve and Keyset Short Hunt Interaction Control
CSMI	Call Screening, Monitoring, and Intercept
CTW	Call Transfer Warning
CFTP	Call Transfer Fraud Prevention
CWD	Dial—Call Waiting
CWO	Call Waiting—Originating
CWTC	Call Waiting Conference
CXFER	Call Transfer
CXFERSUP	Call Transfer Enhanced
DCBITONE	Directed Call Pickup—Barge-In Tone
DENYCWTC	Deny Call Waiting Conference

Option and title list (Sheet 4 of 6)

DINALT	Denied Incoming Alternate Treatment
DISPDIGS	Display Digits
DISTCWTN	Distinctive Call Waiting Tone
DMCT	Deny Malicious Call Termination
DND	Do Not Disturb
DRING	Distinctive Ringing
EBOM	Executive Busy Override on MADN
GICNOCFW	Group Intercom No Call Forwarding
GICPAGE	Group Intercom Page
INSPACT	Inspect Activate Timer
INSPDISP	Inspect Display Timer
JCNDFORM	Japan Calling Number Delivery format
KSMOH	Keyset Music On Hold (Also used by ETSI Call Hold)
LSPAO	Local Service Provider (LSP) Account Owner (AO)
LSPSO	Local Service Provider (LSP) Switch Owner (SO)
MBSCAMPO	MBS Camp-on
MCGROUP	EBS as a Message Center
MSB	Make Set Busy
N3WCRRNG	No Ringback for Three-way Call
NAMEDISP	Name Display
NFA	Network Facility Access
NFRA	Network Facility Remote Access

Option and title list (Sheet 5 of 6)

NUMDGCMP	Network EBS Display
PCACIDS	Privacy Change Allowed Caller ID Delivery and Suppression for ISDN
PCI	Preselection Carrier Identification
PCSOPT	Personal Call Screening Option
PHOLD	Permanent Hold
RAGRCOPT	Ring Again Recall
RAGTIM	Ring Again Timer
REASDISP	Reason Display
REDIRECT	Customer Group with No Consoles
RND	Redirecting Number and Reason Delivery for BRI ***Note:*** Changing from pre-NA011 to NA011 or higher adds the RND customer group option to Table CUSTSTN. The RND option is added for all customer groups, to provide consistency in BRI display features.
SCUTDNO	Speed Call User Toll Denied Override
SCPAUSE	Speed Calling Pause
SCVAL	Speed Calling Validation
SDS	Special Delivery Service
SDSDENY	Special Delivery Service Deny
SERVCTL	Scope Control
SLE	Screening List Editing
SOR	Station Origination Restrictions
SPP	Station Programmable PIN

Option and title list (Sheet 6 of 6)

TAFAS	Trunk Answer from Any Station
UAWUCR	Universal Access for Wake-up Call Reminder
USAID	Universal Speech Activated Intelligent Dialing

Datafill sequence and meaning

The following tables must be datafilled before Table CUSTSTN:

- TRKGRP
- DATAOWNR
- AUDIO
- CUSTENG
- REASONS
- TRIGGRP
- OWNTAB
- DPLNSCRN
- CALLCNTL

You must enter the local service provider name in Table LSPINFO before you define LSPAO or LSPSO data in Table CUSTSTN.

You must datafill Table SPINFO before adding the Option ASP to Table CUSTSTN.

You must datafill Table CALLCNTL before adding the Option CCNTLIDX to Table CUSTSTN.

Datafill

The following table shows the datafill for table CUSTSTN.

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

Field	Subfield or refinement	Entry	Explanation and action
OPTNAME		CPC, CNDDTMF, CMI, SPL, CEPT, PCI, ACB, AIN, AINLATA, AINPRECE, AMBISC, AMBZERO, AR, ASP, AUTODISP, CBQ, CFCW, CFDATIM, CFDCET, CFIND, CFRA, CFWVAL, CFXFEAT, CFXOL, CFXOPT, CHD, CMCF, CNAB, CNDB, CNDBO, CNDBRI, COT, CPARK, CRINTER, CRRNOKSH, CTFP, CTW, CWD, CWO, CWTC, CXFER, CXFERSUP, DCBITONE, DENYCWTC, DINALT, DISPDIGS, DISTCWTN, DMCT, DND, DRING, EBOM, GICNOCFW, GICPAGE, INSPACT, INSPDISP, JCNDFORM, KSMOH, MBSCAMPO, MCGROUP, MSB, NAMEDISP, NUMDGCMP, N3WCRRNG, (continued)	*Option name* Enter the name of the option.

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

Field	Subfield or refinement	Entry	Explanation and action
OPTNAME (continued)		PCACIDS, PCSOPT, PCWTTO, PHOLD, RAGRCOPT, RAGTIM, REASDISP, REDIRECT, RND, SCPAUSE, SCUTDNO, SCVAL, SERVCTL, SLE,SOR, SPP, 3WCSFLSH, TAFAS, UAWUCR, BRITONUN, MOT, VOWDN, CCNTLIDX	*Option name* Enter the name of the option.
OPTION			*Option* This field consists of subfield OPTION.
	OPTION	CCNTLIDX	Enter the name of the option, and datafill refinement CCNTLIDX.
	CCNTLIDX	SCRN_INDX	*Call Control Index* Enter the index into table CALLCNTL.

Table size

The maximum table size for table CUSTSTN is 520,192 tuples.

Table history

SN08

Option CCNTLIDX was added to Table CUSTSTN in SN08 as part of feature A00006407.

CUSTSTN option CNDBO

ATTENTION
This table applies to new or modified content for (SN08) that is valid through the current release.

Calling Number Delivery Blocking Override (CNDBO)

This option overrides the calling line identification display (CLID) presentation restrictions at the terminating end of a call and can be used for calls terminating on emergency services agents to display calling party numbers that are otherwise restricted. Calling name delivery is unaffected.

If the customer group option CNDBO is assigned on a customer group basis through table CUSTSTN, then all agents in that customer group have CLID presentation restriction override. Agents that are not authorized to override presentation restrictions cannot be assigned to that customer group.

If the customer group option CNDBO is not used, the CNDBO line option must be assigned to each line in the customer group individually.

Datafill

The following table lists the datafill for table CUSTSTN option CNDBO.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
CUSTNAME		alphanumeric (1 to 16 characters)	*Customer group name* Enter the customer group name.
OPTNAME		CNDBO	*Option name* Enter the name of the option, CNDBO.
OPTION		see subfield	*Option* This field consists of subfield OPTION.

Field descriptions

Field	Subfield or refinement	Entry	Explanation and action
	OPTION	CNDBO	*Option* Enter the name of the option, CNDBO.
	CNDBOTYPE	ALL	Determines whether CNDBO option will be valid for all calls terminating to subscribers at this customer group in existing way by being datafilled as ALL, or the option will be valid only on calls which both originating and terminating subscribers are in that customer group by being datafilled as INTRAONLY

Table history

(I)SN08 (DMS)

This module has been updated with feature A00005962 CLIR Removal for Centrex Intragroup Calls.

DIRPPOOL

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 72 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 DIRPPOOL appears in the following table:.

Table DIRPPOOL recommended datafill

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
VOL00X02						
volume 00	$	Tnn	tNN	$	Dnnncccc	Dnnncccc
volume 01	$	$	$	$	$	Dnnncccc
volume 02	$	$	$	$	Dnnncccc	$
VOL03X05						
volume 03	$	Tnn	tNN	$	Dnnncccc	$
volume 04	$	$	$	$	Dnnncccc	$
volume 05	$	$	$	$	$	$
VOL06X08						
volume 06	$	$	$	$	$	$
volume 07	$	$	$	$	$	$
volume 08	$	$	$	$	$	$
VOL09X11						
volume 09	$	$	$	$	$	$
volume 10	$	$	$	$	$	$
volume 11	$	$	$	$	$	$
VOL12X14						
volume 12	$	$	$	$	$	$
volume 13	$	$	$	$	$	$
volume 14	$	$	$	$	$	$

Table DIRPPOOL recommended datafill

Field name	Recommended datafill					
VOL015X17						
Note: 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.						
volume 15	$	$	$	$	$	$
volume 16	$	$	$	$	$	$
volume 17	$	$	$	$	$	$
VOL18X20						
volume 18	$	$	$	$	$	$
volume 19	$	$	$	$	$	$
volume 20	$	$	$	$	$	$
VOL21X23						
volume 21	$	$	$	$	$	$
volume 22	Dnnncccc	$	$	$	$	$
volume 23	Dnnncccc	$	$	$	$	$
VOL24X26						
volume 24	$	$	$	$	$	$
volume 25	$	$	$	$	$	$
volume 26	$	$	$	$	$	$
VOL27X29						
volume 27	$	$	$	$	$	$
volume 28	$	$	$	$	$	$
volume 29	$	$	$	$	$	$
VOL30X32						
volume 30	$	$	$	$	$	$
volume 31	$	$	$	$	$	$

Table DIRPPOOL recommended datafill

Field name	Recommended datafill					
volume 32	$	$	$	$	$	$
VOL33X35						
volume 33	$	$	$	$	$	$
volume 34	$	$	$	$	$	$
volume 35	$	$	$	$	$	$
VOL36X38						
Note: 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.						
volume 36	$	$	$	$	$	$
volume 37	$	$	$	$	$	$
volume 38	$	$	$	$	$	$
VOL39X41						
volume 39	$	$	$	$	$	$
volume 40	$	$	$	$	$	$
volume 41	$	$	$	$	$	$
VOL42X44						
volume 42	$	$	$	$	$	$
volume 43	$	$	$	$	$	$
volume 44	$	$	$	$	$	$
VOL45X47						
volume 45	$	$	$	$	$	$
volume 46	$	$	$	$	$	$
volume 47	$	$	$	$	$	$
VOL48X50						
volume 48	$	$	$	$	$	$

Table DIRPPOOL recommended datafill

Field name	Recommended datafill					
volume 49	$	$	$	$	$	$
volume 50	$	$	$	$	$	$
VOL51X53						
volume 51	$	$	$	$	$	$
volume 52	$	$	$	$	$	$
volume 53	$	$	$	$	$	$
VOL54X56						
volume 54	$	$	$	$	$	$
volume 55	$	$	$	$	$	$
volume 56	$	$	$	$	$	$
VOL57X59						
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.						
volume 57	$	$	$	$	$	$
volume 58	$	$	$	$	$	$
volume 59	$	$	$	$	$	$
VOL60X62						
volume 60	$	$	$	$	$	$
volume 61	$	$	$	$	$	$
volume 62	$	$	$	$	$	$
VOL63X65						
volume 63	$	$	$	$	$	$
volume 64	$	$	$	$	$	$
volume 65	$	$	$	$	$	$
VOL66X68						

Table DIRPPOOL recommended datafill

Field name	Recommended datafill					
volume 66	$	$	$	$	$	$
volume 67	$	$	$	$	$	$
volume 68	$	$	$	$	$	$
VOL69X71						
volume 69	$	$	$	$	$	$
volume 70	$	$	$	$	$	$
volume 71	$	$	$	$	$	$

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.

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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

Field name	Entry value for DLOG
POOLNO	*
POOLNAME	LOGSPOOL

Tuple to add if the DLOG subsystem is present

Field name	Entry value for DLOG
POOLTYPE	REGULAR
DEVTYPE	DISK
VOL00X02	
volume 00	$
volume 01	$
volume 02	$
VOL03X05	
volume 03	$
volume 04	$
volume 05	$
VOL06X08	
volume 06	$
volume 07	$
volume 08	$
VOL09X11	
volume 09	$
volume 10	$
volume 11	$
VOL12X14	
volume 12	$
volume 13	$
volume 14	$
VOL015X17	
volume 15	$

Tuple to add if the DLOG subsystem is present

Field name	Entry value for DLOG
volume 16	$
volume 17	$
VOL18X20	
volume 18	$
volume 19	$
volume 20	$
VOL21X23	
volume 21	$
volume 22	$
volume 23	$
VOL24X26	
volume 24	$
volume 25	$
volume 26	$
VOL27X29	
volume 27	$
volume 28	$
volume 29	$
VOL30X32	
volume 30	$
volume 31	$
volume 32	$
VOL33X35	

Tuple to add if the DLOG subsystem is present

Field name	Entry value for DLOG
volume 33	$
volume 34	$
volume 35	$
VOL36X38	
volume 36	$
volume 37	$
volume 38	$
VOL39X41	
volume 39	$
volume 40	$
volume 41	$
VOL42X44	
volume 42	$
volume 43	$
volume 44	$
VOL45X47	
volume 45	$
volume 46	$
volume 47	$
VOL48X50	
volume 48	$
volume 49	$
volume 50	$

Tuple to add if the DLOG subsystem is present

Field name	Entry value for DLOG
VOL51X53	
volume 51	$
volume 52	$
volume 53	$
VOL54X56	
volume 54	$
volume 55	$
volume 56	$
VOL57X59	
volume 57	$
volume 58	$
volume 59	$
VOL60X62	
volume 60	$
volume 61	$
volume 62	$
VOL63X65	
volume 63	$
volume 64	$
volume 65	$
VOL66X68	
volume 66	$
volume 67	$

Tuple to add if the DLOG subsystem is present

Field name	Entry value for DLOG
volume 68	$
VOL69X71	
volume 69	$
volume 70	<volume2 name>
volume 71	<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 DIRPPOOL:

- MTD
- DDU
- DPP
- SLM

Table size

0 to 64 tuples

Tuples 0 through 62 are for customer use. Pool 63 is reserved for internal use only.

Increasing the number of volumes per pool to 72 from 24 increases the memory requirements of table DIRPPOOL. Essentially, volume related store now requires 3x as much memory (72/24=3). Modules DIRPGI and DIRPDSON carry the bulk of the increase in storage.

Datafill

The following table lists the datafill for table DIRPPOOL.

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

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 a 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 DIRPPOOL.

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

Field	Subfield or refinement	Entry	Explanation and action
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 DIRPPOOL (Sheet 3 of 4)

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 DIRPPOOL. The entry of billing media converters (BMC) must occur as DPP. The NIL is not a correct entry value for this field.

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

Field	Subfield or refinement	Entry	Explanation and action
VOL00X02 to VOL69X71		eight_char_ vector	Volume 00 through volume 71. Fields VOL00X02 to VOL69X71 each comprise three volumes giving a total of 72 volumes. For example, field VOL00X02 has volumes 00 to 02 and field VOL69X71 has volumes 69 to 71. Each field is provisioned with 3 eight_char_vector covering three volumes. In each field, enter a volume name to specify the volume assigned in the pools. The default is $ $ $. 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.

Supplementary information

Note the following to enter data for DIRPPOOL.

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.

Note 14: Volumes can be provisioned via table control or through the use of the MNT and DMNT commands at the MAPCI DIRP level. Table control provisioning of volumes cannot be done with a one line CHA command. Volumes must be entered after the CHA command is issued.

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 DMS

Feature A00003905 impacts table control for table DIRPPOOL. A change in how table DIRPPOOL is manually provisioned is necessitated by expanding the number of volumes per pool. Volumes are no longer provisioned as individual fields but are provisioned in groups of three. Feature A00003905 increases the number of DIRP volumes in table DIRPPOOL from 24 to 72.

SN08

Table DIRPPOOL migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 4 of 12*, 297-8021-351.10.01.

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 DIRPPOOL for additional information.

Recommended datafill for table DIRPSSYS

In BCS32, default datafill for table DIRPSSYS is not present at the time of loadbuild. Enter data in the table to provide the following characteristics for each recording subsystem:

- AMA: The Device Independent Recording Package (DIRP) attempts to maintain two TAPE-type files open for recording AMA. If a STANDBY file is not present, you cannot close the ACTIVE file manually. If files are not present, the system raises a critical alarm (CR). If only one file is present for AMA, the system raises a major alarm (MJ). The AMA files have a 30-day expiration period. A scheduled rotation of recording duty does not occur. File names default to a date, time, and subsystem indicator.
- OM: The DIRP attempts to maintain one TAPE-type file open for recording. If a file is not present, the system raises a minor alarm

(MN). The OM files have a 30-day expiration period. File names default to a date, time, and subsystem indicator.

- JF: The DIRP attempts to maintain one TAPEX-type file open for recording. If a file is not present, the system does not raise an alarm (NA). 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 DIRPPOOL before you enter data in table DIRPSSYS.

Table size

0 to 64 tuples

The number of subsystems entered determines the size of table DIRPSSYS.

Datafill

The following table lists the datafill for table DIRPSSYS.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 1 of 14)

Field	Subfield or refinement	Entry	Explanation and action
SSYSNAME		alphanumeric (one to four characters)	*Subsystem name* Enter the subsystem name that serves as the index to table DIRPSSYS. An example is automatic message accounting (AMA).
READRITE		Y or N	*Read after write* 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 14)

Field	Subfield or refinement	Entry	Explanation and action
NUMFILES		numeric (1 to 4)	*Number of files* 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)	*Minimum number of files* 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 14)

Field	Subfield or refinement	Entry	Explanation and action
POOLNAME		alphanumeric (a maximum of 8 characters) or $	*Pool name* 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 $	*File name* 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 14)

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 14)

Field	Subfield or refinement	Entry	Explanation and action
ALARM0 to ALARM3		CR, MJ, MN, or NA	*File ALARM0 to file ALARM3* 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 14)

Field	Subfield or refinement	Entry	Explanation and action
RETPD		numeric (0 to 499)	*Retention period in days* 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)	*Retention period (in days) for copied-to files.* 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 14)

Field	Subfield or refinement	Entry	Explanation and action
PARLPOOL		the AMAPARL DLOGPARL JFPARL OMPARL or $	*Parallel pool* 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.
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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 8 of 14)

Field	Subfield or refinement	Entry	Explanation and action
PARCONC		Y or N	*Parallel and normal recording occur concurrently* 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.
MANDPALM		NA, MN, MJ, or CR	*Mandatory parallel alarm* 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 9 of 14)

Field	Subfield or refinement	Entry	Explanation and action
FILEDATE		CLOSED FIRSTACT LASTACT or OPENED	*File date* 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)	*Scheduled rotation days*. 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: YNYNYNN)
SHEDBASE		numeric (0 to 23)	*Scheduled rotation base* 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.

Field, subfield, and refinement descriptions for table DIRPSSYS (Sheet 10 of 14)

Field	Subfield or refinement	Entry	Explanation and action
SHEDINCR		X1, X2, X3, X4, X6, X8, X12, X24, or NOROTATE	*Scheduled rotation increments* 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.			
ROTACLOS		BOTH MROTATE SROTATE or NONE	*Rotate close* 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 11 of 14)

Field	Subfield or refinement	Entry	Explanation and action
AUTOXFER		FULL NOKEEP PARTIAL or NONE	*Automatic transfer* 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 12 of 14)

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.
			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 13 of 14)

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	*Space rotation* 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 14 of 14)

Field	Subfield or refinement	Entry	Explanation and action
MAXDFSIZ		numeric (5 to 64)	*Maximum disk file size* This field defines the maximum size for DIRP disk files in megabytes. The field allows operating companies to match the size of DIRP files with the capacity of recording tapes. The system uses the recording tapes to process data. This function can eliminate the requirements for multiple tape files when you copy a disk file. The value that you enter in this field is the maximum size for files in the subsystem that the tuple defines. Select a value that matches the capacity of data tapes the system normally uses to process the data in the corresponding subsystem. If a file reaches the maximum size, DIRP performs a space rotation. This rotation occurs if field SPACROTE is Y or N. If DIRP performs a space rotation and field SPACROTE is set to N, DIRP erases old processed files. This process creates additional space.
PRIORTIO		Y or N	*Priority input/output file* 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
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

DLOG datafill (Sheet 2 of 2)

Field name	Dtafill
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	$
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

ICAMA datafill (Sheet 2 of 2)

Field name	Datafill
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 x (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 x ([tuple count of DNINV] - [tuple count of DNROUTE]) +44 x (1 + [number of 1-digit prefixes] + [number of 2-digit prefixes] +[number of 3-digit prefixes] + [number of 4-digit prefixes] + [...]) + 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

Directory Number Mapping

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 503.

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	*Directory number* Enter the 6-digit code.
OPC		Network	*Origination point code* 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
- BROADCST
- 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

Destination Point Code Mapping

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 494.

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	*Destination point code* 1 Byte (0-255)
DPC		Cluster	1 Byte (0-255)
DPC		Member	1 Byte (0-255)
OPC		Network	*Origination point code* 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	*Public safety answering point name key* This field consists of subfield PSAPNAME. This is the key to the table.
	PSAPNAME	alphanumeric (1 to 16 characters)	*Public safety answering point name* Enter the public safety answering point (PSAP) name. This entry must correspond to an entry in table E911PSAP.
PSAPNUM		0 to 999	*Public safety answering point number* 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	*Interface type* 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	*Link set index* 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 outpulses the data, along with information digits to the PSAP. The E911 tandem transmits the data by standard multifrequency (MF) pulses.

ANI information is outpulsed 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 (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	*Emergency service number* Enter a number up to five digits representing an emergency service zone (ESZ).
FLASH		Y or N	*Flash* 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)	*Primary public safety answering point* 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)	*Secondary public safety answering point 1* 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)	*Secondary public safety answering point 2* Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP3		alphanumeric (1 to 16 characters)	*Secondary public safety answering point 3* 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)	*Secondary public safety answering point 4* Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP5		alphanumeric (1 to 16 characters)	*Secondary public safety answering point 5* Enter a PSAP name already datafilled in table E911PSAP and intended to indicate the type of service provided.
PSAP6		alphanumeric (1 to 16 characters)	*Secondary public safety answering point 6* 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 outpulses the data, along with information digits to the PSAP. The E911 tandem transmits the data by standard multifrequency (MF) pulses.

ANI information is outpulsed 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)	*Numbering plan digit* Enter a digit representing single information digit automatic number identification (ANI).
SNPA		0 to 9 (1 to 7 digits)	*Serving numbering plan area* 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 idial" 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 ì9") 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)	*Public safety answering point name* 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)	*Public safety answering point directory number* 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, 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', this field is 10-digit. When the value is 'N', this field is 7-digit.
EDNR		Y	*Emergency directory number route* 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	Format Enter 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 identification Enter the appropriate linkset identification to which field LINKSET applies.
LINKSET		0-15	Multiprotocol controller linkset number Enter 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 or 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 29words 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	*E911 directory number*
			This field describes a range of DNs in four significant parts: NPA, NXX, THGP, and XXX.
	NPA	000 to 999	*Number plan area* Represents the DNs in a specific NPA.
	NXX	200 to 999	*Office code* Represents the NXXs.
	THGP	0 to 9	*Thousands group* 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	*3 digit combination* Represents a single DN.
ESN		000 to 15,999	*Emergency service number* 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.

EADAS

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

Engineering and Administrative Data Acquisition System

Table Engineering and Administrative Data Acquisition System (EADAS) stores site-unique Engineering and Administrative Data Acquisition System (EADAS) data to allow this data to be preserved over a one-night process (ONP). During the ONP, table EADAS transfers the operating company defined EADAS collection definitions from the old software load to the new software load. The collection definitions include all EADAS class, section, register, and key/info information.

The primary function of table EADAS is to transfer EADAS collection definitions from the old load to the new load during an ONP. Operating companies can also use this table to provide the same functionality as the EADSECTS, EADASKEY, and EADASFMT commands.

Note: Table EADAS is datafilled automatically during an ONP; however, initial jobs and sites that receive EADAS software for the first time must add their EADAS collection definitions manually.

Datafill sequence and meaning

There is no requirement to datafill other tables prior to table EADAS. During an ONP, table EADAS is restored as the last CNA table.

Table size

The three EADAS OM classes are sized by the following office parameters in table OFCENG:

- EADAS24H_BUFFER_SIZE (EADAS24H class)
- EADAS30M_BUFFER_SIZE (EADAS30M class)
- EADAS60M_BUFFER_SIZE (EADAS60M class)

Table EADAS can range from 0 to 192,000 tuples. The size is calculated as follows. Note that 192,000 tuples is the theoretical size, but this table is expected to have only up to 8,000 tuples.

3 (number of buffers) × 2 (could be double precision) × 32,000 (maximum per buffer size) = 192,000

Note: If the office uses SOC OAM0007, the maximum per buffer size can be as high as 256000.

Datafill

The following table lists the datafill for table AUTHCDE.

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

Field	Subfield or refinement	Entry	Explanation and action
EADASKEY			EADAS Key. This field consists of subfields CLASS, SECTION, and ITEM.
	CLASS	EADAS30M, EADAS60M, EADAS24H	OM Class. This subfield specifies the OM class. Enter EADAS30M (30-minute OM class), EADAS60M (60-minute OM class), or EADAS24H (24-hour OM class).
	SECTION_ID	0-998	Section Number. This subfield specifies the EADAS section number. The maximum value (0-254) for 30-minute class is extended to (0-998) when SOC OAM00013 is activated.
	ITEM	PRECISION, REG, KEY	Item. This subfield specifies the OM tuple type. Enter one of the following: • PRECISION (in this case, no further datafill is required for subfield ITEM) • REG followed by one space and the register number (a value from 0 to 127) • KEY followed by one space and the OM tuple

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

Field	Subfield or refinement	Entry	Explanation and action
EADASDATA			EADAS Data. This field contains the EADAS data. Enter one of the following: • If subfield ITEM of field EADASKEY is set to PRECISION, enter the following: — either SINGLE (single precision, specifying a count of up to 32,768) or DOUBLE (double precision, specifying a count of up to 65,536) — the OM group name and OM field (register) name, separated by spaces • If subfield ITEM of field EADASKEY is set to REG, enter the OM group name and OM field (register) name, separated by spaces. • If subfield ITEM of field EADASKEY is set to KEY, enter either PRESENT or DELETED.

Table history

(I)SN08

The maximum value of 1024 trunk groups for EADAS/DC interface was added for feature A00006657.

CSP18/SN05

The maximum value of the field SECTION_ID was extended from 255 (0-254) to 999 (0-998), with SOC OAM00013 activated.

NA008

The upper bound of buffer size range was increased to 256 000 words. The need for a new start when EADAS/DC buffer sizes are changed was eliminated. Clarification for SOC option OAM00007 was added.

NA005

This table was introduced.

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_INTERFACE DS_30_DS_512_INTERFACE REMOTE_TERMINAL MESSAGE_LINK 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.
PBDCD		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 AMDI: 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	*Serving translation scheme* Enter an SNPA or an STS code. Refer to the example in the description of subtable FNPACONT.FNPASTS.STSCODE if you use an STS.
SNPA		Y or N	*Serving numbering plan area* Enter Y or N to indicate if a specified STS in this table maps to an SNPA in table SNPANAME. An HNPA or SNPA appears in one of the first 128 positions. You can enter these positions at any time. Use SNPAs in: • line data • plain ordinary telephone service (POTS) • virtual facility group (VFG) data • private automatic branch exchange (PBX) trunk data • table DNINV • table DNROUTE • table TOFCNAME

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	*Number of route references* 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	*Number of ambiguous codes* Enter the number of ambiguous codes required. An entry outside the range indicated for this field is incorrect.
OPTION		ARS	Enter *Option ARS* to set the automatic route selection.
OPTIONS (Option list of SG selector)		see subfield	

Field, subfield, and refinement descriptions for table HNPACONT (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_ RTEREF	*Automatic route selection option* Enter *DEFAULT_RTEREF* to select the default that subtable HNPACONT.RTEREF defines.
	RR	0 to 1023	*Extended route reference index* 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 form 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 HNPA has the following subtables:

- Subtable HNPACODE: Home NPA Code subtable specifies the translation for each of the 1000 codes (000 to 999). The system initializes the 1000 codes to vacant code.
- Subtable RTEREF: Home NPA Route Reference subtable specifies the translations associated with each of the route reference indexes. The Home NPA Code table specifies these route references indexes.

The system assigns each line, incoming trunk group, and two-way trunk group to 1 of the 128 serving home NPA codes.

Table TRKGRP stores the SNPA for a normal trunk group for each incoming and two-way trunk group.

Table LINEATTR stores the SNPA for a line in the line attribute assigned to the line.

Table IBNLINES stores the SNPA for an IBN line.

Table IBNXLA stores the STS code for an IBN line.

Field NPA changes and allows between one and seven digits instead of the previous three-digit value. When the office parameter

ACTIVE_DN_SYSTEM in table OFCENG is NORTH_AMERICA, expect a three-digit NPA.

For DMS-100 domestic offices, the tuple verification phase that adds to the table allows the entry of only three digits.

International coexistence

International and North American call processing can run in parallel with coexistence. Coexistence allows the international switch to interact with North American developed services like ISDN.

Partitioned Table Editor feature

In DMS offices with feature BC1459 Partitioned Table Editor (PTE), the operating company can allow a user to edit specified tuples of table HNPACONT. The user is from outside the operating company. The user edits 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
- SCRNCLASS
- 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 2)

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.
	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.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	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.
	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 SCRNCL, NUMCALLS, TIME, and FDN subfields as follows.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	SCRNCL	alphanumeric (1 to 4 characters)	Class of service screening name. Enter the name assigned in field SCRNSEL 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.
	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

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.
	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
	OFSOPT		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
	LDTNOPT		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 4)

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.
	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.

Field descriptions for conditional datafill (Sheet 2 of 4)

Field	Subfield	Entry	Explanation and action
	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.
	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.
	NPD	0, 1, 2, 3	Numbering plan digit. Enter the NPDs in any order.

Field descriptions for conditional datafill (Sheet 3 of 4)

Field	Subfield	Entry	Explanation and action
	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.
	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 4 of 4)

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.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	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.
	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 (Sheet 1 of 2)

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.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield	Entry	Explanation and action
	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

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.
	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

SN08

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

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

Datafill sequence and meaning

The following tables must be datafilled 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).

IBNLINES option STN

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

IBNLINES option Station

The STN (station) format is required for line assignments for IBN and Residential Enhanced Services (RES) stations.

This table is reformatted for the 'RES to IBN' conversion according to the conversion flag (RES_TO_IBN_CONV) state.

One entry is required for each IBN or RES station. An entry can consist of one or more records and is dependent on the number of options assigned.

If the IBN or RES line has the Automatic Line (AUL) feature in table IBNFEAT (IBN Line Feature) assigned, the signal type is dial pulse (DP).

Table 1 lists, in alphabetical order, options available for line class codes (LCC) IBN and RES with the STN format.

The Y denotes the option is compatible with the LCC. The N denotes the option is not compatible with the LCC.

Option SCWID must be entered using the Service Order System (SERVORD). Option SCWID is compatible with RES, one-party flat rate (1FR), and one-party message rate (1MR) LCCs and can be made compatible with other LCCs such as IBN, OWT, and enhanced outward WATS (EOW).

The description of options follows the following table.

Option compatibility with IBN and RES line class codes

		Line class code	
Option	**Name**	**IBN**	**RES**
ACB	Automatic Call Back	Y	Y
AMATEST	AMA Test	Y	N
AR	Automatic Recall	Y	Y
ARDDN	Automatic Recall Dialable Directory Number	Y	Y
ATC	Time and Charge Services on 1+ Calls	Y	Y
CCSA	Common Control Switching Arrangement	Y	N
CCW	Cancel Call Waiting	Y	Y
CDC	Customer Data Change	Y	N
CHD	Call Hold	Y	N
CID	800 Calling Number Identification	Y	Y
CLF	Calling Line Identification with Flash	Y	Y
CNAB	Calling Name Delivery Blocking	Y	Y
CNDB	Calling Number Delivery Blocking	Y	Y
CNDBO	Calling Number Delivery Blocking Override	Y	Y
COD	Cutoff on Disconnect	Y	Y
COIN	Coin lines	Y	N
COT	Customer Originated Trace	Y	Y
CRT	Call Redirect	N	Y
CRTDENY	Call Redirect Deny	N	Y

Option compatibility with IBN and RES line class codes

		Line class code	
Option	**Name**	**IBN**	**RES**
CTW	Call Transfer Warning	Y	N
CWD	Dial Call Waiting	Y	N
CWI	Call Waiting Intragroup	Y	Y
CWO	Call Waiting Origination	Y	N
CWR	Call Waiting Ringback	Y	Y
CWT	Call Waiting	Y	Y
CWTC	Call Waiting Conference	Y	Y
CWX	Call Waiting Exempt	Y	N
DCBI	Directed Call Pickup Barge-in	Y	N
DCBX	Directed Call Pickup Barge-in Exempt	Y	N
DCF	Denied Call Forwarding	Y	N
DCND	DTMF Calling Number Delivery	Y	N
DENYCWTC	Deny Call Waiting Conference	Y	Y
DENYISA	Deny In-Session Activation	Y	Y
DENYSRA	Deny Suppressed Ringing Access	Y	Y
DENYU3WC	Deny Three-Way Calling Usage Sensitive	Y	Y
DCPK	Directed Call Park	Y	N
DCPU	Directed Call Pickup Non-Barge-in	Y	N
DCPX	Directed Call Pickup Non-Barge-in Exempt	Y	N
DOR	Denied Originating Service	Y	Y

Option compatibility with IBN and RES line class codes

		Line class code	
Option	**Name**	**IBN**	**RES**
DNID	800 Dialed Number Identification Delivery	Y	Y
DSCWID	SCWID with Disposition	Y	Y
DTM	Denied Terminating Service	Y	Y
EBO	Executive Busy Override Originator	Y	N
EBX	Executive Busy Override Exempted	Y	N
ELN	Essential Line Service	Y	Y
EOF	Exit On Flash	Y	N
FIG	Ignore Flash	Y	Y
FNT	Free Number Terminating	Y	Y
FTRGRP	Feature Group	Y	Y
FTS	FAX-Thru Service	Y	Y
GLTC	Ground Loop Test Cancel	Y	N
HLD	Permanent Hold	Y	N
ICSDEACT	In Call Service Deactivation	Y	Y
IICB	Incoming International Call Barring	N	Y
ILB	Inhibit Line Busy	Y	Y
IMB	Inhibit Make Busy	Y	Y
IRR	Inhibit Ring Reminder	Y	Y
ISADEACT	In-Session Activation Deactivation	Y	Y
LCDR	Local Call Detail Recording	Y	Y
LDSA	Long Distance Signal Activate	N	Y

Option compatibility with IBN and RES line class codes

		Line class code	
Option	**Name**	**IBN**	**RES**
LDSO	Long Distance Signal Option	N	Y
LDSR	Long Distance Signal Ring	N	Y
LDST	Long Distance Signal Tone	N	Y
LNR	Last Number Redial	Y	N
LRS	Line Reversal on Seizure	Y	N
MSB	Make Set Busy All Calls	Y	Y
MSBI	Make Set Busy Intragroup	Y	N
NDC	No Double Connection	Y	Y
NHT	No Hazard Test	Y	Y
NLT	No Line Insulation Test	Y	Y
NOCOLL	No Collect Call	Y	N
NOH	No Receiver Off-Hook Tone	Y	Y
ONI	Operator Number Identification	Y	Y
PDO	Prevent Deletion Option	Y	Y
PLP	Plug Up	Y	Y
PRI	Priority Indication	Y	N
PRK	Park	Y	N
RAG	Ring Again	Y	N
RCHD	Residential Call Hold	N	Y
RMR	Remote Message Register for Local Calls	Y	N
RMT	Remote Message Register for Non-Local Calls	Y	N

Option compatibility with IBN and RES line class codes

		Line class code	
Option	**Name**	**IBN**	**RES**
RSP	Restricted Sent Paid	Y	Y
SCWID	Spontaneous Call Waiting Identification	Y	Y
SDS	Special Delivery Service	Y	Y
SDSDENY	Special Delivery Service Deny	Y	Y
SL	Secondary Language	Y	Y
SLVP	Single Line Variety Package	N	Y
SMDR	Station Message Detail Recording	Y	N
SORC	Station Origination Restrictions Controller	Y	N
SRA	Suppressed Ringing Access	Y	Y
STRD	Short Timed Release Disconnect	Y	Y
SUS	Suspended Service	Y	Y
TES	Toll Essential Service	Y	Y
UCD	Uniform Call Distribution	Y	Y
UCDLI	Uniform Call Distribution Logged In Indication	Y	Y
VMEADENY	Voice Mail Easy Access Deny	N	Y
WC	Who's Calling	N	Y
3WC	Three-Way Calling	Y	Y

800 Calling Number Identification (CID)

Option CID enables the end-user to display the identification number of the calling party on an 800 call. This line option is supported on MDC, Automatic Call Distribution (ACD), RES, and call management service (CMS) lines for telephone sets with display capabilities.

Table IBNLINES (IBN Line Assignments) is automatically datafilled when this option is assigned to an IBN or RES line using SERVORD.

Note: The external symbol for option CID is NTS_CID, which is used when accessing the line option in SERVORD.

800 Dialed Number Identification Delivery (DNID)

Option DNID enables the end-user to display the 800 number dialed by the calling party. This line option is supported on MDC, ACD, RES, and CMS lines for telephone sets with display capabilities.

Table IBNLINES is automatically datafilled when this option is assigned to an IBN or RES line using SERVORD.

Previously, line option DNID was available only for customer groups.

Table IBNLINES is automatically datafilled when this option is assigned to an IBN or RES line using SERVORD.

Note: The external symbol for option DNID is NTS_DNID, which is used when accessing the line option in SERVORD.

Automatic Call Back (ACB)

Option ACB can be assigned only to a line with an LCC of RES. ACB enables an end-user to place a call to the last station called. The previous state of the line does not affect ACB.

Option ACB is similar to the Ring Again (RAG) feature, but is used in the public network.

For option ACB, the called station can be served by the same switch (intranode) or a different switch (internode). Internode ACB requires Common Channel Signaling 7 (CCS7) to communicate between the originating and destination node.

When the end-user completes the activation procedure, the busy/idle and class of service status of the called line are checked. When the terminating line is idle and the class of service permissible, call setup is attempted. If the call cannot be completed immediately due to a busy line, the call is queued. Call completion is attempted when both stations are idle. As part of the completion attempt, the calling station is given special ringing (two short rings and one long ring within 6 s). When the subscriber (calling party) answers, the call is set up and the called station is given regular ringing.

The activation and deactivation codes for this option are assigned in table IBNXLA (IBN Translation).

The number of lines on which this option can be active at one time is dependent on the software resources provided by office parameters NO_OF_MEDIUM_EXT_BLKS, FTRQAGENTS, FTRQ8WAREAS, and FTRQ16WAREAS in table OFCENG (Office Engineering).

AMA Test (AMATEST)

Option AMATEST designates an originating or terminating IBN or POTS line as an automatic message accounting (AMA) test call line.

If a call to or from a line with option AMATEST enabled produces a billing record, a 1 appears in the fourth character of the Study Indicator field.

Automatic Recall (AR)

Option AR can be assigned only to a line with an LCC of RES. Option AR allows end-users to place a call to the last station that called them. The previous state of the line does not affect AR.

For option AR, the called station can be served by the same switch (intranode) or a different switch (internode). Internode AR requires the CCS7 signaling system to communicate between the originating and destination node.

When the end-user completes the activation procedure, the busy/idle and class-of-service status of the called line are checked. When the terminating line is idle and the class of service is permissible, call setup is attempted. If the call cannot be completed immediately, it is queued and call completion is attempted when both stations are idle. As part of the completion attempt, the calling station is given special ringing (two short rings and one long ring within 6 s). When the end-user (calling party) answers, the call is set up and the called station is given regular ringing.

The activation and deactivation codes for this option are assigned in table IBNXLA.

The number of lines on which this option can be active at one time depends on the software resources provided by office parameters NO_OF_MEDIUM_EXT_BLKS, FTRQAGENTS, FTRQ8WAREAS, and FTRQ16WAREAS in table OFCENG.

Automatic Recall Dialable Directory Number (ARDDN)

Option ARDDN voices which digits to dial to place a call to the last station that called. These digits are known as the dialable directory number (DDN).

Call Hold (CHD)

Option CHD allows the end-user to hold one call for any length of time by dialing the CHD access code, provided that neither party goes on-hook. The station can then originate a call to another line or instigate another task, such as programming a speed call list. The caller can retrieve the held call by going on-hook, in which case the caller is re-rung, or by flashing the switchhook and reactivating CHD.

The number of lines on which this option can be active at one time is dependent on the availability of the software resources provided by office parameters FTRQAGENTS, NUMCPWAKE, FTRQ2WAREAS, NO_OF_FTR_CONTROL_BLKS, NO_OF_SMALL_FTR_DATA_BLKS, NO_OF_MEDIUM_FTR_DATA_BLKS, and NO_OF_LARGE_FTR_DATA_BLKS in table OFCENG.

See operational measurements (OM) group CALLHOLD for the OMs associated with this feature.

Calling Line Identification with Flash (CLF)

Option CLF allows the called party to hold the connection in the switching unit on a malicious call by flashing the switchhook and staying off-hook. As a result, an alarm is generated in the switching unit. See software alarm table SFWALARM for details. Where both the calling and called parties are terminated in the switching unit, the entire connection is held until the called party goes on-hook. Where the call is on an incoming trunk and terminates within the switching unit, the connection is held back to the incoming trunk.

Calling Name Delivery Blocking (CNAB)

Option CNAB allows calling parties to control, for each call, the availability of their name for display to the terminal equipment of terminating subscribers with Calling Name Display (CNAMD).

The activation code for this option is assigned in table IBNXLA.

Calling Number Delivery Blocking (CNDB)

Option CNDB allows calling parties to control, for each call, the availability of their directory number (DN) for display to the terminal equipment of called parties with Calling Number Delivery (CND).

The activation code for this option is assigned in table IBNXLA.

Calling Number Delivery Blocking Override (CNDBO)

Option CNDBO overrides the Calling Line Identification Display (CLID) presentation restrictions at the terminating end of a call and can be used for calls terminating on emergency services agents to display calling party numbers which would otherwise be restricted. Calling name delivery is unaffected. Line option CNDBO is assignable to Integrated Voice Data (IVD), MDC, RES, and IBN lines and is assigned to each line individually by SERVORD. Option CNDBO is also assignable to attendant consoles (AC) through table CUSTSTN (Customer Group Station Option) on a customer-group basis.

Calls originating on ACs that terminate on display sets with option CNDBO assigned have the common language location identifier (CLLI) of the originating party displayed. CNDBO has no effect on line-to-AC calls. The display of the calling number on line-to-AC calls is never restricted.

This option is specific to the appearance of the DN. If CNDBO is to be added to a set that has multiple DN appearances, CNDBO must be added to each DN individually. Option CNDBO is packaged separately from every other option; that is, it cannot be packaged together with other options.

Call Redirect (CRT)

Call Redirect (CRT) provides residential subscribers with the ability to transfer objectionable calls to a pre-defined routing directory number (DN). The transfer occurs when the subscriber flashes and dials the CRT access code during an established two-party call. On successful activation, the subscriber receives a confirmation treatment defined by the operating company.

Operating company personnel can define the routing DN to route incoming calls, to a local tone or announcement or to an external platform, after CRT activation. The CRT feature is available to all residential line subscribers in an office on a pay-per-use (PPU) billing basis. Assign the CRT option to a residential subscriber line to bill the feature on a subscription basis. Only the terminator in a two-party call can activate CRT.

Call Redirect Deny (CRTDENY)

Assign the CRTDENY option to deny the CRT feature on individual residential subscriber lines in an office.

Call Transfer Warning (CTW)

Option CTW provides a series of distinct warning tones to alert conferees in a three-way call or call transfer that the controlling (transferring) party is still connected to the call. This alert prevents a situation in which the controlling party can monitor a conversation without the knowledge of the other two parties.

Call Waiting (CWT)

Option CWT alerts the station that it is being called by a third party while talking in a stable state to another party. The call is not waited if it is an intragroup call except when option CWI is also assigned. The basic CWT option only applies to attendant extended, Direct Inward Dialing (DID), Enhanced Private Switching Communication System (EPSCS), and tie trunk calls.

The number of lines on which option CWT can be active at one time is dependent on the availability of the software resources provided by office parameters FTRQAGENTS, NMULTIBLKS, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKS, NO_OF_SMALL_FTR_DATA_BLKS, NO_OF_MEDIUM_FTR_DATA_BLKS, NO_OF_LARGE_FTR_DATA_BLKS, and NUMCPWAKE in table OFCENG.

See OM group CALLWAIT for the OMs associated with this feature.

As of BCS33, the addition of option CCW to a RES line is disallowed if the line does not have the CWT option. Attempts to remove option CWT from a RES line without also removing option CCW are also denied.

Call Waiting Conference (CWTC)

Option CWTC assigns the call waiting conference functionality to a subscriber line. The subscriber can conference a waiting party when involved in an existing call waiting call.

Call Waiting Exempt (CWX)

Option CWX prohibits CWT from being imposed on the line if the calling station has either the Dial Call Waiting (CWD) or Call Waiting Origination (CWO) features when the station is busy.

Call Waiting Intragroup (CWI)

Option CWI allows call waiting of intragroup calls. This option can be assigned only to stations that have option CWT.

When line A, which has Dial Call Waiting (CWD) or Call Waiting Originator (CWO), calls a busy line B, which has Call Waiting (CWI) and imposes call waiting, then CWI takes precedence over CWD or CWO.

The number of lines on which option CWI can be active at one time is dependent on the availability of the software resources provided by office parameters FTRQAGENTS, NMULTIBLKS, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKS, NO_OF_SMALL_FTR_DATA_BLKS, NO_OF_MEDIUM_FTR_DATA_BLKS, NO_OF_LARGE_FTR_DATA_BLKS, and NUMCPWAKE in table OFCENG.

See OM group CALLWAIT for the OMs associated with this option.

Call Waiting Origination (CWO)

Option CWO permits call waiting on a busy line that does not have CWX. This option applies to intragroup calls. While the originator is call waited, either an audible ringback tone, a recorded announcement, or music is provided as specified by treatment option CWO in table CUSTSTN.

The number of lines on which option CWO can be active at one time is dependent on the availability of the software resources provided by office parameters FTRQAGENTS, NMULTIBLKS, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKS, NO_OF_SMALL_FTR_DATA_BLKS, NO_OF_MEDIUM_FTR_DATA_BLKS, NO_OF_LARGE_FTR_DATA_BLKS, and NUMCPWAKE in table OFCENG.

See OM group CALLWAIT for the OMs associated with this option.

Call Waiting Ringback (CWR)

Option CWR applies to lines that have option CWT. When present on the terminating line, CWR provides a distinctive ring cadence to the caller indicating whether the destination is idle or engaged in another call.

If the destination is idle, standard audible ringback is returned to the caller. If the destination is engaged in another call, a distinctive audible ringback is returned to the caller. This ringback consists of the following sequence: 1200 ms of audible ringing tone, 400 ms of silence, 400 ms of audible ringing tone, then 4 s of silence.

For example, station A makes a call to station B that has line options CWT and CWR. If station B is idle, standard audible ringback is returned to station A and ringing is started on station B. If station B is engaged in a stable two-port call, distinctive audible ringback is returned to station A and a call-waiting tone is sent to station B.

If the destination has option CWI as well as option CWT, a distinctive, audible ringback is provided for callers in the customer group as well as external callers. Cases where the destination is not available for CWT are not affected by this option.

Cancel Call Waiting (CCW)

Option CCW determines if Cancel Call Waiting is permitted. This option acts differently for RES and MDC lines. For RES lines, office parameter CCW_WAITING must be set to Y. For both RES and MDC lines, an access code must be assigned for CCW in table IBNXLA.

As of BCS33, the addition of option CCW to a RES line is disallowed if the line does not have option CWT. Attempts to remove option CWT from a RES line without also removing option CCW are denied.

Coin lines (COIN)

Option COIN is introduced in MMP15 for the Turkey market only. COIN enables a regular IBN line to be used as a coin line. Hardware metering is done for the IBN lines which have this option.

Common Control Switching Arrangement (CCSA)

Option CCSA identifies an IBN line as a member of a common control switching arrangement (CCSA) facility. A CCSA network provides private communications facilities between MDC and private branch exchange (PBX) customer locations.

When an IBN line assigned option CCSA originates a call, an automatic message accounting (AMA) record is generated, identified by call code 021. This AMA record is identified by call code 021 only if the call is non-billable (NP in subtable STDPRT) and option CCSA is assigned to the originating IBN line.

Generation of an AMA record, identified by call code 021, is dependent on the attributes of the originating station.

Customer Data Change (CDC)

Option CDC is available for lines assigned to customer groups that have the Customer Data Change feature.

When assigned to a line, this option automatically adds the corresponding tuple in table CDCLENS (Customer Data Change Line). The option can be deleted using table CDCLENS only.

Customer Originated Trace (COT)

Option COT gives the end-user the ability to activate a trace of the last incoming call. The trace generates an output report using the log subsystem. Information about a possibly malicious call is made available to the operating company, although not to the end-user who initially activated the trace.

Since COT is end-user activated and requires no operating company intervention (except the administration of the COT table control or service order and COT log stream), the potential exists to eliminate many of the costs currently associated with the tracing of malicious calls.

The two-digit access code for activation and deactivation of this option is datafilled in table IBNXLA.

The announcements associated with option COT are assigned in tables ANNS (Announcement), ANNMEMS (Announcement Members), DRAMTRK (Digital Recorded Announcement Machine Track), and RESOFC (Residential Line CLASS Office Data).

See OM group OTS for the OMs associated with this option.

Cutoff on Disconnect (COD)

Option COD is assigned to lines that require cutoff on disconnect.

Deny Call Waiting Conference (DENYCWTC)

Option DENYCWTC denies the call waiting conference functionality on a per-line basis. The operating company can deny the call waiting conference functionality on a line when the feature is offered office-wide or on a customer group basis.

Deny In-Session Activation

This option allows the operating company to deactivate ISA permanently on the line.

Deny Suppressed Ringing Access (DENYSRA)

This option is used to deny the SRA feature when SRA is deployed on an office-wide basis.

Deny Three-Way Calling Usage Sensitive (DENYU3WC)

This option can be assigned to a RES line or POTS line when the end-user does not want access to U3WC. When this option is added to a line, the flash privilege remains as long as there are other flashable options. If, however, there are no other flashable options on the line, then the flash privilege is removed. When this option is deleted from a line, the flash privilege must be given to lines which are U3WC compatible.

Denied Call Forwarding (DCF)

Option DCF prevents the receipt of any incoming forwarded call.

Denied Originating Service (DOR)

Option DOR is assigned to any line where the end-user can receive calls only. If a line with DOR attempts to originate a call, the line is routed to originating suspended service (ORSS) treatment in the Line Treatment table.

Denied Terminating Service (DTM)

Option DTM is assigned to any line where the end-user can originate calls only. If translation attempts to terminate to a line with denied terminating service, translation is routed to denied terminating treatment (DNTR) in the Line Treatment table.

Dial Call Waiting (CWD)

Option CWD permits call waiting on a busy station that does not have Call Waiting Exempt (CWX).

This feature can be activated in the following ways:

- When the calling party goes off-hook, the party can dial the CWT activation code, followed by the DN of the called party.
- When the calling party encounters a busy signal, the party can flash and dial the CWT activation code.

If the called station is busy, the caller hears either an audible ringback tone, a recorded announcement, or music as specified by treatment option CWD in table CUSTSTN. This originating line option is applicable to intragroup calls.

The number of lines on which this option can be active at one time is dependent on the availability of the software resources provided by parameters FTRQAGENTS, NMULTIBLKS, NUMPERMEXT, NO_OF_FTR_CONTROL_BLKS,
NO_OF_SMALL_FTR_DATA_BLKS,
NO_OF_MEDIUM_FTR_DATA_BLKS,

NO_OF_LARGE_FTR_DATA_BLKS and NUMCPWAKE in table OFCENG.

See OM group CALLWAIT for the OMs associated with this option.

Directed Call Park (DCPK)

Option DCPK provides IBN lines with 500/2500 sets the capability of parking one call against any valid IBN station DN in the customer group, from where it can later be retrieved by any station.

If the line has the SEC feature assigned in table IBNFEAT, it allows the use of a variable-length security code with this feature.

The security code can be variable in length, but it must contain at least one digit and can be a maximum of seven digits long. When dialing the security code, the system waits for seven digits to be collected before it times out. An octothorpe (#) can be entered by the end-user to signify end of digit dialing.

If a call is parked against a DN that has the SEC feature assigned in table IBNFEAT, the retriever is prompted by tone to enter the security code following the request for retrieval and digit entry of the DN that the call is parked against.

Any IBN station with a 500/2500 set is capable of retrieving parked calls, regardless of whether that station has option DCPK assigned.

The following events can occur during DCPK retrieval:

- If no call is parked against the dialed DN, the retrieving party receives reorder. At this point, the end-user must restart the retrieval process.
- If an invalid security code is entered, the retriever receives reorder. The call remains parked and recalls the parker if the correct security code is not entered.

This option can be considered an enhanced version of the Call Park feature, since it adds the capability of parking a call against any valid IBN station DN (as opposed to only that of the parker) and the option of a security code.

To cancel the call park request, either party can flash the switchhook. The feature is automatically canceled, and the flash is handled as usual, invoking either 3WC or call waiting answer.

Any IBN station can retrieve a call parked by option DCPK by dialing the call park retrieve code and the DN of the station the call is parked against and the security code (if required).

When a call has entered the held state, a timer (Station Call Park Timer) is started to recall the parker upon time-out. The timer is canceled when the call is unparked or recall occurs.

The recall timer can be set to recall the parker within 12 to 240 s. If the recall is never answered, the parkee remains parked until exit occurs. The recall timer can be set to 0 (zero) indicating that no recall is to take place. The parkee hears a previously assigned audio announcement until the call is unparked or exit occurs.

Once the recall has been answered, the call is in a normal talking state and other features can now be activated.

A recall to a busy station causes the recall timer to be reset. The parked party remains parked and continues to hear an assigned audio announcement until the call is retrieved or the parker goes on-hook and is now able to answer the recall.

Attempts to park more than one call on a given DN are denied since the feature imposes a restriction of one parked call for each DN.

For each customer group, it is possible to impose a limit on the number of simultaneously parked calls against DNs belonging to the same customer group. When this limit is reached, further attempts at parking calls from members of that group are denied.

Attempts to activate this feature on calls that are not in the talking state or on calls that are incompatible with this feature are considered invalid DCPK attempts.

The following types of calls are incompatible with the DCPK feature:

- calls involving an operator position or an AC
- conference calls and calls in which other features are in effect
- calls on which the Calling Line Identify with Flash or Malicious Call Hold features have been activated

For DCPK store to function on 500/2500 sets, each station must either be assigned the 3WC feature or must belong to a customer group having the customer group option CPK retrieval functions on any set, regardless of feature assignments.

Since an end-user must already have the CPK feature before assigning option DCPK, this option uses the existing OM registers for peg counts. These registers are moved to the OM group PRKOM. Another register, DCPKSUCC, pegs the number of calls successfully parked using feature DCPK.

Table CUSTHEAD defines customer group resources. Call Park Audio treatment (CPK_AUDIO) and the maximum number of parked calls allowed for each customer group (CPKMAXNO) are used for both CPK and DCPK. Table CUSTSTN defines parameters that are applicable to station features. The CPK recall timer, CPKRECTO, is defined in this table and is also used by both CPK and DCPK.

Directed Call Pickup Barge-in (DCBI)

Option DCBI permits a station to answer a call that is ringing on any other line within the same customer group by dialing the Directed Call Pickup (DCP) access code. If the call is answered by the called station, the DCBI station can barge in to the answered call and be connected into a three-way call configuration.

Directed Call Pickup Barge-in Exempt (DCBX)

Option DCBX blocks any attempt by another station with option DCBI to barge in if the call has been answered by the called station.

Directed Call Pickup Non-Barge-in (DCPU)

Option DCPU allows a station to answer a call ringing on any other line in the same customer group by dialing the DCP access code. Access can be gained if the call is not answered by the called station when the dialing sequence is completed.

Directed Call Pickup Non-Barge-in Exempt (DCPX)

Option DCPX blocks any station assigned with DCBI or DCPU from picking up a call ringing on this station.

SCWID with Disposition (DSCWID)

Option DSCWID allows the subscriber to receive calling party information during call waiting and presents a set of incoming call disposition options to treat the waiting call. After the subscriber hears the call-waiting tone that indicates a call is waiting, the customer premise equipment (CPE) display is updated with the call-waited party identification and with a display of softkey options from which the subscriber can choose a treatment for the waiting call.

DTMF Calling Number Delivery (DCND)

Option DCND sends the number of the calling party to an analog line using dual tone multi-frequency signaling (DTMF) tones. The called party receives the DN just prior to ringing.

Executive Busy Override Originator (EBO)

Option EBO allows a line to gain access to a busy line by flashing the switchhook during the busy tone and then dialing an access code. The EBO must be assigned an IBN line connected to a busy tone.

Executive Busy Override Exempted (EBX)

Option EBX specifies that the line is exempt from override attempts.

Essential Line Service (ELN)

Option ELN applies to lines that are allowed to originate calls when line load control is active on the switching unit.

Exit On Flash (EOF)

On TMX100 switches, hook flash is only enabled on those RES lines that have flash features assigned. Most of these customers do not use flash features. RES customers without hook flash features who flash are treated as exiting the current call and receive standard dial tone, allowing them to initiate a new call. When TMX100 sites migrate to ISN04 or later, customers are converted from RES to IBN line functionality and, by default, have hook flash enabled and will get second dial tone if they Flash (go on/off hook) instead of Exit. With the EOF option, it will allow the IBN line to Exit on Flash.

Extended Call Management (ECM)

Option ECM allows an external host computer to associate to non-ACD lines. Association to a line is done from the host computer by sending a DV_DN_ASSOCIATE message containing the DN of the line. All non-ACD lines with the option ECM can be associated to a host computer provided the host computer and the line belong to the same customer group and the line is not associated with another host computer at that time. A host computer can associate itself to a maximum of 2000 non-ACD lines on an SCAI session.

FAX-Thru Service (FTS)

Option FTS is a subscribed service offered only following correct provisioning. FAX callers are offered a call completion service when they encounter a line that is busy or is not answered within a specified length of time. FAX calls are routed to a FAX messaging platform that attempts to forward the message to the busy or unanswered line at a later time.

Feature Group (FTRGRP)

Option FTRGRP is assigned to lines that belong to a feature group identified in table FTRGMEMS (Feature Group Members). Option FTRGRP appears in field OPTLIST when the line's tuple in table IBNLINES is displayed.

Option FTRGRP cannot be added or deleted from table IBNLINES. This option appears when table FTRGMEMS is datafilled.

Free Number Terminating (FNT)

Option FNT is assigned when a charge condition is not to be returned to a terminating call. This option applies to local or Extended Area Service (EAS) calls.

Ground Loop Test Cancel (GLTC)

Option GLTC can be assigned to individual lines to override a Y setting of parameter PER_CALL_GND_LOOP_TEST in table OFCVAR (Variable Office Parameter). As a result, the performance of the ground loop test is not allowed. If PER_CALL_GND_LOOP_TEST is set to N in table OFCVAR, option GLTC has no effect, since ground loop tests are off on a global office basis.

The PER_CALL_GND_LOOP_TEST tuple in table OFCVAR determines if a ground loop test is performed before terminating to a ground start line. If the PER_CALL_GND_LOOP_TEST tuple in table OFCVAR is set to Y and option GLTC is not assigned, a ground loop test is performed on all terminations to all ground start lines. The PER_CALL_GND_LOOP_TEST tuple controls the ground loop test on a global office basis.

The ground loop test applies only to LCCs of IBN, 1FR, and 1MR.

In Call Service Deactivation (ICSDEACT)

The ICSDEACT option prevents the service(s) specified in fields BSYMODE and RNAMODE in table SDSINFO from being offered to a line. Typically, this line option is added by the end user using the ICSCTRL feature, otherwise it is assigned using the service order utility (SERVORD). For more information on the services that can be specified using fields BSYMODE and RNAMODE, consult the Access to Messaging feature, RES00077 and the Enhanced Busy Call Return (EBCR) feature, RES00076.

Incoming International Call Barring (IICB)

The IICB is a system feature which is assigned and removed using ADO and DEO Service Order commands. Its activation and deactivation can only be processed by telephone agency personnel.

The IICB option is supported for both RES and ISDN for incoming international calls from ISUP and FDCP trunks. If an international call attempts to terminate on a line with the IICB line option, the call is cleared and the “Call Not Allowed” treatment is returned on the trunk carrying the incoming call.

Ignore Flash (FIG)

Option FIG is assigned to lines for which the switching unit must ignore flash signals.

Inhibit Line Busy (ILB)

Option ILB inhibits Call Forward Busy (CFB) service whenever a line is actually busy. Incoming calls cannot be forwarded when the line is busy.

Inhibit Make Busy (IMB)

Option IMB is used in conjunction with option MBK. When MBK is activated on a line that is also assigned option IMB, an incoming call cannot be forwarded and a busy tone or user-defined treatment occurs.

Inhibit Ring Reminder (IRR)

Option IRR turns off the ring reminder for a line with the Call Forwarding feature. A line with option IRR still call forwards, but without a ring reminder.

In-Session Activation Deactivation (ISADEACT)

This option indicates that the end users deactivated ISA indefinitely on the line.

Last Number Redial (LNR)

Option LNR permits redialing of the last number dialed by using a single key instead of dialing the full number. Every time a number is dialed, it is stored as the LNR number. LNR can be activated either by pressing the octothorpe (#) key for 2500 sets, dialing the access code datafilled as the # equivalent for 500 sets, or by dialing the LNR access code datafilled in table IBNXLA.

The number of lines on which option LNR can be active at one time is dependent on the availability of the software resources provided by office parameters FTRQAGENTS, FTRQ2AREAS, FTRQ4AREAS, and FTRQ8WAREAS in table OFCENG.

See OM group LNREDIAL for the OMs associated with this option.

Line Reversal on Seizure (LRS)

Line Reversal on Seizure (LRS) prevents a user from making a call on a line when another call is coming in on the same line. The user must answer the incoming call before making another call. LRS is available on IBN lines.

Local Call Detail Recording (LCDR)

Option LCDR is assigned to lines if details of all local calls originated by a line are recorded on the AMA tape and the office is arranged for local automatic message accounting (LAMA). This option must be assigned to an INWATS line if the count of calls to the line is required. This option affects the value of parameters NUM_OF_BC_LAMA_UNITS or NUM_OF_NT_RECORDING_UNITS in table OFCENG.

Long Distance Signal Active (LDSA)

This option allows temporary activation/deactivation of the Long Distance Signal (LDS) functionality on a per-line basis by one of the following methods:

- the subscriber dialing the LDA activate (LDSA) code (*49 or 1149). The code acts as a toggle: if the LDSA option is provisioned on the subscriber's line, *49 removes (deactivates LDSA) the option; otherwise, *49 adds (activates LDSA) the option.
- the operating company activates or deactivates the LDSA option using SERVORD or table editor.

Note: LDSA can be added to a line only if the line already has the LDSO, LDSR, or LDST option assigned or if the LDSO, LDSR, or LDST option is being added at the same time.

Long Distance Signal Option (LDSO)

This option indicates that LDS is allowed on a line. LDSO is assigned on a per-line basis using SERVORD or table editor.

Note: The LDSO option cannot be removed from a line unless the LDSA option has been removed from a line or is being deleted at the same time.

Long Distance Signal Ring (LDSR)

This option indicates that LDA is allowed on a line. Option LDSR is assigned on a per-line basis using SERVORD or table editor.

Note: Option LDSR is one of a group of LDA distinctive alerting options, consisting of LDSR, LDST, and LDSO. Only one of these options can be assigned to a given line. The distinctive alerting option

cannot be removed from a line unless option LDSA has been removed or is being deleted at the same time.

Option LDSR is not automatically provisioned. Option LDSO is automatically provisioned if LDSR or LDST is not already present on the line.

Options LDSA and LDSO, LDST, or LDSR are removed if option LDSV is not provisioned against the line group. Automatic provisioning and deprovisioning occur at the next call termination or the *49 invocation.

Long Distance Signal Tone (LDST)

This option indicates that LDA is allowed on a line. Option LDST is assigned on a per-line basis using SERVORD or table editor.

Note: Option LDST is one of a group of LDA distinctive alerting options, consisting of LDSR, LDST, and LDSO. Only one of these options can be assigned to a given line. The distinctive alerting option cannot be removed from a line unless option LDSA has been removed or is being deleted at the same time.

Option LDST is not automatically provisioned. Option LDSO is automatically provisioned if LDSR or LDST is not already present on the line.

Options LDSA and LDSO, LDST, or LDSR are removed if option LDSV is not provisioned against the line group. Automatic provisioning and deprovisioning occur at the next call termination or the *49 invocation.

Make Set Busy All Calls (MSB)

Option MSB permits end-users to make their line busy or available to all incoming calls by dialing the MSB activation or deactivation code. While MSB is active on a line, any external incoming calls that normally terminate on the line are given the treatment specified in table CUSTSTN. If the treatment is not specified, external calls receive busy tone as the default treatment. Intragroup calls always receive busy tone. When a call is diverted, a momentary ring splash of ringing (500 ms) is applied to the line to serve as a reminder that MSB is active.

Make Set Busy Intragroup (MSBI)

Option MSBI permits end-users to make their line busy or available to intragroup calls (internal) by dialing the MSBI activation or deactivation code. External calls are not blocked. Intragroup calls blocked while MSBI is active always receive busy tone. When a call is diverted, a momentary ring splash of ringing (500 ms) is applied to the line to serve as a reminder that MSBI is active.

No Collect Call (NOCOLL)

Option NOCOLL prevents a caller from making a collect call to a coin telephone. A tone generates to warn the operator that the caller is making a collect call to a coin telephone. The operator can refuse to connect the call when the called party answers the phone.

No Double Connection (NDC)

Option NDC is assigned to lines that are not to be connected to a verification or test circuit when the line is busy.

No Hazard Test (NHT)

Option NHT allows the operating company to prevent the line hazard test (LHT) from running on specific lines. The NHT is valid for line cards 2X17, 2X18, 6X17AC, 6X18AA and AB, and 6X19. Any attempt made to add this line option to another line card type results in an error message. Office parameter LINE_CARD_MONITOR in table OFCVAR is responsible for enabling or disabling the line hazard test for the entire office. The LHT tests the line for a line hazard condition, for instance, low resistance, ring-to-ground fault, or high voltage on the subscriber's loop.

No Line Insulation Test (NLT)

Option NLT is assigned to lines that are to be skipped by the automatic line insulation test.

No Receiver Off-Hook Tone (NOH)

Receiver off-hook tone is not transmitted to lines with option NOH when the lines have a permanent signal or partial dial condition.

Operator Number Identification (ONI)

Option ONI is assigned to lines that require operator number identification (ONI). Lines that are not assigned this option are assigned as automatic number identification (ANI) lines.

Park (PRK)

Option PRK is assigned to stations that are allowed to park a call against their own DN.

Permanent Hold (HLD)

Option HLD allows an end-user with a 500/2500 set to hold one active call against its own DN without attendant assistance. To accomplish this, the station with option HLD must flash and dial the HLD access code.

The station with option HLD can go on-hook while the other party is on hold but cannot perform another task (originate a call or instigate speed call programming).

The station that placed the call on hold can retrieve that call in either of the following ways:

- if on-hook, go off-hook
- if off-hook, go on-hook and then off-hook

Prevent Deletion Option (PDO)

The PDO prevents the removal of a line from service. If you try to remove a line from service that has PDO assigned, an error message displays and the command fails.

Plug Up (PLP)

Option PLP is assigned to lines that are in the plug-up state.

Priority Indication (PRI)

Option Priority Indication (PRI) allows network calls that originate from a PRI line to complete to overloaded or network congested exchanges.

Remote Message Register for Local Calls (RMR)

Option RMR is a line option that provides tip-and-ring reversal on answer for local calls. The RMR option applies a line reversal for each answered call originating from a line with this option. This option is used on hotel lines to indicate that a charge is due for a local call.

Remote Message Register for Non-Local Calls (RMT)

Option RMT provides tip-and-ring reversal on answer for calls other than local calls, for example, toll calls, operator-assisted calls, and direct-dialed calls. Option RMT provides an indication on the terminal end of the loop that a call from a line with option RMT has been answered. This option is used on hotel lines to indicate that a charge is due for a non-local call.

Residential Call Hold (RCHD)

Option RCHD allows an end-user to flash the switchhook during a call, dial an access code, and place the call on hold. The call is recognized once the line returns to an off-hook condition.

Restricted Sent Paid (RSP)

Option RSP is assigned to lines that have an LCC of Zero Minus Denied (ZMD) or Zero Minus Zero Plus Allowed (ZMZPA) assigned in table LINEATTR. This option outpulses the ANI information digit 7 (ANI information digit 2 in the case of ANI fail) plus the calling party's DN.

This option supersedes the action caused by the setting of field HOT in table LINEATTR. This option can be used only if the Coinless Pay Station feature has been purchased.

Ring Again (RAG)

Option RAG permits the station user to be notified when the busy number becomes idle and automatically re-access the same number. The RAG Recall Timer (RAGTIM) specified in table CUSTSTN gives the length of time the station has to pick up the RAG recall. Option RAG is applicable only if the called station is in the same customer group.

Secondary Language (SL)

Option SL applies to a line that receives announcements in the language specified in field SECONDARY for parameter OFFICE_LANGUAGE in table OFCENG.

If this option is not assigned, a line receives announcements in the language specified in field PRIMARY for parameter OFFICE_LANGUAGE in table OFCENG.

This option is applicable only to the announcements associated with the Automatic Call Back (ACB), Automatic Recall (AR), Calling Number Delivery (CND), and Call Forwarding Remote Access (CFRA) features. See table RESFEAT (Residential Line Feature) for a description of Calling Number Delivery (CND).

Short Timed Release Disconnect (STRD)

Option STRD provides the capability to cancel Long Timed Release Disconnect (LTRD) on line-to-trunk calls. LTRD is used to keep a call connection up across the network for a specified amount of time after the called party has gone on-hook. The DMS switch determines to which calls LTRD is applied. If STRD is applied to a line, LTRD is disabled for that call. Option STRD affects line-to-trunk calls on the following trunk group types: ATC, intertoll (IT), SuperCAMA (SC), TOPS, and outgoing end office (T0).

Office parameter SHORT_TIMED_RELEASE_DISC_TIME in table OFCSTD controls STRD.

Single Line Variety Package (SLVP)

Option SLVP includes these services: SLVP Intercom, SLVP Transfer, and SLVP Hold. With these services, distinctive ringing patterns are available to alert specific persons or extensions.

Four access codes are defined by the operating company for use by SLVP. Three of these codes determine which distinctive ringing

patterns are applied to the line when using the SLVP Intercom or SLVP Transfer service. The fourth access code is used for SLVP Hold.

Special Delivery Service (SDS)

The SDS option assigns the service(s) specified in fields BSYMODE and RNAMODE in table SDSINFO to a line. For more information on the services that can be specified using these fields, consult the Access to Messaging feature, RES00077 and the Enhanced Busy Call Return (EBCR) feature, RES00076. Option SDS and option SDSDENY cannot be assigned to the same line.

Special Delivery Service Deny (SDSDENY)

When assigned to a line, option SDSDENY prevents the service(s) specified in fields BSYMODE and RNAMODE in table SDSINFO from being offered on that line, even if customer group option SDS is assigned to a customer group of which the line is a member, or if the specified service(s) is offered office wide using Universal mode. For more information on the services that can be specified using fields BSYMODE and RNAMODE, consult the Access to Messaging feature, RES00077 and the Enhanced Busy Call Return (EBCR) feature, RES00076. Option SDSDENY and option SDS cannot be assigned to the same line.

Spontaneous Call Waiting Identification (SCWID)

Option SCWID identifies a waiting call to the end-user on a display while talking in a stable state to another party. SCWID is a RES option and must be entered using SERVORD. SCWID can be assigned to LCCs of RES, 1FR, and 1MR. Option SCWID can also be made compatible with an LCC of IBN with feature CLASS Multiline Variety Plan (MVP) and with LCCs of OWT and EOW with wide area telephone service (WATS) on RES.

When the last remaining display option is deleted from a line with option SCWID, SCWID must be deleted at the same time or must have already been removed. If option CWT is removed from a SCWID line, option SCWID must be removed first. A warning message notifies the operating company personnel to remove option SCWID first.

If line option SCWID is added to a line that subtends from a peripheral type that supports the CMR card but does not have it datafilled, a warning is output during the addition of the display option. Option SCWID can still be added to the line.

If the CMR is not in service at the time of call waiting, regular call-waiting tones are sent.

When option SCWID is added to a line that subtends from a peripheral type that does not support the CMR card, an error message is output indicating the peripheral type does not support the CMR card. As a result, the SCWID option is not added to the line.

Station Message Detail Recording (SMDR)

Option SMDR is available only in a switching unit that has the Station Message Detail Recording (SMDR) feature and field KEY in table CRSFMT (Call Record Stream Format) set to NTFMT.

This option is assigned to a line if details of all local calls originated by the line are to be recorded on AMA tape. All entries on the AMA tape are in the SMDR format.

This option can only be assigned in a switching unit that has the option SMDR_OFFICE equal to Y in table OFCOPT.

The number of lines that can have this option is dependent on the value of office parameter NO_OF_SMDR_REC_UNITS in table OFCENG.

Station Origination Restrictions Controller (SORC)

Option SORC allows the DN to apply a restriction level (0, 1, 2, 3, or 4) against another DN or a group of DNs in the same customer group. To group DNs, option SOR must be applied against an IBN line in table IBNLINES or against a Meridian business set (MBS) in table KSETLINE.

A level 0 restriction permits completion of all calls allowed by the network class of service (NCOS). A level 1 restriction allows completion of only intragroup calls and calls specified in an exception list. A level 2 restriction allows completion of only the intragroup calls. A level 3 restriction allows completion of only calls specified in an exception list. A level 4 restriction allows only 911 emergency calls.

Suspended Service (SUS)

Option SUS is assigned to lines that have originating and terminating service suspended.

Three-Way Calling (3WC)

Option 3WC enables the end-user on the assigned line to add another party to an existing connection for a three-way conference.

This option affects the value of office parameters NUMPERMEXT, NMULTIBLKS, and NO_OF_FTR_CONTROL_BLKS in table OFCENG.

When an IBN station is a hunt line, its hunt group and hunt group member number assignments are listed in tables HUNTGRP (Hunt Group) and HUNTMEM (Hunt Group Member), respectively.

Time and Charge Services on 1+ Calls (ATC)

Option ATC applies to lines with the time and charge option. With this option the NX1D prints the call details at a printer for all 1+ calls. Operating company personnel then calculate and phone the charges back to the end-user.

Toll Essential Service (TES)

Option TES applies to lines that are allowed access to the toll network when all other lines are denied access to it through the activation of toll network protection. All lines with option TES also have option ELN.

Uniform Call Distribution (UCD)

Option UCD permits distribution of calls evenly among a number of predetermined sets by dialing the UCD activation code followed by the UCD DN of the group. The line activating UCD must be in the same customer group as the UCD group. To deactivate UCD, the station dials the deactivation code.

Uniform Call Distribution Logged In Indication (UCDLI)

Option UCDLI provides the option of logged in indication for UCD agents with standard sets by applying stuttered dial tone to an agent when the agent goes off-hook. Option UCDLI has no sub-field requirements. Option UCDLI has no sub-field requirements. Additionally, the UCD option must already exist on the line that the option UCDLI is being added to. Similarly, the UCDLI option not existing on a line, is a prerequisite to deleting the UCD option.

VMEADENY

This option denies use of the access code for Voice Mail Easy Access feature. VMEA is a service offered to residential subscribers that provides an integrated access to a voice messaging service from an End Office (EO) by dialing an access code. Customers who have subscribed to a voice messaging service have the ability to directly access their voice mailboxes by dialing the access code from their home telephone set.

Who’s Calling

The Who's Calling (WC) feature requests, records, and delivers a caller's name for lines defined as private or unavailable. The WC feature intercepts the incoming call and sends it to a service node (SN). The SN records the name of the caller and presents the name to the WC subscriber along with routing options.

Additional line features

See table IBNFEAT for additional line features that are available with the STN format.

Datafill

The following table lists the datafill for table IBNLINES option STN.

Field descriptions

Field	Subfield	Entry	Explanation and action
LEN		see explanation	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" in this document for a complete description of field LEN and associated subfields. Field LEN consists of subfields SITE, FRAME, UNIT, DRAWER or LSG, SHELF, SLOT, and CIRCUIT.
DNNO		0 to 6	Directory number number. This field specifies the number assigned to the DN that is being referenced on the LEN.
RESULT		see subfields	Result. This field consists of subfields SIGTYPE, FORMAT, IBNVAR, and OPTLIST.
	SIGTYPE	DP or DT	Signal type. This field specifies the type of pulsing expected: DP for dial pulse or DT for Digitone.
	FORMAT	STN	Format. This field specifies the format name STN (station) for an IBN or RES station.
	IBNVAR	see subfields	Integrated business network variable. This field consists of subfields LCC and DN.

Field descriptions

Field	Subfield	Entry	Explanation and action
	LCC	IBN	Line class code. If the line is an IBN line, enter IBN and datafill refinements CUSTGRP, SUBGRP, NCOS, and SNPA. For a residential line or a coin line with residential features, enter 'IBN' and datafill refinement LNATTIDX. This datafill is done automatically, by the ONP, when the RES_TO_IBN_CONV flag is set to 'Y'.
	DN	numeric (vector of upto 15 digits)	Directory number. Enter the DN assigned to the IBN or RES station.
	CUSTGRP	alphanumeric	Customer group. Enter the code assigned to the customer group to which the IBN line is assigned.
	SUBGRP	0 to 7	Subgroup. Enter the subgroup within the customer group to which the IBN line is assigned.
	NCOS	0 to 511	Network class of service. Enter the NCOS number assigned to the IBN line.
	SNPA	numeric	Serving numbering plan area. Enter the serving NPA to which the IBN line is assigned.

Field descriptions

Field	Subfield	Entry	Explanation and action
	LNATTIDX	alphanumeric (1 to 16 characters)	Line attribute index. Enter the line attribute index number, defined in table LINEATTR, to which the RES line is assigned. The index must have field LCC equal to 1FR, 1MR, ETW, OWT, INW, 2WW, EOW, CCF, CDF, CFD, CSP, ZMD, or ZMZPA, and field RESINFO equal to Y (yes). Fields CUSTGRP, SUBGRP, and NCOS must contain valid data. For 'RES to IBN' line conversion, the line attribute index (LNATTIDX), XLAPLAN and RATEAREA will be replaced by an appropriate: • Customer group (CUSTGRP) - taken from table CUSTENG • Subgroup (SUBGRP) • NCOS These details will be taken from the temporary table that was datafilled during XLAPLAN reformatting (see table XLAPLAN).
	XLAPLAN	alphanumeric (up to 16 characters)	Translation plan index. Enter the index into the XLAPLAN table.
	RATEAREA	alphanumeric (up to 16 characters)	Rate area index. Enter the index into the RATEAREA table.

Field descriptions

Field	Subfield	Entry	Explanation and action
	OPTLIST	3WC, ACB, AMATEST, AR, ARDDN, ATC, CCSA, CCW, CDC, CHD, CLF, CNAB,CNDB, CNDBO, COD, COIN, COT, CRT, CRTDENY, CTW, CWD, CWI, CWO, CWR, CWT, CWTC, CWX, DCBI, DCBX, DCF, DCND, DCPK, DCPU, DCPX, DENYCWTC, DENYISA, DENYU3WC, DOR, DTM, EBO, EBX, ELN, EOF, FIG, FNT, FTS FTRGRP, GLTC, HLD, ICSDEACT, IICB, ILB, IMB, ISADEACT, IRR,LCDR, LDSA, LDSO, LDSR, LDST, LNR, LRS, MSB, MSBI, NDC, NHT, NLT, NOCOLL, NOH, NTS_CID, TES, UCD, VMEADENY, WC, UCDLI	Option list. Enter the list of options that are assigned to the IBN station. Options must be separated from each other by a blank space. Refer to table 1 (format STN) and the pages following it for a description of each option.

Field descriptions

Field	Subfield	Entry	Explanation and action
	OPTLIST (continued)	NTS_DNID, ONI, PDO, PLP, PRI, PRK, RAG, RCHD, RMR, RMT, RSP, SCWID, SDS, SDSDENY, SL, SLVP, SMDR, SORC, STRD, SUS,	

Table history

(I)SN08

Feature (A00006731) Handle Flash on Exit adds new OPTLIST option EOF.

(I)SN07

Table IBNLINES migrated from *DMS-100 Family North American DMS-100 Customer Data Schema Reference Manual Volume 5 of 12*, 297-9051-351.07.02.

Supplementary information

The next SERVORD commands are recommended for defining the converted options of IBN lines:

- SC:

  RES:ado $ <dn> sc1 sc2 $

  IBN:ado $ <dn> scs scl l30 $

- CFW:

  RES:ado $ <dn> cfw c nscr 2 $

  IBN:ado $ <dn> cfu y $

- CFDA to Voice Mail:

  RES:ado $ <dn> cfda n nscr 2 12 150 $

  IBN:ado <dn> cfd n 150 $

- CFDA to the 3rd subscriber:

  RES:ado $ <dn> cfda c nscr 2 12 $

  IBN:ado $ <dn> cfd p $

- CFBL to Voice Mail:

  RES:ado $ <dn> cfbl n nscr 2 152 $

  IBN:ado $ <dn> cfb n 152 $
- CFBL to the 3rd subscriber :

  RES:ado $ <dn> cfbl c nscr 2 $

  IBN:ado $ <dn> cfb p $
- CWT:

  RES:ado $ <dn> cwt $

  IBN:ado $ <dn> cwt cwi $

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.

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 (IBNRTSEL = CND).
- Operating company clients can only enter IBNRTE in field TABNAME when specifying T type routes (IBNRTSEL = 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 e 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

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	*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.

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	*Frame number* Enter the frame number of the MTC or CCC frame that the IOC or MDC is on. Entries outside this range are not correct.
SHPOS		04, 18, 32, or 65	*Shelf position* Enter shelf position 04, 18, or 32 for the IOC. Enter 65 for the MDC module.

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

Field	Subfield or refinement	Entry	Explanation and action
FLOOR		0 to 99	*Floor* 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	*Row* 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	*Frame position* 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	*Central message controller card* Enter the number of the central message controller card assigned to the IOC.
	CMCPORT	0 to 4	*Central message controller port* 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	*Message switch controller card* Enter the number of the message switch controller card assigned to the IOC.
	MSPORT	0 to 15	*Message switch controller port* 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	*Product engineering code* 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: NTNX38BA replaces NTNX34AA. 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)	*Peripheral module type* Enter the type of peripheral module.
	PMNO	0 to 2047	*Peripheral module number* Enter the number of the peripheral module.
	CARD_POSITION	0 to 37	*Card position* Enter the location of the card field PECINFO identifies.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DFILE	alphanumeric (a maximum of 8 characters)	*Download file* Enter the name of the file downloaded to the IOM.
	DVNAME	alphanumeric (a maximum of 12 characters)	*Device name* 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 x m x 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 suntanned 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.

Note: CCBS is a world trade (WT) feature, and is not available in North American loads.

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	*Service options key* This field contains the feature name. The string accepts only feature names that are part of the software load.
SOPTSVAR		alphanumeric string	*Service options variable* 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. ***Note:*** CCBS is a world trade (WT) feature, and is not available in North American loads.
		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.

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

Field	Subfield or refinement	Entry	Explanation and action
		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.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
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

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ACRJ	
SOPTSVAR	OPTION	ACRJ	
	CHKCAUSE	Y or N	*Check cause* 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	*Call charge option* 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 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		AR	
SOPTSKEY	OPTION	AR	*Automatic recall* Enter AR to activate the AR option.
SOPTSVAR	CALLQ	OFF, ON, or no datafill	*Call queuing* 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	*AR variant* 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 2 of 2)

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_CTX 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.

Note: CCBS is a world trade (WT) feature, and is not available in North American loads.

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
	DISTINCT_ RECALL_RING	Y or N	*Distinctive recall ringing* 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.
SOPTSVAR (continued)	SINGLE_DIGIT_A ND_ANN	Y or N	*Single digit activation and announcement* 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	*Digit* Specifies which digit has to be dialed for the single digit activation and announcements service to become available (see subfield SINGLE_DIGIT_AND_ANN).

Distinctive recall ringing
This aspect of CCBS operation applies to MMP lines only, and not to Carrier VoIP 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 4)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		CEPT_CFX	
SOPTSVAR	OPTION	CEPT_CFX	*Option*
	OPTIONAL_ HASH	Y or N	*Optional hash* 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 4)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued	FROM_RANGE	integer in the range: 0 - 18	*From Range* 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	*To Range* 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	*Programme override* 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 4)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ACTIVATE_ WITHOUT_ PRG	Y or N	*Activate without programming* 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.
	ISUP_ RESTRICTION	Y or N	*ISUP restriction* 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 4 of 4)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	CDND_BSY_ TRTMT_SUPP	Y or N	*CDND Busy Treatment Supplementary* 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	*Call forward to operator translator* 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	*Call forward to announcement translator* 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	*Short interdigit timing*
SOPTSVAR	OPTION		
	RCNTACT	Y or N	*Redirect count timing active* This field determines if the TLR CFW redirection count option is active. The default is N.
	AMAON	Y or N	*Automatic message accounting active* 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	*Short interdigit timing*
SOPTSVAR	OPTION	CND	*Calling number delivery*

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	RNGSPLSH	rs5-rs45	*Ring splash timer* 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	*Calling number delivery variable* Operating company personnel use this parameter to control the message format and signaling protocol for the CND feature.
	ACCESS_CODE	Y or N	*Access code* 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	*Calling number delivery*
	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	*Change ring shift pattern* 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 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		ICONF	
SOPTSVAR	OPTION	ICONF	
	ALLOW_ICT_ IN_I3WC	Y or N	*Allow International Call Transfer (ICT) in I3WC* 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 2 of 2)

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	*International line restriction programmable* 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	*ISUP UTR active* 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	*The Wake Up Call key in ISERVOPT*
SOPTSVAR	OPTION	IWUC	*The ISERV option name*

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)	*Number of requests* 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	*Overwrite the last request* 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	*Minutes ahead of the current time* 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	*MCT activation by DP2 digit on DP phones*
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	*MCT activation by DP2 digit on DP phones*

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 then 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	*End digit* 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	*Outgoing call barring programmes* 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

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		PBMOH	
SOPTSVAR	OPTION	PBMOH	
	PBMOH_OK	Y or N	*PBMOH okay* 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	*Service options variable* 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.
	SINGLE_DIGIT_ RAG	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.

Field descriptions for conditional datafill (Sheet 2 of 2)

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

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		RCTL	
SOPTSVAR	OPTION	RCTL	
	RCTLIBN	Y or N	*Ring control IBN* 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	*Case C transfer mode* Allows the called user to request Reverse Charging for the entire call during the active phase of the call.
	DIGIT	nn	*Case Programming digit, e.g. 01* 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	

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
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

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SIDIGTON	*Short interdigit timing*
SOPTSVAR	OPTION	SITACT	
	SITACT	Y or N	*Short interdigit timing active* 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 2)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		SLEOPT	
SOPTSVAR	OPTION	SLEOPT	*SLE optionality*
	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 2 of 2)

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	*Three way call*
SOPTSVAR (continued)	TWCACT	Y or N	*Three way call active* This field renames the TWC line option to the 3WC name for the Israel market. The default is N.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	HTON	Y or N	*Holding tone* This field determines if the holding tone in the 3WC feature is active. The default is N.
	CTR_RRNG	Y or N	*Controller re-ring* 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	*Single flash drop* 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

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		VERDDN	
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 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSKEY		WUCRON	
SOPTSVAR	OPTION	WUCRON	*Wake up call request*
	ATTNUM	-0 to 3	*Wakeup attempts number* This field determines the number of attempts for a wake up call request. The default is 0.
	RNGTMODIG	0 to 2	*Timeout digits* This field determines the number of timeout digits for a wake up call request. The default is 0.

Field descriptions for conditional datafill (Sheet 2 of 3)

Field	Subfield or refinement	Entry	Explanation and action
SOPTSVAR (continued)	ACTTRTM	Extended Treatment	*Wakeup success treatment* This field determines the treatment given to a successful wake up call.
	ALWALLDN	Y or N	*Wakeup allowed on every directory number* This field determines if a wake up call request is allowed on every DN. The default is N.
	COLLDIG	Y or N	*Collection digit* This field determines if all digits are collected in one report. The default is N.
	SECREG	Y or N	*Second activation* This field determines if a second activation is active. The default is N.
	RNGTMO	Y or N	*Ringing timeout* 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.

Field descriptions for conditional datafill (Sheet 3 of 3)

Field	Subfield or refinement	Entry	Explanation and action
	WUCRISDN	Y or N	*WUCR for ISDN* This field determines if the WUCR feature for ISDN is allowed. The default is N.
	MRTPULSE	0 to 255	*MTR pulses* 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

SN08

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

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.

KSETINV

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

Table name

Business Set and Data Unit Inventory Table

Functional description

Table KSETINV contains business set and data unit inventory data. An entry in this table must be datafilled for each card slot that is assigned to a business set or data unit (DU). Each line card slot must be datafilled in table LNINV before being datafilled in table KSETINV.

Seven of the formats that exist for this table are valid for business sets, two are only for datapaths or data units, and one is for ISDN offices.

The formats are as follows:

PSET
This is a business set without a liquid crystal display (LCD).

DISP
This is a business set with a display.

DATA
This is a data unit.

PDATA
This is a data unit for a plain ordinary telephone service (POTS) environment.

ISDNKSET
These are ISDN terminals.

M5008
This is a Meridian business set (MBS) with eight programmable feature keys and associated lamp indicators.

M5009
This is an MBS with nine programmable feature keys and associated lamp indicators.

M5208
This is an MBS with eight keys, associated lamp indicators, and built-in display.

M5209
This is an MBS with 12 keys, associated lamp indicators, and built-in display.

M5112
This is an MBS with 12 keys and integrated handsfree capability.

M5212
This is an MBS with 11 programmable feature or directory number keys, associated lamp indicators, and built-in display.

M5216
This is an MBS with 16 programmable feature or directory number keys, associated lamp indicators, and built-in display.

M5312
This is an MBS with 12 keys, associated lamp indicators, and built-in display.

M5316
This is an MBS with 16 keys, associated lamp indicators, built-in display and handsfree operation.

M6310
This is an MBS with 10 keys, associated lamp indicators, built-in display and handsfree operation.

M6320
This is an MBS with 20 keys, associated lamp indicators, built-in display and handsfree operation.

The following options are available for business sets and data units:

Customer data change (CDC)
This service enables the owner of the business set or DU to change the translation and routing parameters as needed.

36-button add-on unit (M536)
This option is only available for the MBS (M5009, M5209, M5112, M5212, M5312 series). This option allows the addition of a 36-button add-on unit to the set. The 36 button add-on has a fixed address of 30 to 65 when used for assigning features or directory numbers (DN) in tables KSETLINE and KSETFEAT.

22-button add-on unit (M622)
The M622 add-on provides an additional 22 feature assignable keys for use with the M6310 and M6320 Meridian Business Sets. This add-on is used only with the M6310 and M6320 MDSs. Up to two of these add-ons may be added. When one M622 is used it provides feature assignable keys 15 through 36. When a second add-on is used, the

feature key numbering on the second unit begins with key 37 and continues through key 58.

22-button add-on unit (M522)

The M522 add-on provides an additional 22 feature assignable keys for use with the M5216 and M5316 Meridian Business Sets. This add-on is used only with the M5216 and M5316 MBSs. Up to two of these add-ons may be added. When one M522 is used it provides feature assignable keys 15 through 36. When a second add-on is used, the feature key numbering on the second unit begins with key 37 and continues through key 58.

18-button add-on unit (M518)

This option is only available for the MBS (M5009, M5209, M5112, M5212, M5312 series). This option allows the addition of an 18-button add-on unit to the set. The 18-button add-on unit has a fixed address of 12 to 29 for add-on 1, 30 to 47 for add-on 2, 48 to 65 for add-on 3 when used for assigning features or DNs in tables KSETLINE and KSETFEAT.

Keyset music on hold (KSMOH)

This option provides music on hold for keyset DNs.

Display module (M0022)

This option enables the addition of a 2-line by 24-character display to Meridian digital telephones M2008, M2616, M2016S, M2216A, and M2216B.

Key expansion module (M0220)

This option enables the addition of a 22-key add-on unit to Meridian digital telephones M2616, M2016S, M2216A, and M2216B.

Reason display (READSDSP)

This option is only available to business sets (DISP) and Meridian sets (M5209 and M5312) with display. This option displays information about the feature keys, DN keys, and call information on the incoming call to DN key, call waiting key or intercom without answering the call. Messages displayed can use the default set for the whole switch or one that is uniquely defined for each set in table REASONS.

Secure Set Option (SSO)

Datafilled in the table as SECURE, this option assigns the secure set option (SSO) feature to an M5009 secure set.

Other options that are available for business sets are: automatic handsfree (AUTOHF), repeated alert (RPA), softkey display (SKDISP), and Meridian Telecenter (TELECNTR).

Options M0220 and M0022 are assigned through table IVDINV for the Meridian digital telephone series.

Meridian business sets (MBS)

Meridian business sets (M5009, M5209, M5112, M5212, and M5312) provide fixed keys for volume control, hold and release and do not support extension or 20-button add-ons sets. The M5009, M5209, M5112, M5212, and M5312 series Meridian sets support the 18- or 36-button add-ons units. The last two digits indicate the number of keys on the set and the third digit indicates whether a key is dedicated to an integrated handsfree unit (0 if no, 1 if yes.

The sets are configured such that if data is available, then the last key is designated as a data DN. If integrated handsfree is available, it is the second last feature key on the set

Characteristics specific to each set type are described below.

M5008 set

The M5008 MBS has eight feature assignable key/lamp pairs in addition to the standard keys. There is no provision for handsfree, or an add-on.

M5009 set

The M5009 set has nine programmable feature keys and only one lamp for keys one to 8. Feature key 9 is designated for data, but can be used for other features that do not require a lamp such as Call Pickup.

M5208 set

The M5208 is an enhanced version of the M5008. In addition to the standard keys and the eight feature assignable key/lamp pairs, the M5208 has a built in display. As with the M5008 MBS there is no provision for handsfree, or an add-on.

M5209 set

The M5209 has nine programmable feature keys and all keys have an associated lamp. It also has a built-in display consisting of two lines of 24 characters each. The lower display line is for displaying dialed digits, and the upper line is for an incoming DN and other call information. To function, the M5209 requires local power for the display unit and lamp number 9.

M5112 set

The M5112 set is provided with an integrated handsfree unit and has 12 keys. Key 11 is dedicated to operate the mute or unmute function. Key 12 and its lamp are dedicated to operate the handsfree unit. All the other 10 keys and their associated lamps are available for feature assignment.

M5212 set

The M5212 set has 11 programmable feature or DN keys, associated lamp indicators, and built-in display.

M5216 set

The M5216 MBS has 16 key/lamp pairs in addition to the standard keys. The first 11 key/lamp pairs are feature assignable. Keys 12 to 14 are designated as local program keys. Optionally these keys can used as feature assignable keys. Keys 15 and 16 are reserved for use as a local program key and a handset mute key.

The M5216 has a display and accepts a headset. It can be fitted with up to two M522 add-ons. There is no provision for handsfree.

M5312 set

The M5312 set is identical to the M5112 in function except it has an additional built-in display consisting of two lines of 24 characters each. The lower display line is for displaying dialed digits, and the upper line is for an incoming DN and other call information. Like the M5112, it has 10 feature DN keys. To function, the M5312 requires local power for the display unit, the handsfree unit, lamp number 9 and lamp number 10.

M5316 set

The M5316 MBS has16 key/lamp pairs in addition to the standard keys. The first 13 key/lamp pairs are feature assignable. Keys 14 to 16 are designated as a local program key, a handsfree activation key, and a microphone mute/unmute key.

The M5316 has a display, and can be fitted with up to two M522 add-ons. There is no provision for a headset.

M6310 set

The M6310 has 10 key/lamp pairs in addition to the standard keys. Keys one to seven are feature assignable and keys eight to 10 are non-feature assignable. Key eight is the program key, key nine is the handsfree key and key 10 is the mute key.

The M6310 has a display and accepts a headset. It can be fitted with up to two M622 add-ons.

M6320 set

The M6320 has 20 key/lamp pairs in addition to the standard keys. Keys one to 13 are feature assignable and keys 14 to 20 are non-feature assignable. Key 14 is the program key, key 15 is the handsfree key and key 16 is the mute key.

The M6320 has a display and accepts a headset. It can be fitted with up to two M622 add-ons.

Meridian sets (M5000) add-ons

Three add-ons are available for the M5000 series Meridian sets. They are the M518 (18 button add-on), M522 (22-button add-on), and the M536 (36-button add-on). Every key on each add-on has an individual lamp and can be used for assigning DNs or features in tables KSETLINE and KSETFEAT.

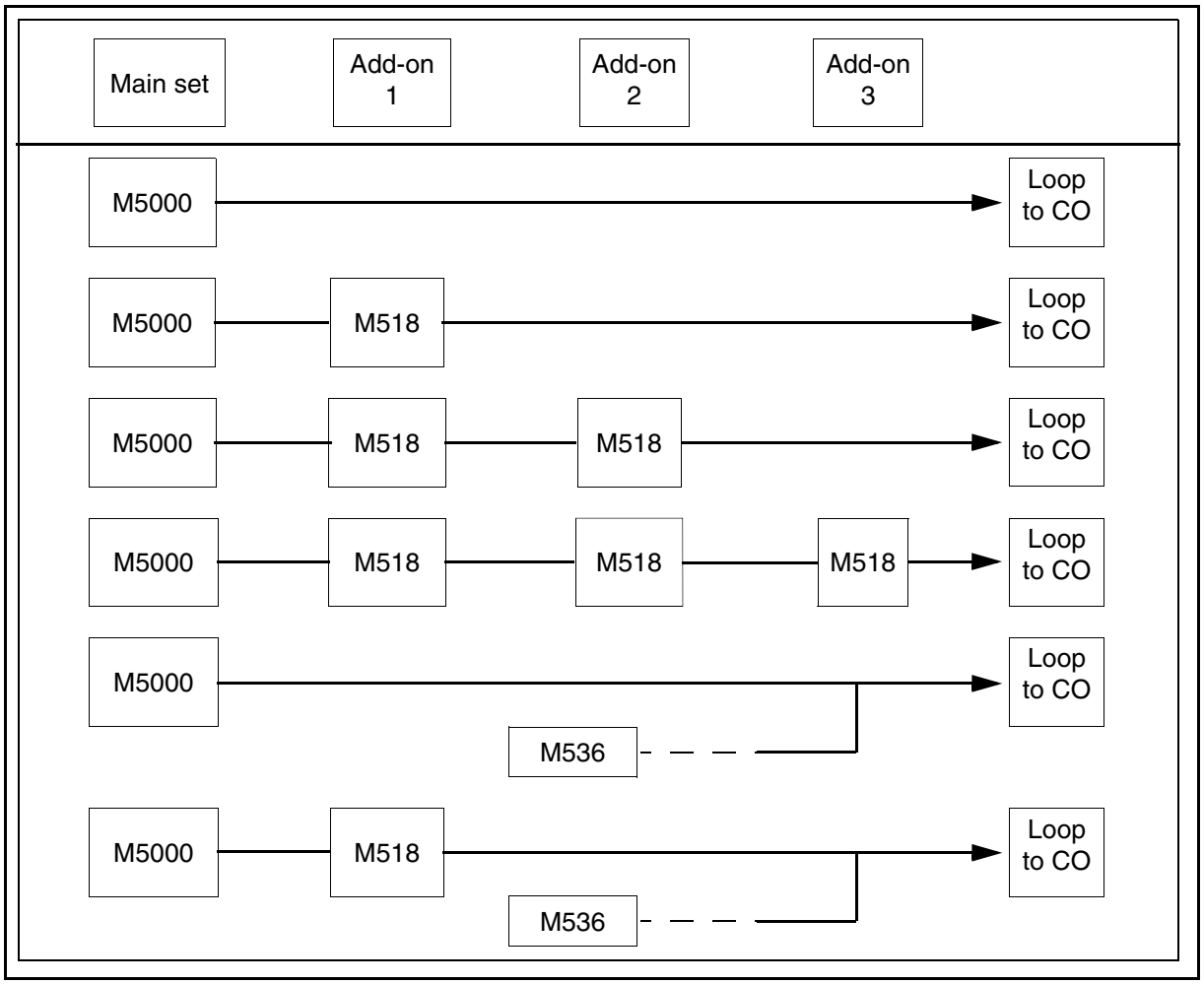
Only one M536 and up to three M518 add-ons can be added to the (M5009, M5209, M5112, M5212, and M5312) MBSs. The M522 add-on may only be added to the M5216 and M5316 MBSs. Note that the M518 and M536 add-ons are not used with the M5008, M5209, M5216 or the M5316 MBSs If mixed (both M518 and M536), only one M518 can be equipped.

The following figure shows all the allowable loop configurations of M518 and M536 as add-ons to the M5009, M5209, M5112, M5212, and M5312 MBSs.

Note 1: The M518 add-on must be connected in series (daisy chain) to the M5000 main set.

Note 2: The M536 add-on must be connected in parallel to the M5000 main set and occupies two unit addresses, 2 and 3, on the loop. If the M518 and M536 add-ons are attached together on the loop, the M518 must occupy unit address 1.

M5000 loop configuration



The M518 add-on automatically selects its own lowest address on the loop. Upon being unplugged, the M518 with the next higher unit address assumes the unit address of the unplugged M518. This can cause possible confusion with the user's private labels on the M518 keys. An M518 must not be unplugged while there is another M518 above it on the loop.

The numbering for the feature DN keys on the M518 add-on is as follows:

- 12 to 29 as add-on 1
- 30 to 47 as add-on 2
- 48 to 65 as add-on 3

The M536 has key numbers 30 to 65 (can be viewed as consisting of two M518s as add-ons 2 and 3).

Meridian sets (M6000) add-on

One add-on is available for the M6000 series Meridian sets. This is the M622 22 button add-on. Every key on has an individual lamp and can be used for assigning DNs or features in tables KSETLINE and KSETFEAT.

Datafill sequence and implications

The following tables must be datafilled before table KSETINV:

- ASRTABLE
- CDCLENS
- LNINV
- LTDEF
- RDTINV
- REASONS

Table size

0 to 253,944 tuples.

Datafill

The following table lists datafill for table KSETINV.

Field descriptions

Field	Subfield	Entry	Explanation and action
LEN		see subfields	*Line equipment number* This field defines the physical location of the equipment that is connected to a specific telephone line. Because field LEN is common to more than 60 tables, it is documented in a single section to avoid unnecessary duplication. Refer to section “Common entry field LEN” for a complete description of field LEN and associated subfields. 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.

Field descriptions

Field	Subfield	Entry	Explanation and action
SETDATA		see subfield	*Setdata* This field consists of subfield KSET.
	KSET	DATA, DISP, ISDNKSET, M5008, M5009, M5208, M5112, M5209, M5212, M5216, M5312, M5316, M6310, M6320, PDATA, or PSET	*Keyset type* Enter the keyset type. Enter CXIP01 for Centrex-IP International line class code. Enter DATA for a data unit (DU). This also provides the basis for conditional routing of data calls. Enter DISP for business set with LCD display. This format is not valid for data units or business set add-on modules. A display set must be used as a main and not as an extension set. Incoming calls to the primary directory number (DN) are auto-displayed on both sets. The display of the set that answers remains active and the other set's display is cleared. In all other situations, only the active set's display is updated. For multiple appearance directory number (MADN) groups, incoming calls are auto-displayed on those sets whose members are primary DNs of their sets. Once answered, only the answering member's display remains active. Enter ISDNKSET for ISDN terminals. Enter one of the format names for the applicable Meridian Business set (MBS): M5008, M5009, M5208, M5209, M5112, M5212, M5216, M5312, M5316, M6310 or M6320. Enter PDATA for a POTS data unit. Enter PSET for business set stations without liquid crystal display (LCD).

KSET = DISP or PSET

If the entry in field KSET is DISP or PSET, datafill subfields EXTDATA and ADDONS as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	EXTDATA	see subfields	*Extension data* This subfield consists of subfields EXTENSION and RING.
	EXTENSION	Y or N	*Extension set* Enter Y (yes) if the business set station has an extension set (hardware address 4) and datafill subfield RING. Otherwise, enter N (no) and datafill subfield ADDONS.
	RING	Y or N	*Ring extension* Enter Y if the extension set is rung on termination to the business set station. Otherwise, enter N.
	ADDONS	E5, E6, E7, S1, S2, or S3	*Add-on module list* Enter the list of add-on modules on the business set station. This field is a vector with up to six add-on modules. Separate each add-on name with a space and indicate the end of the vector with a $. The first character in the name indicates whether the add-on is on the business set (S) or its extension (E). The second character, a digit, indicates the hardware address of the add-on module.

KSET = ISDNKSET

If the entry in field KSET is ISDNKSET, datafill subfield FANUM as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	FANUM	2 to 64	*Feature activated number* Enter the maximum number of keys that can be assigned to an ISDN KSET.

EXTENSION = Y

If the entry in field EXTENSION is Y, datafill subfield RING as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	OPTIONS	see subfield	*Options list* This field consists of subfield OPTION.
	OPTION	AUTOHF, CDC, KSMOH, M0022, M0200, M518, M522, M536, M622 READSP, RPA, SKDISP, TELECNTR, SECURE or blank	*Option* Enter the options. Refer to the section “Functional description of table KSETINV” for a description of the options.

OPTION = CDC

If the entry in field OPTION is CDC, datafill subfield CDC_OWNER as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	CDC_OWNER	alphanumeric (up to 8 characters)	*Customer data change owner* Enter the name of the operating client allowed to change this record. This name must be datafilled in table CDCLENS.

OPTION = M0022

If the entry in field OPTION is M0022, datafill subfield M0022_COUNT as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	M0022_COUNT	1 or 2	*M0022 count* Enter the number of lines to be displayed.

OPTION = M518

If the entry in field OPTION is M518, datafill subfield QUANTITY as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	QUANTITY	0, 1, 2, or 3	*Quantity* If the entry in field OPTION is M518, enter the quantity of M518 in the loop. An entry of 0 means the M518 option is deleted. If the entry in field OPTION is M522, enter 0, 1, or 2. An entry of 0 means the M522 option is deleted.

OPTION = M622

If the entry in field OPTION is M622, datafill subfield QUANTITY as described below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	QUANTITY	0, 1 or 2	*Quantity* If the entry in field OPTION is M622, enter the quantity of M622s in the loop. An entry of 0 means the M622 option is deleted. If the entry in field OPTION is M622, enter 0, 1, or 2.

OPTION = REASDSP

If the entry in field OPTION is REASDSP, datafill subfield REASTYPE as explained below.

Field descriptions for conditional datafill

Field	Subfield	Entry	Explanation and action
	REASTYPE	alphanumeric or DEFAULT-SET	*Reason type* Enter the name of the set of display messages displayed, as defined in table REASONS. If the default set of messages that are defined for the whole switch in table REASONS is used, enter DEFAULTSET.

Error messages

NA012

The following error message appears if the access privilege for the echo station LTID is incorrect. To avoid this error, field LTAP in table LTDEF is set to PB for B-channel packet switching.

```
Error: PB IS THE ONLY VALID ACCESS PRIVILEGE FOR AN
ECHO STATION LTID.
```

The following error message appears if the logical terminal class is incorrect in table LTDEF. To avoid this error, field CLASSREF, subfield LTCLASS must contain BRAFS (basic rate access) for an echo station LTID.

```
Error: FOR AN ECHO STATION LTID, LTCLASS SHOULD BE
BRAFS.
```

The following error message appears if the keyset type for the echo station LTID is incorrect in table KSETINV. To avoid this error, field SETDATA, subfield KSET must contain ISDNKSET.

```
Error: ES OPTION IS ALLOWED ONLY WITH ISDNKSET.
```

The following error message appears if field SETDATA, subfield OPTIONS contains options other than option ES. Other options are incompatible with the echo station option.

```
Error: ECHO STATION LTID CAN HAVE ONLY ES OPTION.
```

The following error message appears if you try to change the ES option for the echo station or try to add an ES option to a non-echo station LTID.

```
Error: CANNOT CHANGE ECHO STATION LTID TO NON ECHO
STATION LTID OR VICE VERSA.
```

The following error message appears if the LTID specified in field LEN, subfield LTID was not defined in field LTKEY, subfield LTNUM, of table LTDEF.

```
Error: LTID IS NOT DATAFILLED IN TABLE LTDEF.
```

NA005

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).

All additions, deletions and changes must be entered using the Service Order System (SERVORD). For information, refer to the *SERVORD Reference Manual*.

Table history

(I)SN08

Added revised table size (see A00007790).

MMP13

Added new options M6310 and M6320 to the SETDATA field. Added new option M622 to the OPTION field.

NA012

Added error messages for feature 59006435, Echo Station X.25 Loopback Testing.

NA005

Error message information added to “Error messages” section in accordance with feature AN1653 (Enforcement of SERVORD).

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.
GTWY_ID			*Gateway ID* This is an optional field that will not be provisionable until a later release.
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 corresponds to a GWC number that is present in table SERVRINV.
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

SN08

Optional field GTWY_ID added as part of Feature A00007071.

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 DATAOWNR.

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_STATE	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 of1MR 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.

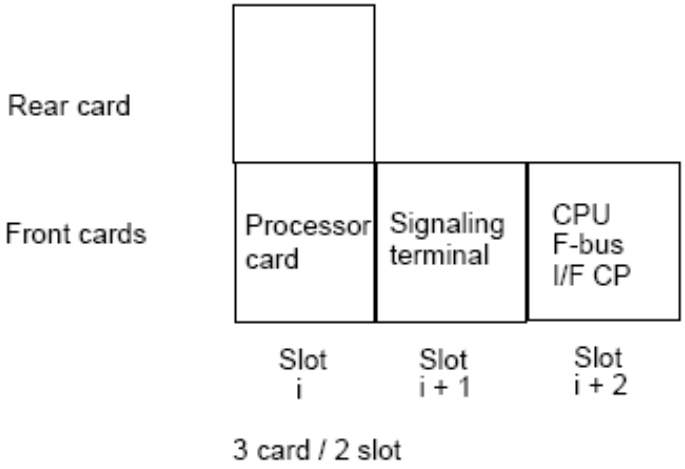
LIUs and MLIUs can be provisioned on a LIM in a link interface shelf (LIS) or in a single shelf link peripheral processor (SSLPP).

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.

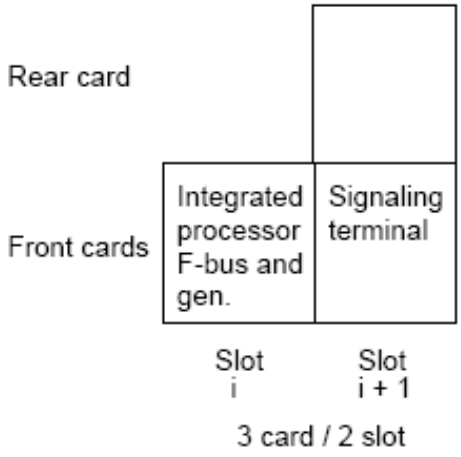
The MLIU increases SS7 link density without adding another LPP to an office. One LPP houses up to 30 MLIUs which in turn can support up to 120 SS7 MLIU based links. One MLIU provides the same connectivity as four LIUs.

The LIU consists of either three or four cards, as shown in the following 3 figures.

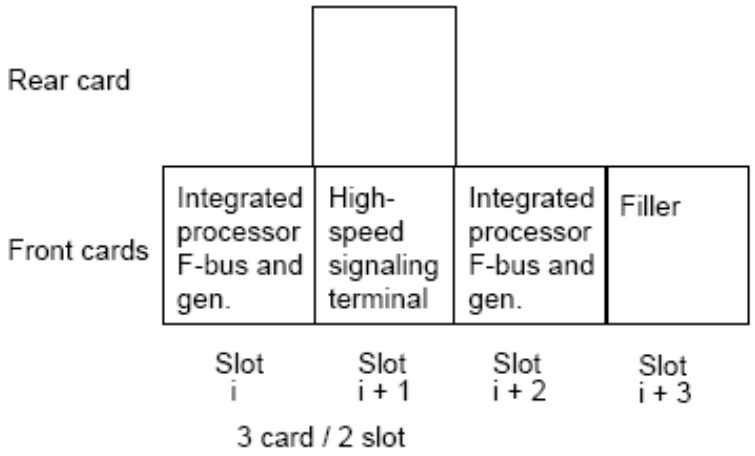
Link interface unit configuration (24-link LIM cabinet)



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 x 408 x 35 = 42 840 words of protected datastore

3 x 408 x 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).
CLKCONFG	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 CLKSRCE as described below.
CLKSRCE	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.

LOGTHROT

ATTENTION
This table applies to new or modified content for ISN08 (TDM) that is valid through the current release.

LOGs Throttling

The LOGs Throttling table (LOGTHROT) permits LOGs throttling functionality for XA-Core. Users can throttle the log report by specifying the time unit and threshold value. Only core logs are throttled.

Throttled logs go to DLOG by default and the user can change this.

Datafill sequence and meaning

The user specifies the Time Units and Thresholds per report name (REPNAME):

- Logs to be throttled are output in each unit time until the log count reaches the threshold value or the time unit expires.
- When the timer resets the logs are no longer throttled.

The following information for each report name (REPNAME) appears in table LOGTHROT:

- the threshold that specifies the messages that are to be printed or displayed
- the time, in minutes, when the register count associated with a threshold report resets to zero
- whether a log is to be throttled in DISK LOG (DLOG)

For any log name that does not appear in table LOGTHROT, the values in fields THRSHOLD and TUNITS are 0.

Table LOGCLASS allows a maximum of 100 different time units (TUNITS).

If the field THRSHOLD is 0 (print all reports), field TUNITS must be less than or equal to 0.

The user does not need to enter data in other tables before entering data in table LOGTHROT.

Table size

The LOGTHROT data schema has no impact on memory.

Abbreviated table name	Minimum tuples	Maximum tuples	Information on memory
LOGTHROT	0	512	Memory is automatically allocated for 512 tuples.

Datafill

The following table lists datafill for the LOGTHROT table.

Field descriptions

Field	Subfield	Entry	Explanation and action
REPNAME			Report name.
	LOGNAME	Up to four alphabetical characters	Log name. Refer to the Log Report Reference Manual for a list of log names in the logs system.
	REPNUM	000 to 999 or -1	Report number. Enter the report number or -1 if all report numbers required.
THRSHOLD		0 to 255	Threshold. Enter a number to specify the messages that the system is to print or display, or 0 to generate all messages. If the threshold value is between 1 and 255, logs are throttled according to the specified threshold value. The THRSHOLD value can be set based on site engineering information.

Field descriptions

Field	Subfield	Entry	Explanation and action
TUNITS		-32768 to 32767	Time units. Enter the time, in minutes, when the register count associated with a threshold report resets to 0. This table allows a maximum of 100 unique TUNITS. Enter 0 or a negative value to generate all reports. Enter 0 or a negative value if TUNITS = 0 and a reset is not required. The recommended TUNITS value is 1 (min.).
DLOG		Y or N	Disk Log. Enter Y (yes) if DLOGs are to be throttled. Enter N (no) if DLOGs do not need to be throttled.

Supplementary information

Office parameters

The following office parameters can affect the production of the log reports:

- LOG_CENTRAL_BUFFER_SIZE in table OFCVAR
- LOG_DEVICE_BUFFER_SIZE in table OFCVAR
- LOG_CENTRAL_POLLING_MILLI_SECOND in table OFCSTD
- SYSLOG_ACCESS in table OFCVAR

Use of LOGCLASS with LOGTHROT

The same tuple cannot exist in both the LOGCLASS and LOGTHROT tables at the same time. If a tuple exists in LOGCLASS and the user attempts to add the same tuple to LOGTHROT, the following warning message is displayed:

```
INFO: ENTRY EXIST IN TABLE LOGCLASS.
PLEASE REMOVE THE ENTRY FROM LOGCLASS FIRST.
INCONSISTENT DATA
```

Similarly, if a tuple exists in LOGTHROT and the user attempts to add the same tuple to LOGCLASS, the following warning message is displayed:

```
INFO: ENTRY EXIST IN TABLE LOGTHROT.
PLEASE REMOVE THE ENTRY FROM LOGTHROT FIRST.
INCONSISTENT DATA
```

Translation verification

The following example shows the output from <ToolName> when it is used to verify <abbreviated name of table>.

<abbreviated name of table> `does not use translation verification tools`

Table history

(I)SN08

LOGTHROT was introduced by activity A00007277.

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	Primary inter-LATA carrier.
	RIER_NAME	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 NTWKOVRD 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 NTWKOVRD 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 DTCI if that DTCI 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 LCTINV.

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 GATWYINV must be datafilled before adding EXTDS512 ABI peripherals in Table LTCINV.

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	*Line trunk controller name* 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	*68K peripheral module type* 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	*68K peripheral module number* 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	*External administrative number* 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	*Frame type* 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	*Frame number* 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	*Shelf position* 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	*Floor* Enter the floor on which the PM frame is located.
ROW		A to Z, AA to ZZ, except I, II, O and OO	*Row* Enter the row on the floor where the PM equipment frame is located.
FRPOS		0 to 99	*Frame position* 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 3P_PEC 6R02AK 6R02AR 6R81AC 6R81AD 6R81IC 6R81ID 6T02AA 6X02AA 6X02AC 6X02AD 6X02AE 6X02AF 6X02AG 6X02AH 6X02AQ 6X02BA 6X02B 6X02BD 6X02BE 6X02BF 6X02BG 6X02BK 6X02BS 6X02BT 6X02DG 6X02EB 6X02EE 6X02EL 6X02FA 6X02GA 6X02HA 6X02IA 6X02IE 6X02IF 6X02JA 6X02KA 6X02KB 6X02LA 6X02LD 6X02MA 6X02MD 6X02NA 6X02P2 6X02P3 6X02UA	*Equipment product engineering code* Enter the product engineering code (PEC) of the appropriate piece of equipment as described in the following paragraphs. For Telrad PLGC or PDTC, with the MSG6X69 message card, and with the ISRL69AD or ISRLADSI toneset, enter 6R61AC or 6R61AD. For Telrad PLGC or PDTC, with the ISP card in slot 15, enter 6R81IC or 6R81ID. For Telrad PLGC with the CMR card in slot 11, enter 6R02AK. If the entry in field XPMTYPE is ADTC, enter 6102SA, 6102SE, or 6102UA. If the entry in field XPMTYPE is an ALGC_ADTC, enter 6102SG, 6102SI, or 6102UG. If the entry in field XPMTYPE is ALGC, enter 6102NA, 6102SB, 6102SF, or 6102UA. If the entry in field XPMTYPE is BDTC, enter 6X02BC. If the entry in field XPMTYPE is DFI or GPP, enter MX85AA. If the entry in field XPMTYPE is SMA2, enter MX85AB. If the entry in field XPMTYPE is DTC, enter 6X02AF, 6X02AQ, 6X02BS, 6X02BT, 6X02IA, 6X02IE, or 6X02IF.

Field and subfield descriptions for table LTCINV (Sheet 5 of 11)

Field	Subfield	Entry	Explanation and action
EQPEC (continued)		6X02UC 6X02UI 6X0201 6X0211 6X0215 6102NA 6102SA 6102SB 6102SE 6102SF 6102SG 6102SI 6102UA 6102UB 6102UG 7X3304 FX33CB FX3304 AK31AA AK31AT AK81AD AK81AT MK8505 MX85AA MX85AB NX33GC	If the entry in field XPMTYPE is DTC7 or DTCI, 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. If the entry in field XPMTYPE is IDTC, enter 6X03BA, 6X02HA, or 6X02KA. For single-card new message IDTC/Caribbean expansion program (IDTC/CEP), enter 6X02HA. For tone card 6X69KA for China, enter 6X02KA. If the entry in field XPMTYPE is ILGC, enter 6X02BF, 6X02BK, 6X02GA, 6X02KB, or 6X0211. For dual-card messaging ILGC for Turkey, enter 6X02BF. For single-card messaging ILGC for Turkey, enter 6X02BK. For single-card new message ILGC/CEP, enter 6X02FA or 6X02GA. 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 FRTYPE 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.
LOAD		alphanumeric (8 characters maximum)	*Load* 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.

Field and subfield descriptions for table LTCINV (Sheet 8 of 11)

Field	Subfield	Entry	Explanation and action
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 UNEQUD	*Terminal type* 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 SOCPEX 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	*Executive programs* 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	*C-side link table* 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. ***Note:*** For external XPMs, this field no longer contains real C-side ENET links. Instead, enter "$" when prompted for this field. 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	*Network module pair number* 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	*Network port* 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	*Enhanced network shelf number* Enter the shelf number to which the PM is assigned.
	ENSLOT	10 to 16, 25 to 32, or 13 to 19	*Enhanced network slot number* 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	*Enhanced network link number* 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	*Enhanced network DS30* 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_CSLINK_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 C-side link 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	*Optional card* 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 NTBX01BA enhanced ISDN signaling processor. The NT6X69 RAM card, NT6X28 and NT6X44EA signaling cards are not compatible with DTCO2 (MX85AA EQPEC). To enable DTCO+ (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 DTCI. Datafill the MX76 card in the DTCI if the DTCI 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
OPTCARD (continued)			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 PDTC PMs (XPM-based) require the NT6X28 card for PCM30 signaling. This card is not supported for DTCO2 (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 (UTRn) is datafilled, it means that a universal tone receiver card is equipped in slot *n*, where *n*=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)	*Custom local area signaling service modem resource load* 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	*Slot number* 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 PDTC (MX85AA EQPEC).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTCARD	MX76LOC	HOST or REM	*NTMX76 location* 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	*Host remote communication protocol* 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	*Slot number* 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
TONESET		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	*Tone set* 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 (cont'd)		ITALYMF ITALYMFC JAPAN1 JAPAN3 KOREA KOREANMF MALAYSIA MALAYDSI MCL MEXDTMF 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	*Tone set* 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 (cont'd)		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
TONESET (cont'd)			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 (cont'd)			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
TONESET (cont'd)			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 (cont'd)			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
TONESET (cont'd)			Enter SINGMF for Singapore Multi-frequency tone set, or SINGMFC for Singapore Multi-frequency Compelled tone set. Enter SPAIN for Spanish tone set. Enter SPAINMF for the Spanish 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 SPAINMFC for the Spanish 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 SRILADSI for the SRILANKA tone set and the ADSI tone set. This tone parameter is used to generate the tone for CLASS ADSI applications. Enter SRILANKA for the Sri Lankan tone set. Enter SWDDTC for the Swedish tone set that includes DTMF, simple supervisory, periodic supervisory, and test and diagnostic tones. The NT6X69LX tone card must be present. Enter SWDLGC for the Swedish tone set that includes MFC, simple supervisory, periodic supervisory, and test and diagnostic tones. The NT6X69LX tone card must be present. Enter SWISSMF for the Swiss tone set that includes DTMF, MF, supervisory, COT, and test and diagnostic tones.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TONESET (cont'd)			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	*Processor equipment product engineering codes* 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 DTCI with UP, enter MX77AA or AX74AA. For compact PMs (CPM), ADTC and DTCI, 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.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PROCPEC (continued)		MX77AA SX05AA (continued)	In ISN08, both the SX05 and MX77 processors are supported for ABI PLGCs. ***Note:*** The SX05 processor is not supported as part of the patch back activity into ISN07; in ISN07 only the MX77 processor is supported for ABI PGCs. However, the SX05 processor is supported for non-ABI PLGCs in ISN07. 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. Subfield PACKLET is the SX05AA packlet 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.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PROCPEC (continued)		SX05AA (continued)	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 packlets) or SX06CA (120-Mbyte PRL packlets) 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	*Number of extended links* Enter the number of pairs of extended links.
E2LOAD		alphanumeric (maximum of 8 characters)	*Electrically erasable PROM load name* 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 $	*Optional attributes* This field is a vector of up to ten optional attributes. *CCS7*: • 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. *FSTR2*: 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. *NX64*: 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)			*OC*: 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. *PCM30*: 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. *STRDTRE*: This option defines the STR card to be used with DTMF "#" and "*" tone detection. *$*: For SMA or GPP, enter $.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTATTR (continued)			*FDCP*: Used to flag a peripheral as being capable of supporting FDCP trunks and so requiring download of FDCP data. EXTDS512: 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. This optional attribute includes the SITE of the external XPM (must align with datafill in Table SITE) and the Gateway Host information (Gateway type and number) as provisioned in Table GATWYINV. For ABI XPMs the Gateway Type must be ABI. ***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.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
OPTATTR (continued)			• The ability to change the device from ENET-based to External DS512-based, or vice versa, is not allowed.
PEC6X40		6X40AA 6X40AB 6X40AC 6X40AD 6X40BA 6X40CA 6X40FA 6X40FB 6X40FC	*6X40 equipment product engineering code* 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	*Extension shelf information* 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	*Extension shelf* 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	*Extension frame type* 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	*Extension frame number* Enter the number of the frame in which the extension shelf is housed.
	EXTSHPOS (CSP02-)	0 to 77	*Extension shelf position number* Enter the extension shelf position number.
	EXTFLOOR (CSP02-)	0 to 99	*Extension shelf floor number* 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	*Extension shelf row number* Enter the number of the row in which the extension shelf is located.
	EXTFRPOS (CSP02-)	0 to 99	*Extension shelf frame number* 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	*Extension shelf equipment PEC* Enter the extension shelf equipment PEC. For SMA2, enter MX86AB. For GPP, enter MX86AA.
	EXTSIDE (CSP02-)	L or R	*Extension shelf side* Enter the extension side of the shelf: L (left) or R (right).

Table history

SN08

A00007749
Optional attribute EXTDS512 is now allowed for peripheral type PLGC. C-side link information in field CSLNKTAB will be generated automatically. Datafill for this field is now "$".

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.

LTDATA

Logical Terminal Data

Table LTDATA stores service-related data associated with the logical terminal identifier (LTID). This is equivalent to field LTDKEY, which is the key to this table. In addition to field LTDKEY, the other primary field of the table is LTDRSLT.

Subscription parameters related to ISDN primary rate access (PRI) services, such as calling number delivery, are supported in this table.

Field LTDKEY

Field LTDKEY consists of two parts: the logical terminal index (subfield LTINDEX) and logical terminal datatype (subfield DATATYPE).

Subfield LTINDEX itself consists of subfields logical terminal group (subfield LTGRP) and logical terminal number (subfield LTNUM).

Subfield DATATYPE contains logical terminal datatypes. These correspond to the datatypes in field LTDRSLT.

Field LTDRSLT

Field LTDRSLT contains the single subfield DATATYPE, and options associated with the specified datatypes.

Datafill sequence and meaning

The following tables must be datafilled before table LTDATA:

- LTGRP
- LTDEF

Table size

0 to 65,408 tuples

Datafill

The following table lists the datafill for table LTDATA.

Field, subfield, and refinement descriptions for table LTDATA (Sheet 1 of 5)

Field	Subfield or refinement	Entry	Explanation and action
LTDKEY		see subfields	The Logical Terminal Datakey field consists of subfields LTINDEX and DATATYPE.
	LTINDEX		Subfield LTINDEX consists of subfields LTGRP and LTNUM.
	LTGRP	alphanumeric (maximum 8 characters)	Enter the logical terminal group (LTG) name.
	LTNUM	1 to 1022	Enter the logical terminal number within the group. The quantity of group numbers is restricted. A maximum of 31 entries is allowed.
	DATATYPE	CLI, DN, SERV, or RN	Enter the logical terminal data type as follows: Enter CLI to identify a calling line identifier (CLI) subscription parameter. Enter DN for directory number. Enter SERV for service-related data associated with a logical terminal identifier (LTID) or PRI interface. Enter RN for redirected number ***Note 1:*** The entry in this field must agree with that for the DATATYPE subfield of LTDRSLT. ***Note 2:*** Data types CLI and RN are not available with all protocol variants. For details refer to Supplementary Information.
LTDRSLT		see subfields	The Logical Terminal Result field consists of the single subfield DATATYPE.

Field, subfield, and refinement descriptions for table LTDATA (Sheet 2 of 5)

Field	Subfield or refinement	Entry	Explanation and action
	DATATYPE	CLI, DN, SERV, or RN	Enter the logical terminal data type as follows: • Enter CLI to identify a calling line identifier (CLI) subscription parameter. Enter datafill for subfield OPTION. • Enter DN for directory number. Enter datafill for subfields DFLTCGN and OPTIONS. • Enter SERV for service-related data associated with a logical terminal identifier (LTID) or PRI interface. Enter datafill for subfields AUDTRMT, CGNREQD, CGNDELV, CDNDELV, and OPTION. • Enter RN for redirected number. Enter datafill for subfield OPTION. ***Note 1:*** The entry in this field must agree with that for the DATATYPE subfield of LTDKEY. ***Note 2:*** Data types CLI and RN are not available with all protocol variants. For details refer to the section on Additional Information.
	LTCLI_ OPTIONS	BILL_FROM_ CPN	Enter BILL_FROM_CPN to activate ETSI or INS1500 primary rate interface (PRI) billing. This activity bills PRI calls to the station making the call. If you do not activate ETSI PRI billing, the DMS-100 switch bills a single number for the whole PRI. ***Note:*** This option is valid only in European (CEU), APC, and Japan markets.

Field, subfield, and refinement descriptions for table LTDATA (Sheet 3 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		POP	Enter POP for the point of presence option. This option is part of the CLI selector and is datafilled for all PRI trunks incoming to the DMS switch from a multimedia carrier switch (MMCS). ***Note:*** The POP option is valid only in European (CEU) and APC markets.
		EDITCLI	Enter EDITCLI to provide a means for completing a partial CLI. Also enter datafill for subfields OVLYCLI, NPI, TON, and OVLYCNT. ***Note:*** Refer to section DATATYPE = CLI, OPTION = EDITCLI for detailed entries.
		SIGCLI	Enter SIGCLI to specify a CLI that replaces a received, edited, or default CLI. Enter a range of 1 to 15 digits.
		CLIVD	Enter CLIVD to specify a numerical index that matches attribute CLIVD in table DNSCRN. The valid range is from 0 to 2047. ***Note:*** The CLIVD option cannot function at the same time as the SCRNLTID option.
		EDITALLTON	Enter EDITALLTON to modify option EDITCLI. EDITALLTON can be datafilled when EDITCLI is specified as an option.

Field, subfield, and refinement descriptions for table LTDATA (Sheet 4 of 5)

Field	Subfield or refinement	Entry	Explanation and action
		SCRNLTID	Enter SCRNLTID to allow calling number screening with the direct dial in (DDI) feature. Also enter datafill for subfields NDC, DN, and DNBLKS. ***Note 1:*** The SCRNLTID option cannot function at the same time as the EDITCLI option. ***Note 2:*** The SCRNLTID option cannot function at the same time as the CLIVD option. ***Note 3:*** For the SCRNLTID option to operate, parameter NATIONAL_COUNTRY_CODE in table OFCENG must have the correct entry. ***Note 4:*** Refer to section DATATYPE = CLI, OPTION = SCRNLTID for detailed entries.

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

Field	Subfield or refinement	Entry	Explanation and action
		SCRNLTID_IC_T ON	Enter SCRNLTID_IC_TON to allow the Calling Number (CGN) digits of incoming calls to be screened as a national call. The option requires that the SCRNLTID option is also datafilled. It is for the Dutch market where some PBXs send a national number which could fail if the SCRNLTID option is datafilled. ***Note:*** Datafilling the SCRNLTID_IC_TON option without SCRNLTID results in an error message: This option is datafillable only if the SCRNLTID option is datafilled against the LTID. Datafilling the SCRNLTID_IC_TON for any PRI variant other than Dutch PRI results in an error message: This option is supported only for Dutch PRI. Changing the variant for the LTID with SCRNLTID_IC_TON datafilled results in an error message: Delete the SCRNLTID_IC_TON options entry from Table LTDATA for this interface before changing the PRI variant. Datafilling the SCRNLTID_IC_TON option for the Dutch PRI variant results in a warning message: If the incoming CGN from the PBX holds national/international access code prefixed, screening will fail.
		DDI	Enter DDI for the direct dialing in option enabling subscribing users to dial a private ISDN number using the public ISDN network.

DATATYPE = CLI, OPTION = EDITCLI

If the entry in subfield OPTION is EDITCLI, enter datafill for subfields OVLYCLI, NPI, TON, and OVLYCNT.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
EDITCLI	OVLYCLI	0 to 9 (maximum 18 digits)	This field converts a partial calling line identification (CLI) to a complete number by associating a partial CLI with an overlying CLI. Note: Automatic Message Accounting (AMA) only supports calling party numbers of up to 12 digits.
	NPI	E164 or PVT	Enter the numbering plan identifier associated with field OVLYCLI. The default value for this field is E164.
	TON	INTL, NATL, or UNKNOWN	Enter the type of number associated with field OVLYCLI. The default value for this field is UNKNOWN. ***Note:*** TON must be set to UNKNOWN to enable EDITCLI.
	OVLYCNT	0 TO 18	Enter the number of least significant digits from a partial CLI that are overlaid on top of the least significant digits of field OVLYCLI. A value of 0 (zero) indicates that all the digits from the partial CLI are overlaid. ***Note:*** Automatic Message Accounting (AMA) only supports calling party numbers of up to 12 digits.

DATATYPE = CLI, OPTION = SCRNLTID

If the entry in subfield OPTION is SCRNLTID, enter datafill for subfields NDC, DN, and DNBLKS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SCRNLTID	NDC	0 to 7 digits	This is internally represented as a serving numbering plan area (SNPA).
	DN	0 to 11 digits	This subfield contains either the complete subscriber number or the DDI root, depending on whether DDI is subscribed or not.
	DNBLKS	0 to 9 digits	Each digit in this subfield represents the first digit of the DDI extension and is used under economic usage of DN conditions. Note: This option is for primary rate interface accesses only.

DATATYPE = CLI, OPTION = DFLTPI

If the entry in subfield OPTION is DFLTPI, enter datafill for subfields PI and MODE. Option DFLTPI is only valid in international loads.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
DFLTPI	PI	ALLOW or RESTRICT	Enter ALLOW to indicate that the CLI is presented. Enter RESTRICT to indicate that the CLI is not presented. The default value for this field is ALLOW.
	MODE	TEMP or PERM	TEMP indicates that the default presentation indicator (PI) is active for each call. PERM indicates that the default presentation indicator is active for all calls. If the entry in this field is TEMP, the PI is used only if a PI was not received in the incoming SETUP message. If the entry in this field is PERM and the PN_SUPPORTED field in table OFCENG is to set to NN, the PI is used regardless of whether a PI was received in the SETUP message. If PN_SUPPORTED is set to YN, the DEFLTPN (default PN) field must also be assigned a value. The default value for this field is TEMP. ***Note:*** If subfield PI is datafilled with ALLOW, subfield MODE must be datafilled with TEMP.

DATATYPE = CLI, OPTION = SCRNDFLT

If the entry in subfield OPTION is SCRNDFLT, enter datafill for subfields DFLTSN and DFLTCGRP.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SCRNDFLT	DFLTSN	0 to 11 digits	This subfield (which performs the same function as subfield DFLTCGN under the DATATYPE=DN option but for the European numbering plan) contains the default CGN that is required under the following circumstances: • the user-provided CGN failed screening • the CGN information element (IE) is not part of the SETUP message • if the NOSCRN option is subscribed and the type of number (TON) in the SETUP message is unknown, the network provides this default number as the valid number
	DFLTCGRP	alphanumeric (1 to 16 characters)	This is the default customer group. This field is not concerned with screening. This field replaces the same field under the DN selector. Use of this field cannot occur with SCRNLTID/SCRNDFLT.

DATATYPE = DN

If the entry in field DATATYPE is DN, enter datafill for subfields DFLTCGN and OPTIONS.

Field descriptions for conditional datafill (Sheet 1 of 2)

Field	Subfield or refinement	Entry	Explanation and action
	DFLTCGN	see subfields	The default calling party number (CGN) is a ten-digit directory number (DN) to which the call defaults if no CGN is supplied on originations. If CGN screening is enabled, this DN is the only DN that can originate calls on this interface. The default CGN consists of the values entered in subfields SNPA, NXX, and STATION. ***Note 1:*** A log generates when a default CGN is not properly datafilled. ***Note 2:*** This field performs the same function as field DFLTSN under the SCRNLTID option but for the North American DN style.
	SNPA	numeric (maximum 3 digits)	Enter the area code.
	NXX	0 to 9, N, B, C, D, E, or F	Enter the first three characters of the DN.
	STATION	0 to 9, N, B, C, D, E, or F	Enter the last four characters of the DN.
	OPTIONS	see subfield	This field consists of the single subfield OPTION, and options CUSTGRP and E911DN.

Field descriptions for conditional datafill (Sheet 2 of 2)

Field	Subfield or refinement	Entry	Explanation and action
		CUSTGRP	Enter CUSTGRP and customer group name(s) (of 16 alphanumeric characters) to specify the customer group(s) to which the DN belongs.
		E911DN	Enter E911DN and set a value of calling number (CGN) to indicate to the switch to send incoming CGN digits for 911 calls only. The CGN option passes the user-provided CPN to the PSAP. The actual CPN location is retrieved from the PSAP database, and its DN is screened. If the DN passes screening, it is delivered to the PSAP, instead of the default DN. Set the value to default to indicate to the switch to send the default DN as the CGN.

DATATYPE = SERV

If the entry in field DATATYPE is SERV, enter datafill for subfields AUDTRMT, CGNREQD, CGNDELV, CDNDELV, and OPTION.

Field descriptions for conditional datafill (Sheet 1 of 11)

Field	Subfield or refinement	Entry	Explanation and action
SERV	AUDTRMT	Y or N	This field determines whether in-band tones and announcements are provided instead of disconnect with cause when treatments are applied to calls from this LTID. AUDTRMT applies to the following treatments: VACT, UNDN, BLDN, PODN, CONF, MHLD, ATBS, TESS, TRBL, DNTR Enter Y (yes) to enable in-band treatment procedures for originating PRI calls with bearer capability (BC) of speech or 3.1-kHz audio. ***Note:*** To make two bearer capabilities compatible with TBCT, datafill bearer capabilities in table BCCOMPAT before you datafill table LTDATA. Enter N (no) to disable in-band treatment procedures and handle call clearing as it was originally handled.
	CGNREQD	Y or N	Enter Y to indicate that the CGN must be provided by the calling user equipment. Otherwise, enter N. ***Note:*** Set the LTID of a PRI public safety answering point (PSAP) to CGNREQD = Y to ensure the delivery of the CGN.

Field descriptions for conditional datafill (Sheet 2 of 11)

Field	Subfield or refinement	Entry	Explanation and action
	CGNDELV	ALWAYS, NEVER or SCREENED	This field indicates when the CGN is delivered to the called interface. ALWAYS indicates that the actual CGN with the PI is sent. NEVER indicates that the CGN with the PI is not sent. SCREENED indicates that if the PI is private, the CGN is not sent (it is replaced by asterisks). The default value for this field is SCREENED. ***Note:*** Set the LTID of a PRI PSAP to CGNDELV = ALWAYS to ensure the delivery of the CGN.
	CDNDELV	ALWAYS or NEVER	This field determines whether the called party number is delivered to the called interface. ALWAYS indicates that the called party number is always delivered to the called interface. NEVER indicates that the called party number is never delivered to the called interface.
	OPTION	see entries	This field contains options for PRI services. One or more options are assigned.

Field descriptions for conditional datafill (Sheet 3 of 11)

Field	Subfield or refinement	Entry	Explanation and action
	OPTION (continued)	AIN_IPI_STR	In NA007, all intelligent peripheral (IP) connections use the PRI NI-2 protocol variant. The NI-2 variant is used only for IP connections. During the NA007 to NA008 one-night process (ONP), this is used as the criterion to decide whether or not to assign the AIN_IPI_STR option to a tuple. When table LTDATA is dumped and restored during the ONP, the AIN_IPI_STR option is added to the tuples when the corresponding primary rate interface (PRI) B-channel is attached to an IP.
		BI_UNAVAIL	Enter BI_UNAVAIL N or Y to indicate to the network the availability of the originator's network number (NN) for display purposes. This option is only available for PRI trunks. If this option is datafilled, it indicates to the network that the NN is not available for display. ***Note:*** This option is valid only in European (CEU) and APC markets.
		BNS	Enter BNS (billing number selection) to specify the billing number used for AMA recording. Enter datafill for subfield BNS.

Field descriptions for conditional datafill (Sheet 4 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		CCBS	The provisioning of the CCBS (Completion of Calls to Busy Subscriber) and CCNR (Completion of Calls on No Reply) supplementary services against the QSIG or PRI access enables the network operator to control the availability of these services for public calls. Enter CCBS to permit the Call Completion to Busy Subscriber service. This service enables a subscriber originating a call to a busy destination to be recalled by the network when the busy destination becomes idle. ***Note:*** CCBS is a world trade (WT) feature, and is available in North American loads.
		CCNR	Enter CCNR to permit the Call Completion on No Reply service. This service allows an unanswered call to be completed after the called subscriber has performed an activity.
		CGNCALC	Enter CGNCALC to allow the PRI trunk to control the presentation indicator and CGN in the outgoing setup message. Enter datafill for subfield CGN_PRES_IND.
		CHG	Enter CHG for the charge number in calling number digits when no calling number is available. If the entry in this field is CHG, no other datafill is required.

Field descriptions for conditional datafill (Sheet 5 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		CLIPREFX	Enter CLIPREFX to add the calling line identity (CLI) prefix to a line and to allow Expression 1 for Japan primary rate interface (PRI) trunks. ***Note:*** This option is available for Japanese PRI trunks.
		COLP	Enter COLP to enable connected line identification presentation for the specified incoming PRI trunk.
	OPTION (continued)	COLR	Enter COLR to enable connected line identification restriction for the specified outgoing PRI trunk. Enter datafill for subfield MODE.
		CUG	Enter CUG to activate the closed user group feature.
		DAS	Enter DAS for flexible digit analysis and enter datafill for subfield DGNAME.
		DDI	Enter DDI to enable the Direct Dialing In feature, which enables subscribers to dial into a private ISDN using the public ISDN numbering system. Enter datafill for subfield DEFAULT_DN in subfield KVAR.
		DFLTCNN	Enter DFLTCNN to provision the default connected number used by Connected Line identification Presentation/Restriction COLP/COLR. Then enter the default connected number.

Field descriptions for conditional datafill (Sheet 6 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		ECMA226_CHNL_MAP	Enter ECMA226_CHNL_MAP to enable channel mapping. If enabled, the signaling channel is mapped to timeslot 16. The user channels 1 to 15 are mapped to timeslots 1 to 15, and channels 16 to 30 are mapped to timeslots 17 to 31. If this option is not entered, channel mapping defaults to the PRI standard.
		ECT	Enter ECT to activate network-side explicit call transfer (ECT) on ETSI PRI trunks. ECT is only available for ETSI PRI 1990. ECT enables a user (user A) to convert two calls (either incoming or outgoing) into one new call between user B and user C.
		ETSIDIV	Enter ETSIDIV to enable partial re-routing on ETSI PRI trunks. ETSIDIV is only available on NETWORK mode ETSI PRI trunks. Other PRI variants cannot use this option. Enter LSPSO to associate an LSPSO for PRI private trunk types that have an NTNA or NI protocol variant.
		INSNAC	Enter INSNAC to trigger the modification of the outgoing CLI to a full national number. This option has no sub-parameters and is only allowed on ETSI PRI variants, for example, base ETSI PRI, Belgian PRI, Italian PRI, French PRI-Numeris/VN4, and QSIG protocol versions. It is rejected on all other protocol versions.
		LSPAO	Enter LSPAO to associate an LSPAO for PRI private trunk types that have a Northern Telecom North America (NTNA) or NI protocol variant.

Field descriptions for conditional datafill (Sheet 7 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		LSPSO	[content to be added later]
		MCID	Enter MCID to activate the Malicious Call ID (MCID) feature, which informs a receiving subscriber of the calling party's identity. The call information remains available until a response to the DISConnect message (Release or Release Complete) is received.
		MWIC	Enter MWIC to provide the DMS-100 switch with the capability of accepting an MWI control request over an ISDN NI-PRI trunk group.
		NET_CALLFAIL_ON	Enter NET_CALLFAIL_ON to provision network provided call failure tones on a PRI trunk. Only network mode PRI trunks support the option.
		NET_DIALTONE_ON	Enter NET_DIALTONE_ON to provision network provided dial tones on a PRI trunk. Only network mode PRI trunks support the option.
		NET_NORMDISC_ON	Enter NET_NORMDISC_ON to provision busy tone during normal call release. This option applies to the network side of INS1500 PRI trunks. ***Note:*** When NET_NORMDISC_ON is on, enter Y to enable the network sends Progress Message and plays network normal fast busy tone, enter N to enable the network sends Disconnect message.
		NET_RINGBACK_ON	Enter NET_RINGBACK_ON to provision network provided ringback tones on a PRI or QSIG trunk. Only network mode PRI trunks or QSIG trunks support the option.

Field descriptions for conditional datafill (Sheet 8 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		NO_BCH_SERV	Enter NO_BCH_SERV to disable the exchange of the Q931 SERVICE and SERVICE ACK messages used by B-channel service messaging. ***Note:*** B-channel messaging is enabled when NO_BCH_SERV is not datafilled.
		PCOS	Enter PCOS to enable the PRI trunk to originate priority class of service calls even when NETPROT is activated. Enter datafill for subfield LTDATA_PCOS_OPTION. ***Note:*** The PCOS option allows high-priority users privileged access to the telephone system during catastrophic or emergency situations. Other users are denied access to the network. Do not datafill the PCOS option or use the NETPROT or ESP commands unless your network can accommodate high-priority users.
		PRI_CD	Enter PRI_CD (Primary Rate Interface Call Deflection) to allow the served user to respond to an incoming call by requesting that the call be forwarded to another destination. PRI_CD can be datafilled only for VN PRI (FRENCH PRI).
		PRI_CFU	Enter PRI_CFU (Primary Rate Interface Call Forward Unconditional) to allow the served user to redirect all incoming calls addressed to the subscriber's ISDN number to another user. PRI_CFU can be datafilled only for VN PRI (FRENCH PRI).
		PRIPSAP	Enter PRIPSAP to provision the PRI PSAP.

Field descriptions for conditional datafill (Sheet 9 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		PRI_CLB_NOTIF	Enter PRI_CLB_NOTIF to add notification of suspend/resume to PRI trunk during regret time of terminator line IBN. This option is valid only in the Israeli market.
		REDIR_INFO_IN_RGN	Enter REDIR_INFO_IN_RGN when redirecting information is required in the Redirecting number Information Element.This option applies when redirection occurs over a different switch and redirection information is received over an Turkish ISUP/ ETSI ISUP V2/FTUP/ANSI ISUP/SPIROU to a terminating ETSI PRI. (If this option is not datafilled then the redirection information is sent in the DivertingLegInfo2 component of the FACILITY IE.)
		RESTRICT_REDIR_ INFO	Enter RESTRICT_REDIR_INFO to restrict Redirecting Information being sent in the SETUP message. However, if not datafilled, then the Redirecting Information will be added to the Q931 SETUP message sent to the terminating ETSI PRI for a diverted call. This will be as per the functionality of the MMP16 feature 'ISDN Redirecting number enhancements for ETSI PRI & BRI' (59027615). ***Note:*** This option is only datafillable for ETSI PRI trunks.
		RNDELV	Enter RNDELV to enable outgoing Redirecting Number Screening and datafill one of the subfields ALWAYS, SCREENED, or NEVER.

Field descriptions for conditional datafill (Sheet 10 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		RNID	Enter RNID to activate the PRI Redirecting Number Identification suppression feature. Enter datafill for subfield SUPPRESS.
		RST_ACK_MULT_CID	[content to be added later]
		SHPRN	Enter SHPRN to provide the DMS-100 switch with the ability to override the delivery of presentation restricted numbers.
		TBCT	Enter TBCT to enable two B-channel transfer option for NI-2 PRI trunks. TBCT allows a controller to request the SSP connect two independent callers on the controller's interface. TBCT allows the SSP to release the two links to the controller after connecting the users. If you enter TBCT, also enter datafill for subfields PARM and STATUS. Table control verifies the following datafill for the corresponding LTID tuple in table LTDEF when option TBCT is added to an LTID provisioned in table LTDATA. • The trunk agent datafilled in table LTDEF has field LTCLASS = PRI. • The PRI protocol variant datafilled in table LTDEF has subfield VARIANT = NIPRI.
		TBO	Enter TBO for the terminating billing option for ISDN, PRI, or common language location identifier (CLLI). Enter datafill for subfields CALLCODE and SFPRSNT.
		TCAP_CNAM	Enter TCAP_CNAM to enable PRI calling name delivery, and enter datafill for subfield CNAM_SUSP.

Field descriptions for conditional datafill (Sheet 11 of 11)

Field	Subfield or refinement	Entry	Explanation and action
		UUS1	Enter UUS1 for User-to-User Signaling, which allows an ISDN user to send to or receive from another ISDN user a limited amount of information over the signaling channel in association with a call to the other ISDN user.
		UUS1EXP	Enter UUS1EXP for User-to-User Signalling Service 1, Explicit. For UUS1 explicit service activation, UUS1(implicit) and UUS1EXP (explicit) options should be entered together. Removing only UUS1EXP option disables the explicit UUS1 functionality.

DATATYPE = SERV, OPTION = BNS

If the entry in subfield OPTION is BNS, enter datafill for subfield BNS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
BNS	BNS	RN_CPN, SBN, UPNS_RN_CPN, or NIL_BNS_PARM	Enter the type of billing number to use for AMA recording, as follows: • Enter RN_CPN to use a user-provided redirecting number that passed screening. • Enter SBN to use the special billing number from table TRKGRP. • Enter UPNS_RN_CPN to use a user-provided redirecting number that is not screened. The default entry is RN_CPN. ***Note:*** The NIL_BNS_PARM entry applies only to non-NTNA variants. It does not apply to the National ISDN PRI (NI-PRI) variant.
Note: LTMAP table control verifies datafill of SBN in table TRKGRP.			

DATATYPE = SERV, OPTION = CGNCALC

If the entry in subfield OPTION is CGNCALC, enter datafill for subfield CGN_PRES_IND.

Note: Option CGNCALC is not available in North American loads.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
CGNCLAC	CGN_PRES_IND	ALLOW, RESTRICT, or TRANSPARENT	Enter ALLOW if the outgoing presentation indicator is always set to PRESENT. Enter RESTRICT if the outgoing presentation indicator is always set to RESTRICT. Enter TRANSPARENT to match the outgoing presentation indicator of the last call forwarding party.

DATATYPE = SERV, OPTION = COLR

If the entry in subfield OPTION is COLR, enter datafill for subfield MODE.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
COLR	MODE	PERM, TEMP	Enter PERM for PERMANENT mode. In PERMANENT mode the COLR supplementary service is invoked automatically by the network on all calls. Enter TEMP for TEMPORARY mode. In this mode the COLR supplementary service is invoked on a per-call basis. This means that one of the following scenarios occurs, according to the default value set in the network: • default value RESTRICTED COLR is automatically invoked for each incoming call unless the default value is overridden by subscriber request at the time of answer • default value NOT RESTRICTEDCOLR is invoked only if requested by the subscriber at the time of answer

DATATYPE = SERV, OPTION = DAS

If the entry in subfield OPTION is DAS, enter datafill for subfield DGNAME.

Note: Option DAS is not available in North American loads.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
DAS	DGNAME	alphanumeric (maximum 8 characters) or NIL	The Digit Name field contains the value NIL until an entry is added to field DGNAME in table DGHEAD. Then the entry in field DGNAME in table DGHEAD is added to field DGNAME in table LTDATA.

DATATYPE = SERV, OPTION = DDI

If the entry in subfield OPTION is DDI, enter datafill for subfield DEFAULT_DN in field KVAR.

Note: Option DDI is not available in North American loads.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
KVAR	DEFAULT_DN	1 to 11 digits	This field contains the default DN.

DATATYPE = SERV, OPTION = DFLTCNN

If the entry in field OPTION is DFLTCNN, enter the default connected number (CNN).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
DFLTCNN	CNN	1 to 10 digits	Enter the default CNN.

DATATYPE = SERV, OPTION = LSPAO

If the entry in field OPTION is LSPAO, enter datafill for subfields PROVIDER and CONTEXT.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
LSPAO	PROVIDER	alphanumeric (1 to 16 characters)	Enter a provider name to choose an assigned local service provider. The provider name must exist in table LSPINFO before you make entries in LSPAO.
	CONTEXT	U = unbundled N = native R = resold	Enter a context such as ILEC or CLEC. The context identifier indicates the leasing arrangement between LSPAO and the switch owner.

DATATYPE = SERV, OPTION = MWIC

If the entry in field OPTION is MWIC, enter datafill for subfields MWIMAX, SPLITNNX, and DMSRID.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
MWIC	MWIMAX	8 to 2000	Maximum number of outstanding MWI Control requests that are supported on the NI-PRI. The default value is 200.
	SPLITNNX	Y or N	Used only if the host DMS-100 switch shares the client user's office code with another switch. This parameter indicates whether to consider the MWI control request received by the host DMS-100 switch as a remote MWI control request. Y indicates a remote request. N indicates a local request. The default is N.
	DMSRID	10 (0, 1, 2, 3, 4, 5, 6, 7, 8, 9)	Default MSRID when no MSRID is supplied by the ISDN MSR System. There is no default value.

DATATYPE = SERV, OPTION = PCOS

CAUTION

Risk of service interruption

The PCOS option gives high-priority users privileged access to the telephone system during catastrophic or emergency situations. Other users are denied access to the network. Do not use the PCOS option or use commands NETPROT or ESP unless high-priority users must have exclusive access to the network.

If the entry in subfield OPTION is PCOS, enter datafill for subfield LTDATA_PCOS_OPTION.

Note: Option PCOS is not available in North American loads.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PCOS	LTDATA_PCOS_OPTION	TRUE (set) or FALSE (not set)	The Priority Class of Service field contains a default value of FALSE. Set the field entry to TRUE to enable priority status under Essential Service Protection (ESP) or Network Protection (NETPROT) conditions.

DATATYPE = SERV, OPTION = PRI_CALL_CONTROL

If the entry in subfield OPTION is PRI_CALL_CONTROL, enter datafill for subfields MAX_IN_CALLS and MAX_OUT_CALLS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PRI_CALL _CONTROL	MAX_IN_ CALLS	numeric (0 to 30)	Enter the maximum number of incoming calls allowed on the ETSI PRI link. ***Note:*** If the MAX_IN_CALLS datafill is zero, the following warning message is displayed: `All incoming PRI calls will be rejected!!!`
	MAX_OUT_ CALLS	numeric (0 to 30)	Enter the maximum number of outgoing calls allowed on the ETSI PRI link. ***Note:*** If the MAX_OUT_CALLS datafill is zero, the following warning message is displayed: `All outgoing PRI calls will be rejected!!!`

Note 1: The PRI_CALL_CONTROL datafill must be performed during a very low traffic period when the number of calls active on any PRI is a minimum.

Note 2: If the sum of the MAX_IN_CALLS and MAX_OUT_CALLS datafills is less than 30, the following warning message is displayed: Sum of the max_in_calls and max_out_calls is less than 30. Link will not be fully utilized!!!

DATATYPE = SERV, OPTION = PRI_CD

This option enables the served user to respond to an incoming call by requesting that the call be forwarded to another destination.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PRI_CD	CD_TYPE	DFLT or INTL	Enter DFLT or INTL to specify the CD TYPE. DFLT is the normal setting and does not allow calls to be forwarded to international destinations. The INTL option allows calls to be forwarded to international destinations. PRI_CD can be datafilled only for VN PRI (FRENCH PRI).

DATATYPE = SERV, OPTION = PRI_CFU

This option enables the served user to redirect all incoming calls addressed to the subscriber's ISDN number to another destination.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PRI_CFU	CFU_TYPE	DFLT or INTL	Enter DFLT or INTL to specify the CFU TYPE. DFLT is the normal setting and does not allow calls to be redirected to international destinations. The INTL option allows calls to be redirected to international destinations. PRI_CFU can be datafilled only for VN PRI (FRENCH PRI).

DATATYPE = SERV, OPTION = PRIPSAP

If the entry in subfield OPTION is PRIPSAP, enter datafill for subfields ANONCALL, DIRECT, SNPA, PSAPDN and NATLXLA.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
PRIPSAP	ANNONCALL	Y or N	Enter Y if the PSAP can receive anonymous calls. Otherwise, enter N. The default is N. Note: If the ANONCALL field is set to Y, you will be prompted to enter datafill for the DIRECT field.
	DIRECT	Y or N	Enter Y to add the PRIPSAP option. The default is N.
	SNPA	3 digits	Enter the three-digit serving numbering plan area for the PSAP. The default is 0.
	PSAPDN	7 or 10 digits	Enter 7 or 10-digit directory number of the PSAP. The default is 0.
	NATLXLA	Y or N	If the entry is 'Y', call translations to this PSAP are based on 10 digits (with NPA). The PSAPDN field in table E911PSAP is datafilled with 10 digits. If the entry is 'N', call translations are based on 7 digits (without NPA). The PSAPDN field is datafilled with 7 digits.

DATATYPE = SERV, OPTION = RNDELV

If the entry in field OPTION is DFLTCNN, enter the default connected number (CNN).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
RINDELV	DELIVER	ALWAYS, SCREENED, or NEVER	Enter ALWAYS if the RN digits are included in the outgoing SETUP message regardless of the presentation indicator value associated with the RN. Enter SCREENED if the RN digits are included in the outgoing message based on the PI. If the PI is set to presentation restricted, the RN digits will not be included. Enter NEVER if none of the RN information is included in the outgoing message. The RNDELV OPTION default setting is SCREENED.

DATATYPE = SERV, OPTION = RNID

If the entry in subfield OPTION is RNID, enter datafill for subfield SUPPRESS.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
RNID	SUPPRESS	Y or N	Enter Y to suppress Redirecting Number Identification. The default is N.

DATATYPE = SERV, OPTION = SHPRN

If the entry in subfield OPTION is SHPRN, enter datafill for subfield SHPRN_PARM.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
SHPRN	SHPRN_ PARM	NNNN, YYYY, YNNY, NNNY, YNYY, NNYY	The first letter represents Direct calls-Calling Party Number. The second letter represents Forwarded Calls-Calling Party Number. The third letter represents Forwarded Calls-Original Number on Calls Forwarded Multiple Times. The fourth letter represents Forwarded Calls-Last (or Only) Forwarding Number. The default is NNNN.

Note: CGNDELV and RNDELV must be set to screened for SHPRN to be provisioned.

DATATYPE = SERV, OPTION = TBCT

If the entry in field OPTION is DFLTCNN, enter the default connected number (CNN).

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TBCT	PARM	NTC	Enter NTC to identify subscription to the Notification to Controller feature. The STATUS subfield indicates if the subscription is ON or OFF. NTC is the only value for this subfield.
	STATUS	ON or OFF	Enter ON to turn the TBCT notification to controller feature (AF7322) on. Enter OFF to turn this feature off. The default is ON.

DATATYPE = SERV, OPTION = TBO

If the entry in subfield OPTION is TBO, enter datafill for subfields CALLCODE and SFPRSNT. If the entry in subfield SFPRSNT is Y, enter datafill for subfield SFEATVAL.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TBO	CALLCODE	800 to 999	Enter a generic call code.
	SFPRSNT	Y or N	Enter Y to indicate that the service feature is present and enter datafill for subfield SFEATVAL. Enter N to indicate that the service feature is not present.
	SFEATVAL	800 to 999	Enter a service feature value.

DATATYPE = SERV, OPTION = TCAP_CNAM

If the entry in subfield OPTION is PRIPSAP, enter datafill for subfields ANONCALL, DIRECT, SNPA, PSAPDN and NATLXLA.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
TCAP_ CNAM	CNAM_ SUSP	Y or N	Enter Y to enable subscriber usage-sensitive pricing (SUSP) billing for the PRI LTID. Enter N to disable SUSP billing for the PRI LTID. The default is N. Note: Before setting subfield CNAM_SUSP to Y for a PRI LTID, the operating company must assign the billing DN in table TRKGRP (subfield BILLDN).

DATATYPE = RN

If the entry in field DATATYPE is RN, enter datafill for subfield OPTION.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
RN	OPTION	EDITRN	Enter EDITRN to provide a means for completing a partial RN and enter datafill for subfields OVLYRN, NPI, TON, and OVLYCNT.

DATATYPE = RN, OPTION = EDITRN

If the entry in subfield OPTION is EDITRN, enter datafill for subfields OVLYRN, NPI, TON, and OVLYCNT.

Field descriptions for conditional datafill

Field	Subfield or refinement	Entry	Explanation and action
EDITRN	OVLYRN	0 to 9 (maximum 18 digits)	The Overlying Redirected Number field converts a partial Redirected Number (RN) to a complete number by associating a partial RN with an overlying RN. Note: Automatic Message Accounting (AMA) only supports RNs of up to 12 digits.
	NPI	E164	Enter the numbering plan identifier associated with field OVLYRN.
	TON	NATL or LOCAL	Enter the type of number associated with field OVLYCLI. Note: TON must be set to LOCAL to enable EDITCLI.
	OVLYCNT	0 to 18	Enter the number of least significant digits from a partial CLI that are overlaid on top of the least significant digits of field OVLYRN. A value of 0 (zero) indicates that all the digits from the partial RN are overlaid. Note: Automatic Message Accounting (AMA) only supports RNs of up to 12 digits.

Table history

SN07

Table LTDATA was added for SN08 through feature A00007329.

Additional information

Details of operation and datafill for RGN screening and billing

MMP17 feature “PRI origination, screening and capture of RGN in AMA” (activity A59034151) introduced the following functionality for ETSI PRI on the DMS-100 MMP platform.

- screening and editing of RGN (redirecting/rerouting number):
  - Redirecting Number IE
  - Redirecting Number in DivertingLegInfo2 (Facility IE)
  - Last Rerouting Number in Call Re-routing operation during invocation of Partial Re-route (Facility IE)
- Redirecting Number billing

SN06 (DMS) feature “ISDN Redirecting Number enhancement” (activity A89008946) introduced the same functionality for Call Server 2000 switches.

This section details the datafill required in LTDATA to achieve different RGN screening options.

Screening overview

When the PBX sends the SETUP message to the DMS with a RGN IE (Redirecting Number Information Element), the RGN will be edited and screened.

The screening of RGN digits is performed only if NPI screening passes.The NPI values that allow the screening to pass are as shown in table “NPI screening”.

NPI screening

NPI	Screening
Unknown	PASS
ISDN/E.164	PASS

NPI screening

NPI	Screening
Private numbering plan	FAIL
Note: Screening passes for NPI = Private numbering plan if ALLOW_SPECIAL_TON_NPI_SCREENING is set to 'Y' in table OFCENG.	

Per-office screening
The CLI Selector is checked to retrieve screening/editing instructions.

If the SCRNLTID/SCRNDFLT option is not provisioned per-office screening is performed (provided the CLI selector is datafilled and screening is not explicitly disabled using the NOSCRN option).The per-office screening is performed based on the datafill in table DNSCRN.

Per-interface screening
The CLI Selector is checked to retrieve screening/editing instructions. If the SCRNLTID/SCRNDFLT option is provisioned, per-interface screening is automatically enabled.

The SCRNLTID/SCRNDFLT provides an additional screening facility which is provisionable for each LTID (using table LTDATA) instead of each office (using table DNSCRN).It provides more efficient and flexible screening because only data stored for LTID is screened.

Special arrangement (NOSCRN without SCRNPN)
If NOSCRN is datafilled and SCRNPN is not datafilled then calls originating from the particular trunk group are not screened. NOSCRN may be applied to both per-interface screening and per-office screening.

TON and NPI screening is still carried out even with NOSCRN active. The following tables show which NPI and TON values will pass/fail screening, dependent on various parameters such as DDI subscription, the market in which the office resides and the NOSCRN option. The TON values for which the screening passes are as shown in table "TON screening with NOSCRN option" and the NPI values are shown in table "NPI screening". If SCRNPN is present then the RGN screening will be

performed and the RGN will be presented based on the screening results.

TON screening with NOSCRN option

TON	Screening
Unknown	FAIL
Subscriber	FAIL
National	PASS
International	PASS
Network specific	FAIL

Note 1: Screening is not dependent on DDI subscription if NOSCRN is present.

Note 2: If MARKET_OF_OFFICE = GERMANY then the screening passes.

NPI screening

NPI	Screening
Unknown	PASS
ISDN/E.164	PASS
Private numbering plan	FAIL

Redirecting Number privacy

The purpose of Redirecting Number privacy is to restrict the presentation of Redirecting Number. The presentation of Redirecting

Number is decided based on the Incoming PI value and the DFLTPI datafill, as shown in table "Redirecting Number privacy".

Redirecting Number privacy

Incomping PI	DFLTPI option	Outgoing PI
RESTRICT	ALLOW TEMP/RESTRICT TEMP	RESTRICT
ALLOW	ALLOW TEMP/RESTRICT TEMP	ALLOW
Any value	RESTRICT PERM	RESTRICT
Not supplied	ALLOW TEMP	ALLOW
Not supplied	RESTRICT TEMP	RESTRICT
Not supplied	Not datafilled	ALLOW
Any value	Not datafilled	ALLOW

PN support for Redirecting Number

The Presentation Number support for Redirecting Number is provided as part of this feature and is the same as PN support for calling number (CGN). The table PN support for RGN for the terminating ETSI PRI illustrates the behavior of the outgoing RGN for the terminating ETSI PRI, when PN_SUPPORTED in table OFCENG is ACTIVE.

PN support for RGN for the terminating ETSI PRI

DFLTPN	DEFLTCGN	SCRNPN	NOSCRN	Screening results	Outgoing RGN
N	N	N	Y	Rudimentary screening passes (Note 1)	User RGN
Y	X (Note 2)	N	Y	Rudimentary screening passes	DEFLTPN
N	Y	N	Y	Rudimentary screening passes	User RGN

PN support for RGN for the terminating ETSI PRI

DFLTPN	DEFLTCGN	SCRNPN	NOSCRN	Screening results	Outgoing RGN
X	X	Y	Y	Screening passes	Screened RGN
Y	X	X	Y	Rudimentary screening fails	DEFLTPN
N	Y	X	Y	Rudimentary screening fails	DEFLTCGN
X	X	Y	N	Screening passes (Note 3)	Screened RGN
Y	Y	Y	N	Screening fails	DEFLTPN
N	Y	Y	N	Screening fails	DEFLTCGN
N	N	X	N	Screening fails	User RGN
Y	Y	N	N	Screening passes	DEFLTPN
N	Y	N	N	Screening passes	Screened RGN

Note 1: "Rudimentary screening" means that TON and NPI only are screened.

Note 2: X = "don't care"

Note 3: TON, NPI and digits are screened

The behavior is the same for the terminating ETSI BRI also, but in this case the PN is presented only if PI is allowed, and the BRI set is subscribed to CLIP. If these conditions are not met, the screened/unscreened RGN is presented.

Activation of the functionality

The Screening of RGN is performed if the CLI selector is datafilled.The options for Per-office screening and Per-LTID Screening are mutually exclusive and cannot be provisioned at the same time. The screening

options for Per-Interface screening and Per-office screening are as shown in table Screening options.

Screening options

Per-interface screening	Per-office screening
SCRNLTID	EDITCLI
SCRNDFLT	DFLTCGN

The SCRNLTID option requires datafill in the following fields.

- The national destination code (NDC) field is a reference to an area code entry in table SNPANAME.
- The directory number (DN) is the subscriber number or the DDI root (subscriber number without extension digits).This field should not contain a National Significant Number (NSN)
- Field DNBLKS is used to specify a list of extension blocks that are valid for a particular access in the case of economic usage of DN.Otherwise, the field is left empty.

The SCRNDFLT option requires datafill in the following fields.

- DFLTSN contains the default subscriber number that is provided to the network by prefixing the NDC.
- DFLTCGRP contains the default customer group which is not related to CLIP/CLIR or screening. When a default customer group needs to be specified and Per-LTID screening is required, the default customer group needs to be datafilled under SCRNDFLT option (instead of under the DN selector).This is because the SCRNLTID/SCRNDFLT options and the DN selector are mutually exclusive.

The EDITCLI option requires datafill in the following fields.

- OVLYCLI: Overlay calling line identifier.The user provided CLI is overlaid on top of the OVLYCLI.
- NPI: This field specifies the NPI associated with OVLYCLI.The value supported is E164.
- TON: This field specifies the TON associated with OVLYCLI.
- OVLYCNT: The values specify the number of least significant digits from the user provided CLI to be overlaid on top of the least significant digits of OVLYCLI to form a complete CLI. ‘0’ indicates that all digits from user-provided CLI are to be overlaid on top of the OVLYCLI to form a complete CLI.

Billing

The RGN is given higher priority than the CGN (calling number) and, if present, will be used for billing for an ETSI PRI call. This is to prevent fraud and do proper billing for redirecting calls.

Billing Number Determination is done during call processing and since it depends on the outcome of RGN Screening, it is done subsequent to the Screening/Editing.

In case of partial re-route the last rerouting number will be used for billing the second leg of the call after screening. No special datafill is required for activation of billing based on RGN. Option AMACLID_IC_PRI_CGN (table AMAOPTS) updates module code 46 of an AMA record with unmodified RGN.

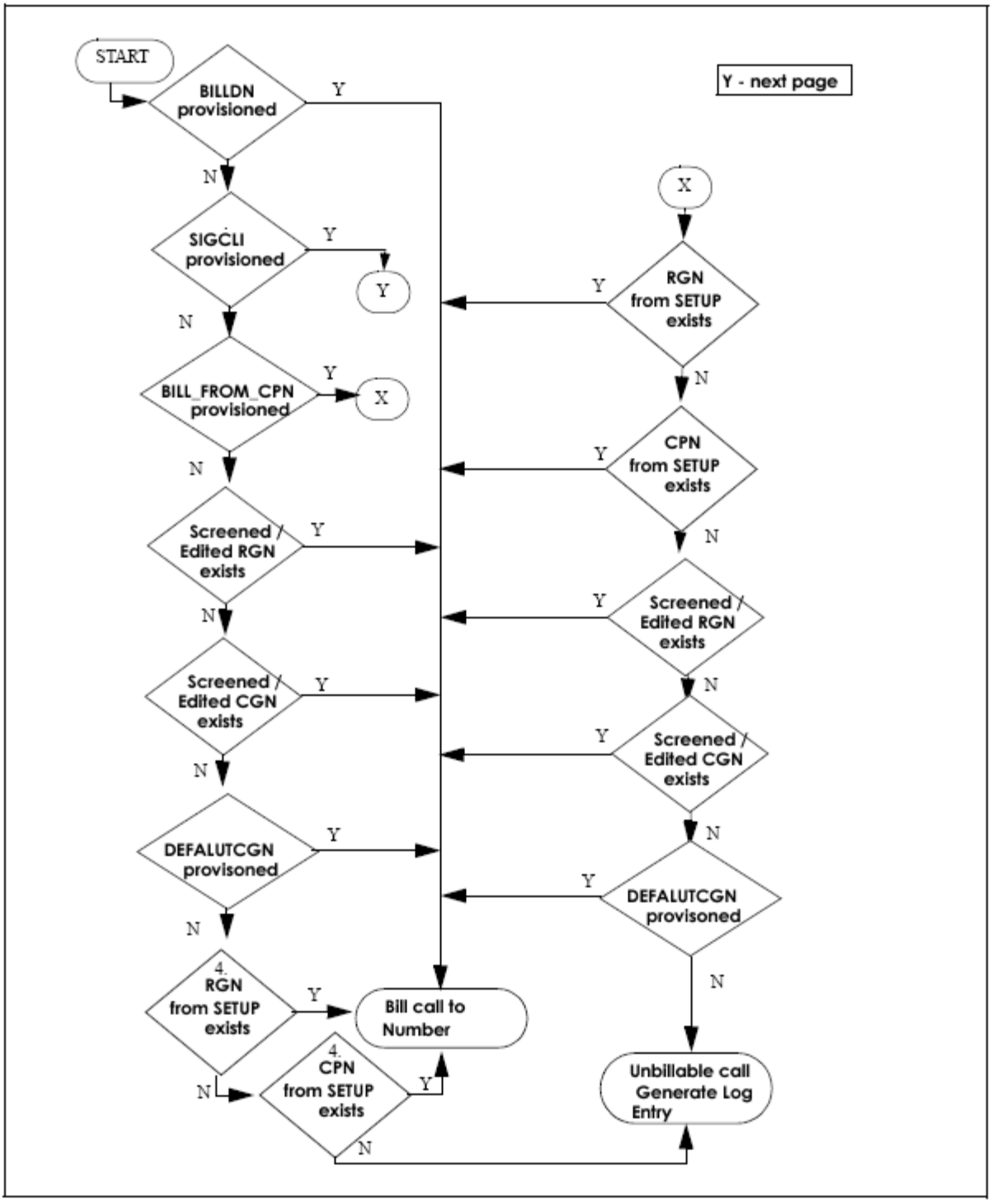
Table RGN Billing datafill below shows the datafill of the different options in tables LTDATA and AMAOPTS to provide different types of AMA records.

RGN Billing datafill

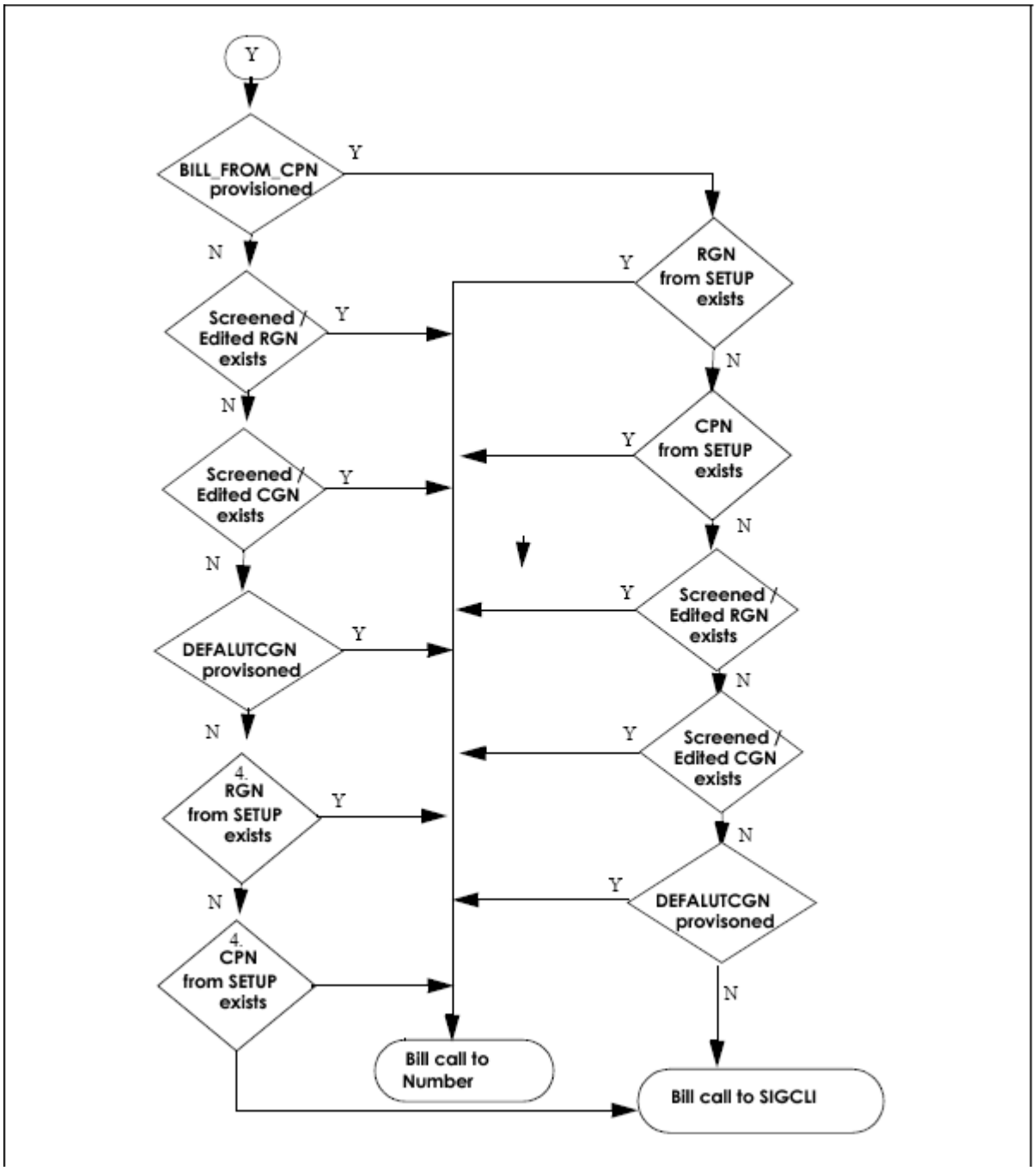
BILLDN	BILL_FROM_CPN	AMACLID_IC_PRI_CGN (in table AMAOPTS)	AMA record content
Y	X	ON	ORIG_OPEN_DIGITS = BILLDN Module Code 46 = Screened RGN
N	Y	OFF	ORIG_OPEN_DIGITS = Unscreened RGN
N	X	OFF	ORIG_OPEN_DIGITS = Screened/edited RGN from SETUP

The figures on the following pages show the algorithm for generation of AMA billing record for RGN.

Algorithm for generation of AMA billing record for RGN



Algorithm for generation of AMA billing record for RGN (continued)



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 REPONLY (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 *Integrated Services Digital Network Service Orders for ISDN Terminals Reference Manual*. 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 MNPRIIID

Note: Table MNPRIIID 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	*Common equipment module* The subfields are UNITNO and ALRMCTRL.
	UNITNO	0-1	*Unit number* 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)	*Alarm control* 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, HLDOVR24, VCXO70, VCXO90, CLKOOS	*Alarm name* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • MJ (major) • CR (critical)
	ACTION	RPT, NRPT	*Action* Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX63AA, NTLX82AA, NTLX82BA, NTLX82EA	*Product engineering code* 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	*Release* 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	*Optical carrier 3* The subfields are UNITNO, OC3GRPID, WKRSPR, and ALRMCTRL.
	UNITNO	0-1	*Unit number* 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	*OC3 group identifier* 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	*Working, Spare* 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	*Alarm control information* 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	*Alarm type* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	*Action* Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX71AA, NTLX71BA	*Product engineering code* 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	*Release* 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	*Digital signal processor* The subfields are UNITNO, DSPGRPID, and RSRINFO.
	UNITNO	0-27	*Unit number* 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	*DSP group identifier* 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	*DSP Resource configuration* 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	*Resource type* 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)	*Number of resources* 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	*Alarm control information* 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	*Alarm name* 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	*Alarm attribute* 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	*Severity* 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	*Action* Enter one of the following actions: • RPT (reportable) • NRPT (no reportable)
PEC		NTLX65AA, NTLX65BA	*Product engineering code* 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	*Release* 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	*Voice services processor* The subfields are UNITNO, VSPGRPID, and RSRINFO.
	UNITNO	0-27	*Unit number* 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	*VSP_GRP identification* 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	*VSP resource configuration* 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	*Resource type* 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	*Number of resources* 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	*Alarm control information* 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	*Alarm type* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	*Action* 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	*Product engineering code* 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	*Release* 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	*Asynchronous transfer mode* The subfields are UNITNO, ATMGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-1	*Unit number* Enter the ATM unit number. The default is 0.
	ATMGRPID	1-28	*ATM group identifier*
	WRKSPR	SPARE or WORKING	*ATM Resource configuration* This field is refined based on whether the ATM is designated as SPARE or WORKING.
	ALRMCTRL	See subfields	*Alarm control information* 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	*Alarm type* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	*Action* Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX73AA, NTLX73BA	*Product engineering code* 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	*Release* 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	*Alarm* The subfields are UNITNO, ALMGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-1	*Unit number* Enter the ALM unit number. The default is 0.
	ATMGRPID	1-28	*ALM group identifier*
	WRKSPR	SPARE or WORKING	*ALM Resource configuration* This field is refined based on whether the ALM is designated as SPARE or WORKING.
	ALRMCTRL	See subfields	*Alarm control information* 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	*Alarm type* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	*Action* Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX83AA	*Product engineering code* 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	*Release* 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	*Data link controller* The subfields are UNITNO, DLCGRPID, WRKSPR, and ALRMCTRL.
	UNITNO	0-27	*Unit number* 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	*DLC group identifier* 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	*Working, Spare* 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	*Alarm control information* 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	*Alarm type* 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	*Alarm attribute* 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	*Severity* Enter one of the following alarm severities: • NA (no alarm severity) • MN (minor) • CR (critical) • MJ (major)
	ACTION	RPT, NRPT	*Action* Enter one of the following actions: • RPT (reportable, the default value) • NRPT (no reportable)
PEC		NTLX72AA	*Product engineering code* 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	*Release* 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 x 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.

CI> spmresman spm <spm#> [DSP|VSP|DLC] <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

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:

CI> mapci;mtc;pm;post spm <#>;select [DSP|VSP|DLC] <#>;bsy force

Example
In the SPMRESMAN output in the preceding step, there is one inactive RM, DSP 0. So you would enter the command

CI> 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:

CI> mapci;mtc;pm;post spm <#>;select [DSP|VSP|DSP] <#>;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.

CI> 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.

CI> mapci;mtc;pm;post spm <#>;select [DSP|VSP|DLC] <#>;bsy rts

10 RTS the remaining inactive RMs that you busied in step 6 by entering the following command:

CI> mapci;mtc;pm;post spm <#>;select [DSP|VSP|DLC] <#>;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 CSLINKSET 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, 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=SMG4 (Sheet 4 of 9)

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=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
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. 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_THRESHOLD_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_SUPPRESS		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, COTLOW, DTMFLOW, ECANLOW, 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)		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=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_ONLY	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.

MNPRIIID

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 (MNPRIIID) 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 MNPRIIID.

Table size

0 to 5376 tuples.

Datafill

The following table lists the datafill for table MNPRIIID.

Field, subfield, and refinement descriptions for table MNPRIIID (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 MNPRIIID (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 MNPRIIID 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	*Multiprotocol controller number* This field contains subfield K.
	K	0 to 255	*Multiprotocol controller number key* 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	*Multiprotocol controller input/output controller* 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	*Input/output circuit number* 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	*Equipment code* 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)	*Download file* 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 6)

Field	Subfield or refinement	Entry	Explanation and action
INDEX		see subfield	*Application index* This field contains subfield K.
	K	alphanumeric (1 to 8 characters)	*Application name* 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. 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 INTCSERV. 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.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 2 of 6)

Field	Subfield or refinement	Entry	Explanation and action
			Enter one of the following APPLIDs if the application is Remote Call Event Record: • 911RCER1 • 911RCER2 • 911RCER3 • 911RCER4 • 911RCER5 • 911RCER6 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 3 of 6)

Field	Subfield or refinement	Entry	Explanation and action
			Enter WLS911 for E911wireless 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	*Audit type* 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.
AUDITFRQ		0 to 255	*Audit frequency* Enter the time between audits of idle permanent virtual circuits (PVCs). Enter the time in minutes or seconds. See field UNITS.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 4 of 6)

Field	Subfield or refinement	Entry	Explanation and action
			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	*Audit frequency units* Enter the unit of measure that applies to the entry in field AUDITFRQ.
RECOVERY		ENHANCED or REGULAR	*Recovery* 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.

Field, subfield, and refinement descriptions for table MPCFASTA (Sheet 5 of 6)

Field	Subfield or refinement	Entry	Explanation and action
			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
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.

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

Field	Subfield or refinement	Entry	Explanation and action
	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. Enter:

>QLINK linknum

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 4)

Field	Subfield or refinement	Entry	Explanation and action
LINKKEY		see subfields	*Link key* This key field contains subfields MPCNO and LINKNO.
	MPCNO	0 to 255	*Multiprotocol controller number* 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 4)

Field	Subfield or refinement	Entry	Explanation and action
	LINKNO	0 to 3	*Link number* 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.
LINKALM (BCS35-)		Y or N	*Link alarm* 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.

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

Field	Subfield or refinement	Entry	Explanation and action
			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	*Protocol data area* This field contains subfield PROTOCOL.
	PROTOCOL	ASYNC X2580 X2584 X25ORIG	*Link protocol data* 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 4 of 4)

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	*Link enable* Enter the time-out, in min, before the 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 STRASYNC. The datafill for these refinements appears in the following table.

Field descriptions for conditional datafill (Sheet 1 of 13)

Field	Subfield	Entry	Explanation and action
	PARMASYN	see subfield	*Parameter synonym* 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 RITMAX STOPBITS XPARENT	*Parameter protocol* 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 STRASYNC. Field STRASYNC 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. 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.

Field descriptions for conditional datafill (Sheet 2 of 13)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		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. 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 3 of 13)

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.
	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.

Field descriptions for conditional datafill (Sheet 4 of 13)

Field	Subfield	Entry	Explanation and action
			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.
	PARM (continued)		Enter RITMAX (receive interrupt transmission) to change the default number of messages sent from the Core to the MPC at interrupt level. The default is one message. ***Note:*** While changing RITMAX can improve the overall throughput rate on the link, it should not be changed unless a safe range of values for the application in use is well understood. 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 5 of 13)

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.
	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	*Character bits* 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).

Field descriptions for conditional datafill (Sheet 6 of 13)

Field	Subfield	Entry	Explanation and action
	ECHO	ON or OFF	*Echo* 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.
	FCNT	0 to 1024	*Fill character control* 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	*Flow control* 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 7 of 13)

Field	Subfield	Entry	Explanation and action
	MD	BLK or CHR	*Input mode* 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	*Line mode* 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 8 of 13)

Field	Subfield	Entry	Explanation and action
	T0	0 or 5 to 255	*Level 1 input delay* 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.
	T1	0 to 1000	*Link down timer* 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.

Field descriptions for conditional datafill (Sheet 9 of 13)

Field	Subfield	Entry	Explanation and action
			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.
	MODM	DIAL FULLMODM NOMODM or PARTIAL	*Modem control* 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.
	CHTMO	0 to 500	*Intercharacter time-out* 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.

Field descriptions for conditional datafill (Sheet 10 of 13)

Field	Subfield	Entry	Explanation and action
	PRTY	EVEN NONE or ODD	*Parity* 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.
	BITS	S1, S2, S15	*Stop bits* 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	*Transparency* 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	*String asynchronous* This subfield contains subfield STRID.

Field descriptions for conditional datafill (Sheet 11 of 13)

Field	Subfield	Entry	Explanation and action
	STRID	FILLCHAR IEOM ISOM OEOM OSOM	*String identification* 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.
			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 12 of 13)

Field	Subfield	Entry	Explanation and action
	TSTRVAL	0 to 9 and A to F (0 or 2 characters)	*Test string value* 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 13 of 13)

Field	Subfield	Entry	Explanation and action
	STRVAL	0 to 9 and A to F (to a maximum of 8 characters)	*String value* 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.
			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 20)

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.
	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.

Field descriptions for conditional datafill (Sheet 2 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		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.
		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 3 of 20)

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. 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.

Field descriptions for conditional datafill (Sheet 4 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		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. 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 5 of 20)

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. 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.

Field descriptions for conditional datafill (Sheet 6 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		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. 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 7 of 20)

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. ***Note:*** You can enter data in timer T3_S or timer T3_10MS. You cannot enter data in both timers.

Field descriptions for conditional datafill (Sheet 8 of 20)

Field	Subfield	Entry	Explanation and action
	PARM (continued)		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.
	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 CLKSRCE contains INTERNAL, you can enter data in field BAUDRATE.

Field descriptions for conditional datafill (Sheet 9 of 20)

Field	Subfield	Entry	Explanation and action
		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.
	SOURCE	INTERNAL or EXTERNAL	Clock source If the entry in field PARM is CLKSRCE or ELECSPEC, enter data in this refinement.
		RS232 or V35 or 512KV35	If the entry in field PARM is CLKSRCE, 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 10 of 20)

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 11 of 20)

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 12 of 20)

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 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.

Field descriptions for conditional datafill (Sheet 13 of 20)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		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. 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 14 of 20)

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. 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

Field descriptions for conditional datafill (Sheet 15 of 20)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		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. 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.

Field descriptions for conditional datafill (Sheet 16 of 20)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		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. 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.

Field descriptions for conditional datafill (Sheet 17 of 20)

Field	Subfield	Entry	Explanation and action
	VALUE (continued)		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. 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 18 of 20)

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.
			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.

Field descriptions for conditional datafill (Sheet 19 of 20)

Field	Subfield	Entry	Explanation and action
	NUMVCS (continued)		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)
	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 20 of 20)

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 20)

Field	Subfield	Entry	Explanation and action
	CONVNABL	0 to 32767	*Conversation enable* 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	*Parameters* This refinement contains subfield PARMSEL.

Field descriptions for conditional datafill (Sheet 2 of 20)

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 EXTRAINF. 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.
		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 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. 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.

Field descriptions for conditional datafill (Sheet 3 of 20)

Field	Subfield	Entry	Explanation and action
			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. 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. 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.

Field descriptions for conditional datafill (Sheet 4 of 20)

Field	Subfield	Entry	Explanation and action
			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. ***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 5 of 20)

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. 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 NUMPRIO (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.

Field descriptions for conditional datafill (Sheet 6 of 20)

Field	Subfield	Entry	Explanation and action
			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. 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 7 of 20)

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. 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 8 of 20)

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. 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 9 of 20)

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.
	RATE	B300, B600 B1200, B2400, B4800, B9600, B14400, B19200 or B28800	*Baud rate* 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.

Field descriptions for conditional datafill (Sheet 10 of 20)

Field	Subfield	Entry	Explanation and action
	SOURCE	INTERNAL or EXTERNAL	*Clock source* 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.
	DEFAULT	NOVALUE or T75, T150, T300, T600, T1200, T2400, T4800, T9600, T19200, or T48000	*Default* 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 11 of 20)

Field	Subfield	Entry	Explanation and action
	ELECSPEC	RS232 or V35	*Specification* 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	*Environment* If the entry in field PARM is ENVIRON, enter this refinement. This parameter specifies the protocol environment to establish communications. If the entry in refinement NODE is DCE, enter DCETODTE. If the entry in refinement NODE is DTE, enter DTETODXE. The default value is DTETODXE.
	ROLE	PASSIVE	*Initialization role* 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.

Field descriptions for conditional datafill (Sheet 12 of 20)

Field	Subfield	Entry	Explanation and action
	VALUE	0 to 255 or YES or NO	*Value* 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 • 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.

Field descriptions for conditional datafill (Sheet 13 of 20)

Field	Subfield	Entry	Explanation and action
			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. 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 14 of 20)

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. 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.

Field descriptions for conditional datafill (Sheet 15 of 20)

Field	Subfield	Entry	Explanation and action
			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).
	PROTOCOL	LAPB	*Link access procedure* 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	*Frame level modulo counter* 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 16 of 20)

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 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.
	DATASIZE	P256	*Level 3 data packet size* 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.

Field descriptions for conditional datafill (Sheet 17 of 20)

Field	Subfield	Entry	Explanation and action
	MODE	FDUPLEX SYNC	*Synchronous mode* 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.
	CONTROL	HDLC	*Link control* 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	*Line usage* 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	*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.

Field descriptions for conditional datafill (Sheet 18 of 20)

Field	Subfield	Entry	Explanation and action
	NUMVCS	0 to 255	*Number of virtual circuits* 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. 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 19 of 20)

Field	Subfield	Entry	Explanation and action
	PERCENT	0 to 100	*Pool percentage* 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	*Standard* 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.
	EXTRAINF	see subfield	*Extra information* This refinement contains subfield EXINFSEL.

Field descriptions for conditional datafill (Sheet 20 of 20)

Field	Subfield	Entry	Explanation and action
	EXINFSEL	SVCDNA SVCTYPE	*Extra information selector* 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.
	DIGITS	0 to 9 (vector of a maximum 15 digits)	*Digits* 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	*Network* 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.

Additional information

Option RITMAX

Enter RITMAX (receive interrupt transmission) to change the default number of messages sent from the Core to the MPC at interrupt level. The default is one message.

CAUTION

While changing RITMAX can improve the overall throughput rate on the link, it should not be changed unless a safe range of values for the application in use is well understood.

Table history

SN08

Added RITMAX feature information in response to CR Q01047866.

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	*Linkset key* This field contains subfields APPLID and SETNUM.
	APPLID	911RCER1, 911RCER2, 911RCER3, 911RCER4, 911RCER5, 911RCER6, ATT911AS, OPN911AS, ENH911AS, WLS911	*Application identification* 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	*Linkset number* Enter the number assigned to each linkset in an application.
MLCLIST		see subfields	*MPC and link control vector list* 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 time zones 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	MTZMINSTYPE {0 TO 1560}	Minutes to offset from CM clock ***Note:*** The MINUTES field cannot be altered.
DST	NEW	YES_NO {NO, YES}	Does time zone 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	DSTMINSTYPE {0 TO 120}	Extra minutes to offset from DST
STRTYEAR	NEW	MTZYEARTYPE {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	MTZYEARTYPE {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	MTZMINSTYPE {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	MTZYEARTYPE {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.