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DMS-100 Family

Open Numbering Plan

Service Implementation Guide

MMP13 Standard 01.01 March 2000

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DMS-100 Family

Open Numbering Plan

Service Implementation Guide

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Introduction

The North American DMS-100 directory number (DN) system was designed mainly to conform to the North American Dial Plan. A directory number in the North American Dial Plan consists of a three-digit area code, followed by a three-digit office code and a four-digit station code. This dial plan, which is also referred to as the 3-3-4 system, imposes a fixed 10-digit length on National Significant Numbers (NSN) and is not suitable for international markets.

Since the early 1990s, the DN system has been enhanced to support variable-length DNs in the international market. These enhancements include the addition to the DN system of a Universal Directory Number system, which is designed to comply with the ITU-T E.164 recommendation for the National Number. The Universal DN consists of the following components:

- an area code that contains 1 to 7 digits
- an office code that contains 0 to 7 digits
- a station code that contains 1 to 8 digits

Open Numbering Plan functionality

The intent of Open Numbering Plan functionality is to address ITU-T recommendation E.164, *Numbering Plan for ISDN ERA*.

Figure 1 provides an overview of the variable DN structure per ITU-T recommendation E.164.

Figure 1 E.164 numbering plan

The representation in Figure 1 excludes any trunk prefixes (ITU-T recommendations E.160 and E.166) and service or carrier access codes that are used for network or service selection.

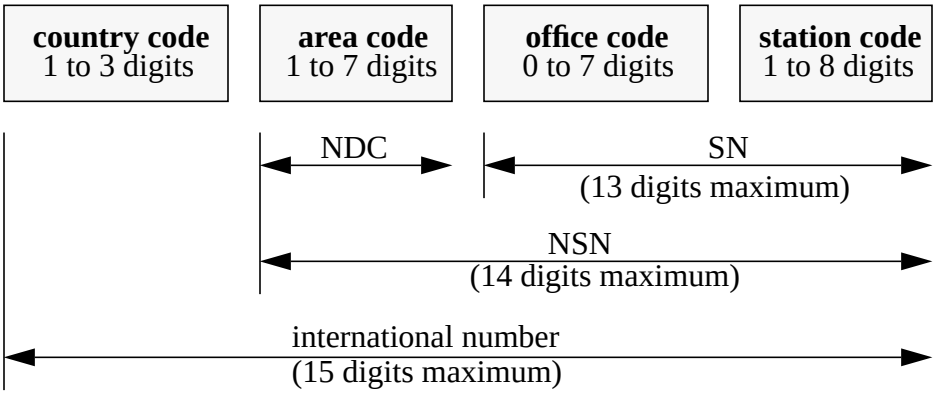
Open Numbering Plan requirements

An open numbering plan is one that can support the specific requirements of the various number formats for international markets. The DMS Open Numbering Plan requirements are based on implementation of ITU-T recommendation E.164 in time *T* as defined in ITU-T recommendation E.165. For post-time *T*, these recommendations require the following:

- The international number must contain a variable number of digits arranged in specific code fields. The international number code fields are the country code (CC) and the NSN. The international number can contain a maximum of 15 digits.
- The CC selects the destination country and contains 1 to 3 digits.
- The NSN selects the destination subscriber. The NSN code field consists of the National Destination Code (NDC) followed by the Subscriber Number (SN).
- The lengths of the NDC and SN can vary depending on the destination country.

Figure 1-2 illustrates the DMS ITU-T E.164 number structure implementation mapped to the DMS Universal DN components. The area code field is equivalent to the ITU-T recommendation E.164 NDC. The office code plus station code fields are equivalent to the ITU-T recommendation E.164 SN.

Figure 2 DMS-100 ITU-T recommendation E.164 number structure implementation



The length of the NSN is 15 - *n* digits, where *n* is the number of digits in the CC. In some national applications, the NDC and SN can be inseparably connected to form a single composite dialing sequence.

ITU-T recommendation E.164 does not specify the length of the NDC or the SN.

Development summary

MMP12 development

The following table contains brief descriptions of Open Numbering Plan features in MMP12 loads.

Table 1 Open Numbering Plan features MMP12

Feature	Title	Description
10181106*	EUR10: V5.2 Support of E.164	This development activity changes V5.2 log reports to display variable-length DNs up to 15 digits.
59005973	E164: DNBS_SHR E164 devt	This development activity implements the Open Numbering Plan software optionality control (SOC order code NPE00003), which controls the variable-length DN support in the Universal DN system. When the state of SOC option NPE00003 is IDLE, the 3-3-1 or 3-3-4 DN format is enforced in the North American market (office parameter MARKET_OF_OFFICE in table OFCENG is set to NORTHAM). All other markets get variable-length DN support up to 10 digits. When the state of SOC option NPE00003 is ON, datafilling of variable-length DNs up to 12 digits is permitted.
59006677	E.164 changes for Services FC	This development activity provides Open Numbering Plan support in the following services: • RES/IBN CF (Residential/Integrated Business Network Call Forwarding) • WUCR (Wakeup Call Reminder) • CLASS (Custom Local Area Signaling Services) Utilities • CLASS Display
* SR development activity		

Table 1 Open Numbering Plan features MMP12

Feature	Title	Description
59006959	E164 SERVORD and CEU enhancements	This development activity provides Open Numbering Plan support in the SERVORD common infrastructure (procedures used by many utilities).
59007213	Centrex E164	This development activity implements Open Numbering Plan requirements for the Centrex DISA (Direct Inward System Access) feature. This activity provides support for variable-length National Numbers up to 14 digits for a DISA DN.
59007476	E.164 Support for Line Agents	This development activity modifies the Line Agent functional component elements required to support Open Numbering Plan. This activity replaces existing data types with ONP-compliant data types and removes hard-coded assumptions that involve the DN and its components.
59007530	E164 Utilities	This development activity provides the common utilities that call processing software requires to support Open Numbering Plan functionality. This activity focuses on addressing hard-coded checks on DN length that do the following: • detect ANI information digit(s) in the calling number • determine the Nature of Address (NOA) • determine the Type of Number (TON)
* SR development activity		

MMP13 development

The following table contains brief descriptions of the Open Numbering Plan features in MMP13 loads.

Table 2 ONP development master activities - MMP13

Master activity	Title	Description
10256648*	DNBASE Shared Layer E164 Development	This development activity removes the MARKET_OF_OFFICE check for Germany from NPE00003 SOC activation. The ability to define DNs up to 12 digits in table DNINV and associated tables is controlled only by activation of SOC option NPE00003.
* SR activity		

Table 2 ONP development master activities - MMP13

Master activity	Title	Description
59011676	Centrex E164 (II)	This development activity provides support for national significant numbers up to 14 digits in the following Centrex or public translation and routing selectors: • tables IBNXLA and XLANAME, selectors EXTN and AMBI (abbreviated dialing) • table IBNXLA, selector NETGEN, option ESN (network calls) • table IBNRTE (IBNRT2, IBNRT3, and IBNRT4), selector DN (DN terminations) • table OFRT (OFR2, OFR3, and OFR4), selector DN (public DN terminations) In tables IBNXLA and XLANAME, for selectors EXTN and AMBI, the following changes are made: • Option SFMM is added. This option has the following fields: station fence, minimum digits, and maximum digits. Each of these fields accepts a value between 0 and 30. • The NXX field is renamed to OFCCODE (office code) and is changed from a fixed three-digit format to accept 0 to 7 digits. • The FILLDIGS field is changed from a three-digit format to accept 1 to 7 digits. In table IBNXLA, for selector NET GEN, when the ESN option is used, Local Call Area (LCA) and Class of Service screening are bypassed. In table IBNRTE, for selector DN, the following changes are made: • Field STNLEN (station length) is added. This field accepts 1 to 7 digits. • The NXX field is renamed to OFCCODE and is changed from a fixed three-digit format to accept 0 to 7 digits. In table OFRT, for selector DN, field STNLEN (station length) is added. This field accepts 1 to 8 digits. The RESCONV command (tool) is changed to handle area codes and office codes of variable length during the analysis of table IBNXLA and XLANAME tuples.
* SR activity		

Table 2 ONP development master activities - MMP13

Master activity	Title	Description
59012642	E164 Utilities - Phase II	This development activity provides Open Numbering Plan support for the following: • determination of type of DN (Local or National) • flexible digit collection on BRI originations
* SR activity		

Compliance

The following chapter indicates compliance to Open Numbering Plan (ONP) requirements for the following:

- DMS-100E line agents
- DMS-100E trunk agents
- Subscriber line assignment tables
- Subscriber Premises Line Maintenance features
- Command Interpreter tools
- European Centrex features

In the following tables, a “C” indicates the item is fully compliant to the ONP requirement to support variable directory numbers. A “P” indicates partial compliance and an “N” indicates noncompliance. A “T” indicates initial testing is done, but further testing is required.

Agent support

The following section indicates compliance to ONP requirements for DMS-100E line and trunk agents.

Line agents

The following table indicates compliance to ONP requirements for line agents.

Table 3 Line agent compliance

Line type	MMP12		MMP13	
	= or <10 digits	>10 digits	= or <10 digits	>10 digits
Basic IBN Centrex: standard IBN lines	C	N	C	
IBN business set (P-phone): lines serving MBS and EBS handsets	C	N	C	
Specialized service lines: attendant console, SMDI, ACD, and CompuCALL	N	N	N	
ETSI BRI ISDN lines	N	N	N	
V5.2 lines	N	N	N	

Trunk agents

The following table indicates compliance to ONP requirements for trunk agents.

Table 4 Trunk agent compliance

Agent type	MMP12		MMP13	
	= or <10 digits	>10 digits	= or <10 digits	>10 digits
Agents for common channel signaling interfaces				
*Base/generic ETSI ISUP V1 and V2	N	N	N	
ANSI ISUP	N	N	N	
ANSI IBN7	N	N	N	
* German-specific trunk				

Table 4 Trunk agent compliance

Agent type	MMP12		MMP13	
	= or <10 digits	>10 digits	= or <10 digits	>10 digits
UK ISUP	N	N	N	
BTUP (V2 and V2+)	N	N	N	
FTUP	N	N	N	
RB_TUP	N	N	N	
Base/generic ETSI ISDN PRI	N	N	N	
QSIG	N	N	N	
DPNSS	N	N	N	
CS-1R INAP	N	N	N	
*V5.2	N	N	N	
Agents for channel associated signaling interfaces				
CAS PBX trunks	N	N	N	
R1 CAS peer-to-peer trunk interface for IMTs	N	N	N	
Global R2 CAS peer-to-peer trunk interface	N	N	N	
Flexible CAS trunk interface (PBX access to peer-to-peer trunking)	N	N	N	
* German-specific trunk				

Subscriber line assignment tables

The following table indicates compliance to ONP requirements for Subscriber line assignment tables.

Table 5 ONP compliance for line assignment tables

Table	MMP12		MMP13	
	= or <10 digits	>10 digits	= or >10 digits	>10 digits
DNINV (Directory Number Inventory)	C	P*	C	
DNROUTE (Directory Number Route)	C	P*	C	
HUNTGRP (Hunt Group)	N	N	N	
HUNTMEM (Hunt Member)	N	N	N	
IBNLINES (IBN Line Assignment)	C	N	C	
IBNFEAT (IBN Line Feature Assignment)	C	N	C	
KSETLINES (Business Set and Data Unit Line Assignment)	C	N	C	
KSETFEAT (Business Set and Data Unit Feature)	C	N	C	
KSETINV (Key Set Inventory)	C	N	C	
ESA (Emergency Stand Alone)	N	N	N	
* Supports up to 12 digits				

Subscriber Premises Line Maintenance features

The following table indicates compliance to ONP requirements for Subscriber Premises Line Maintenance features.

Table 6 ONP compliance for Subscriber Premises Line Maintenance features

Feature	MMP12		MMP13	
	= or <10 digits	>10 digits	= or >10 digits	>10 digits
Line Test Position (LTP)	N	N	N	
Automatic Line Tests (ALT)	N	N	N	
Calling Number announcement (CNA)	N	N	N	
Dialable Cable Pair Locator	N	N	N	
Dialable Short Circuit	N	N	N	
Station Ringer Test	N	N	N	
Local Test Desk	N	N	N	

Command Interpreter tools

The following table indicates compliance to ONP requirements for Command Interpreter (CI) tools.

Table 7 ONP compliance for Command Interpreter tools

Tool	MMP12		MMP13	
	= or <10 digits	>10 digits	= or >10 digits	>10 digits
AMADUMP	N	N	N	
C7MON (Common Channel Signaling Number 7 Monitor)	N	N	N	

Table 7 ONP compliance for Command Interpreter tools

Tool	MMP12		MMP13	
	= or <10 digits	>10 digits	= or >10 digits	>10 digits
C7TU	N	N	N	
CALLDUMP	N	N	N	
DISPCALL	N	N	N	
R2VER	N	N	N	
SIGMON	N	N	N	
TABAUDI T(Table Audit)	N	N	N	
TRAVER (Translation Verification)	P	N	P	

European market features

The following table indicates the feature interactions tested for Open Numbering Plan (E164) compliancy to de-risk international (initially German) markets during MMP13. The tests have been executed with IBN, KSET, RES, and ETSI BRI lines. The following designations are used:

- CT - compliant; testing completed with no issues identified
- T - testing completed with no issues identified; further investigation required for compliancy
- NS - not supported
- P - partial compliancy; further development required

Table 8 Feature Interactions

Feature	< 10 digits	10 digits	12 digits	14 or 15 digits
Call Disposal features (Call Hold / Call Waiting / Call Park)				
Call Hold	C T	C T	T	T
Call Waiting IBN (CW)	C T	C T	T	T
CW/Camp ON for EBS	C T	C T	T	T

Table 8 Feature Interactions

Feature	< 10 digits	10 digits	12 digits	14 or 15 digits
Cancel CW	C T	C T	T	T
Call Park - IBN and EBS	C T	C T	T	T
3 way conference Call/ Call Transfer IBN	C T	C T	T	T
Enhanced 3way call chaining	C T	C T	T	T
Call Forwarding features				
CFW(Unconditional) all calls (CFU) - IBN	C T	C T	T	T
CFW Busy (CFB) - IBN	C T	C T	T	T
CF does not answer (CFD) - IBN	C T	C T	T	T
Station activation of CFB/CFD	C T	C T	T	T
CFW of CW Calls (CFCW)	C T	C T	T	T
Station activated DND with reminder - IBN	C T	C T	T	T
Speed Calling features				
Station activated DND with reminder - IBN	C T	C T	T	T
SC-Individual Short Number-IBN	C T	C T	T	T
SC- Individual Long Number-IBN	C T	C T	T	T
SC-Group list - IBN	C T	C T	T	T
Variable SC access code	C T	C T	T	T
Business Set Display and Function Key features				
Display Calling and Called Numbers	C T	C T	T	P

Table 8 Feature Interactions

Feature	< 10 digits	10 digits	12 digits	14 or 15 digits
Ring Again (RAG) features				
RAG - Nodal Version	C T	C T	T	T
RAG Cancellation Timer	C T	C T	T	T
Call Blocking and Authorization features				
Semi Restricted Services	NS	NS	NS	NS
Toll Restricted Services	C T	C T	T	T
Unrestricted Services	NS	NS	NS	NS
Authorization codes	C T	C T	T	T
Dialing and Number Plan features				
Station to station calling	C T	C T	T	T
Inter Group Calling	C T	C T	T	T
Hunt Group features				
Hunting - DLH and MLH, NOT DLH	C T	C T	T	T
Support of CLASS Features				
Automatic Recall	NS	NS	NS	NS
Calling Number Delivery (DDN)	NS	T	NS	NS
Calling Number Delivery Blocking	NS	T	NS	NS
Calling Number Display	NS	T	NS	NS
Calling Name Display	NS	T	NS	NS
Dialable Number Delivery	NS	T	NS	NS
Dialable Number Delivery Blocking	NS	T	NS	NS

Table 8 Feature Interactions

Feature	< 10 digits	10 digits	12 digits	14 or 15 digits
Calling Name Delivery	NS	T	NS	NS
Calling Name Delivery Blocking	NS	T	NS	NS
Anonymous Caller Rejection	NS	T	NS	NS
Selective Call Acceptance	NS	T	NS	NS
Selective Call Rejection	NS	T	NS	NS
Selective Call Forwarding	NS	T	NS	NS
Distinctive Ringing Call Waiting (DRCW)	NS	T	NS	NS
Spontaneous Call Waiting Identification (SCWID)	NS	NS	NS	NS
Miscellaneous features				
Wake-up Services	C T	C T	T	T
Music-On-Hold	Compliancy tests currently being executed			
Voice Mail Notification				
Message waiting (MW) Lamp - EBS	Compliancy tests currently being executed			
Stutter dial tone for MW - IBN				
TRAVER				
IBN STN	C T	C T	T	T
RES	NS	NS	NS	NS
ISDN BRI	C T	C T	T	T
KSET	C T	C T	T	T
DISA				

Table 8 Feature Interactions

Feature	< 10 digits	10 digits	12 digits	14 or 15 digits
All DISA Tests (12 & 14 digits only)	C T	C T	T	T
Additional Agent Types				
ETSI BRI V1 ISDN Line tests	C T	C T	T	T
ETSI PRI	C T	C T	T	T

Feature interactions

This chapter describes the interactions between Open Numbering Plan functionality and line features. The folowing features have been tested with IBN, EBS, and ISDN lines.

Business Set Display and Function Key features

This section describes the interaction between Open Numbering Plan functionality and Business Set Display and Function Key features.

Display Called Number

This feature provides the user of a business set equipped with the optional 32-character alphanumeric display the capability to have display of the called number during origination, termination, programming, and feature activation operations.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Display Calling Number

This feature provides the user of a business set equipped with the optional 32-character alphanumeric display the capability to have display of the calling number during origination, termination, programming, and feature activation operations.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Forwarding (CFX) features

The Call forwarding feature causes incoming calls to a customer’s set to be automatically forwarded to a predetermined DN. Integrated Business Network (IBN) CFX includes the following variants:

- CFB - Call Forwarding Busy
- CFD - Call Forwarding Don’t Answer
- CFF - Call Forwarding Fixed

- CFI - Call Forwarding Intragroup
- CFU - Call Forwarding Unconditional
- SCF - Selective Call Forwarding

This section describes the interaction between Open Numbering Plan functionality and Call Forwarding features.

Call Forwarding Universal (CFU)

This feature allows a user to have all incoming calls forwarded to a designated station in the customer group.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Forwarding Busy (CFB)

This feature allows all calls to be forwarded to a designated station when the called station is busy.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Forwarding Don’t Answer (CFD)

This feature allows an incoming call not answered within a specified length of time to be automatically forwarded to an attendant or designated station in the customer group.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Forwarding of Call Waiting Calls (CFCW)

This feature allows Call Waiting calls to be automatically forwarded if the calls are not answered within a specified time period. This feature can be assigned to Meridian digital centrex (MDC) and Subscriber Services customer groups. The end user must have the Call Waiting (CWT) and Call Forward Don’t Answer (CFD) features assigned to the line for the CFCW feature to work.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Station Activated Call Forwarding Busy / Call Forwarding Don’t Answer

This feature allows end users to activate and deactivate Call Forwarding Busy (CFB) and Call Forwarding Don’t Answer (CFD) from their station.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Station Activated Do Not Disturb with Feature Active Reminder

This feature allows a user to make the user's station appear busy (block incoming calls). The MSB version of the feature blocks all calls. The MSBI version blocks only intra-group calls.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Park / Call Pickup features

This section describes the interaction between Open Numbering Plan functionality and Call Park/Call Pickup features.

Call Park (PRK) - IBN

This feature allows an IBN station to park a call against the DN of the station by dialing the Call Park access code. The parked call can be retrieved from any station. When a call is parked, the user can originate or receive other calls on the user's DN.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call Transfer features

This section describes the interaction between Open Numbering Plan functionality and Call Transfer features.

Call Transfer (CXR)

This feature allows a called subscriber to instruct the switching equipment or an operator to transfer an incoming call to another station.

The CXR feature is not compatible with ETSI BRI lines.

Call Waiting features

This section describes the interaction between Open Numbering Plan functionality and Call Waiting features.

Call Waiting (CWT) - IBN

This feature uses a special tone to alert an end user, who is already on a call, that an incoming call is waiting to reach the end user. The end user can connect to the incoming call or continue with the existing call.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Cancel Call Waiting (CCW)

This feature allows Call Waiting subscribers to cancel the Call Waiting feature for the duration of a telephone call. Subscribers can turn off Call Waiting during an active call or when the line is idle. If a subscriber activates CCW during a call, CCW cancels all Call Waiting functions for that call. If a subscriber activates CCW when the line is idle, all Call Waiting functions are cancelled for the next incoming or outgoing call. The system restores Call Waiting to the line after a call is complete.

The CCW feature is not compatible with BRAFS.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Call waiting Intragroup (CWI)

This feature allows a subscriber to apply the CWT option to intragroup calls.

The CWI feature is not compatible with ETSI BRI lines

Camp-on features

This section describes the interaction between Open Numbering Plan functionality and Camp-on features

Station Camp-On for Meridian Business Sets (MBSCAMP)

This feature allows a Meridian business set (MBS) user to transfer a call to a busy station. The transferred party is referred to as being “camped-on” to the busy station. If the busy station does not answer the call within a specified time period, the call is returned to the MBS that originally transferred the call.

The MBSCAMP feature is not compatible with BRAFS (Basic Rate Access Functional Set).

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

CLASS features

This section describes the interaction between Open Numbering Plan functionality and CLASS (Custom Local Area Signaling Services) features.

Automatic Call Back (ACB)

This feature allows a user to rapidly redial the last number the user dialed. If the called station is busy, the user can queue against the called station and be notified when the called station becomes idle. For ACB, the called station can be served by the same switch (intranode) or a different switch (internode).

The ACB feature does not work in a variable-length DN environment. Reverse translation functions properly only for 7-, 8-, 10-, or 11-digit DNs.

Anonymous Caller Rejection (ACRJ)

This feature prevents termination of anonymous calls to a subscriber by routing these calls to an announcement.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Automatic Recall (AR)

This feature allows a user to recall the last station that called. If the station that called is busy, the user can queue against the station that called and be notified when the station becomes idle. For Automatic Recall, the station that called can be served by the same switch (intranode) or a different switch (internode). If the originator accepts the recall, the original call is set up automatically. It does not matter whether the original call is answered.

The AR feature does not work in a variable-length DN environment. Reverse translation functions properly only for 7-, 8-, 10-, or 11-digit DNs.

In terms of E164 compliancy, this feature is not supported.

Calling Name Delivery (CNAMD)

This feature delivers the calling party's name, along with the current time and date, to the CPE (Customer Premises Equipment) of the called party, between the first and second ring of every incoming call. When the incoming call originates in another NPA (Numbering Plan Area), the terminating station's display shows "unknown number".

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Calling Name Delivery Blocking (CNNB)

This feature suppresses the originator's DN and name on the terminating station's display.

The CNAB feature is not compatible with EBS and BRAFS.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Calling Name Display

This feature displays the name of calling parties on the called party set.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Calling Number Delivery (CND)

This feature delivers the following to the subscriber's set:

- DN of the calling party in 10-digit format (NPA-NXX-YYYY)
- date and time of the incoming call

Variable-length DNs cannot be displayed on IBN sets; "unknown number" is displayed.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Calling Number Delivery Blocking (CNDB)

This feature allows an originating subscriber to control, on a per-call basis, the availability of the subscriber's DN to the terminal equipment of terminating subscribers.

The CNDB feature does not work in a variable-length DN environment. Reverse translation functions properly only for 7-, 8-, 10-, or 11-digit DNs.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Calling Number Display

This feature displays the DN of calling parties on the called party set.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Dialable Directory Number (DDN)

This feature delivers the calling number to the subscriber, with the digits the subscriber must dial to reach the calling party. The DDN feature is an enhancement to the CND feature.

The DDN feature does not work in a variable-length DN environment. Reverse translation functions properly only for 7-, 8-, 10-, or 11-digit DNs.

Dialable Number Delivery (DDN)

This feature delivers the DN of the calling party in a dialable format, rather than the 10-digit format. It includes the date and time of the incoming call to a calling number delivery (CND) subscriber set.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Dialable Number Delivery Blocking

This feature allows an originating subscriber to control, on a per-call basis, the availability of the dialable DN to the equipment of terminating subscribers.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Distinctive Ringing/Call Waiting (DRCW)

This feature provides a distinctive ring and a call waiting period to the called party. The calling party receives a standard ringback tone.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Selective Call Acceptance (SCA)

This feature allows a subscriber to selectively accept calls arriving from a set of previously identified DNs. The list of DNs to be accepted is created using the Screening List Editing (SLE) facility. Calls that are not accepted are given treatment SCA (Selective Call Acceptance).

The SCA feature does not work in a variable-length DN environment. The SCA option cannot be assigned to variable-length DNs using SERVORD. The SCA option can only be assigned to a 3-3-4 format DN. Otherwise, the error message “TYPE OF DN IS SO_TEN_DIGIT_TABLE” is generated.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Selective Call Rejection (SCRJ)

This feature allows a subscriber to selectively reject calls arriving from a set of previously identified DNs. The list of DNs to be rejected is created using the Screening List Editing (SLE) facility. Rejected calls are given treatment SCRJ.

The SCRJ feature does not work in a variable-length DN environment. The SCR option cannot be assigned to variable-length DNs using SERVORD. The SCR option can only be assigned to a 3-3-4 format DN. Otherwise, the error message “TYPE OF DN IS SO_TEN_DIGIT_TABLE” is generated.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Selective Call Forwarding (SCF)

This feature causes allows a subscriber to define a list of telephone numbers, called an SCF list, and a destination number. If the number of an incoming call matches a number on the SCF list, the call is forwarded to the defined destination number.

The SCF feature does not work in a variable-length DN environment. The SCF option cannot be assigned to variable-length DNs using SERVORD. The SCF option can only be assigned to a 3-3-4 format DN. Otherwise, the error message “TYPE OF DN IS SO_TEN_DIGIT_TABLE” is generated.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is currently supported for 10 digits only.

Spontaneous Call Waiting Identification (SCWID)

This feature delivers calling party information such as name or number, as well as a call waiting tone, to the called party. Delivery occurs whether the line is idle or busy.

In terms of E164 compliancy, this feature is not supported.

Message Waiting Indicator (CMWI)

This feature activates the message waiting indicator lamp when a message has been queued on a set.

Interactions to be determined.

Dialing and Number Plan features

This section describes the interaction between Open Numbering Plan functionality and Dialing and Number Plan features.

Station to Station Calling

This feature provides the capability to make internal calls by dialing extension numbers only.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Intergroup Calling

This feature allows users in different customer groups to call each other using abbreviated dialing (by dialing from 2 to 5 digits). The customer group dialing plans cannot be ambiguous. That is, the same extension cannot be used in different customer groups.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Distinctive Ringing Features

This section describes the interaction between Open numbering Plan functionality and Distinctive Ringing features.

Distinctive Ringing (DRING)

This feature identifies certain call types by applying a distinct ringing cadence to calls terminating on MDC stations in a customer group.

The Distinctive Ringing feature works with variable-length DNs.

Hold features

This section describes the interaction between Open Numbering Plan functionality and Hold features.

Call Hold (CHD)

This feature allows the user to put a single call on hold for any length of time, as long as neither party goes on-hook. While a call is on hold, the called station can perform other tasks such as making a call, speed call programming, call forward activation, or call pick up. To return to the held call, the station with the CHD feature must reactivate Call Hold. The subscriber can put only one call at a time on hold.

The CHD feature is not compatible with EBS and BRAFS.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Key Set Music on Hold (KSMOH)

This feature provides music on hold for calls that terminate on Meridian business sets. When a call is put on hold, the caller hears music announcements, silence, or a combination of these treatments.

Interactions to be determined.

Hunt Group features

Hunting allows an incoming call to be sequentially offered to each line in a hunt group until an idle line is found. If a hunt fails to find an idle line, the incoming call receives a busy tone unless Line Overflow to a Route (LOR) or Line Overflow to a DN (LOD) has been specified as the overflow treatment for the group.

This section describes the interaction between Open Numbering Plan functionality and Hunt Group features.

Hunting - DLH and MLH

Distributed Line Hunting (DLH) is a hunting arrangement that consists of lines divided into groups. This allows distributed line hunting.

With DLH, only one pilot DN is defined for all lines in the group. To ensure an even distribution of calls, each new hunt starts with the next line after the idle line found by the last hunt. Thus, hunting is circular.

With Multi-Line Hunting (MLH), only one pilot DN is defined for all lines in the group. Hunting for an idle line is sequential, starting with the first line assigned to the pilot and ending with the last line.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Last Number Redial (LNR)

This feature allows the user to redial the last number dialed by pressing a single key instead of redialing the entire number. The single key redials the last number dialed. Every time a number is dialed, it is stored as an LNR number.

The LNR feature is not compatible with ETSI BRI lines.

Miscellaneous features

This section describes the interaction between Open Numbering Plan functionality and Miscellaneous features.

Automatic Line (AUL) - IBN

This feature automatically connects a station that goes off-hook to a specified destination (usually an attendant).

The AUL feature is not compatible with ETSI BRI lines.

Hot Line (HTL)

This feature, which is present in only in international loads, allows a subscriber to reach a predetermined terminating destination without dialing any digits. When the subscriber goes off-hook, the switch automatically sets up a connection to the predetermined terminating target number. The HTL feature and the terminating target number are assigned by the operating company. The target number can be local, national, or international, or can be the number of an announcement or operator.

The HTL feature is not compatible with the following:

- IBN
- EBS
- BRAFS

Make Set Busy (MSB)

This feature allows an end user to make the user's station appear busy (block incoming calls).The MSB version of this feature blocks all calls. The MSBI version of this feature blocks only intra-group calls.

The MSB feature is not compatible with ISDN lines.

Music on Hold - IBN

This feature provides the capability to play music and optional announcements to callers on hold.

Interactions to be determined.

Restrictions to dialing privileges

This section describes the interaction between Open Numbering Plan functionality and Restrictions to dialing privileges features.

Semi-Restricted Services (SRS)

This feature provides access to the local network only through an attendant for semi-restricted stations.

In terms of E164 compliancy, this feature is not supported.

Unrestricted Service

This feature allows unrestricted stations to access the local network, the long-distance network, or any service accessible by dialing.

In terms of E164 compliancy, this feature is not supported.

Authorization Codes (AC)

This feature is used by the customer group attendant to validate authorization codes. This feature uses authorization codes dialed by an end user to do the following:

- identify an authorized user and to exclude unauthorized users
- record the authorization code in an SMDR record for billing purposes

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Ring Again features

This section describes the interaction between Open Numbering Plan functionality and Ring Again features.

Ring Again (RAG)

This feature allows a calling party encountering a busy station to be notified when the busy station becomes idle. If the calling party activates the RAG feature, the system automatically dials the call.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Ring Again Cancellation Timer

This feature cancels Ring Again requests if there is no response within a specified time period.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Speed Calling features

This section describes the interaction between Open Numbering Plan functionality and Speed Calling features.

Speed Calling provides abbreviated dialing for outgoing calls.

Speed Call Short List - IBN (SCS)

This feature allows a user to store up to 10 frequently-dialed DNs on a speed calling short list defined by the user. The numbers on the list can be outpulsed automatically by dialing an asterisk (*) plus a single-digit code (0 to 9).

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Speed Call Long List (SCL)

This feature allows a user to store up to 70 frequently-dialed DNs in speed call long list. The numbers on this list are outpulsed automatically by dialing two-digit codes. A controller defines or makes changes to the user list. The SCU (Speed Call Group User) and SCL options are used to designate the controller and set up speed call long lists. The controller can be any user that has the Speed Call Long List (SCL) option. The other users cannot make changes to the user list.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Speed Call Group User (SCU)

This feature allows a controller to program speed call numbers for a speed call group. Everyone in the group can activate speed call numbers.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Variable Speed-Call Access Code

This feature allows IBN speed call users to dial speed call access codes and speed call abbreviation codes (2 through 7 and 20 through 69) without using an asterisk prefix. This feature is also known as Ambiguous Speed Calling.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Three-way Calling features

This section describes the interaction between Open Numbering Plan functionality and Three-way Calling features.

Three-Way Calling (3WC)

This feature enables a subscriber to put an existing call on hold and set up an inquiry call to another subscriber. The subscriber that initiates the three-way call (controlling party) can switch speech paths between the held party and the third party, connect all parties into a three-port conference, or return to a single party connection.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Three-way Call Chaining (3WCC)

This feature allows a non-controlling party in a three-way call to add another party to the call.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Toll Restriction

This section describes the interaction between Open Numbering Plan functionality and Toll Restriction features

Toll Restricted Service (TRS)

This feature blocks all toll calls from a line. The following options are available with toll-restricted service:

- Toll Diversion (TDV) applies only to IBN lines. The blocked calls are routed to an attendant console.
- Toll Denied (TDN) can be applied to both IBN and POTS lines. The blocked calls are sent to TDND treatment.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Voice Mail Notification features

This section describes the interaction between Open Numbering Plan functionality and Voice Mail Notification features.

Message Waiting Lamp (business sets)

This feature illuminates the message waiting lamp to notify the subscriber that there are one or more messages to be retrieved.

Interactions to be determined.

Stuttered Dial Tone for Message Waiting (IBN)

This feature supplies a stuttered tone to notify the subscriber that there are one or more messages to be retrieved.

Interactions to be determined.

Wake-Up Service features

This section describes the interaction between Open Numbering Plan functionality and Wake Up Service features.

Meridian Wake Up Service provides a wake-up call for Subscriber Services (RES) and MDC lines.

Wake-Up Call Reminder (WUCR)

This feature provides the capability to automatically make a wakeup call to a specified user at a specified time.

In terms of E164 compliancy, this feature has been tested with no issues identified; it is compliant for 10 or fewer digits.

Provisioning

Software optionality control

Software optionality control (SOC) option NPE00003 (*E.164 SOC option*), when active, allows provisioning of variable-length directory numbers (DN) up to 12 digits when the Universal DN system is in use. The Universal DN system is in use when office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to UNIVERSAL.

SOC option NPE00003 is implemented by feature 59006327 (*multiNPA SOC*). For more information, refer to the description of 59016327 in 297-8xxx-801, *Feature Description Manua*l.

SOC activation

To activate SOC option NPE00003, parameter ACTIVE_DN_SYSTEM in table OFCENG must be set to UNIVERSAL. You cannot activate NPE00003 if office parameter MARKET_OF_OFFICE in table OFCENG is set to NORTHAM (North American). That is, the office is using the North American dial plan.

SOC option NPE00003 state is IDLE

When the state of SOC option NPE00003 is IDLE, DN format restrictions are based on the setting for parameter MARKET_OF_OFFICE in table OFCENG.

When the state of SOC option NPE00003 is IDLE, the 3-3-1 or 3-3-4 format is enforced in the North American market (parameter MARKET_OF_OFFICE in table OFCENG is set to NORTHAM). All other markets get variable-length DN support up 10 digits.

The following table identifies datafill restrictions when parameter ACTIVE_DN_SYSTEM is set to UNIVERSAL and parameter MARKET_OF_OFFICE is set to NORTHAM.

Table 9 Datafill restrictions: Universal DN System - North American Dial Plan

Table	Restriction
SNPANAME	Area codes must be 3 digits
TOFCNAME	Office codes must be 3 digits
DNINV	Station codes must be one or 4 digits
SNPANAME, TOFCNAME, DNINV	Area code + office code + station code must be 7 or 10 digits.

The following table identifies datafill restrictions when parameter ACTIVE_DN_SYSTEM is set to UNIVERSAL and the market requires variable-length DNs.

Table 10 Datafill restrictions: Universal DN System - Market requires variable-length DNs

Table	Restriction
SNPANAME	Area codes must be 1 to 7 digits
TOFCNAME	Office codes must be 0 to 7 digits
DNINV	Station codes must be 1 to 8 digits.
SNPANAME, TOFCNAME	Area code + office code must not exceed 9 digits
SNPANAME, TOFCNAME, DNINV	Area code + office code + station code must not exceed 10 digits

SOC option NPE00003 state is ON

When the state of SOC option NPE00003 is ON, datafilling of variable-length DNs up to 12 digits in table DNINV, that is, all tables that write into table DNINV, is permitted.

The following table identifies restrictions when SOC option NPE00003 is active.

Table 11 Restrictions when NPE00003 is active

Table	Restriction
SNPANAME	Area codes must be 1 to 7 digits.
TOFCNAME	Office codes must be 0 to 7 digits.
DNINV	Station codes must be 1 to 8 digits.
SNPANAME, TOFCNAME	Area code + office code must not exceed 11 digits
SNPANAME, TOFCNAME, DNINV	Area code + office code + station code must not exceed 12 digits

SOC deactivation

If SOC option NPE00003 is deactivated, no further provisioning of 12-digit DNs is allowed. Existing datafill is not affected.

Data Schema

This section describes data schema impact of Open Numbering Plan functionality. The tables impacted by Open Numbering Plan features are as follows:

- DNINV and associated tables
- DNROUTE
- IBNRTE, route selector DN
- IBNXLA, translation selectors AMBI and EXTN
- OFRT, route selector DN
- XLANAME, translation selectors AMBI and EXTN

Table DNINV and associated tables

Open Numbering Plan functionality allows DNs up to 12 digits to be stored in table DNINV when the Universal DN System is used (office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to UNIVERSAL). Software optionality control (SOC) option NPE00003 controls the ability to datafill up to 12-digit DNs. SOC option NPE00003 cannot be activated if office parameter MARKET_OF_OFFICE in table OFCENG is set to NORTHAM.

When the state of SOC option NPE00003 is ON, the system allows provisioning of variable-length DNs up to 12 digits in table DNINV. That is,

all tables that write into table DNINV are allowed to store variable-length DNs up to 12 digits. The following restrictions apply to these variable-length DNs:

- Area codes (in table SNPANAME) must be 1 to 7 digits.
- Office codes (in table TOFCNAME) must be 0 to 7 digits.
- Station codes (in table DNINV) must be 1 to 8 digits.
- Office code + station code must not exceed 11 digits.

When the state of SOC option NPE00003 is IDLE, the system does not allow the provisioning of DNs greater than 10 digits in table DNINV. The setting of office parameter MARKET_OF_OFFICE controls the flexibility of datafilling DNs up to 10 digits as described in the following paragraphs.

If office parameter MARKET_OF_OFFICE is set to NORTHAM, the following restrictions apply:

- Area codes (in table SNPANAME) must be 3 digits.
- Office codes (in table TOFCNAME) must be 3 digits.
- Station codes (in table DNINV) must be 1 or 4 digits.
- Office code + station code must be 4 or 7 digits.
- Area code + office code + station code must be 7 or 10 digits.

The following restrictions apply to markets that require variable-length DNs (office parameter MARKET_OF_OFFICE not set to NORTHAM):

- Area codes (in table SNPANAME) must be 1 to 7 digits.
- Office codes (in table TOFCNAME) must be 0 to 7 digits.
- Station codes (in table DNINV) must be 1 to 8 digits.
- Area code + office code + station code must not exceed 10 digits.

For more information, refer to the description of table DNINV in 297-8xxx-351, *Customer Data Schema Reference Manual*.

Table DNROUTE

Direct Inward System Access (DISA) DNs are provisioned using the table editor in DNROUTE. Open Numbering Plan functionality enhances table DNROUTE as follows:

- Datafilling of variable-length DISA DNS of to 12 digits is allowed.
- Table capacity is increased to 1 000 000 tuples.

For more information, refer to the description of table DNROUTE in 297-8xxx-351, *Customer Data Schema Reference Manual*.

Table IBNRTE

Open Numbering Plan functionality changes table IBNRTE, route selector DN, as follows:

- Field NXX is renamed to OFCCODE and accepts 0- to 7-digit entries.
- Field STNLEN is added. This field accepts 1- to 8-digit entries.

The following table describes the new or changed fields in table IBNRTE.

Table 12 Table IBNRTE changes

Field	Entry	Description
OFCCODE	0 to 7 digits	This field is used to datafill office code. This field is of type OFCCODE_DIGIT_REGISTER which can hold up to 7 digits. The office code datafilled in this field must have a corresponding area and office code combination datafilled in table TOFCNAME.
STNLEN	1 to 8 digits	This field indicates the number of station digits present in a DN.

For more information, refer to the description of table IBNRTE in 297-8xxx-351, *Customer Data Schema Reference Manual*.

Tables IBNXLA and XLANAME

Open Numbering Plan functionality changes to table IBNXLA, translation selectors EXTN (extension) and AMBI (ambiguous call), as follows:

- Option SFMM (station fence - mininmum, maximum) is added. This option has the following fields: station fence, minimum digits, and maximum digits. Each of these fields accepts an entry of 0 to 30.
- Field NXX is renamed to OFCCODE (office code). This field accepts 0- to 7-digit entries.
- Field FILLDIGS (fill digits) accepts 1- to 7-digit entries.

The following table describes the new or changed fields in table IBNXLA.

Table 13 Table IBNXLA changes

Field	Entry	Description
OFCCODE	0 to 7 digits	This field indicates the office code of the terminating agent of an abbreviated call that uses the tuple.
FILLDIGS	0 to 7digits	The digits in this field are prefixed to the dialed extension in an abbreviated call, to identify the terminating agent. The total station code length (FILLDIGS + DIGINEXT entries) cannot exceed eight digits.

Without Open Numbering Plan functionality, the system used field FILLDIGS as follows: If the number of extension digits (field DIGINEXT) is less than four, the user must enter into the FILLDIGS field the number of digits required to make a four-digit station code. If the number of extension digits is more than four, the system discards the fill digits.

For more information, refer to the description of tables IBNXLA and XLANAME in 297-8xxx-351, *Customer Data Schema Reference Manual*.

SFMM option

The SFMM option must not be used for a North American type dial plan.

When the SFMM option is not used, the following applies:

- When a value less than 4 is entered in field DIGINEXT, the entry in field FILLDIGS must be 4 minus the entry in field DIGINEXT. The user is prompted for the exact number of fill digits.
- When a value of 4 or more is entered in the DIGINEXT field, the FILLDIGs entry is ignored and a warning message is displayed.

When the SFMM option is used, the following applies:

- When a value is entered in the DIGINEXT field, the entry is ignored and a warning message is displayed.
- When a value other than 0 is entered in the station fence field (first field of SFMM option), the fill digits are ignored and a warning message is displayed.
- When a value of 0 is entered in the station fence field, a value of 0 to 7 can be entered in the FILLDIGS field.

- The value entered for the minimum field (second field of SFMM option) must be greater than the value entered for the station fence. If not, the a warning message is displayed.
- The value entered for the maximum field (third field of SFMM option) must be equal to or greater than the minimum value. If not, a warning message is displayed.

Flexible digit collection on BRI originations

Flexible digit analysis (DAS) provides control of the number of digits that are reported from the XPM (extended peripheral module) to the CM (computing module) on a per message basis. DAS is enabled by datafill in tables DGHEAD and DGCODE. DAS is required for all interexchange signalling systems to collect digits before routing and overlap outpulsing starts.

An index into table DGHEAD is provided in table CUSTHEAD. Field IDIGCOL in table CUSTHEAD specifies the name (DGNAME) assigned to a block of data in table DGHEAD.

Table DGCODE contains digit analysis data for certain types of calls. The type of digit analysis performed is determined by the following:

- the digit analysis index name (DGNAME) for the originating line or trunk
- the first one or two digits dialed

If table DGCODE does not contain digit analysis data applicable to the call, the default values specified in table DGHEAD apply.

For DAS to be activated, office parameter FLEXIBLE_DIGIT_ANALYSIS in table OFCOPT must be set to Y.

Billing

Open Numbering Plan (ONP) functionality provides support for variable directory numbers (DN) up to 10 digits in billing functions, except for Direct Inward System Access (DISA), for which support for variable-length DNs up to 12 digits is provided.

The Enhanced Billing System is used for the international market. This billing system provides basic support for up to 20 digit DNs. That is, it is possible to store calling party numbers (CgPNs) up to 20 digits in the AMA record (fields *ORIGINATING OPEN DIGITS 1/2*). Post-translations called party numbers (CdPNs) up to 18 digits can be stored (*TERMINATING OPEN DIGITS 1/2* fields). With SOC option BILL0013 (*AMA Support up to 30 digits*), it is possible to capture pre- and post-translations DNs up to 30 digits in length.

Individual billing applications may require enhancement to support more than 10-digit variable DNs.

DISA calls

DISA provides a caller outside an IBN network with access to the network. During the first leg of a call, an originating agent establishes a call to the DISA DN. When the DISA DN and (optionally) an authorization code are dialed, access to the network is provided and dial tone is supplied. During the second leg of the call, the user dials the terminating DN. From this point on, the originator has access to and privileges in the network. Translation and routing are carried out as for a normal call.

In a DISA call, the billing system uses the DISA DN as billing DN for the second leg of the call. This (billing) DN can vary from 1 to 14 digits.

Operations, administration, and maintenance

The following sections describe Open Numbering Plan suport for service orders (SERVORD), logs, and translation verification (TRAVER) functions.

Service orders

Open Numbering Plan features change SERVORD functionality and utilities to support variable directory numbers (DN) up to 10 digits.

This activity does not support E.164 deployment in the following SERVORD areas:

- support for Hunt options
- support for Teen Service options
- commands that query over ranges of DNs:
  - NEWDN
  - OUTDN
  - QDNSU
  - QDNWRK
  - QGRP
  - QNCOS
  - SDNA
  - SWAP
- table CDCDNS

Logs

Without Open Numbering Plan functionality, DN information in V5.2 logs is shown as follows:

- fixed three-digit area code
- fixed three-digit office code
- fixed four-digit station code

Open Numbering Plan functionality changes the logs listed in the following table to display variable-length area, office, and station codes. Display of up to 15-digit DNs is supported.

Table 14 V5.2 logs modified for ONP

Log name	Triggering event
V5201	BCC (bearer channel connection) allocation rejected by Access Node (AN)
V5202	BCC audit connection fault
V5203	AN fault message received
V5250	BCC protocol error detected
V5252	Protection protocol error received from AN
V5253	PSTN (public switched telephone network) protocol error received from AN
V5254	PSTN layer 3 error detection procedure
V5257	PSTN state mismatch

Translation Verification

The following section contains TRAVER information and examples.

DISA

Translation verification on the first leg of a DISA call activates the DISA feature. Completion of translation verification depends on the translation/routing selector used. If the selector is ONP compatible, for example, an existing DNRTE selector in table PXCODE, translation verification finishes. If not, translation verification fails.

During the second leg of a DISA call, if the terminating DN is ONP format, completion of the call requires flow through selectors that are ONP compliant.

TRAVER examples

The following translation verification is for an IBN originating line with a 9-digit DN and a KSET terminating line with a 4-digit DN. The composition of the originating DN is as follows: 5-digit long SNPA, 2-digit short office code, and 2-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code.

Figure 3 TRAVER: IBN line to KSET line

```
>TRAVER L 555558811 2257 B

TABLE IBNLINES

REM1 07 1 05 05 0 DT STN IBN 8811 GERMANY 0 6 55555 $

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE IBNFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 6 0 0 PDATA ( XLAS POTXLA55 NXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA55

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA55

 (NET N N 0 N POTS N Y DOD N 993 55_NPRT_1 55_NILLA_1 NONE $)
$ 9
```

Figure 3 TRAVER: IBN line to KSET line

```
TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

993 IBN NONE NT 0 0 NILSFC 0 PX 55DP NIL 00 55_NPRT_1
55_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

55_NPRT_1 NSCR 55555 NPRT NONE N $ }{

TABLE RATEAREA

55_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

55DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
2257

TABLE PXCODE

55DP 22 22 CONT ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
2257

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
57

TABLE PXCODE

22DPXLA 57 57 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
57

TABLE OFCCODE

22DPXLA 57 57 DNRTE ( MM 1 13) ( CLASS NATL) ( DN 22 5) ( SF
1)$
```

Figure 3 TRAVER: IBN line to KSET line

```
INAP Info Collected TDP:  no subscribed trigger.
INAP Info Analyzed TDP:  no subscribed trigger.
+++ TRAVER: SUCCESSFUL CALL TRACE +++
DIGIT TRANSLATION ROUTES
1 LINE                  2257               ST
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 OFLO
2 LKOUT
+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for an IBN originating line with a 4-digit DN and an IBN terminating line with an 8-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 5-digit long office code, and 1-digit short station code.

Figure 4 TRAVER: IBN line to IBN line

```
>TRAVER L 7856 78345671 B
TABLE IBNLINES
HOST 05 0 00 05 0 DT STN IBN 56 GERMANY 0 8 78 $
TABLE DNATTRS
78 5 6
 (PUBLIC ( NAME AMIR) $)
 (PRIVATE ( NAME AT7856) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE IBNFEAT
TUPLE NOT FOUND
TABLE CUSTSTN
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP NIL
INAP Info Collected TDP:  no subscribed trigger.
TABLE NCOS
GERMANY 8 0 0 PDATA ( XLAS POTXLA78 FEATXLA GERCOMM)$
```

Figure 4 TRAVER: IBN line to IBN line

```
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA78

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA78

 (NET N N 0 N POTS N Y DOD N 995 78_NPRT_1 78_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

995 IBN NONE NT 0 0 NILSFC 0 PX 78DP NIL 00 78_NPRT_1
78_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

78_NPRT_1 NSCR 78 NPRT NONE N $ }{

TABLE RATEAREA

78_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

78DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
78345671

TABLE PXCODE

78DP 78 78 CONT ( PF 2) ( XLT PX 78DP)$

TABLE PXHEAD

78DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
345671

TABLE PXCODE

78DP 34567 34567 CONT ( XLT OFC 78DP)$
```

Figure 4 TRAVER: IBN line to IBN line

```
TABLE OFCHEAD

78DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
345671

TABLE OFCCODE

78DP 34567 34567 DNRTE ( MM 6 6) ( CLASS NATL) ( DN 78 34567)
( SF 5)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                  78345671          ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for an IBN originating line with a 9-digit DN and a KSET terminating line with an 8-digit DN. The composition of the originating DN is as follows: 5-digit long SNPA, 2-digit short office code, and 2-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 5-digit long office code, and 1-digit short station code.

Figure 5 TRAVER: IBN line to KSET line

```
>TRAVER L 666668811 22345672 B

TABLE IBNLINES

REM4 00 0 01 05 0 DT STN IBN 8811 GERMANY 0 7 66666 $

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE IBNFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND
```

Figure 5 TRAVER: IBN line to KSET line

```
TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 7 0 0 PDATA ( XLAS POTXLA56 NXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA56

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA56

 (NET N N 0 N POTS N Y DOD N 994 56_NPRT_1 56_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

994 IBN NONE NT 0 0 NILSFC 0 PX 56DP NIL 00 56_NPRT_1
56_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

56_NPRT_1 NSCR 66666 NPRT NONE N $ }{

TABLE RATEAREA

56_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

56DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
22345672

TABLE PXCODE

56DP 22 22 CONT ( XLT PX 22DPXLA)$

TABLE PXHEAD
```

Figure 5 TRAVER: IBN line to KSET line

```
22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
22345672

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
345672

TABLE PXCODE

22DPXLA 34567 34567 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
345672

TABLE OFCCODE

22DPXLA 34567 34567 DNRTE ( MM 6 6) ( CLASS NATL) ( DN 22
34567) ( SF 5)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

 1 LINE                  22345672           ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for a KSET originating line with an 8-digit DN and an IBN terminating line with a 9-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 5-digit long office code, and 1-digit short station code. The composition of the terminating DN is as

follows: 5-digit long SNPA, 2-digit short office code, and 2-digit short station code.

Figure 6 TRAVER: KSET line to IBN line

```
>TRAVER L 22345672 555558822 B

TABLE KSETLINE

REM1 07 1 01 08 1 DN Y 345672 GERMANY 0 0 22 (CWT) (CWI) $ MBS

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE KSETFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 0 0 0 PDATA ( XLAS POTXLA22 FEATXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR
```

Figure 6 TRAVER: KSET line to IBN line

```
990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
555558822

TABLE PXCODE

22DPXLA 55555 55555 CONT ( XLT PX 55DP)$

TABLE PXHEAD

55DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
555558822

TABLE PXCODE

55DP 55555 55555 CONT ( PF 5) ( XLT PX 55DP)$

TABLE PXHEAD

55DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
8822

TABLE PXCODE

55DP 88 88 CONT ( MM 4 4) ( XLT OFC 55DP)$

TABLE OFCHEAD

55DP SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
8822

TABLE OFCCODE

55DP 88 88 DNRTE ( MM 4 4) ( DN 55555 88) ( SF 2)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

Figure 6 TRAVER: KSET line to IBN line

```
DIGIT TRANSLATION ROUTES
1 LINE                  555558822          ST
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 OFLO
2 LKOUT
+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for an IBN originating line with an 8-digit DN and an IBN terminating line with an 8-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 5-digit long office code, and 1-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code and 5-digit long station code.

Figure 7 TRAVER: IBN line to IBN line

```
>TRAVER L 22345671 22512345 B
TABLE IBNLINES
REM1 07 1 06 05 0 DT STN IBN 345671 GERMANY 0 0 22 $
TABLE DNATTRS
22 34567 1
 (PUBLIC ( NAME AMIR2) $)
 (PRIVATE ( NAME IBN22345671) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE IBNFEAT
TUPLE NOT FOUND
TABLE CUSTSTN
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP NIL
INAP Info Collected TDP:  no subscribed trigger.
TABLE NCOS
GERMANY 0 0 0 PDATA ( XLAS POTXLA22 FEATXLA GERCOMM)$
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL
GERMANY NXLA FEATXLA NXLA 0 GERCOMM
```

Figure 7 TRAVER: IBN line to IBN line

```
TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
22512345

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
512345

TABLE PXCODE

22DPXLA 51 51 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD
```

Figure 7 TRAVER: IBN line to IBN line

```
THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
512345

TABLE OFCCODE

22DPXLA 512345 512345 DNRTE ( MM 1 13) ( CLASS NATL) ( DN 22
5) ( SF 1)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                   22512345           ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for a KSET originating line with a 4-digit DN and a KSET terminating line with a 7-digit DN (North American format). The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code. The composition of the terminating DN is as follows: 3-digit office code and 4-digit station code.

Figure 8 TRAVER: KSET line to KSET line

```
>TRAVER L 2257 6210008 B

TABLE KSETLINE

HOST 05 0 03 10 1 DN Y 57 GERMANY 0 0 22 $ MBS

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE KSETFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL
```

Figure 8 TRAVER: KSET line to KSET line

```
INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 0 0 0 PDATA ( XLAS POTXLA22 NXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
6210008

TABLE PXCODE

22DPXLA 6210008 6210008 DNRTE ( MM 7 7) ( CLASS NATL) ( DN
909 621)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.
```

Figure 8 TRAVER: KSET line to KSET line

```
+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                   9096210008         ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for a KSET originating line with a 4-digit DN and a KSET terminating line with an 8-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 5-digit long station code.

Figure 9 TRAVER: KSET line to KSET line

```
>TRAVER L 2257 22523456 B

TABLE KSETLINE

HOST 05 0 03 10 1 DN Y 57 GERMANY 0 0 22 (LNR) $ MBS

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE KSETFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 0 0 0 PDATA ( XLAS POTXLA22 FEATXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL
```

Figure 9 TRAVER: KSET line to KSET line

```
TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
22523456

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
523456

TABLE PXCODE

22DPXLA 52 52 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
523456
```

Figure 9 TRAVER: KSET line to KSET line

```
TABLE OFCCODE

22DPXLA 523456 523456 DNRTE ( MM 1 13) ( CLASS NATL) ( DN 22
5) ( SF 1)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                  22523456           ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for a KSET originating line with an 8-digit DN and an IBN terminating line with an 8-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 5-digit long station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 5-digit long station code.

Figure 10 TRAVER: KSET line to IBN line

```
>TRAVER L 22523456 22512345 B

TABLE KSETLINE

HOST 05 0 01 09 1 DN Y 523456 GERMANY 0 0 22 (MBSCAMP) $ MBS

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE KSETFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS
```

Figure 10 TRAVER: KSET line to IBN line

```
GERMANY 0 0 0 PDATA ( XLAS POTXLA22 FEATXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
22512345

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
512345

TABLE PXCODE
```

Figure 10 TRAVER: KSET line to IBN line

```
22DPXLA 51 51 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
512345

TABLE OFCCODE

22DPXLA 512345 512345 DNRTE ( MM 1 13) ( DN 22 5) ( SF 1)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                  22512345           ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for a KSET originating line with a 4-digit DN and an IBN terminating line with a 4-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code and 1-digit short station code.

Figure 11 TRAVER: KSET line to IBN line

```
>traver l 2256 2257 b

TABLE IBNLINES

HOST 03 0 10 09 0 DT STN IBN 56 GERMANY 0 0 22 $

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE IBNFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND
```

Figure 11 TRAVER: KSET line to IBN line

```
TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 0 0 0 PDATA ( XLAS POTXLA22 FEATXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME POTXLA22

TUPLE NOT FOUND

Default from table XLANAME:

POTXLA22

 (NET N N 0 N POTS N Y DOD N 990 22_NPRT_1 22_NILLA_1 NONE $)
$ 9

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
2257

TABLE PXCODE

22DPXLA 22 22 CONT ( PF 2) ( XLT PX 22DPXLA)$

TABLE PXHEAD
```

Figure 11 TRAVER: KSET line to IBN line

```
22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
57

TABLE PXCODE

22DPXLA 57 57 CONT ( XLT OFC 22DPXLA)$

TABLE OFCHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
57

TABLE OFCCODE

22DPXLA 57 57 DNRTE ( MM 1 13) ( DN 22 5) ( SF 1)$

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

DIGIT TRANSLATION ROUTES

1 LINE                  2257              ST

TREATMENT ROUTES.  TREATMENT IS: GNCT

1 OFLO

2 LKOUT

 +++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for an IBN originating line with a 4-digit DN and an IBN terminating line with an 8-digit DN. The composition of the originating DN is as follows: 2-digit short SNPA, 1-digit short office code, and 1-digit short station code. The composition of the terminating DN is as follows: 2-digit short SNPA, 1-digit short office code and 5-digit long station code.

Figure 12 TRAVER: IBN line to IBN line

```
>TRAVER L 2256 178512345 B

TABLE IBNLINES

HOST 03 0 10 09 0 DT STN IBN 56 GERMANY 0 0 22 $

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND
```

Figure 12 TRAVER: IBN line to IBN line

```
TABLE IBNFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 0 0 0 PDATA ( XLAS POTXLA22 NXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY PXDK POTSXLA CUSTFEAT 0 POTS

TABLE DIGCOL

GERCOMM 1 COL S 1

TABLE IBNXLA: XLANAME POTXLA22

POTXLA22 17 NET Y Y 0 N POTS N Y GEN (LATTR 990 22_NPRT_1
22_NILLA_1) ( TOLL TDN N)$ $

TABLE DIGCOL

POTS specified: POTS digit collection

TABLE LINEATTR

990 IBN NONE NT 0 0 NILSFC 0 PX 22DPXLA NIL 00 22_NPRT_1
22_NILLA_1 $

LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE

TABLE XLAPLAN

22_NPRT_1 NSCR 22 NPRT NONE N $ }{

TABLE RATEAREA

22_NILLA_1 NLCA NIL NILLATA $

TABLE PXHEAD

22DPXLA SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
178512345

TABLE PXCODE

22DPXLA 1 1 CONT ( XLT FT 1_EO)$

TABLE FTHEAD
```

Figure 12 TRAVER: IBN line to IBN line

```
1_EO SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
178512345

TABLE FTCODE

1_EO 178 178 CONT ( PF 1) ( MM 2 14) ( XLT FT 78_EO)$

TABLE FTHEAD

78_EO SDFLT NODFOP NOCON STD

THE DIGITS USED TO INDEX THE NEXT TABLE ARE:
78512345

TABLE FTCODE

78_EO 78 78 RTE ( MM 2 8) ( DEST 1) ( CLASS NATL)$

TABLE: FTRTE

KEY:   78_EO    1

 . N EISUP2WBWE NOMOD 0 $ 0

EXIT TABLE FTRTE

THIS CALL HAS TDN (TOLL DENIED)

TABLE TMTCNTL

LNT ( 51)

 . SUBTABLE TREAT

 . TDND Y T OFRT 81

 . TABLE OFRT

 .   81 S D OFLO

 .      S D LKOUT

 . EXIT TABLE OFRT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

TREATMENT ROUTES.  TREATMENT IS: TDND

1 OFLO

2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

The following translation verification is for an IBN originating line with a 9-digit DN and an ISDN terminating line with a 4-digit DN. The composition of the originating DN is as follows: 5-digit long SNPA, 2-digit short office code, and 2-digit short station code. The composition of the terminating DN is

as follows: 2-digit short SNPA, 1-digit short office code and 1-digit short station code.

Figure 13 TRAVER: KSET line to ISDN line

```
>TRAVER L 555558811 B17 B

TABLE IBNLINES

REM1 07 1 05 05 0 DT STN IBN 8811 GERMANY 0 6 55555 $

TABLE DNATTRS

TUPLE NOT FOUND

TABLE DNGRPS

TUPLE NOT FOUND

TABLE IBNFEAT

TUPLE NOT FOUND

TABLE CUSTSTN

TUPLE NOT FOUND

TABLE OFCVAR

AIN_OFFICE_TRIGGRP NIL

INAP Info Collected TDP:  no subscribed trigger.

TABLE NCOS

GERMANY 6 0 0 PDATA ( XLAS POTXLA55 FEATXLA GERCOMM)$

TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA,
VACTRMT, AND DIGCOL

GERMANY NXLA POTSXLA NXLA 0 POTS

TABLE DIGCOL

TUPLE NOT FOUND

Default is RPT

TABLE IBNXLA: XLANAME FEATXLA

FEATXLA 17 FEAT N Y WUCRA

INAP Info Collected TDP:  no subscribed trigger.

INAP Info Analyzed TDP:  no subscribed trigger.

+++ TRAVER: SUCCESSFUL CALL TRACE +++

Feature WUCRA      not supported by TRAVER

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

Limitations and restrictions

This chapter contains descriptions of the restrictions and limitations associated with the Open Numbering Plan features.

General

Variable DN support is provided for a limited set of services; agents; and operations, administration, and maintenance (OA&M) functions. For more detailed information on the services and agents supported, refer to the *Development Summary, Compliance*, and *Restrictions and Limitations* chapters of this document. For more information on OA&M development, refer to the *Operations, Administration, and Maintenance* chapter of this document.

Overlap outpulsing

Besides existing support, Open Numbering Plan functionality does not provide support for variable-length directory numbers (DN) in overlap outpulsing.

Development activities

The following sections identify restrictions and limitations for each Open Numbering Plan feature.

59005973 - DNBASE Shared Layer E.164 Development

This feature provides software optionality control (SOC) implementation of Open Numbering Plan functionality (SOC option NPE00003).

Restrictions

SOC option NPE00003 cannot be activated if office parameter ACTIVE_DN_SYSTEM in table OFCENG is set to NORTH AMERICAN.

SOC option NPE00003 idle If parameter MARKET_OF_OFFICE is set to NORTHAM, the following restrictions apply:

- area codes (in table SNPANAME) must be 3 digits
- office codes (in table TOFCNAME) must be 3 digits
- station codes in table (DNINV) must be 1 or 4 digits

- office code + station code must be 4 or 7 digits
- area code + office code + station code must be 7 or 10 digits

The following restrictions apply to markets that require variable-length DNs:

- area codes (in table SNPANAME) must be 1 to 7 digits
- office codes (in table TOFCNAME) must be 0 to 7 digits
- station codes (in table DNINV) must be 1 to 8 digits
- area code + office code must not exceed 9 digits
- area code + office code + station code must not exceed 10 digits

SOC option NPE00003 active When SOC option NPE00003 is set to ON, the following restrictions apply:

- area codes (in table SNPANAME) must be 1 to 7 digits
- office codes (in table TOFCNAME) must be 0 to 7 digits
- station codes (in table DNINV) must be 1 to 8 digits
- area code + office code must not exceed 11 digits
- area code + office code + station code must not exceed 12 digits

Limitations

SOC option NPE00003 allows the definition of up to 12 digit DNs in table DNINV and associated tables. However, compliance for Phase 1 Open Numbering Plan development is 10 digits or less.

59006677 - E.164 changes for services FC

This feature provides Open Numbering Plan support in the following services:

- RES/IBN Call Forwarding
- Wakeup Call Reminder (WUCR)
- CLASS Utilities
- CLASS Display

This feature changes the 3-3-4 DN assumptions such that the lengths of area code, office code, and station code comply with Open Numbering Plan requirements.

Restrictions

Not applicable

Limitations

This feature does not support variable DNs in the following services:

- Address utilities
- Calling Name Display (CND)
- Ring Again (RAG) and Network Ring Again (NRAG)
- Simplified Message Desk Interface (SMDI) and Message Waiting

59006959 - E.164 SERVORD and CEU enhancements

This feature provides Open Numbering Plan support for SERVORD common infrastructure (procedures used by many utilities).

Restrictions

Not applicable

Limitations

This feature does not support Open Numbering Plan deployment in the following SERVORD areas:

- support for Hunt options
- support for Teen Service options
- commands that query over ranges of DNs:
  - NEWDN
  - OUTDN
  - QDNSU
  - QDNWRK
  - QGRP
  - QNCOS
  - SDNA
  - SWAP
- table CDCDNS

This feature does not support Open Numbering Plan deployment in the following CEU areas:

- Custom Local Area Signaling Services (CLASS) interworking with Direct Inward System Access (DISA)
- Simplified Message Desk Interface (SMDI) over Digital Private Network Signaling System (DPNSS)
- Attendant Consoles

- British Telecom User Part (BTUP)
- Call Detail Recording (CDR)
- Virtual Serving Numbering Plan Area (VSNPA)
- Meridian Off-Net Access (MONA)
- Virtual Private Networks (VPN)
- Meet-Me Conference
- Preset Conference
- DTMF trunk types
- TRK163 log

59007213 - E164 for Centrex - DISA Feature

This feature provides Open Numbering Plan support in Centrex for Direct Inward System Access (DISA).

Restrictions

Not applicable

Limitations

The following limitations are associated with this feature:

- PVN do not support the E.164 dialing plan. Therefore, interworking of DISA and PVN remains E.164 incompatible.
- In markets where Advanced Intelligent Network (AIN) is available (currently, only North America), interworking of DISA and AIN will not be compatible.
- This feature does not provide E.164 compliance for the station ringer test. Therefore, processes related to the station ringer test will occur only if office parameter ACTIVE_DN_SYSTEM is set to NA.
- Part of the translations of Direct Outward Dial network calls intersects the path of translations of Electronic Switched Network (ESN) network calls. This feature makes no enhancements to support E.164 in ESN.

59007476 - E.164 Support for Line Agents - Phase 1

This feature modifies the Line Agent functional component element required to support Open Numbering Plan (ONP).

Restrictions

Not applicable.

Limitations

ONP is not supported in the following:

- attendant consoles
- coin lines
- single and multi-party lines
- Wide Area Telephone Service (WATS)

59007530 - E.164 Utilities

This feature provides the common utilities that call processing software requires to support Open Numbering Plan functionality. This feature addresses hard-coded checks on DN length that do the following:

- detect ANI information digit(s) in the calling number
- determine the Nature of Address (NOA)
- determine the Type of Number (TON)

Restrictions

Not applicable

Limitations

Not applicable

59011676 - Centrex E.164 (II)

This feature provides support for national significant numbers (NSN) up to 14 digits in the following Centrex (IBN) or public translations and routing selectors:

- IBNXLA/XLANAME, AMBI
- IBNXLA, DOD
- IBNXLA/XLANAME, EXTN
- IBNXLA, NET GEN (LATTR, RTE, and ESN options)
- IBNRTE, DN
- IBNRTE, RX
- OFRT, DN

Restrictions

Not applicable

Limitations

The Bellcore Automatic Message Accounting (AMA) system supports DNs up to 10 digits. This restriction applies to some or all of the DN fields in AMA logs and records.

SOC option NPE00003 imposes a maximum length on DN tables (IBNLINES, IBNROUTE, etc.). When NPE00003 is set to ON, DNs up to 12 digits are allowed in DN tables. When NPE00003 is set to IDLE, the maximum DN length is 10 digits.

Enhancements to the EXTN selector of tables IBNXLA and XLANAME are not available in the emergency stand alone (ESA) mode of operation. For more information, refer to the Interactions chapter.

Automatic Call Distribution (ACD) Management Information System (MIS) supports ony North American format routing data. For more information, refer to the Interactions chapter.

59012642 - E164 Utilities - Phase II

This feature provides Open Numbering Plan support for the following:

- determination of type of DN
- flexible digit collection on BRI originations

Restrictions

Not applicable

Limitations

For flexible digit analysis (DAS) to be activated, office parameter FLEXIBLE_DIGIT_ANALYSIS in table OFCOPT must be set to Y.

Customer documentation

Customer documentation impact for Open Numbering Plan (ONP) functionality is as follows:

- *Translations Guide*, 297-8xxx-350: Revisions to the descriptions of data schema tables DNINV, DNROUTE, IBNRTE, IBNXLA, and TOFCNAME
- *Office Parameters Reference Manual*, 297-8xxx-855: Revisions to the descriptions of office parameters ACTIVE_DN_SYSTEM and MARKET_OF_OFFICE in table OFCENG
- *Log Report Reference Manual*, 297-8xxx-840: Revisions to the descriptions of log reports V5201, V5202, V5203, V5252, V5253, V5254, and V5257
- *Feature Description Manual*, 297-8xxx-801: Feature descriptions for development activities 59005973, 59006677, 59006959, 59007213, 59007476, 59007530, 59011676, and 59012642
- provisioning documentation

Requirements

The requirements identified in this chapter are internal (Nortel-defined) requirements derived from the E.164 Feature Specification Document (FSD).

The following table identifies the requirements for each Open Numbering Plan (ONP) development activity (feature).

Table 15 ONP Phase 1 requirements

Activity number	Requirement		Critical	Compliant
	Number	Description		
10181106 (ProSTAR)	1	Support display of variable-length DNs up to 15 digits in E.164 format in V5.2 logs (module V55LOGI)	Y	Y
59005973	1	Remove obsolete type DN_OBJECT_DIGIT_REGISTER	Y	Y
	2	Rearrange existing setter methods	Y	Y
	3	Implement method SET_USING_DN_INDEX	Y	Y
	4	Implement method SET_USING_CPID	Y	Y
	5	Implement method GET_SNPA_IN_REGISTER	Y	Y
	6	Implement method GET_FULL_DR	Y	Y
	7	Implement software optionality controlled support of variable-length DNs up to 12 digits in E.164 format	Y	Y

Table 15 ONP Phase 1 requirements

Activity number	Requirement		Critical	Compliant
	Number	**Description**		
59006677	1	Support variable-length DNs up to 10 digits in E.164 format in Call Forwarding (CF)	Y	Y
	2	Support variable-length DNs up to 10 digits in E.164 format in Last Number Redial (LNR), Speed Call, and Wakeup Call Reminder (WUCR)	Y	Y
	3	Support variable-length DNs up to 10 digits in E.164 format in (Custom Local Area Signaling Services) CLASS Utilities	Y	Y
	4	Support variable-length DNs up to 10 digits in E.164 format in CLASS Display	Y	Y
	5	Support variable-length DNs up to 10 digits in E.164 format in Calling Name Display	Y	N
59006959	1	Support variable-length DNs up to 12 digits in E.164 format in Operational Support System (OSS) interfaces such as the MAP, OSS billing and operational measurements, service orders (SERVORD), and logs.	Y	P

Table 15 ONP Phase 1 requirements

Activity number	Requirement		Critical	Compliant
	Number	**Description**		
59006959 (continued)	2	Support variable-length DNs up to 10 digits in E.164 format in the following: • Calling Line Identifier (CLI) on British Telecom User Part (BTUP) • Digital Private Network Signaling System (DPNSS) • Trunk Call Processing • Base CEU	Y	N
	3	Support variable-length DNs up to 10 digits in E.164 format in Meridian Off Net Access (MONA) - BTUP and CLASS interworking	Y	N
	4	Support variable-length DNs up to 10 digits in E.164 format in Attendant Console Billing	Y	N
	5	Support variable-length DNs up to 10 digits in E.164 format in Call Detail Recording (CDR)	Y	N
	6	Support variable-length DNs up to 10 digits in E.164 format in Simplified Message Desk Interface (SMDI) over DPNSS	Y	N
	7	Support variable-length DNs up to 10 digits in E.164 format in BTUP Base	Y	N
	8	Support variable-length DNs up to 10 digits in E.164 format in Virtual SNPA (Serving Numbering Plan Area)	Y	N
	9	Support variable-length DNs up to 10 digits in E.164 format in Emergency Services	Y	N
	10	Support variable-length DNs up to 10 digits in E.164 format in the following: • CLASS Interworking with Attendant Console • Preset Conference • MeetMe conference	Y	N
	11	Support variable-length DNs up to 10 digits in E.164 format in Virtual Private Networks (VPN)	Y	N

Table 15 ONP Phase 1 requirements

Activity number	Requirement		Critical	Compliant
	Number	Description		
59006959 (continued)	12	Support variable-length DNs up to 10 digits in E.164 format in the following: • DPNSS Interworking with Attendant Console • Preset Conference • MeetMe Conference • Automatic Call Distribution (ACD)	Y	N
59007213	1	Support variable-length DNs up to 14 digits in E.164 format for DISA	Y	Y
59007476	1	Line agent support for variable-length national numbers up to 10 digits in E.164 format for the German market.	Y	P
	2	Key Set Basics	Y	Y
	3	IBN Line Basics	Y	Y
	4	Base Lines Software	Y	Y
	5	Base Line Call Processing	Y	Y
	6	Coin Line Call Processing	N	N
	7	Digit collection, Line Terminating Utility	Y	Y
	8	Service Evaluation System Development	N	N
	9	Attendant Consoles	N	N
	10	Station Ringer	Y	Y
59007530	1	Support 15-digit international dial plan	Y	Y

Table 15 ONP Phase 1 requirements

Activity number	Requirement		Critical	Compliant
	Number	Description		
59011676	1	E.164 compliance for abbreviated dailing (IBNXLA/XLANAME EXTN and AMBI selectors)	Y	Y
	2	E.164 compliance for DN terminations using the IBNRTE DN selector	Y	Y
	3	E.164 compliance for for office routing (OFRT DN selector)	Y	Y
	4	E.164 compliance for calls retranslated using the IBNRTE RX selector	Y	Y
	5	E.164 compliance for for Direct Outward Dialing (IBNXLA/XLANAME DOD selector)	Y	Y
	6	E.164 compliance for for network calls using the IBNXLA/XLANAMEGEN selector, ESN, RTE, and LATTR options	Y	Y
59012642	1	Open Numbering Plan support for determination of DN type	Y	Y
	2	Open Numbering Plan support for flexible digit collection on BRI originations	Y	Y

The following are Critical/Compliant value definitions:

- Y - yes
- N - no
- C - existing code compliant (will not be affected)
- P - partially compliant

DMS-100 Family

Open Numbering Plan

Service Implementation Guide

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