# Critical Release Notice

**Publication number: 297-2621-327**
**Publication release: Standard 02.04**

The content of this customer NTP supports the SN06 (DMS) software release.

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

## Bookmark Color Legend

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

**Red: Applies to new or modified content for NA017 that is valid through the current release.**

**Blue: Applies to new or modified content for NA018 (SN05 DMS) that is valid through the current release.**

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

***Attention!***
*Adobe® Acrobat® Reader™ 5.0 is required to view bookmarks in color.*

# Publication History

**March 2004**

Standard release 02.04 for software release SN06 (DMS).

Change of phone number from 1-800-684-2273 to 1-877-662-5669, Option 4 + 1.

297-2621-327

Digital Switching Systems

# UCS DMS-250

## International Application Guide

UCS08 Standard 02.03 August 1998

NORTEL

NORTHERN TELECOM

Digital Switching Systems

# UCS DMS-250

## International Application Guide

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# Publication history

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Standard release, 01.02, for UCS07

**August 1997**

Preliminary release, 01.01, for UCS07

# Contents

# About this document

This document describes the UCS Global DMS-250 switch, Nortel's product for use in the global marketplace.

## Who needs this manual?

This document is written for planners, installers, support and maintenance technicians, and engineers.

To find this document most useful:

- The UCS DMS-250 switch you are working with should be installed, commissioned, and active.
- You should receive training for Table Editor and complete Nortel (Northern Telecom)-approved training for datafill, translations, and maintenance.

## How is this manual arranged?

The information in this manual is arranged as follows:

- Chapter 1, Overview – gives a high-level description of the UCS DMS-250 switch in a global network, tells which trunk agencies are supported, what features are available for each trunk agency, what the hardware requirements are, and which software optionality controls (SOC) are required.
- Chapter 2, ITU ISUP IMT trunk agency – describes the ITU ISUP IMT trunk agency on the UCS DMS-250 switch, including features, implementation, and maintenance information.
- Chapter 3, Mexican ISUP IMT trunk agency – describes the Mexican ISUP IMT trunk agency on the UCS DMS-250 switch, including features, implementation, and maintenance information.
- Chapter 4, Mexican R2 trunk agency – describes the Mexican R2 trunk agency on the UCS DMS-250 switch, including features, implementation, and maintenance information.
- Chapter 5, UCP Global ISUP IMT trunk agency – describes the UCP Global ISUP IMT trunk agency on the UCS DMS-250 switch, including features, implementation, and maintenance information.

- Chapter 6, UCP Intra IMT trunk agency – describes the UCP Intra IMT trunk agency on the UCS DMS-250 switch, including features, implementation, and maintenance information.
- Chapter 7, Billing – explains how billing works with the global UCS DMS-250 switch.
- Appendix A, Feature dictionary – contains a brief description of all features available for all five trunk agencies that support the global UCS DMS-250 capability.
- Appendix B, List of terms – contains the definition of terms used in this book.

***Note:*** This document describes the trunk types supported by the global UCS DMS-250 switch, the features available, and how to implement them. The specific messaging protocols are described in a separate document, *UCS DMS-250 Global Protocol Reference Manual*.

## Where does this feature fit?

The UCS DMS-250 switch is part of Nortel's DMS family of digital multiplex switching products. The phrase "DMS family" means DMS products use a common operational and hardware platform. The UCS DMS-250 switch shares similar architecture with other DMS products; for example, the DMS family shares the same processing, messaging, and hardware. In addition to this common architecture, the UCS DMS-250 switch has functions and operations specific only to it.

## Where does this manual fit?

The group of technical manuals written for the DMS products reflect the common architecture of the DMS software. There are technical documents concerning logs, commands, operational measurements, and office parameters that are common to the DMS family. These manuals are included in the group of technical documents you receive with the manuals specific to your UCS DMS-250 switch.

## What software release does this manual relate to?

This document applies to UCS DMS-250 offices that have software release UCS07 (CSP07). Unless revised, this document also applies to offices with software releases later than UCS08.

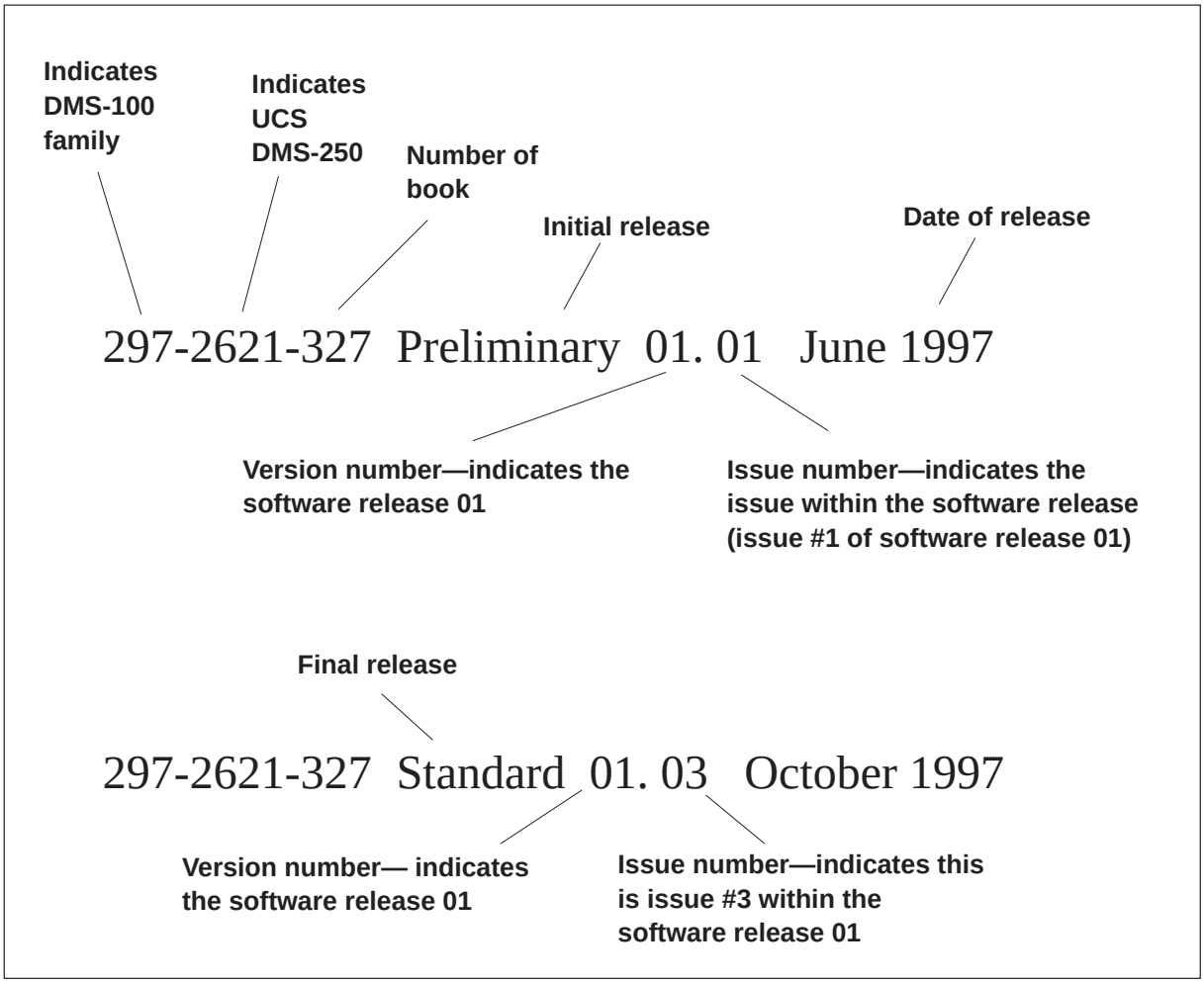
### How to understand manual numbers

The *UCS DMS-250 Master Index of Publications* lists the latest issue of this document and its software release.

## Document names and numbering

As shown below, the document naming and numbering indicates:

- the document number consisting of the family (297), the product (2621), and the type of book (327)
- the release (preliminary or standard)
- the software release version and the issue number within that release (01.01)
- the date the document was released




## Determining the latest version

This document is written for all UCS DMS-250 offices, and more than one version of this document may exist. To determine whether you have the latest version of this document, check the release information in *UCS*

*DMS-250 Master Index of Publications*, 297-2621-001. This publication also explains how documentation for products is organized.

## Where to look for more information

The following Nortel (Northern Telecom) documents provide information that relate to the subjects in this document:

| For more information about... | See the manual... | Manual number |
|---|---|---|
| The DMS family and the UCS DMS-250 switch | *UCS DMS-250 General Description* | 297-2621-100 |
| The content and organization of the DMS technical library | *UCS DMS-250 Master Index of Publications* | 297-2643-001 |
| Billing | *UCS DMS-250 Billing Records Application Guide* | 297-2621-395 |
| Data schema | *UCS DMS-250 Data Schema Reference Manual* | 297-2621-851 |
| CCS7 | *UCS DMS-250 Common Channel Signaling 7 Maintenance Guide* | 297-1001-531 |
| Logs | *UCS DMS-250 Logs Reference Manual* | 297-2621-840 |
| MCCS | *UCS DMS-250 MCCS Application Guide* | 297-2621-305 |
| NetworkBuilder | *UCS DMS-250 NetworkBuilder Application Guide* | 297-2621-370 |
| Operational measurements | *UCS DMS-250 Operational Measurements Reference Manual* | 297-2621-814 |
| Office parameters | *UCS DMS-250 Office Parameters Reference Manual* | 297-2621-855 |
| Signaling protocols | *UCS DMS-250 Global Protocol Reference Manual* | 297-2621-329 |
| Software optionality control | *UCS DMS-250 Software Optionality Control User Manual* | 297-2621-301 |
| Trunk maintenance | *Trunks Maintenance Guide* | 297-1001-595 |
| Trunk testing | *Automatic Trunk Testing Description* | 297-1001-121 |

## Document conventions

This document conforms to the following conventions.

## MAP terminal commands

Commands you enter at the MAP terminal are in the following format:

### Input prompt (>)

An input prompt (>) indicates that the information that follows is a command:

**>BSY**

### Commands and fixed parameters

Commands and fixed parameters that are entered at a MAP terminal are shown in uppercase letters:

**>BSY CTRL**

### Variables

Command parameters that vary are shown in brackets.

**>BSY CTRL <CTRL_NO>**

Variables are then listed and explained in a list following the command.

### Responses

Responses correspond to the MAP display and are shown in a different type:

```
FP 3 Busy CTRL 0: Command request has been submitted.
FP 3 Busy CTRL 0: Command passed.
```

### Example

The following example information on a command shows the format.

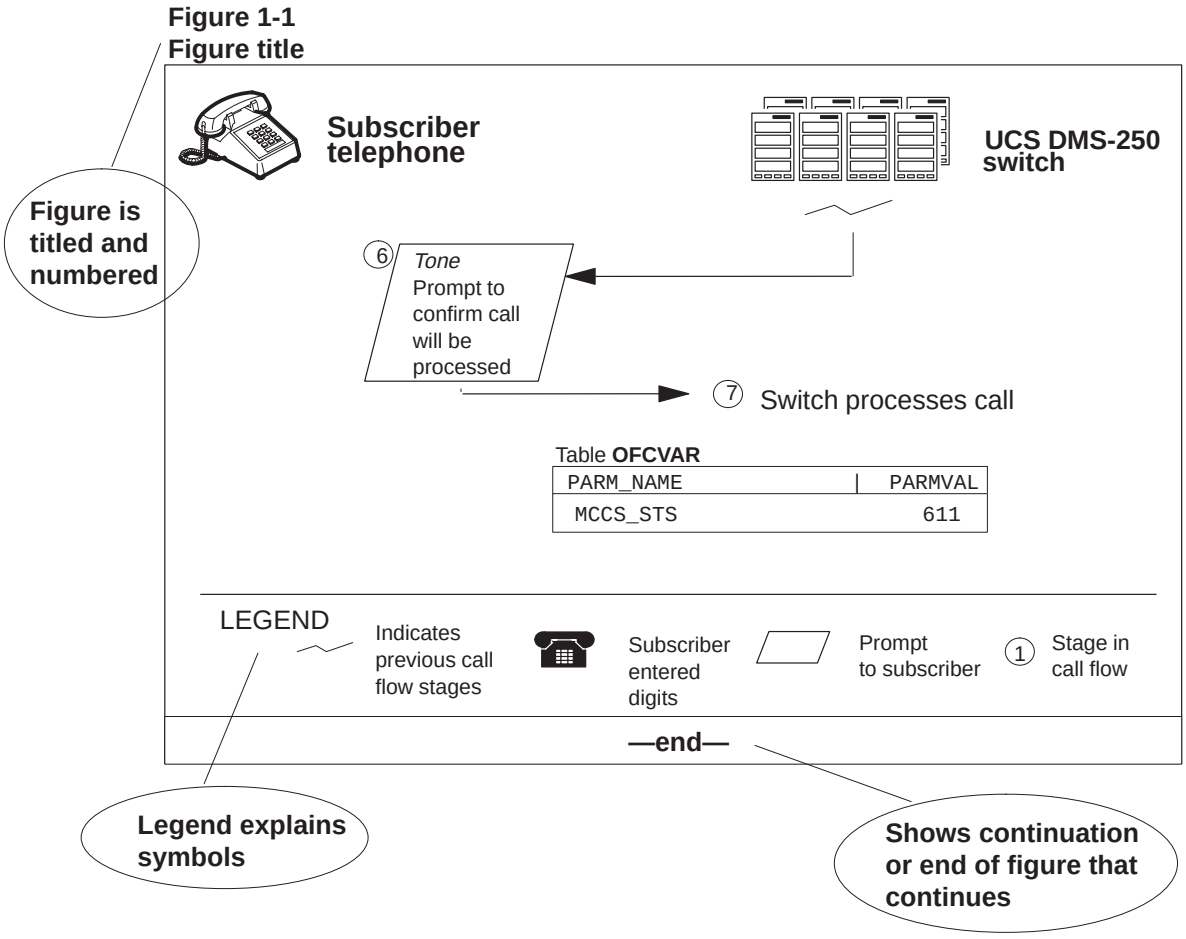
Enter the CLLIREF SEARCH command with these parameters:

**>CLLIREF SEARCH <CLLI_NAME>**

**CLLI_NAME**—the name of the CLLI you wish to search for

## Illustrations in figures

The following shows the figure conventions.



# Overview

This document describes the UCS DMS-250 International switch, Nortel's product that provides long-distance services in the global marketplace.

## What is the UCS DMS-250 International switch?

Inside World Zone 1 (WZ1), which includes North America, Canada, and most of the Caribbean, the North American dialing plan provides for processing calls with a specific number format. Call typing often depends on the number of dialed digits (for example, 7-digit numbers are calltyped as on-net, 10-digit numbers are calltyped as off-net).

Outside of WZ1, there is an open number dialing plan, in which both the format and the length of call numbers can vary. Lengths can be up to 24 digits, and prefix digits that identify the call type inside WZ1 (such as 0, 01, 011) do not necessarily apply.

The North American dialing plan allows trunk agencies to process only those calls that adhere to its requirements. Therefore, outside of WZ1, trunk agencies need a way to identify the call types of calls that fall under the open number dialing plan.

To provide this capability, Nortel (Northern Telecom) has enhanced the UCS DMS-250 switch so it now offers a set of global services and features on certain trunk agencies with services and features that can accommodate for the dialing plans outside of WZ1. This enhanced UCS DMS-250 switch, called the UCS DMS-250 International switch, and its services enable the trunk agencies to determine call types outside of WZ1 using various datafilled information. Each trunk agency can use different criteria to determine call type, depending on the features deployed and how they are configured. To implement these features, you must activate the appropriate software optionality controls (SOCs) and then datafill the appropriate tables.

This book tells you

- which trunk agencies are available on the UCS DMS-250 International product
- which features and services are available for which trunk agencies

- how to implement the global features for your trunk agency type

***Note:*** If you put a UCS DMS-250 switch outside of WZ1, you must implement the global capability described in this document. Otherwise, you will be able to process only calls that adhere to the North American dialing plan.

## Which trunk agencies support this product?

Currently, the following trunk agencies are available on the UCS DMS-250 International switch:

- ITU ISUP IMT – This trunk agency supports the ITU ISUP protocol. It is an access trunk into the UCS global network from a Public Switching Telephone Network (PSTN) or another carrier network. The ITU ISUP IMT uses the ADDR dialing plan.
- Mexican ISUP IMT – This trunk agency supports the Mexican variant of the ITU ISUP protocol. It is an access trunk into the UCS global network from the Mexican PSTN or another carrier network. The Mexican ISUP IMT uses the ADDR dialing plan.
- Mexican R2 – this trunk agency supports the Mexican R2 protocol, which is a variant of the ITU R2 protocol. It is an access trunk into the UCS global network from the Mexican PSTN or a Private Branch Exchange (PBX). The Mexican R2 uses the ADDR dialing plan.
- UCP Global IMT – This trunk agency supports the UCS Universal Carrier Protocol (UCP), which is a variant of the ANSI ISUP protocol. The UCP Global IMT uses the ADDR dialing plan.

  The UCP Global IMT has three functions:

  — provides an enhanced feature set to calls that originate on the Mexican R2 trunk agency

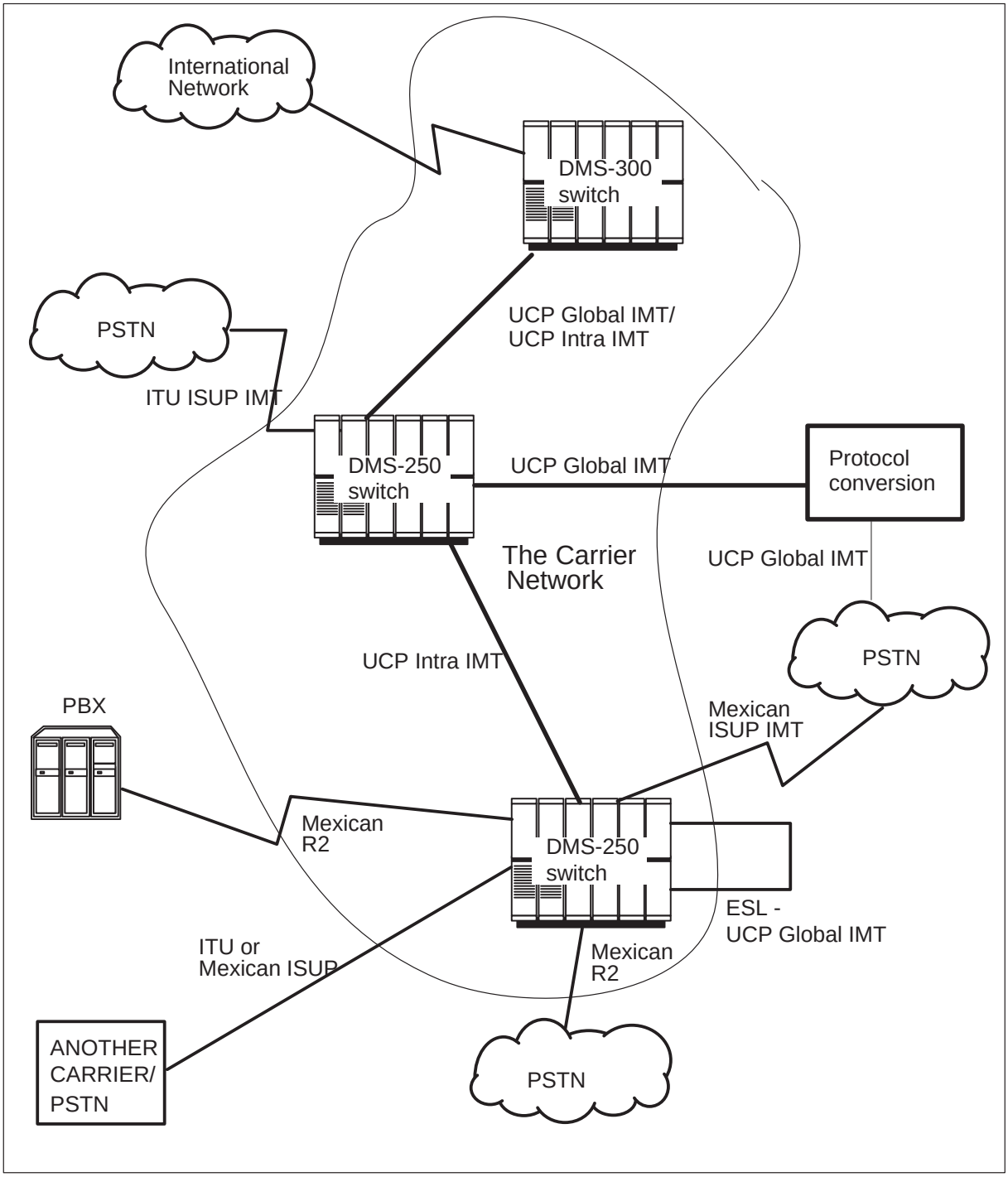
  — connects a UCS DMS-250 International switch in a UCS global network to another UCS DMS-250 International switch, to a DMS-300 international gateway, or to a DMS-250/300 combination switch

  — sends calls through protocol conversion before they enter the Mexican PSTN
- UCP Intra IMT – This trunk agency supports the UCS UCP protocol, which is a variant of the ANSI7 ISUP protocol. It is a tandem trunk agency that connects a UCS DMS-250 International switch in a UCS global network to another UCS DMS-250 International switch, to a DMS-300 international gateway, or to a DMS-250/300 combination switch. The UCP Intra IMT uses the ADDR and the I3PA dialing plans.

***Note:*** Although you can use the UCP Global IMT or the UCP Intra IMT to connect to DMS-300 switches, Nortel recommends that you use the UCP Global IMT trunk.

Figure 1-1 shows an example of the UCS DMS-250 International switch deployed in a global carrier network inside Mexico.

**Figure 1-1**
**UCS DMS-250 switch in a UCS global carrier network in Mexico**



## Which basic features and services are available?

Table 1-1, Global features/trunk agencies matrix, lists all of the features available with the UCS DMS-250 International product, and indicates which trunk types support each feature. For details about how to implement features for your trunk type, refer to the chapter of this book that corresponds to your trunk agency type. For a description of each feature see appendix A, “Feature dictionary.”

**Table 1-1**
**Global features/trunk agencies matrix**

| Feature | ITU ISUP IMT trunk | Mexican ISUP IMT trunk | UCP Global IMT trunk | UCP Intra IMT trunk | R2 trunk |
|---|---|---|---|---|---|
| Translations for national calls (ONNET and OFFNET call types) | X | X | X | X | X |
| Open number dialing plan | X | X | X | X | X |
| Translations for international calls (IDDD): IN calls | X | X | X | X | X |
| Translations for IDDD calls: IP calls | X | X | X | X | X |
| PCM cut-through for DTMF digit collection | X | X | X | | |
| CLI Screening | X | X | X | | X<br><br>***Note:*** provided through an ESL |
| Account Code Screening and validation for CLI billed calls | X | X | X | | X<br><br>***Note:*** provided through an ESL |

***Note:*** To implement the global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 1-1**
**Global features/trunk agencies matrix** (continued)

| Feature | ITU ISUP IMT trunk | Mexican ISUP IMT trunk | UCP Global IMT trunk | UCP Intra IMT trunk | R2 trunk |
|---|---|---|---|---|---|
| PIN digits collection and screening for CLI billed calls | X | X | X | | X<br><br>***Note:*** provided through an ESL |
| Satellite Screening | X | X | X | | X |
| Class of Service Screening | X | X | X | | X<br><br>***Note:*** provided through an ESL |
| CIC delivery | X | X | X | X | X |
| Conditional Routing | X | X | X | X | X |
| UA Authcode calls | X | X | X | | X<br><br>***Note:*** provided through an ESL |
| Filed Authcode calls | | | | | X<br><br>***Note:*** provided through an ESL |

***Note:*** To implement the global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 1-1**
**Global features/trunk agencies matrix** (continued)

| Feature | ITU ISUP IMT trunk | Mexican ISUP IMT trunk | UCP Global IMT trunk | UCP Intra IMT trunk | R2 trunk |
|---|---|---|---|---|---|
| PIN screening and validation for Authcode billed calls | X | X | X | | X<br><br>***Note:*** provided through an ESL |
| Account code screening and validation for Authcode billed calls | X | X | X | X | X<br><br>***Note:*** provided through an ESL |
| Bearer capability (BC) screening for data calls | X | X | X | X | X |
| Data call identification | X | X | X | X | X |
| Operator services translations | X | X | X | X | X |
| Test calls | X | X | X | X | X |
| Automatic trunk testing (ATT) | X | X | X | X | X |
| DCME Control | X | X | X | X | |
| Trunk Class of Service Screening | X | X | X | X | X |

***Note:*** To implement the global features you must order and activate SOC GIMT0001.

**—end—**

## Which optional features and services are available?

To implement the global trunk agencies and features, you must activate the appropriate software optionality controls (SOCs). SOCs are optional software services that provide operating companies with a secure method of quickly deploying new services into their switches. SOCs include software license keys that control access to individual features or entire services.

When Nortel receives a request from a carrier to license an optional ordering code, Nortel uses the SOC utility to enable the corresponding features. Operating companies need no additional software to activate the SOC utility. To prevent unauthorized or accidental service activation, SOCs are password protected.

For more information about SOCs, see the *UCS DMS-250 Software Optionality Control User Manual*.

**Table 1-2**
**Optional features/trunk agencies matrix**

| Feature | Order code | ITU ISUP IMT | Mexican ISUP IMT | UCP Global IMT | UCP Intra IMT | R2 |
|---|---|---|---|---|---|---|
| UA MCCS | • CRDS0001<br>• CRDS0003 (optional) | X | X | X | | X<br>***Note:*** provided through an ESL |
| NetworkBuilder Support | • CAIN0605 | X<br>***Note:*** provided through an ESL | X | X | | X<br>***Note:*** provided through an ESL |
| Flexible Service Access Calls (FSAC) | • N00R0001 | X | X | X | | X<br>***Note:*** provided through an ESL |
| CLI Delivery | • NSER0001 | X | X | X | X | X |

***Note:*** To implement the global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 1-2**
**Optional features/trunk agencies matrix** (continued)

| Feature | Order code | ITU ISUP IMT | Mexican ISUP IMT | UCP Global IMT | UCP Intra IMT | R2 |
|---|---|---|---|---|---|---|
| Customer information provided in Network Information parameter and generic digits parameter | • NSER0001 | | | X | X | |
| Unanswered call information | • NSER0003 | | | | X | |
| CIC Routing | • UTRS0001 | X | X | X | X | X |
| Cause to treatment mapping modification | • UTRS0003 | X | X | X | | |
| Capability to change default treatment values in table COSUS | • UTRS0004 | X | X | X | | |

***Note:*** To implement the global features you must order and activate SOC GIMT0001.

**—end—**

## What hardware is required?

The ITU ISUP IMT, Mexican ISUP IMT, Mexican R2, UCP Global IMT, and UCP Intra IMT use PCM30 trunk signaling. Therefore, they interface with the UCS DMS-250 International switch through the Digital Trunk Controller Overseas Plus (DTCO+) trunk peripheral.

The DTCO+ supports:

- a PCM30 interface compliant with ITU Recommendation G.732
- voice encoding based on ITU Recommendation G.711 A-law encoding

- both one-way and two-way traffic

For the Mexican R2 trunk, the following also applies:

- connections are PCM30 circuits
- timeslot 16 employs channel associated signaling in accordance with ITU Recommendation G.704

Some features may require additional hardware:

- Mechanized Calling Card Services (MCCS) – requires EDRAM hardware to support voice prompts
- Universal Access (UA) reorigination – requires DTMF Receivers to be provisioned in the international Maintenance Trunk Module (MTM)

***Note:*** The DTCO+ does not support the specialized tone receiver (STR), which is used to support reorigination.

- Digit Circuit Multiplication Equipment (DCME) – requires external DCME which connects to the DTCO+ through a PCM30 interface

## How is this product maintained?

Each trunk agency has its own maintenance features available, such as test calls. For details about what is available for your trunk type, refer to the section entitled “Which maintenance features are available for this trunk agency?” in the chapter that corresponds to your trunk agency type.

## Billing

The UCS DMS-250 International switch uses the standard UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are used differently and how. Otherwise, refer to the *UCS DMS-250 Billing Records Application Guide* for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the FlexCDR format.

# ITU ISUP IMT

## Overview

This chapter describes the ITU ISUP IMT trunk agency, including:

- a description of the trunk agency type, including the protocol it supports
- which trunk agency interworkings are supported
- which basic and optional features are available
- which SOCs you must implement to activate each feature
- which tables you must datafill for each feature
- which maintenance options are available

## What is an ITU ISUP IMT trunk agency?

The ITU ISUP IMT trunk agency implements a subset of the ITU White book (Q.761-Q.764) recommendation for ISUP protocol. The ITU ISUP IMT trunk agency is used to access the UCS global network from PSTNs or other carrier networks outside of World Zone 1.

The ITU ISUP IMT uses the ADDR dialing plan.

***Note:*** The ITU ISUP IMT is a global trunk agency.

For a complete description of the messages and parameters supported by the ITU ISUP trunk agency, please refer to the *UCS DMS-250 Global Protocol Reference Manual*.

## Which trunk agency interworkings are supported?

Interworking is supported between the ITU ISUP IMT trunk agency and

- the ITU ISUP IMTs
- the UCP ISUP IMTs (Intra and Global)
- the Mexican ISUP IMTs
- the Mexican R2 trunks

Refer to the *UCS DMS-250 Global Protocol Reference Manual* for specific interworking information.

## Which basic and optional global features are available?

Table 2-1, ITU ISUP IMT Basic Global Features Matrix, shows you the basic global features the ITU ISUP IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the ITU ISUP IMT trunk uses. For a detailed description of each of the global features, see Appendix A, Feature dictionary.

**Table 2-1**
**ITU ISUP IMT basic global features matrix**

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| ITU ISUP IMT trunk implementation | 1 CLLI<br>2 CLLICDR<br>3 TRKGRP<br>4 TRKGRP1<br>5 TRKSGRP<br>6 TRKMEM | |
| Translations for national calls (ONNET and OFFNET call types) | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 xxHEAD<br>5 xxCODE<br>6 xxRTE<br>7 STSxxDB<br>***Note:*** xx is AC, PX, CT, or FT | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Translations for international calls (IDDD calls): IN calls | 1 STDPRTCT.STDPRT<br>2 PRETNAME<br>3 CCTR | |
| Translations for IDDD calls: IP calls | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 CTHEAD<br>5 STSCCDB<br>6 CTCODE<br>7 CTRTE | |
| PCM cut-through for DTMF digit collection | 1 TRKGRP | |
| CLI Screening | 1 ANISCUSP<br>2 VARCLI.CLIDATA | |
| Trunk Class of Service Screening | 1 TRKCOS | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account Code Screening and validation for CLI billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2<br>4 ANISCUSP<br>5 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT_VAL<br>• ALLOW_EMPTY_ACCT_VAL |
| PIN digits collection and screening for CLI billed calls | 1 OFCENG<br>2 ANISCUSP<br>3 MULTIPIN<br>4 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Satellite Screening on an ANI basis | 1 ANISCUSP | |
| Satellite Screening on a trunk group basis | 1 TRKSGRP | |
| Class of Service Screening | 1 STDPRTCT.STDPRT<br>2 COSSCRN<br>3 MULTICOS<br>4 COSUS<br>5 ANISCUSP; AUTHCODU and AUTHCOD2-5; TCNFAST; SACVAR; CICROUTE<br>***Note:*** Which table you datafill depends on how the call will be billed.<br>6 UNRESDAT<br>7 UNRESDAY<br>8 UNRESTIM | |
| CIC Delivery | 1 OFCVAR<br>2 TRK4CIC | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• CIC4_TRANS_COMP |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Conditional Routing | 1 ACRTE<br>2 PXRTE<br>3 CTRTE<br>4 FTRTE<br>5 DAYTYPES<br>6 TODHEAD<br>7 TIMEODAY<br>8 DAYOWEEK<br>9 DAYOYEAR | |
| UA Authcode calls | 1 STDPRTCT.STDPRT<br>2 AUTHCODU, AUTHCOD2-5<br>3 AUTHDIN | |
| PIN screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 AUTHCODU, AUTHCOD2-5<br>3 AUTHDIN<br>4 MULTIPIN | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account code screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2 | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_ DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT _VAL<br>• ALLOW_EMPTY_ACCT_ VAL |
| Bearer capability (BC) screening for data calls | 1 BCDEF<br>2 BCCOMPAT | |
| Data call identification | none | |
| Operator services translations | 1 POSITION<br>2 STDPRTCT.STDPRT<br>3 OFCVAR<br>4 OFRT/OFRx (x= 2,3, or 4) | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• INV_CLI_OA_RTE |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 2-1**
**ITU ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Test calls | none | |
| Automatic trunk testing | 1 OFCVAR<br>2 ATTSCHED<br>3 ATTOPTNS | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• GLOBAL_TESTCALL_PRTNM |
| DCME Control | 1 DCMEMTC<br>2 DCMEINV<br>3 TRKSGRP<br>4 TRKMEM | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—end—**

Table 2-2, ITU ISUP IMT optional global features matrix, shows you the optional global features the ITU ISUP IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the ITU ISUP IMT trunk uses.

**Table 2-2**
**ITU ISUP IMT optional global features matrix** (continued)

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| UA MCCS | CRDS0001, CRDS0003 | See the *UCS DMS-250 MCCS Application Guide*. | |
| Networkbuilder Support<br><br>***Note:*** To use NetworkBuilder, the ITU ISUP IMT must route the call to an enhanced services link (ESL). See the "UCP Global IMT Trunk" chapter for more information. | CAIN0605 | See the *UCS DMS-250 Networkbuilder Application Guide*. | |
| Flexible Service Access Calls (FSAC) | N00R0001 | 1 STDPRTCT.<br>STDPRT.<br>ES Selector<br>2 SACVAR.VARFEAT | |
| CLI delivery | NSER0001 | 1 TRKGRP<br>2 OFCVAR<br>3 ANISCUSP<br>4 VARCLI<br>***Note:*** You can set CLI delivery on a trunk group basis or a CLI basis. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CASUAL_ANIDELV |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**Table 2-2**
**ITU ISUP IMT optional global features matrix** (continued)

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| CIC Routing | UTRS0001 | 1 STDPRTCT. RP selector<br>2 TRKGRP<br>3 CICROUTE<br>4 COSUS<br>5 MULTICOS<br>***Note:*** Tables COSUS and MULTICOS are optional. | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CIC_4DIGS |
| Cause to treatment mapping modification | UTRS0003 | 1 TMTMAP<br>2 CSEMAP<br>3 TMTCT | |
| Capability to change default treatment values in table COSUS | UTRS0004 | 1 COSUS | |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**—end—**

## Which maintenance features are available for this trunk?

The ITU ISUP IMT trunk agency supports the existing IMT trunk operational measurements (OMs) and logs. For more information, see the *UCS DMS-250 Operational Measurements Reference Manua*l and the *UCS DMS-250 Logs Reference Manual*. In addition to those maintenance features, ITU ISUP IMT also supports test calls, as described below.

### Test calls

The ITU ISUP IMT trunk agency supports the test calls maintenance feature, which includes calls that originate from test facilities on the near-end switch. Test calls allow you to simulate normal operating conditions, thereby testing the trunk connections to other offices, both local and toll.

The test calls feature includes the following types of testing facilities:

- manual test calls, which originate from the TST or OP commands at the Trunk Test Position (TTP) of the MAP terminal
- automatic test calls, which originate from the Automatic Trunk Test (ATT) level of the MAP terminal

Test Line Tests (TLT) occur when test calls are sent over the test lines. The calling office controls the TSTs, which can be initiated as follows:

- manually from the Trunk Test Position (TTP) level of the MAP terminal (using the TST and OP commands)
- automatically from the Automatic Trunk Test (ATT) level of the MAP terminal

The testing facility ensures that test calls designed to test ITU ISUP trunks are terminated on the specified test lines. The testing facility designates which trunk member to test, and then outpulses a called party number to the terminating end (far-end) switch. The far-end switch performs translations to terminate to the remote test device or trunk. Based on the incoming digits, the far-end switch can terminate the call to any remote test device available for IMT trunk testing on the UCS DMS-250 International switch.

The ITU ISUP IMT trunk agency supports the following three types of test calls, which travel over corresponding, dedicated test lines:

- T100 (balanced termination test line)
- T101 (communication test line)
- T102 (Milliwatt test line)

### Test call logs

In addition to the existing logs for the ITU ISUP IMT trunk agency, you can generate the following logs to indicate the progress and/or results of test calls:

- TRK106, TRK107, TRK124 to TRK131, TRK134, TRK135
- ATT100 to ATT123

For details about these logs, refer to *Trunks Maintenance Guide* and *UCS DMS-250 Log Reports Reference Manual*.

## Billing

The UCS DMS-250 International product uses the standard UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are used differently and how. Otherwise, refer to the *UCS DMS-250 Billing Records Application Guide* for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the FlexCDR format.

# Mexican ISUP IMT

## Overview

This chapter describes the Mexican ISUP IMT trunk agency, including:

- a description of the trunk agency, including the protocol it supports and how it is used
- what trunk agency interworkings are supported
- what basic and optional features are available
- which SOCs you must implement to activate each feature
- which tables you must datafill for each feature
- what maintenance options are available
- special billing considerations, if any

## What is a Mexican ISUP IMT trunk agency?

Mexican ISUP is a variant of the ITU Q.764 protocol, and is based on the Mexican standard NOM-112-SCTI-1995 (English translation). For a complete description of the protocol supported by the Mexican ISUP IMT trunk agency, please refer to the *UCS DMS-250 Global Protocol Reference Manual.*

The Mexican ISUP IMT uses the ADDR dialing plan.

***Note:*** The Mexican ISUP IMT is a global trunk agency.

The Mexican ISUP IMT trunk agency is used to access the UCS global network from the Mexican PSTN or other carrier network.

## Which trunk agency interworkings are supported?

Interworking is supported between Mexican ISUP IMTs and

- Mexican ISUP IMTs
- UCP ISUP IMTs (both Intra and Global)
- ITU ISUP IMTs
- Mexican R2 trunks

For specific interworking information, refer to the *UCS DMS-250 Global Protocol Reference Manual.*

## Which basic and optional global features are available?

Table 3-1, Mexican ISUP IMT basic global features matrix, shows you the basic global features the Mexican ISUP IMT trunk supports; the Software Optionality Control (SOC) you must order to use each feature; the tables you must datafill to implement the feature; and the sequence you must datafill the tables in. See *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the Mexican ISUP IMT trunk uses. For a description of each feature, see Appendix A, “Feature dictionary.”

**Table 3-1**
**Mexican ISUP IMT basic global features matrix**

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Mexican ISUP IMT trunk implementation | 1 CLLI<br>2 CLLICDR<br>3 TRKGRP<br>4 TRKGRP1<br>5 TRKSGRP<br>6 TRKMEM | |
| Translations for national calls (ONNET and OFFNET call types) | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNMAE<br>4 xxHEAD<br>5 xxCODE<br>6 xxRTE<br>7 STSxxDB<br>***Note:*** xx is AC, PX, CT, or FT. | |
| Translations for international calls (IDDD calls): IN calls | 1 STDPRTCT.STDPRT<br>2 CCTR | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002.

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Translations for IDDD calls: IP calls | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 CTHEAD<br>5 STSCCDB<br>6 CTCODE<br>7 CTRTE | |
| PCM cut-through for DTMF digit collection | 1 TRKGRP | |
| CLI screening | 2 ANISCUSP<br>3 VARCLI.CLIDATA | |
| Trunk class of service screening | 1 TCOS | |
| ***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002. | | |

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account Code Screening and validation for CLI billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2<br>4 ANISCUSP<br>5 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual*, for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual*, for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT_VAL<br>• ALLOW_EMPTY_ACCT_VAL |
| PIN digits collection and screening for CLI billed calls | 1 OFCENG<br>2 ANISCUSP<br>3 MULTIPIN<br>4 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual*, for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002.

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Satellite screening on an ANI basis | 1 ANISCUSP | |
| Satellite screening on a trunk group basis | 1 TRKSGRP | |
| Class of Service Screening | 1 STDPRTCT.STDPRT<br>2 COSSCRN<br>3 MULTICOS<br>4 COSUS<br>5 ANISCUSP; AUTHCODU and AUTHCOD2-5; TCNFAST; SACVAR; CICROUTE<br>***Note:*** Which table you datafill depends on how the call will be billed.<br>6 UNRESDAT<br>7 UNRESDAY<br>8 UNRESTIM | |
| CIC Delivery | 1 OFCVAR<br>2 TRK4CIC | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• CIC4_TRANS_COMP |
| ***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002. | | |

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Conditional Routing | 1 ACRTE<br>2 PXRTE<br>3 CTRTE<br>4 FTRTE<br>5 DAYTYPES<br>6 TODHEAD<br>7 TIMEODAY<br>8 DAYOWEEK<br>9 DAYOYEAR | |
| UA Authcode calls | 1 STDPRTCT.STDPRT<br>2 AUTHCODU, AUTHCOD2-5<br>3 AUTHDIN | |
| PIN screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 AUTHCODU, AUTHCOD2-5<br>3 AUTHDIN<br>4 MULTIPIN | See the *UCS DMS-250 Office Parameters Reference Manual*, for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |
| ***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002. | | |

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account code screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2 | See the *UCS DMS-250 Office Parameters Reference Manual*, for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT_VAL<br>• ALLOW_EMPTY_ACCT_VAL |
| Bearer capability (BC) screening for data calls | 1 BCDEF<br>2 BCCOMPAT | |
| Data call identification | none | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002.

**—continued—**

**Table 3-1**
**Mexican ISUP IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Operator services translations | 1 POSITION<br>2 STDPRTCT.STDPRT<br>3 OFCVAR<br>4 OFRT/OFRx (x=2, 3, or 4) | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• INV_CLI_OA_RTE |
| Test calls | none | |
| Automatic trunk testing (ATT) | 1 OFCVAR<br>2 ATTSCHED<br>3 ATTOPTNS | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• GLOBAL_TESTCALL_PRTNM |
| DCME control | 1 DCMEMTC<br>2 DCMEINV<br>3 TRKSGRP<br>4 TRKMEM | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GIMT0002.

**—end—**

Table 3-2, Mexican ISUP IMT optional global features matrix, shows you the optional global features the Mexican ISUP IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manua*l for a detailed description of each of the tables the Mexican ISUP IMT trunk uses. For a description of each feature, see Appendix A, “Features dictionary.”

**Table 3-2**
**Mexican ISUP IMT optional global features matrix**

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| UA MCCS | CRDS0001<br>CRDS0003 | See the *UCS DMS-250 MCCS Application Guide*. | |
| Networkbuilder Support | CAIN0605 | See *UCS DMS-250 Networkbuilder Application Guide*. | |
| Flexible Service Access Calls (FSAC) | N00R0001 | 1 STDPRTCT.<br>STDPRT.<br>ES Selector<br><br>2 SACVAR.VARFEAT | |
| CLI Delivery | NSER0001 | 1 OFCVAR<br>2 ANISCUSP<br>3 VARCLI<br>***Note:*** You can set CLI delivery on a trunk group basis or a CLI basis. | See *UCS DMS-250 Office Parameter Reference Manual* for the following table OFCVAR parameter:<br>• CASUAL_ANIDELV |
| CIC Routing | UTRS0001 | 1 STDPRTCT.<br>RP selector<br>2 TRKGRP<br>3 CICROUTE<br>4 COSUS<br>5 MULTICOS<br>***Note:*** Tables COSUS and MULTICOS are optional. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CIC_4DIGS |

***Note:*** To implement the optional global features you must order and activate SOCs GIMT0001 and GIMT0002 in addition to the SOC listed beside the feature.

**—continued—**

**Table 3-2**
**Mexican ISUP IMT optional global features matrix** (continued)

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| Cause to treatment mapping modification | UTRS0003 | 1 TMTMAP<br>2 CSEMAP<br>3 TMTCT | |
| Capability to change default treatment values in table COSUS | UTRS0004 | 1 COSUS | |

***Note:*** To implement the optional global features you must order and activate SOCs GIMT0001 and GIMT0002 in addition to the SOC listed beside the feature.

**—end—**

## Which maintenance features are available for this trunk agency?

The Mexican ISUP IMT trunk agency supports the existing IMT trunk operational measurements (OMs) and logs. For more information, see the *UCS DMS-250 Operational Measurements Reference Manual* and the *UCS DMS-250 Logs Reference Manual*. In addition to those maintenance features, Mexican ISUP IMT also supports test calls, as described below.

### Test calls

The Mexican ISUP IMT trunk agency supports the test calls maintenance feature, which includes calls that originate from test facilities on the near-end switch. Test calls allow you to simulate normal operating conditions, thereby testing the trunk connections to other offices, both local and toll.

The test calls feature includes the following types of testing facilities:

- manual test calls, which originate from via the TST or OP commands at the Trunk Test Position (TTP) of the MAP terminal
- automatic test calls, which originate from the Automatic Trunk Test (ATT) level of the MAP terminal

Test Line Tests (TLTs) occur when test calls are sent over the test lines. The calling office controls the TSTs, which can be initiated as follows:

- manually from the Trunk Test Position (TTP) level of the MAP terminal (using the TST and OP commands)
- automatically from the Automatic Trunk Test (ATT) level of the MAP terminal

The testing facility ensures that test calls, designed to test Mexican ISUP IMTs, are terminated on the specified test lines. The testing facility designates which trunk member to test, and then outpulses a called party number to the terminating end (far-end) switch. The far-end switch performs translations to terminate to the remote test device or trunk. Based on the incoming digits, the far-end switch can terminate the call to any remote test device available for IMT trunk testing on the UCS DMS-250 switch.

The ITU ISUP IMT trunk agency supports the following three types of test calls, which travel over corresponding, dedicated test lines:

- T100 (balanced termination test line)
- T101 (communication test line)
- T102 (Milliwatt test line)

### Test call logs

In addition to the existing logs for the Mexican ISUP IMT trunk agency, you can generate the following logs to indicate the progress and/or results of test calls:

- TRK106, TRK107, TRK124 to TRK131, TRK134, TRK135
- ATT100 to ATT123

For details about these logs, refer to the *Trunks Maintenance Guide* and the *UCS DMS-250 Log Reports Reference Manual*.

## Billing

The UCS DMS-250 International product uses the standard UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are used differently and how. Otherwise, refer to your documentation for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the Flex CDR format.

# Mexican R2 Trunk

## Overview

This chapter describes the Mexican R2 trunk agency, including:

- a description of the trunk agency type, including the protocol it supports
- how the trunk agency type is used
- what basic and optional features are available
- which SOCs you must implement to activate each feature
- which tables you must datafill for each feature
- what maintenance options are available
- special billing considerations, if any

## What is a Mexican R2 trunk agency?

The Mexican R2 trunk agency is the Mexican variant of the R2 analog signaling system. It is based on a variant of ITU Recommendations Q.400–490. For a complete description of the protocol supported on the Mexican R2 trunk agency, please refer to the *UCS DMS-250 Global Protocol Reference Manual*.

The Mexican R2 uses the ADDR dialing plan.

Mexican R2 is used to access the UCS network from the Mexican PSTN or a Private Branch Exchange (PBX).

The Mexican R2 trunk agency supports a set of basic features, and if a call requires more complex features, it must be routed to an Enhanced Services Link (ESL) for the extended processing. In a global network, the ESL resides on the UCP Global IMT trunk agency. For more information on the ESL, see the “UCP Global IMT Trunk” chapter.

## Which trunk agency interworkings are supported?

Interworking is supported between Mexican R2 trunks and

- Mexican R2 trunks
- UCP ISUP IMTs (Intra and Global)
- ITU ISUP IMTs
- Mexican ISUP IMTs

For specific interworking information, refer to the *UCS DMS-250 Global Protocol Reference Manual*.

## Which basic and optional global features are available?

The features a Mexican R2 supports without extended processing by an enhanced services link (ESL) are as follows:

- universal translations of on-net, off-net
- international calls (IN and IP)
- basic CLI screening
- CIC routing and delivery
- trunk class of service screening
- software optionality controls
- billing
- treatment handling
- satellite screening
- CIC delivery
- conditional routing
- bearer capability (BC) screening for data calls
- data call identification
- operator services translations
- test calls
- automatic trunk testing (ATT)

***Note:*** For datafill instructions on these features, see table 4-1, Mexican R2 basic global features matrix.

With an ESL, the Mexican R2 supports the following basic and optional features:

- CLI screening

- account code screening and validation for CLI billed calls
- PIN digits screening and validation for CLI billed calls
- class of service screening
- Universal Access (UA) Authcode calls
- Filed Authcode calls

***Note:*** You must datafill the filed authcode against the Mexican R2 trunk, but the ESL will validate the authcode. (To learn how to datafill the filed authcode on the R2 trunk, see table 4-1, Mexican R2 basic global features matrix.)

- UA Mechanized Calling Card Services (MCCS) calls
- NetworkBuilder support
- flexible service access calls (FSAC)

***Note:*** To learn more about the ESL and to learn how to datafill the features that require routing to an ESL, see the "UCP Global IMT Trunk" chapter.

Table 4-1, Mexican R2 basic global features matrix, shows you the basic global features the Mexican R2 trunk supports without routing to an ESL, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the Mexican R2 trunk uses.

**Table 4-1**
**Mexican R2 basic global features matrix**

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Mexican R2 trunk implementation | 1 ACTCTL<br>2 CATCLASS<br>3 SIGACT<br>4 ACTSIG<br>5 TRTMTACT, ACTTRTMT<br>6 R2PROT<br>7 CLLI<br>8 CLLICDR<br>9 TRKGRP<br>10 RGSIGSYS | |
| Provisioning an R2 trunk to route to an ESL | 1 TRKGRP<br>2 PARTOSTS<br>3 STDPRTCT<br>4 PRETNAME<br>5 STS2CCDB<br>6 CTCODE<br>7 CTROUTE<br><br>***Note:*** In table CTROUTE, datafill the CLLI of the UCP Global IMT trunk that will function as the ESL. | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GLR20001.

**—continued—**

**Table 4-1**
**Mexican R2 basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Translations for national calls (ONNET and OFFNET call types) | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 xxHEAD<br>5 xxCODE<br>6 xxRTE<br>7 STSxxDB<br>***Note:*** xx is AC, PX, CT, or FT | |
| Translations for international calls (IDDD calls): IN calls | 1 STDPRTCT.STDPRT<br>2 PRETNAME<br>3 CCTR | |
| Translations for IDDD calls: IP calls | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 CTHEAD<br>4 STSCCDB<br>5 CTCODE<br>6 CTRTE | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GLR20001.

**—continued—**

**Table 4-1**
**Mexican R2 basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| CIC Delivery for national calls | 1 OFCVAR<br>2 TRK4CIC<br>3 STS2CCDB | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CIC4_TRANS_COMP |
| CIC Delivery for international calls (IP) | 1 OFCVAR<br>2 TRK4CIC<br>3 STS2CCDB | |
| Trunk Class of Service Screening | 1 TRKCOS | |
| Filed Authcodes<br><br>***Note:*** The ESL validates the authcode. | 1 TRKGRP | |
| Bearer capability (BC) screening for data calls | 1 BCDEF<br>2 BCCOMPAT | |

***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GLR20001.

**—continued—**

**Table 4-1**
**Mexican R2 basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Data call identification | none | |
| Operator services translations | 1 POSITION<br>2 STDPRTCT.STDPRT<br>3 OFCVAR<br>4 OFRT/OFRx (x= 2,3, or 4) | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• INV_CLI_OA_RTE |
| Test calls | 1 OFCVAR<br>2 ATTSCHED<br>3 ATTOPTNS | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• GLOBAL_TESTCALL_PRTNM |
| ***Note:*** To implement the basic global features you must order and activate SOCs GIMT0001 and GLR20001. | | |
| **—end—** | | |

Table 4-2, Mexican R2 optional global features matrix, shows you the optional global features the Mexican R2 trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the Mexican R2 trunk uses. For a description of each feature, see Appendix A, “Feature dictionary.”

**Table 4-2**
**Mexican R2 optional global features matrix**

| Optional global features | SOC | Tables | Office Parameters (if applicable) |
|---|---|---|---|
| CLI Delivery | NSER0001 | 1 TRKGRP<br>2 OFCVAR<br>3 ANISCUSP<br>4 VARCLI<br>***Note:*** You can set CLI delivery on a trunk group basis or on a CLI basis. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CASUAL_ANIDELV |
| CIC Routing | UTRS0001 | 1 STDPRTCT. RP selector<br>2 TRKGRP<br>3 CICROUTE | |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001 and GLR20001 in addition to the SOC listed beside the feature.

**—end—**

## Which maintenance features are available for this trunk?

The Mexican R2 trunk agency supports the existing operational measurements (OMs) and logs. For more information, see the *UCS DMS-250 Operational Measurements Reference Manua*l and the *UCS DMS-250 Logs Reference Manual.* In addition to those maintenance features, the Mexican R2 trunk also supports test calls, as described below.

### Test calls

The Mexican R2 trunk agency supports the test calls maintenance feature. The following types of test calls are supported:

- manual testing of Mexican R2 trunks using
- the OP command of the Trunk Test Position (TTP) level of the MAP terminal
- the integrated measuring equipment in the Maintenance Trunk Module (MTM)

- manual testing of tones and announcements on T100 and T102 test lines using
- the TST command of the TTP level of the MAP terminal
- automatic trunk testing (ATT) of Mexican R2 trunks
- test calls originating from Mexican R2 trunks.

Mexican R2 test calls may be terminated on one of the following:

- UCP ISUP IMT (Intra or Global)
- ITU ISUP IMT
- Mexican ISUP IMT
- other Mexican R2
- T100 test line (balanced termination)
- T102 test line (Milliwatt)

The testing facility ensures that test calls, designed to test UCP Global IMTs, are terminated on the specified test lines. The testing facility designates which trunk member to test, and then outpulses a called party number to the terminating end (far-end) switch. The far-end switch performs translations to terminate to the remote test device or trunk. Based on the incoming digits, the far-end switch can terminate the call to any remote test device available for Mexican R2 trunk testing on the UCS DMS-250 International switch.

## Billing

The UCS DMS-250 International switch uses the standard UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are used differently and how. Otherwise, refer to the *UCS DMS-250 Billing Records Application Guide* for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the Flex CDR format.

# UCP Global IMT

## Overview

This chapter describes the UCP Global ISUP IMT trunk agency, including the protocol it supports and how it is used:

- what trunk agency interworkings are supported
- what basic and optional features are available
- which SOCs you must implement to activate each feature
- what maintenance options are available
- special billing considerations, if any

## What is a UCP Global ISUP IMT trunk agency?

The UCP Global IMT supports the Universal Carrier Protocol (UCP). This protocol is a variant of the ANSI ISUP protocol. The UCP Global IMT uses the ADDR dialing plan.

The UCP Global IMT has three functions:

— provides an enhanced feature set to calls that originate on the Mexican R2 trunk agency

— connects a UCS DMS-250 International switch in a UCS global network to another UCS DMS-250 International switch, to a DMS-300 international gateway, or to a DMS-250/300 combination switch

— sends calls through protocol conversion before they enter the Mexican PSTN

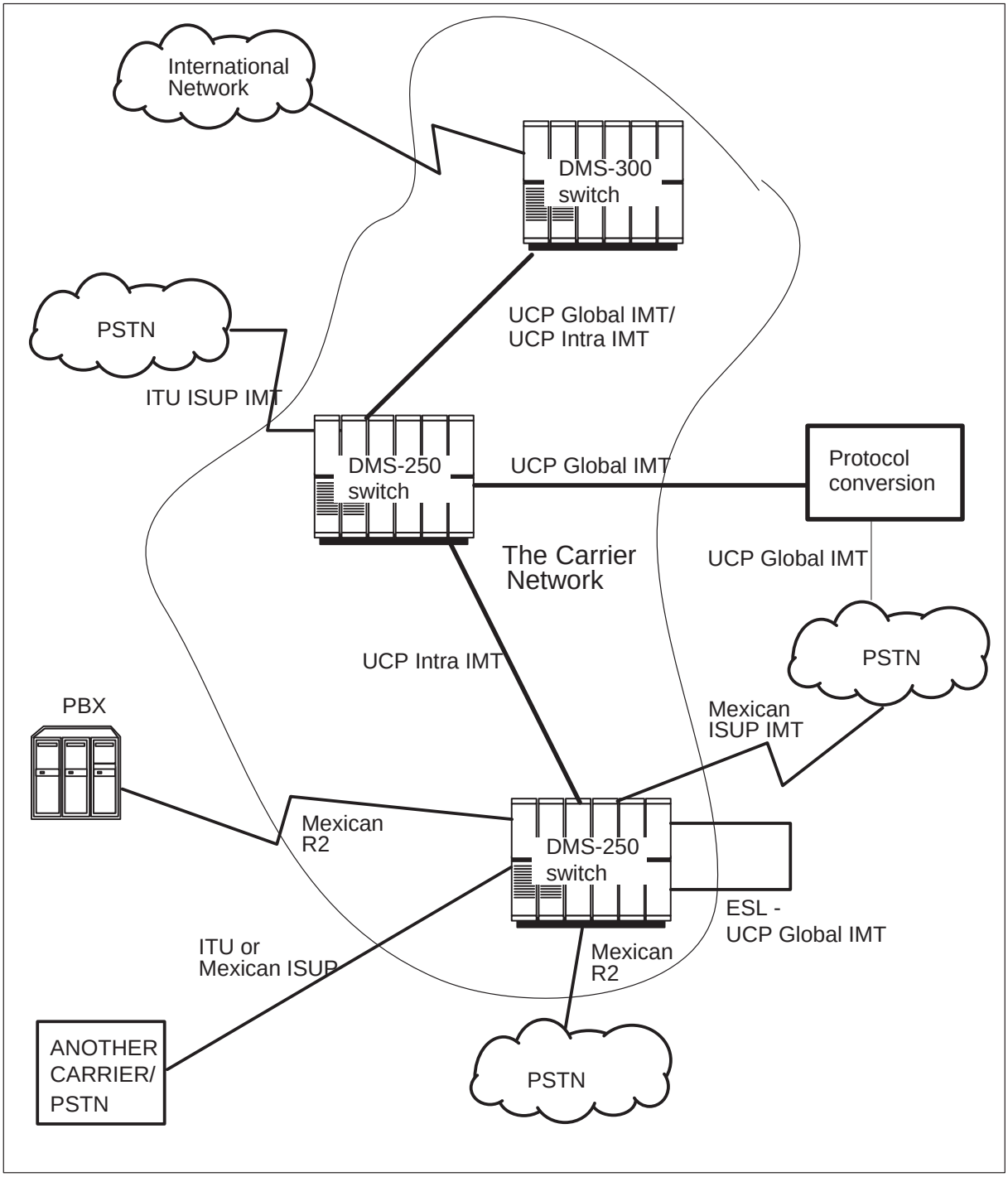
### What is an enhanced services link (ESL)?

In a global network, the Enhanced Services Link (ESL) resides on a UCP Global ISUP IMT trunk agency. The ESL provides extended processing features for R2 calls. A Mexican R2 trunk agency supports a specific subset of features, and it can process any R2 calls whose processing requirements do not exceed that subset of features. However, if an R2 call requires processing beyond the Mexican R2 trunk's processing capabilities, that call must be routed to the UCP Global ISUP IMT in the network where the ESL

resides. There, the call receives the extended processing from the ESL, and the UCP Global ISUP IMT then forwards it on to its destination. See Figure 5-1, ESL on a UCP Global ISUP IMT trunk agency.

***Note:*** The UCP Global IMT trunk agency uses the ESL to work with the DMS-250/300 combination switch to invoke the UCS DMS-250 International switch's features.

**Figure 5-1**
**ESL on a UCP Global ISUP IMT trunk agency**



## Which trunk agency interworkings are available?

Interworking is supported between UCP Global ISUP IMTs and

- UCP ISUP IMTs (Intra)
- ITU ISUP IMTs
- Mexican ISUP IMTs
- Mexican R2 trunks

For specific interworking information, refer to the *UCS DMS-250 Global Protocol Reference Manual*.

## Which basic and optional global features are available?

Table 5-1, UCP Global IMT basic global features matrix, shows you the basic global features the UCP Global IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the ITU ISUP IMT trunk uses. For descriptions of each feature, see Appendix A, “Feature dictionary.”

**Table 5-1**
**UCP Global IMT basic global features matrix**

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| UCP Global IMT trunk implementation | 1 CLLI<br>2 CLLICDR<br>3 TRKGRP<br>***Note:*** To identify a UCP Intra IMT trunk as an ESL you must datafill the ESL option in table TRKGRP.<br>4 TRKGRP1<br>5 TRKSGRP<br>6 TRKMEM | |
| Translations for national calls (ONNET and OFFNET call types) | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 xxHEAD<br>5 xxCODE<br>6 xxRTE<br>7 STSxxDB<br>***Note:*** xx is AC, PX, CT, or FT | |
| Translations for international calls (IDDD calls): IN calls | 1 STDPRTCT.STDPRT<br>2 PRETNAME<br>3 CCTR | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Translations for IDDD calls: IP calls | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 CTHEAD<br>4 STSCCDB<br>5 CTCODE<br>6 CTRTE | |
| PCM cut-through for DTMF digit collection | 1 TRKGRP | |
| CLI Screening | 2 ANISCUSP<br>3 VARCLI.CLIDATA | |
| Trunk class of services screening | 1 TCOS | |
| PIN digits collection and screening for CLI billed calls | 2 OFCENG<br>3 ANISCUSP<br>4 MULTIPIN<br>5 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account Code Screening and validation for CLI billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2<br>4 ANISCUSP<br>5 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_ DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT _VAL<br>• ALLOW_EMPTY_ACCT_ VAL |
| PIN digits collection and screening for CLI billed calls | 1 OFCENG<br>2 ANISCUSP<br>3 MULTIPIN<br>4 VARCLI | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT |
| Satellite screening on an ANI basis | 1 ANISCUSP | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Satellite screening on a trunk group basis | 1 TRKSGRP | |
| Class of Service Screening | 1 STDPRTCT.STDPRT<br>2 COSSCRN<br>3 MULTICOS<br>4 COSUS<br>5 ANISCUSP; AUTHCODU and AUTHCOD2-5; TCNFAST; SACVAR; CICROUTE<br>***Note:*** Which table you datafill depends on how the call will be billed.<br>6 UNRESDAT<br>7 UNRESDAY<br>8 UNRESTIM | |
| CIC Delivery | 1 OFCVAR<br>2 TRK4CIC | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• CIC4_TRANS_COMP |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Conditional Routing | 1 ACRTE<br>2 PXRTE<br>3 CTRTE<br>4 FTRTE<br>5 DAYTYPES<br>6 TODHEAD<br>7 TIMEODAY<br>8 DAYOWEEK<br>9 DAYOYEAR | |
| UA Authcode calls | 1 STDPRTCT.STDPRT<br>2 AUTHCODU, AUTHCOD2-5<br>3 AUTHDIN | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account code screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2 | See *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT_VAL<br>• ALLOW_EMPTY_ACCT_VAL |
| Bearer capability (BC) for data calls | 1 BCDEF<br>2 BCCOMPAT | |
| Data call identification | none | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-1**
**UCP Global IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Operator services translations | 1 POSITION<br>2 STDPRTCT.STDPRT<br>3 OFCVAR<br>4 OFRT/OFRx (x= 2,3, or 4) | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• INV_CLI_OA_RTE |
| Test Calls | none | |
| Automatic trunk testing (ATT) | 1 OFCVAR<br>2 ATTSCHED<br>3 ATTOPTNS | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• GLOBAL_TESTCALL_PRTNM |
| DCME Control | 1 DCMEMTC<br>2 DCMEINV<br>3 TRKSGRP<br>4 TRKMEM | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—end—**

Table 5-2, UCP Global IMT optional global features matrix, shows you the optional global features the UCP Global IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manual* for a detailed description of each of the tables the UCP Global IMT trunk uses. For a description of each feature, see Appendix A, “Feature dictionary.”

**Table 5-2**
**Table control for optional global features**

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| UA MCCS | CRDS0001, CRDS0003 | See the *UCS DMS-250 MCCS Application Guide*. | |
| NetworkBuilder Support | CAIN0605 | See the *UCS DMS-250 NetworkBuilder Application Guide*. | |
| Flexible Service Access Calls (FSAC) | N00R0001 | 1 STDPRTCT.<br>STDPRT.<br>ES Selector<br><br>2 SACVAR.VARFEAT | |
| CLI Delivery | NSER0001 | 1 TRKGRP<br>2 OFCVAR<br>3 ANISCUSP<br>4 VARCLI<br>***Note:*** You can set CLI delivery on a trunk group basis or a CLI basis. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CASUAL_ANIDELV |
| Customer info. provided in the network Information and generic digits parameters | NSER0001 | 1 NCOS<br>2 NETNAMES<br>3 STSTONET<br>4 NETTOSTS | |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 5-2**
**Table control for optional global features** (continued)

| Optional global features | SOC | Tables | Office parameters (if applicable) |
|---|---|---|---|
| CIC Routing | UTRS0001 | 1 STDPRTCT. RP selector<br>2 TRKGRP<br>3 CICROUTE<br>4 COSUS<br>5 MULTICOS<br>***Note:*** Tables COSUS and MULTICOS are optional. | |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**—end—**

## Which maintenance features are available for this trunk agency?

The UCP Global IMT trunk agency supports the existing IMT trunk operational measurements (OMs) and logs. For more information, see the *UCS DMS-250 Operational Measurements Reference Manual* and the *UCS DMS-250 Logs Reference Manual*. In addition to those maintenance features, UCP Global IMT also supports test calls, as described below.

### Test calls

The UCP Global IMT trunk agency supports the test calls maintenance feature, which includes calls that originate from test facilities on the near end switch. Test calls allow you to simulate normal operating conditions, thereby testing the trunk connections to other offices, both local and toll.

The test calls feature includes the following types of testing facilities:

- manual test calls, which originate from via the TST or OP commands at the Trunk Test Position (TTP) of the MAP terminal
- automatic test calls, which originate from the Automatic Trunk Test (ATT) level of the MAP terminal

Test Line Tests (TLTs) occur when test calls are sent over the test lines. The calling office controls the TSTs, which can be initiated as follows:

- manually from the Trunk Test Position (TTP) level of the MAP terminal (using the TST and OP commands)
- automatically from the Automatic Trunk Test (ATT) level of the MAP terminal

The testing facility ensures that test calls, designed to test UCP Global IMTs, are terminated on the specified test lines. The testing facility designates which trunk member to test, and then outpulses a called party number to the terminating end (far-end) switch. The far-end switch performs translations to terminate to the remote test device or trunk. Based on the incoming digits, the far-end switch can terminate the call to any remote test device available for IMT trunk testing on the UCS DMS-250 International switch.

The ITU ISUP IMT trunk agency supports the following three types of test calls, which travel over corresponding, dedicated test lines:

- T100 (balanced termination test line)
- T101 (communication test line)
- T102 (Milliwatt test line)

### Test call logs

In addition to the existing logs for the UCP Global IMT trunk agency, you can generate the following logs to indicate the progress and/or results of test calls:

- TRK106, TRK107, TRK124 to TRK131, TRK134, TRK135
- ATT100 to ATT123

For details about these logs, refer to the *Trunks Maintenance Guide* and the *UCS DMS-250 Log Reports Reference Manual*.

## Billing

The UCS DMS-250 International switch uses the standard, UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are used differently and how. Otherwise, refer to *UCS DMS-250 Billing Records Application Guide* for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the Flex CDR format.

# UCP Intra IMT

## Overview

This chapter describes the UCP Intra IMT trunk agency, including:

- a description of the trunk agency, including the protocol it supports and how it is used
- what trunk agency interworkings are supported
- what basic and optional features are available
- which SOCs you must implement to activate each feature
- which tables you must datafill for each feature
- what maintenance options are available
- special billing considerations, if any

The UCP Intra IMT trunk agency is used to tandem calls across a UCS network. It can be used to connect a UCS DMS-250 International switch in a UCS network to another UCS DMS-250 International switch, to a DMS-300 international gateway, or to a DMS-250/300 combination switch.

The UCP Intra IMT uses the ADDR and the I3PA dialing plans. The I3PA dialing plan uses the following format:

- <facility code><traveling partition><address digits>

## Which trunk agency interworkings are supported?

Interworking is supported between UCP Intra IMTs and

- UCP Intra IMTs
- UCP Global ISUP IMTs
- ITU ISUP IMTs
- Mexican ISUP IMTs
- Mexican R2 trunks

For specific interworking information, refer to the *UCS DMS-250 Global Protocol Reference Manua*l.

## Which basic and optional global features are available?

Table 6-1, UCP Intra IMT basic global features matrix, shows you the basic global features the UCP Intra IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See the *UCS DMS-250 Data Schema Reference Manua*l for a detailed description of each of the tables the UCP Intra IMT trunk uses. For a description of each feature, see Appendix A, "Feature dictionary."

**Table 6-1**
**UCP Intra IMT basic global features matrix**

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| ITU ISUP IMT trunk implementation | 1 CLLI<br>2 CLLICDR<br>3 TRKGRP<br>4 TRKGRP1<br>5 TRKSGRP<br>6 TRKMEM | |
| Translations for national calls (ONNET and OFFNET call types) | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 xxHEAD<br>5 xxCODE<br>6 xxRTE<br>7 STSxxDB<br>***Note:*** xx is AC, PX, CT, or FT | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 6-1**
**UCP Intra IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Translations for international calls (IDDD calls): IN calls | 1 STDPRTCT.STDPRT<br>2 PRETNAME<br>3 CCTR | |
| Translations for IDDD calls: IP calls | 1 HNPACONT<br>***Note:*** HNPACONT is only used to create an STS.<br>2 STDPRTCT.STDPRT<br>3 PRETNAME<br>4 CTHEAD<br>5 STSCCDB<br>6 CTCODE<br>7 CTRTE | |
| Trunk class of service screening | 1 TCOS | |
| CIC Delivery | 1 OFCVAR<br>2 TRK4CIC | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CIC4_TRANS_COMP |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 6-1**
**UCP Intra IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Conditional routing | 1 ACRTE | |
| | 2 PXRTE | |
| | 3 CTRTE | |
| | 4 FTRTE | |
| | 5 DAYTYPES | |
| | 6 TODHEAD | |
| | 7 TIMEODAY | |
| | 8 DAYOWEEK | |
| | 9 DAYOYEAR | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 6-1**
**UCP Intra IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Account code screening and validation for AUTHCODE billed calls | 1 OFCENG<br>2 OFCVAR<br>3 ACSCRN2 | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCENG parameters:<br>• RESET_DIGIT_ALLOW<br>— set the value to AST<br>• TERM_DIGIT_ALLOW<br>— set the value to OCT<br>See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameters:<br>• VALIDATE_ACCT_AT_ DMS250<br>— set the value to “Y”<br>• ALLOW_PARTIAL_ACCT _VAL<br>• ALLOW_EMPTY_ACCT_ VAL |
| Bearer capability (BC) screening for data calls | 1 BCDEF<br>2 BCCOMPAT | |
| Data call identification | none | |
| Operator services translations | 1 POSITION<br>2 STDPRTCT.STDPRT<br>3 OFCVAR<br>4 OFRT/OFRx (x= 2,3, or 4) | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• INV_CLI_OA_RTE |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 6-1**
**UCP Intra IMT basic global features matrix** (continued)

| Basic global feature | Tables | Office parameters (if applicable) |
|---|---|---|
| Test calls | none | |
| Automatic trunk testing (ATT) | 1 OFCVAR<br>2 ATTSCHED<br>3 ATTOPTNS | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• GLOBAL_TESTCALL_PRTNM |
| DCME control | 1 DCMEMTC<br>2 DCMEINV<br>3 TRKSGRP<br>4 TRKMEM | |

***Note:*** To implement the basic global features you must order and activate SOC GIMT0001.

**—end—**

Table 6-2, UCP Intra IMT optional global features matrix, shows you the optional global features the UCP Intra IMT trunk supports, the Software Optionality Control (SOC) you must order to use each feature, the tables you must datafill to implement the feature, and the sequence you must datafill the tables in. See *UCS DMS-250 Data Schema Reference Manua*l for a detailed description of each of the tables the UCP Intra IMT trunk uses. For a description of each feature, see Appendix A, "Feature dictionary."

**Table 6-2**
**UCP Intra IMT optional global features matrix**

| Optional global features | SOC | Tables | Office Parameters (if applicable) |
|---|---|---|---|
| CLI Delivery | NSER0001 | 1 TRKGRP<br>2 OFCVAR<br>3 ANISCUSP<br>4 VARCLI<br>***Note:*** You can set CLI delivery on a trunk group basis or a CLI basis. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CASUAL_ANIDELV |
| Customer information provided in the network Information and generic digits parameters | NSER0001 | 1 NCOS<br>2 NETNAMES<br>3 STSTONET<br>4 NETTOSTS | |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**—continued—**

**Table 6-2**
**UCP Intra IMT optional global features matrix** (continued)

| Optional global features | SOC | Tables | Office Parameters (if applicable) |
|---|---|---|---|
| Unanswered call information | NSER0003 | 1 OFCVAR | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• ACTIVATE_INTER_INTRA_UNANS_CALL<br>— set the value to "Y" |
| CIC Routing | UTRS0001 | 1 STDPRTCT. RP selector<br>2 TRKGRP<br>3 CICROUTE<br>4 COSUS<br>5 MULTICOS<br>***Note:*** Tables COSUS and MULTICOS are optional. | See the *UCS DMS-250 Office Parameters Reference Manual* for the following table OFCVAR parameter:<br>• CIC_4DIGS |

***Note:*** To implement the optional global features you must order and activate SOC GIMT0001.

**—end—**

## Which maintenance features are available for this trunk agency?

The UCP Intra IMT trunk agency supports the existing IMT trunk operational measurements (OMs) and logs. For more information, see the *UCS DMS-250 Operational Measurements Reference Manual* and the *UCS DMS-250 Logs Reference Manua*l. In addition to those maintenance features, UCP Intra IMT also supports test calls, as described below.

### Test calls

The UCP Intra IMT trunk agency supports the test calls maintenance feature, which includes calls that originate from test facilities on the near end switch.

Test calls allow you to simulate normal operating conditions, thereby testing the trunk connections to other offices, both local and toll.

The test calls feature includes the following types of testing facilities:

- manual test calls, which originate from the TST or OP commands at the Trunk Test Position (TTP) of the MAP terminal
- automatic test calls, which originate from the Automatic Trunk Test (ATT) level of the MAP terminal

Test Line Tests (TLTs) occur when test calls are sent over the test lines. The calling office controls the TSTs, which can be initiated as follows:

- manually from the Trunk Test Position (TTP) level of the MAP terminal (using the TST and OP commands)
- automatically from the Automatic Trunk Test (ATT) level of the MAP terminal

The testing facility ensures that test calls, designed to test UCP Intra IMTs, are terminated on the specified test lines. The testing facility designates which trunk member to test, and then outpulses a called party number to the terminating end (far-end) switch. The far-end switch performs translations to terminate to the remote test device or trunk. Based on the incoming digits, the far-end switch can terminate the call to any remote test device available for IMT trunk testing on the UCS DMS-250 International switch.

The ITU ISUP IMT trunk agency supports the following three types of test calls, which travel over corresponding, dedicated test lines:

- T100 (balanced termination test line)
- T101 (communication test line)
- T102 (Milliwatt test line)

### Test call logs

In addition to the existing logs for the UCP Intra IMT trunk agency, you can generate the following logs to indicate the progress and/or results of test calls:

- TRK106, TRK107, TRK124 to TRK131, TRK134, TRK135
- ATT100 to ATT123

For details about these logs, refer to the *Trunks Maintenance Guide* and the *UCS DMS-250 Log Reports Reference Manual*.

## Billing

The UCS DMS-250 International switch uses the standard UCS CDR format when it generates billing records. However, some of the fields may be used differently. The “Billing” chapter of this book explains which fields are

used differently and how. Otherwise, refer to the *UCS DMS-250 Billing Records Application Guide* for the standard CDR format.

***Note:*** The UCS DMS-250 International switch does not support the Flex CDR format.

# Billing

The UCS DMS-250 International switch uses the standard CDR format when it generates billing records. However, some of the fields may be used differently. Table 7-1, CDR fields changed for the UCS DMS-250 International switch, explains which fields are used differently and how. Otherwise, refer to the *UCS DMS-250 Billing Records Application Guide*.

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch**

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| CIC | CIC records the Carrier Identification Code in a 4-digit field.<br><br>***Note:*** 3-digit CICs have 0 for a prefix | CIC digits, if received, will be recorded based on the following precedences:<br>• CIC digits received in the incoming called party address digit stream as determined by pretranslations of the address digits in subtable STDPRT<br>• CIC digits as received in the CIP for ANSI-based protocols and in the TNS for ITU-based protocols |
| CICORIGN | CICORIGN indicates the origin of the CIC used for the call.<br><br>***Note:*** The CICORIGN field will be populated for the ITU ISUP IMT, Mexican ISUP IMT, UCP Intra IMT, and the Mexican R2 global trunk agencies | The CICORIGN field can have three values:<br>• 00 if no CIC was received<br>• 01 if a CIC was received<br>• 11 if the CIC was received from an SCP (applies to CAIN calls only) |
| ANSTYPE | ANSTYPE indicates the type of answer detected. | ISUP IMT and R2 terminations: value 04 is recorded for answered calls and value 0 is recorded for unanswered calls. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| ANISUFF | ANISUFF indicates WZ1 equal access information. | set value to 0 because the global market does not support this field |
| INCBILL | INCBILL indicates a WZ1 feature for long-call duration identification and billing. | set value to 0 because the global market does not support this field |
| ANISP | ANISP indicates a 10-digit ANI/ CLI. | records the 10 most significant digits identifying the calling party as follows:<br>• ISUP originations:<br>— If the Charge Number (CGN) parameter is received, it is recorded in this field.<br>— If the CGN is not received, then the Calling Party Address (CPN) parameter information is recorded in this field.<br>— If the CPN is not received, this field is left blank.<br>• R2 originations:<br>— The A party number is recorded if received |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| INFODIG | INFODIG indicates the information digits. | ISUP originations:<br>• If OLI is received, the INFODIG field will contain this information.<br>• If the optional UCP OLI parameter is not received, then the 8 bits of the INFODIG field will be used to record the 8 bit value of the Calling Party's Category as received in the IAM.<br><br>(continued) |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| INFODIG (continued) | | R2 originations:<br>• The INFODIG field will be recorded based on the received R2 billing category. The billing category is a Forward Group II6 signal received in response to a Backward A6 signal, REQ_DN_CAT. R2 billing categories and corresponding INFODIG binary values are:<br>— OPER = 00000101, Operator language Spanish<br>— REGULAR = 00001010, Ordinary calling subscriber<br>— MTC_EQ = 00001101, test call<br>— COIN = 00001111, payphone<br>— LADATEL = 00001111, payphone<br>— Private Subscriber = 00001010, Ordinary calling subscriber<br>— Time and Charges = 00001010, Ordinary calling subscriber |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| BILLNUM | indicates where the call is to be billed | For CLI billed calls received over global IMT trunks, the BILLNUM field contains the digits received in the CGN or CPN parameter depending on the following criteria:<br>• If both CGN and CPN are received and the CLISCRN field in table TRKGRP is Y, then the value of CLIPREC in table TRKGRP will indicate which of the two needs to be recorded.<br>• If both CGN and CPN are received and CLISCRN is N, then the CGN value is recorded in the BILLNUM field.<br>• If CGN only is received, it is recorded.<br>• If CPN only is received, it is recorded.<br>For CLI billed calls received over R2 trunks, the BILLNUM field contains the digits received in the A Party Number (CLI).<br><br>For calling card calls the BILLNUM field is filled with the 14-digit calling card number as captured via DTMF digits.<br><br>(continued) |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| BILLNUM (continued) | indicates where the call is to be billed | R2 originations with filed authcodes are routed to global IMT trunks where the filed authcode is passed in the Generic Digits parameter of the global IMT trunk. For this type of call, two CDRs are created: one CDR for the R2 origination, and one CDR for the global IMT portion of the call. The filed authcode is stored in the BILLNUM field of both CDRs.<br><br>Authcode digits for UA and dialed authcode calls are collected during the DTMF stage of the call and stored in the BILLNUM field of the CDR.<br><br>For FSAC calls where CLDPB = Y, the BILLNUM is populated with the dialed number as received over the originating trunk.<br><br>For FSAC calls where CLDPB = N, see section on CLI billed calls over the global IMT.<br><br>For test calls, this field will be blank since test calls are not billed. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| CLGPTYNO | CLGTYNO indicates the Calling Party Number | ISUP originations:<br>• If the Calling Party Address (CPN) parameter is received, it is recorded in this field.<br>• If the CPN is not received, this field will remain blank.<br>• If more than 15 digits are received and the CLISCRN field in table TRKGRP is Y, then this field will remain blank.<br>• If more than 15 digits are received and the CLISCRN in table TRKGRP is N, then the 15 most significant digits will be recorded.<br>R2 originations:<br>• If the CPN parameter is received, it will be recorded. |
| UNIVACC | UNIVACC contains the Universal Access Code digits (a maximum of 10 digits) as received over the incoming trunk agency after pretranslations. If prefix digits are received and not deleted during pretranslations, they are recorded in this field. | CIC digits can be received as part of the Universal Access Code. If prefix or CIC digits are received but not deleted during pretranslations, they will be recorded in the UNIVACC field.<br>***Note:*** Only the ten most significant digits are recorded, assuming that the most significant digits are prefix digits. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| DIALEDNO | DIALEDNO contains the dialed digits as received over the incoming trunk agency after pretranslations has been performed. If prefix digits are received but not deleted during pretranslations, they are recorded in this field.<br><br>***Note:*** No more than 15 digits are recorded. | CIC digits can be received as part of the dialed number. If prefix or CIC digits are received but not deleted during pretranslations, they are recorded in the DIALEDNO field.<br><br>***Note:*** If prefix digits are received, the function of those prefix digits are recorded in the PREDIG field.<br><br>***Note:*** If more than 15 digits are received, the 15 most significant digits are recorded. |
| CALLEDNO | CALLEDNO contains either the called party number as received over the incoming trunk agency after pretranslations or a number modified by inswitch translations.<br><br>If prefix digits are not deleted during pretranslations, they are recorded in this field.<br><br>***Note:*** No more than 15 digits are recorded. | CIC digits can be included as part of the called number. If received, CIC digits are recorded in the CALLEDNO field.<br><br>***Note:*** If prefix digits are received, the function of those prefix digits are recorded in the PREDIG field.<br><br>***Note:*** If more than 15 digits are received, the 15 most significant digits are recorded. |
| OUTPULNO | OUTPULNO contains the called party address as outpulsed to the next switch. It includes IMT dial plan digits (if applicable) as well as called number digit modifications made in the outgoing route list. | ***Note:*** If more than 15 digits are received, the 15 most significant digits are recorded. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| PREDIG | PREDIG consists of three bits that define the DIALEDNO prefix digits. | Based on the call type, the PREDIG field will be automatically set by the UCS DMS-250 International switch:<br>• 0 = no call type determined; call is routed out of STDPRT without calltyping, or NPRT is identified as pretranslator<br>• 1 = national direct dialed (CT, OFFNET, ES SACVAR)<br>• 2 = national operator assisted (OA OFFNET)<br>• 3 = international direct dialed (IN or IP)<br>• 4 = international operator assisted (OA IN or OA IP)<br>• 5 = Onnet, private network call, direct dialed (CT ONNET)<br>• 6 = Onnet, private network call, operator assisted (OA ONNET)<br>• 7 = customer service request (CR OFFNET)<br><br>(continued) |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| PREDIG (continued) | PREDIG consists of three bits that define the DIALEDNO prefix digits. | If the PREDIG field is already set as a result of pretranslations, the following CDR updates will occur based on the pretranslations selector used for the call:<br>• Selectors S and T:<br>— If the call type is direct dialed (DD) and the PREDIG field is already set, the existing PREDIG is used.<br>— If the call type is DD and the PREDIG field is not set, a value of 0 is recorded.<br>— If the call type is operator assisted (OA) and the PREDIG field is already set to a value of 1, then it will be reset to 2. If the PREDIG field is already set to a value of 3, then it will be reset to 4.<br>— If the call type is OA and the PREDIG field has not been set, a 0 is recorded.<br>• Selector ES:<br>— If the PREDIG field is already set, the existing value will be used; otherwise, the value is set to 3. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| CNPREDIG | CNPREDIG consists of three bits that define the CALLEDNO prefix digits. | For CLI billed calls, Authcode calls, and Calling Card calls, the call type of the dialed number will be used to set this field.<br><br>For FSAC calls, the call type, defined in the TYPE_OF_CALLS field of table SACVAR will be used to set the CNPREDIG field of the CDR. The call types supported are IDDD, OFFNET, and ONNET.<br><br>For NetworkBuilder calls, the nature of address (NOA) returned by the SCP with the called number will be used to set the CNPREDIG field of the CDR. NetworkBuilder supports three NOA values: National (OFFNET), International, and VPN (ONNET). |
| RTELIST | RTELIST indicates the number obtained from the route table. | RTELIST indicates the route index received from table xxCODE (where xx = CT, FT, PX, or AC) and is used to indicate table xxRTE. |

**—continued—**

**Table 7-1**
**CDR fields changed for the UCS DMS-250 International switch** (continued)

| CDR field | Description of the CDR field | Changes for the global market |
|---|---|---|
| RTENO | RTENO indicates which route choice in the outgoing route list was used for final routing. | The route list is in table xxRTE (where xx = CT, FT, PX, or AC). |
| COLLTIME | COLLTIME indicates the amount of time between origination time and when all digits are collected by the UCS DMS-250 International switch.<br><br>***Note:*** COLLTIME is an eight bit binary field measured in 1–second increments. | ISUP originations:<br>• If SAMs are received or if INFs are received, then this field indicates how much time has elapsed from receipt of the Initial Address Message (IAM) and receipt of all of the address and CLI digits.<br>R2 originations:<br>• This field indicates the time elapsed from the initial trunk seizure, until all address and calling party digits have been received. |
| **—end—** | | |

# Appendix A
# Feature dictionary

## Overview

This chapter contains a description of each feature available for the UCS DMS-250 International product. The descriptions are arranged alphabetically.

## account code screening and validation for CLI-billed and authcode-billed calls

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |
| ***Note:*** The Mexican R2 trunk can use this feature if it routes the call through an ESL. See the "Mexican R2 Trunk" chapter for more information. | | | | | |

This feature allows you to specify

- how many account code digits should be collected (ACCTLEN)
- whether the account code should be validated (ACCTVAL)
- an index that, along with the account code the user dialed, can be used for account code validation (ACCTIDX).

To activate account code screening and validation you must set the account code prompt field in table TRKGRP to "Y."

## ADDR dialing plan

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

The ADDR dialing plan sends only the address digits through the network. To activate this dialing plan, datafill ADDR in the DIALPLAN field of table TRKGRP.

## automatic trunk testing (ATT)

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

Automatic trunk testing allows you to schedule tests to be automatically performed on each trunk agency. Tables ATTSCHED and ATTOPTNS let you specify which trunks to test, how often to test the trunks, and which logs to create when the tests are done.

## bearer capability (BC) screening for data calls

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

BC screening for data calls compares the call's BC with the terminating trunks BC using table BCCOMPAT. The screening will pass or fail based on the datafill in table BCCOMPAT. Table BCCOMPAT defines bearer capability pairs that are compatible with one another.

## capability to change default treatment values in table COSUS

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| change default treatment in table COSUS | UTRS0004 | X | X | X | | |

Capability to change default treatment values in table COSUS allows you to change the treatments in table COSUS, which means you can provide a unique treatment for each reason a call can fail Class of Service (COS) screening.

## Carrier Identification Code (CIC) delivery

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

This feature allows the UCS DMS-250 International switch to deliver Carrier Identification Code (CIC) digits in the Transit Network Selector (TNS) parameter of the Initial Address Message (IAM) on the terminating trunk agency.

## Carrier Identification Code (CIC) routing

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| CIC routing | UTRS0001 | X | X | X | X | X |

### What is CIC routing?

Carrier identification code (CIC) routing allows the UCS DMS-250 International switch to route calls based on the CIC. A CIC is a three- or four-digit identification number assigned to a carrier. If the UCS DMS-250 switch receives a CIC it will route the call based on the CIC and will capture the CIC in the call detail report (CDR).

CIC routing allows you to do the following:

- block calls based on the CIC
- indicate whether to screen the CLI based on the CIC
- indicate whether to do COS screening based on the CIC
- put the call through translations tables based on the CIC
- record the CIC in the CDR for billing

### Where is the CIC located?

Where the CIC is located depends on the trunk agency:

- The UCP Global IMT, ITU ISUP IMT, and Mexican ISUP IMT trunk agencies send the CIC in the TNS parameter of the initial address message (IAM) or in the dialed digits stream. The CIC in the dialed digits stream overrides the CIC in the TNS parameter of the IAM.

***Note:*** The CIC in the dialed digits stream is only used if you datafill the CICINADDR option in table TRKGRP against the trunk agency and if you datafill the CIC option in the RP selector of table STDPRTCT to extract the CIC from the address digits.

- The UCP Intra trunk agency sends the CIC in either the TNS parameter or the CIP parameter of the IAM.
- The Mexican R2 trunk agency sends the CIC in the dialed digits stream.

### What datafill is required?

Table TRKGRP – Datafill the CIC options. The following CIC options are supported on the UCS DMS-250 International switch:

- CICRTE (CIC route) option – indicates that the call should use CIC routing
- CICINADDR (CIC in address) option – tells the UCS DMS-250 International switch to extract the CIC from the dialed digits stream
- OUTCIC (outpulse CIC) option – allows you to datafill a CIC against the terminating trunk and to outpulse this CIC even though the UCS DMS-250 switch has received a different CIC with the call; the OUTCIC option has two subfields:
  - — CICDIGS (CIC digits) – datafill the CIC you want the terminating trunk to outpulse
  - — OVERRIDE – datafill the value Y if you want the trunk to outpulse the CIC contained in the CICDIGS subfield, datafill the value N if you don't want the trunk to outpulse the CIC contained in the CICDIGS subfield

  ***Note:*** This option is not controlled by the CIC routing SOC, UTRS0001. The UCS DMS-250 International switch outpulses the CIC datafilled against the terminating trunk even when the CIC routing SOC is idle.

- TMCICBLK option – blocks the terminating trunk from delivering the CIC; one subfield is valid for the global trunk agencies:
  - — BLK_TNS – blocks the global trunk agencies from delivering the CIC in the TNS parameter of the initial address message (IAM)

  ***Note:*** This option is not controlled by the CIC routing SOC, UTRS0001. The UCS DMS-250 International switch blocks the CIC datafilled even when the CIC routing SOC is idle.

- DEFCIC (default CIC) option – defines a default CIC and routes the call according to that CIC; two subfields are valid for the ITU ISUP IMT, Mexican ISUP IMT, and the UCP Intra IMT agencies:

— CAINCIC – allows the use of the default CIC by CAIN in the Carrier Parameter of an outgoing TCAP query message

***Note:*** You must activate the appropriate CAIN SOC before you can use this option. See the *UCS DMS-250 NetworkBuilder Application Guide* for more information.

— OUTPULSE – allows the global trunk agencies to outpulse the default CIC

- CICSIZE (size of CIC) option – determines how to store the incoming CIC and determines the size of the CIC if the OUTCIC option is used; datafill the value 3DIGS to indicate a 3-digit CIC; datafil the value 4DIGS to indicate a 4-digit CIC

Table CICROUTE – Datafill the CICs and the routes you want them to take. This table functions as the CIC database and will hold up to 999 CICs. After the UCS DMS-250 International switch receives a call with a CIC it uses the CIC and a carrier selection indicator (CSI) to index table CICROUTE. It checks table CICROUTE to determine if the CIC is valid and to determine how to route the call.

***Note:*** For the global trunk agencies, the CSI value is always DEF (default).

The following fields in table CICROUTE are supported on the UCS DMS-250 International switch:

- NATLSTS (National Serving Translation Scheme) – determines the STS when the calltype is national and the CLI is a three- or six-digit casual CLI. If the CLI is a ten-digit casual or allowed CLI, then the STS derived from table ANISCUSP overrides the CICROUTE STS when the NOSCRNSB option in table CICROUTE is not set.
- INTLSTS (International Serving Translation Scheme) – determines the STS when the call type is international
- PRTNM (Pretranslator name) – used as a key into table STDPRTCT for address digits pretranslations. This field is used for both national and international calls when the INTLPRTM option is not set against the CIC.
- MLTCOSID (Multiple Class of Service Index) – used as a key into table MULTICOS for class of service (COS) screening. If the value is 0, the UCS DMS-250 International switch will not perform COS screening.
- NOSCRNSB – (No CLI screening) used to determine whether to screen the CLI for each CIC. (this option takes precedence over CLISCRN field in table TRKGRP)
- BLOCKOPT – (Block option) indicates that calls with a particular CIC should be blocked

- INTLPRTM – (International pretranslator name) used when a new pretranslator name is required for international calls; used as a key to table STDPRTCT for second pretranslations
- PRTNM – this field is used as the pretranslator name for both national and international calls if the INTLPRTM option is not datafilled

The UCS DMS-250 International switch does not support the following fields in table CICROUTE:

- OPCHIDX
- IDPRTNM
- ADIN
- CICDELV
- CICOPT options:
  - — CIC_CASU
  - — STSOVRID
  - — ANIBYP

Table STDPRTCT – Datafill the CIC option with subfields CIC position (CICPOS) and CIC length (CICLEN). These subfields determine where the CIC is located in the dialed digits stream and if the CIC is three or four digits, which help determine the CIC regardless of its location in the dialing plan.

Table CAINPARM – sends the default CIC; set the PARMVAL of the SEND_CARRIER_FROM_TRKGRP parameter to Y

***Note:*** See the *UCS DMS-250 Data Schema Reference Manual* for more information on the datafill tables.

### Which logs apply to CIC routing?

Log CIC101 identifies acces failure to table CICROUTE. This occurs when a valid CIC with no CSI value attempts to access the table when no CIC/default CSI combination is datafilled in table CICROUTE.

## cause to treatment mapping modification

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| Cause to treatment mapping | UTRS0003 | X | X | X | | |

Cause to treatment mapping allows you to specify on a per-cause basis whether the UCS DMS-250 International switch should advance to the next element in the routing list or retranslate the call.

## class of service (COS) screening

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | | X |
| ***Note:*** The Mexican R2 trunk can use this feature if it routes the call through an ESL. See the "Mexican R2 Trunk" chapter for more information. | | | | | |

COS screening checks to see what type of service the calling party has. Mainly, it screens the call to make sure the calling party is allowed to place the call. If the calling party is not allowed to place the call, then the UCS DMS-250 International switch will route the call to treatment.

## CLI delivery

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| CLI delivery | NSER0001 | X | X | X | X | X |

CLI delivery is the act of outpulsing the CLI digits on the terminating agency.

## CLI screening, optional variable length

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic Feature** | X | X | X | | X |
| ***Note:*** The Mexican R2 trunk can use this feature if it routes the call through an ESL. See the "Mexican R2 Trunk" chapter for more information. | | | | | |

CLI screening is a feature that allows trunk agencies to screen calls for CLI on a per-trunk basis or a per-CLI basis. To activate CLI screening on a per-trunk basis you must set the CLISCRN field to "Y." To activate CLI screening on a per-CLI basis you must datafill tables ANISCUSP and VARCLI.

CLI screening can be performed on the following call types:

- national (on-net or off-net)
- international calls (IDDD)

***Note:*** The call routing on the IDDD calls can be either International (IN) or International Partitioned (IP) calls. IN routes the calls using tables CCTR and OFTR. IP routes the calls using universal translations and the serving translation scheme (STS).

## conditional routing

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic Feature** | X | X | X | X | X |

This feature allows the UCS DMS-250 International switch to choose routes based on one of the following three inputs:

- random percentage – calls are selected randomly, then transferred to a route list operating company that adds data indicating the percentages of calls that were routed to certain routes.
- time of day – allows a predetermined route to be selected based on the time of day, day of week, and year
- call characteristics – depends on the entries in the translation tables

***Note:*** You must datafill the CND route selector in universal translations to activate conditional routing.

## customer information provided through the network information and generic digits parameters

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| customer info. provided.. . | NSER0001 | | | X | X | |

### What is the network information parameter?

The network information parameter is used to pass customer information across a network. It is a parameter of the initial address message (IAM). Some products within the DMS-100 family include the customer information in the network information parameter. The network information parameter is comprised of

- the network ID (NETID)
- the network customer group ID (NETCGID)
- the network class of service (NCOS)

The receiving switch maps the NETID and NETCGID into an internal customer group which, in combination with the NCOS, defines the translations scheme for the customer.

### What is the generic digits parameter?

The generic digits parameter is used to pass customer information across a network. It is a parameter in the initial address message (IAM). The generic digits parameter carries the facility codes through the network. Facility codes are codes that provide calltyping information like whether a satellite was used, whether offhook queueing was invoked, and whether the call is a national call or a data call.

### How does the UCP Intra IMT with an I3PA dial plan pass customer information through the network information and generic digits parameters?

The UCP Intra IMT trunk can map the I3PA dialplan information into a generic digits parameter and a network information parameter to pass the customer information to DMS-100 products in the UCS network. The UCS DMS-250 International switch maps the customer information to the DMS-100 product line's customer information using the NETID, NETCGID, and NCOS through table STSTONET and encodes these values into the network information parameter. The two facility code digits are encoded into a generic digits parameter. The called party number (CPN) sends the address digits. Both the network information and the generic digits parameters are sent as optional parameters in the initial address message (IAM) to the next node in the network.

To indicate that the network information and generic digits parameters are providing the customer information, you must datafill the MBGXLA option in table TRKGRP on the UCS DMS-250 International switch. When you datafill this option against the originating UCP Intra IMT trunk agency with the I3PA dialplan, the UCS DMS-250 International switch must receive both the network information and generic digits parameters in the IAM. If either

of these parameters is missing, the UCS DMS-250 International switch routes the call to treatment.

When the UCS DMS-250 International switch receives both parameters, it updates the call based on the facility code digits in the generic digits parameter, and it maps the network information parameter to an STS in table NETTOSTS. The STS derived from this table is used to translate the address digits.

When you datafill the MBGXLA option against the terminating UCP Intra IMT trunk agency, the UCS DMS-250 International switch maps the facility code digits into a generic digits parameter and maps the STS into the network information parameter through table STSTONET. The CPN parameter only contains the address digits.

### How does the UCP Intra IMT with an ADDR dial plan pass the customer information through the network information and generic digits parameters?

When you datafill the MBGXLA option against the UCP Intra IMT trunk agency, the UCS DMS-250 International switch must receive the network information parameter. It will accept the generic digits parameter, but will continue to process the call if it does not receive the parameter. If it does receive the parameter, UCS DMS-250 International switch processes the generic digits parameter and updates the call based on the facility code.

When you do not datafill the MBGXLA option, the UCS DMS-250 International switch ignores the network information and generic digits parameters and it does not build the parameters in the outgoing IAM.

### How does the UCP Global IMT trunk pass the customer information through the network information and generic digits parameters?

To process the network information and generic digits parameters, you must datafill the MBGXLA option in table TRKGRP on the UCS DMS-250 International switch against the UCP Global IMT trunk agency. When you datafill the MBGXLA option against the originating UCP Global IMT trunk agency, the UCS DMS-250 International switch must receive the network information parameter. It will accept the generic digits parameter, but will continue to process the call if it does not receive the parameter. If the UCS DMS-250 International switch receives the generic digits parameter it will update the call based on the value of the facility code.

When you datafill the MBGXLA option against the terminating UCP Global IMT trunk agency, the UCS DMS-250 International derives the serving translation scheme (STS) and the facility code from the call and maps them to the network information parameter through table STSTONET and to the generic digits parameter. When you do not datafill the MBGXLA option, the

UCS DMS-250 International switch ignores the network information and generic digits parameters and it does not build the parameters in the outgoing IAM. If it receives the two parameters in the incoming IAM, it sends the parameters unchanged out in the outgoing IAM.

***Note:*** The UCP Global IMT trunk agency only supports the ADDR dialing plan.

## data call identification

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic Feature** | X | X | X | X | X |

Data call identification allows the trunk agencies to mark an incoming call as a data call. Data call identification is based on table TRKGRP datafill.

A call originating on a UCP Global IMT trunk is identified as a data call if

- the Information Transfer Capability (ITC) in the User Service Information (USI) parameter of the initial address message (IAM) indicates UNRESTRICTED DIGITAL or RESTRICTED DIGITAL

A call originating on a UCP Intra IMT is identified as a data call if

- the information digits in the I3PA dialplan are 56, which means the call is a 56k data call
- the Information Transfer Capability (ITC) in the User Service Information (USI) parameter of the initial address message (IAM) indicates UNRESTRICTED DIGITAL or RESTRICTED DIGITAL;

A call originating on an ITU ISUP IMT or a Mexican ISUP IMT trunk is identified as a data call if

- the Information Transfer Capability (ITC) in User Service Information (USI) parameter of the initial address message (IAM) indicates UNRESTRICTED DIGITAL

***Note:*** The ITU ISUP IMT and the Mexican ISUP IMT trunks require the TMR parameter in the IAM. If both the TMR and the USI parameters are received in the IAM, the TMR parameter determines if the call is a data call.

## DCME control

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | |

Digital Circuit Multiplication Equipment (DCME) is a compression technique on global IMT trunks that allows you to carry more than one call per trunk. DCME reduces the bandwidth required to transmit digital encoded speech by concentrating a number of outgoing digital trunks onto fewer transmission channels between DCMEs.

## Filed Authcode

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | | | | | X |

***Note:*** The Mexican R2 trunk can use this feature if it routes the call through an ESL. See the "Mexican R2 Trunk" chapter for more information.

A filed authcode is an authcode that is either partially or fully entered into the trunk agency's datafill. When an authcode is partially filed the customers only has to enter a few digits of the authcode to show that they are authorized to make a call, but the UCS DMS-250 International switch uses the full authcode for billing. When an authcode is fully filed the customers don't have to enter an authcode to make a call, however the UCS DMS-250 International switch still uses the authcode for billing.

## Flexible Service Access Calls (FSAC)

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| FSAC calls | N00R0001 | X | X | X | | X |

***Note:*** The Mexican R2 trunk can use this feature if it routes the call through an ESL. See the "Mexican R2 Trunk" chapter for more information.

Flexible Service Access Calls (FSAC) are also known as free phone and premium services. They correspond to the N00 functionality in the World Zone 1 market. FSAC numbers can be from 1–24 digits.

## I3PA dialing plan

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | | | | X | |

The I3PA dialing plan sends additional information with the dialed digits. The format of the I3PA dialing plan follows:

**<facility code><traveling partition><address digits>**

The facility code is a two-digit code that provides calltyping information like whether a satellite was used, whether offhook queueing was invoked, and whether the call is a national call or a data call.

To activate this dialing plan, datafill I3PA in the DIALPLAN field of table TRKGRP.

## NetworkBuilder support

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| Network-Builder support | CAIN0605 | X | X | X | | X |

***Note:*** The ITU ISUP IMT and Mexican R2 trunks can use this feature if they route the calls to an ESL. See the “ITU ISUP IMT Trunk” and the“Mexican R2 Trunk” chapters for more information.

When calls originate on ITU ISUP IMT, Mexican ISUP IMT, UCP Global IMT, and Mexican R2 trunks a subset of NetworkBuilder functionality is supported. This subset is represented by the following SOCs:

- CAIN0100 (CAIN Usage-Based Messages)
- CAIN0200 (CAIN STS Extension Parameters Enhancements)
- CAIN0300 (CAIN SCP Simulator)
- CAIN0400 (CAIN Test Query)
- CAIN0500 (CAIN Customized Dialing Plan Trigger)
- CAIN0501 (CAIN Specific Digit String Trigger)
- CAIN0503 (CAIN Shared Interoffice Trigger)

- CAIN0505 (CAIN Originating No Answer Trigger)
- CAIN0506 (CAIN Network Busy Trigger)
- CAIN0507 (CAIN Originating Called Party Busy Trigger)
- CAIN0508 (CAIN Originating Feature Requested Trigger)
- CAIN0600 (CAIN Conversational Digit Collection)
- CAIN0601 (CAIN SCP Trigger Subscription)
- CAIN0602 (CAIN Event Detection Points)
- CAIN0603 (CAIN STR Connection)
- CAIN0605 (CAIN Global IMT Support)

***Note:*** For more information on these SOCs, see the *UCS DMS-250 Software Optionality Control User's Manual*

NetworkBuilder support ensures that the UCP Global IMT and the Mexican ISUP IMT trunks will support conversational digit collection and conversational messaging with the Service Control Point (SCP).

NetworkBuilder support allows the UCS DMS-250 International switch to trigger on the following NetworkBuilder triggers:

- O_Feature_Requested
- Shared_Interoffice_Trunk
- Customized_Dialing_Plan
- Specific_Digit_String
- Network_Busy
- O_Called_Party_Busy
- O_No_Answer

For more information about this feature refer to the *UCS DMS-250 NetworkBuilder Application Guide*.

## open number dialing plan

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

Inside World Zone 1 (WZ1), calls must adhere to the North American dialing plan. However, outside of WZ1, there are no standards for number formats. Call numbers can be any format, up to 24 digits. This means trunk agencies must be able to identify types of calls using information other than the number format. Each trunk agency can use different criteria to determine call type, depending on the features they deploy and how those features are configured. The Open Number Dialing plan feature allows the trunk agencies to determine call types using

- variable length CLI processing (1-15 digits on the ITU ISUP IMT, Mexican ISUP IMT, UCP Global and Intra IMTs trunks; 1-11 digits on the Mexican R2 trunk)
- variable length address processing (1-24) digits

***Note:*** If you place a UCS DMS-250 International switch outside of WZ1, you must use the UCS DMS-250 International product that implements the open number dialing plan. Otherwise, you will be able to process only calls that adhere to the North American dialing plan.

## operator services translations

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

Operator services routing provides three selectors in the pretranslation tables:

- operator assisted (OA) – address received
- operator handled (OH) – no address received
- customer services (CR) – calls that are routed to a terminating trunk and are destined for an operator center

The route that operator calls take is determined at the pretranslations stage only. The selectors described above route the calls to their destinations.

## PCM cut-through for DTMF digit collection

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | | |

PCM cut-through for DTMF digit collection provides the option to request voice path cut–thru for DTMF digit collection by sending either an early

ACM message or an early ANM message to the preceding node in the network. For the early ANM message, an early ACM message is immediately followed by an early ANM message.

This function is supported by the PCMATANS option in table TRKGRP. If the PCMATANS option is present, an early ACM message is sent immediately followed by an early ANM message to provide voice path cut-through for DTMF digit collection. If the PCMATANS option is not present, only an early ACM message is sent to provide voice path cut-through for DTMF digit collection.

If DTMF digit collection is not required for the call, the UCS DMS-250 International switch will not send either an early ACM or ANM, but instead will send an IAM message to the next node in the network. Upon receiving the ACM and ANM messages from the far-end in the network, the UCS DMS-250 International switch will propagate these messages in the backwards direction.

## pin digit collection and validation for authcode and CLI billed calls

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | | X |

***Note:*** The Mexican R2 trunk can use this feature if it routes the call to an ESL. See the “Mexican R2 Trunk” chapter for more information.

This feature lets you configure tables ANISCUSP, AUTHCODU, AUTHCOD2, AUTHCOD3, AUTHCOD4, and AUTHCOD5 to allow the collection and validation of PIN digits.

## satellite screening

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | | X |

Satellite screening allows you to

- exclude the selection of any satellite circuits in the entire, end-to-end connection of a call
- exclude the use of more than one satellite circuit in the call

This feature is configured in table ANISCUSP.

## test calls

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

Test calls allow you to simulate normal operating conditions, thereby testing the trunk connections to other offices, both local and toll. Test calls enable the trunk agencies listed above to perform either manual or automatic test calls using

- T100 (balanced termination test line)
- T101 (communication test line)
- T102 (Milliwatt test line)

## translations

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

This feature includes the ability to perform

- translations of national (on-net/off-net) calls using universal translations
- translations of international calls (IN and IP)

## trunk class of service (TCOS) screening

| | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | X | X |

## Universal Access (UA) authcode

| | ITU ISUP | Mex. Isup | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|
| **Basic feature** | X | X | X | | X |
| ***Note:*** The Mexican R2 trunk can use this feature if it routes the call to an ESL. See the “Mexican R2 Trunk” chapter for more information. | | | | | |

Universal access (UA) authcode is a number that is assigned to an inter-exchange carrier (IEC). This number allows a subscriber to access the IEC's network. The subscriber uses their card number or the access code to make a call.

## Universal Access (UA) Mechanized Calling Card Services (MCCS) functionality

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| Basic MCCS | CRDS0001 | X | X | X | | X |
| Voice prompts | CRDS0001 and CRDS0003 | X | X | X | | X |

***Note:*** The Mexican R2 trunk can use these features if it routes the calls to an ESL. See the "Mexican R2 Trunk" chapter for more information.

MCCS is an optional travel card service that works with the basic long distance features of the UCS DMS-250 International switch. With MCCS, subscribers receive a travel card (much like a credit card) with a number assigned to it. The subscriber can place a long distance call from any location and charge the call to their travel card number (also called a calling card number).

MCCS has two functions you can purchase: Basic MCCS and MCCS Voice Prompts. To implement basic MCCS you must order and activate Software Optionality Control (SOC) CRDS0001. To implement MCCS Voice Prompts, you must order and activate SOCs CRDS0001 and CRDS0003.

***Note:*** The UCS DMS-250 International switch can only route UA MCCS calls through table MVPRTE. It does not route these calls through table OPCHOICE.

For more information about this feature, refer to the *UCS DMS-250 Mechanized Calling Card Services Application Guide.*

## unanswered calls

| Optional feature | Required SOC | ITU ISUP | Mex. ISUP | UCP Global | UCP Intra | Mex. R2 |
|---|---|---|---|---|---|---|
| Unanswer -ed calls | NSER0003 | | | | X | |

Two primary functional changes are made by marking an ISUP IMT as a Global ISUP IMT (datafilling the NETWKSPC field as GLOBAL):

- calls originating on Global ISUP IMTs are billed even when ISUP IMT billing has been turned off
- calls terminating on Global ISUP IMTs return their FINSID, FINTKGRP, and FINTKMEM information backward through the carrier's Signaling System #7 (SS7) network in Address Complete Message (ACM) [to provide Call Detail Report (CDR) support for unanswered calls and Answer Messages (ANMs)]

# Appendix B
# List of terms

**A Party Address**

In R2 signaling, the calling party address is denoted as the A party address.

**ACM**

See address complete message.

**address complete message**

A Common Channel Signaling 7 protocol message that indicates all the address signals required to route a call to the called party are received and the call can be routed.

**ADIN**

Authcode Database INdex

**ANI**

See Automatic Number Identification.

**ANM**

Answer message

**ANSI**

*See* American National Standards Institute.

**ATT**

See automatic trunk testing.

**automatic number identification (ANI)**

This is a system that automatically identifies a calling number and transmits it to the call detail record (CDR) for billing.

**automatic trunk testing (ATT)**

The automatic trunk testing system is a set of hardware and software entities that provide automatic testing for outgoing trunks and the outgoing portions of two-way trunks.

### B Party Address

The called party address is the B party address.

### call detail recording (CDR)

A system that collects and records data on all calls that are processed by the UCS DMS-250. International switch. CDR data is stored on a recording device and can be used for billing, traffic, and service analysis; systems engineering; and fraud detection.

### Carrier Identification Code

In a scenario where multiple carriers operate, each carrier is assigned a Carrier Identification Code (CIC). The UCS DMS-250 provides translation and routing capabilities based on the CIC digits of the incoming call. The CIC comes in the IAM in either the Transit Network Selector (TNS) or Carrier Identification Parameter (CIP) of the Initial Address Message (IAM).

### CC

country code/central controller, depending on context

### CDR

*See* call detail recording.

### CI

See command interpreter.

### CIC

See Carrier Identification Code.

### CIP

Carrier Identification Code parameter

### CLI

*See* calling line identification.

### command interpreter (CI)

The CI is a support operating system component that functions as the main interface between machine and user. Its principal roles are to read lines entered by a terminal user, to break each line into recognizable units, to analyze the units, to recognize command item-numbers on the input lines, and to invoke these commands.

### COS

See Class of Service Screening.

### CPC

calling party category

**DDD**

direct distance dialing

**DCME control**

Digital Circuit Multiplication Equipment (DCME) is a compression technique on global IMT trunks that allows you to carry more than one call per trunk.

**direct distance dialing (DDD)**

DDD is a telephone exchange service that permits subscribers to call a number outside their local area without operator assistance.

**ESL**

enhanced services link

**Flexible Service Access Code**

Flexible SAC (FSAC) is a functionality that corresponds to the N00 service functionality of the World Zone 1 market. It removes the restrictions of the N00 functionality and supports service access codes of 1 to 20 digit length. FSAC calls function on Global ISUP IMTs and Mexican IMTs. These calls are also known as free phone and premium services.

**FSAC**

See Flexible Service Access Code.

**IAM**

See Initial Address Message.

**IDDD**

international direct distance dialing

**IMT**

intermachine trunk

**Initial Address Message (IAM)**

This is the first message in a call (connection-oriented or connection-less). It contains information required to route the call to its destination.

**Interexchange Carrier (IEC)**

Interexchange carrier is a World Zone 1 term that refers to a long distance service provider.

**interworking**

Interworking is the transfer of information across the interface between different signaling systems. If one trunk agency interworks with another trunk agency, then it means the two trunk agencies can send signals to and receive signals from each other.

**IP**

international partitioned calls

**ISUP**

Integrated Services Digital Network User Part

**ITC**

information transfer capability

**IEC**

See Interexchange Carrier (IEC).

**MCCS**

See Mechanized Calling Card Service.

**Mechanized Calling Card Service**

MCCS is a service that allows a subscriber to make chargeable long distance calls without operator assistance. A subscriber makes these calls by using a credit card and entering special billing information.

**NOA**

Nature of Address parameter/indicator

**off-net**

off network

**OLI**

Originating Line Information

**on-net**

on network

**per-trunk signaling**

This is a conventional telephony method of signaling that multiplexes the control signal of a call with voice or data over the same trunk.

**PIN**

Personal Identification Number

**PSTN**

public switched telephone network

**R2**

R2 signaling systems are multiple frequency compelled (MFC) systems where tones are sent in one direction and acknowledgement tones are returned. The R2 signaling system is commonly used in many countries outside of World Zone 1. It is a domestic per-trunk signaling protocol defined by ITU standards Q.400–490.

**reorigination**

Reorigination is a feature that enables subscribers to make multiple calls without having to re-enter their authcode or calling card number. Reorigination is only possible after all digits have been dialed and a terminator has been selected.

**SCP**

See Service Control Point.

**Service Control Point**

This is a network node that provides information to other nodes (database access).

**serving translation scheme (STS)**

The UCS DMS-250 switch uses the three-digit serving translation scheme codes (000 to 999) to derive routing information.

For more information, refer to the *Common Channel Signaling 7 Product Guide*.

**SOC**

See Software Optionality Control (SOC).

**Software Optionality Control (SOC)**

The software optionality control (SOC) utility provides the operating company with a secure method of quickly deploying new services into their switch. SOC includes software license keys that control access to individual feature or entire services.

**SS7**

Signaling System #7

**STS**

See serving translation scheme.

**TCN**

See traveling card number

**test calls**

Testcalls are calls originating from test facilities on the near-end switch. Test facilities include Automatic Trunk Testing (ATT), and the TST and OP commands of the Trunk Test Position (TTP) MAP level.

**TLT**

test line tests

**TNS**

See Transit Network Selector parameter.

**TOD**

time of day

**Transit Network Selector (TNS) parameter**

The TNS contains information in the Circuit Code subfield which correlates to 1NX code on MF originations.

**TTP**

Trunk Test Position

**TTT**

Transmission Test Trunk

**UA**

See Universal Access (UA) code.

**UCP**

Universal Carrier Protocol

**UCS**

Universal Carrier Services

**Universal Access (UA) Code**

The Universal Access Code is a number that is assigned to an Interexchange Carrier (IEC) which allows a subscriber to access the IXC network. The subscriber can access the IXC network from any geographical location using one consistent UA code.

**USI**

User Service Information

**World Zone 1**

World Zone 1 countries include Canada, the USA, and the Caribbean (except Haiti and Cuba). Outside World Zone 1 markets are referred to as the Global market.

# Ordering information

Use the following table for ordering Nortel NTPs (Northern Telecom Publications) and Product Computing-Module Loads (PCLs):

| Type of product | Source | Phone | Cost |
|---|---|---|---|
| Technical documents (paper or CD-ROM) | Nortel Product Documentation | 1-877-662-5669, Option 4 + 1 | Yes |
| Individual NTPs (paper) | Merchandising Order Service | 1-800-347-4850 | Yes |
| Marketing documents | Sales and Marketing Information Center (SMIC) | 1-800-4NORTEL (1-800-466-7835)<br>* ESN 444-5930 | No |
| PCL software | Nortel | Consult your Nortel sales representative<br>* Employee | Yes |

### When ordering publications on CD

Please have the CD number and software version available, for example, **HLM-2621-001 02.03**.

### When ordering individual paper documents

Please have the document number and name available, for example, **297-2621-001, UCS DMS-250 Master Index of Publications**.

### When ordering software

Please have the eight-digit ordering code, for example, **UCS00007**, as well as the ordering codes for the features you wish to purchase. Contact your Nortel representative for assistance.

Digital Switching Systems

# UCS DMS-250

International Application Guide

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