



Communication Server 2100

# Application Planning Guide

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## New in this release

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The following sections detail what's new in *Communication Server 2100 Application Planning Guide* (555-4001-108) for release 9.0 (SE09):

- ["Features" \(page 9\)](#)
- ["Other changes" \(page 10\)](#)

### Features

See the following sections for information about feature changes:

- ["Redundant Intelligent Call Management Links" \(page 9\)](#)
- ["ICM Queue Expansion" \(page 9\)](#)
- ["Nortel Call Center Management Information System Release 6.0" \(page 9\)](#)
- ["User-to-User Information over SCAI" \(page 10\)](#)

#### **Redundant Intelligent Call Management Links**

This feature provides the capability for two TCP/IP connections to exist in one Switch Computer Application Interface (SCAI) session. This feature affects the following section:

- ["Nortel Intelligent Call Management " \(page 114\)](#)

#### **ICM Queue Expansion**

This feature increases the Intelligent Call Management (ICM) temporary queue size and enhances its capability to handle messages during high traffic periods. This feature affects the following section:

- ["ICM Queue Expansion" \(page 120\)](#)

#### **Nortel Call Center Management Information System Release 6.0**

The Nortel Call Center Management Information System (CC MIS) 6.0 is the command center for the Centrex Automatic Call Distribution (ACD) call center. This feature affects the following section:

- ["Nortel Call Center Management Information System Release 6.0" \(page 146\)](#)

### **User-to-User Information over SCAI**

This feature provides the capability for applications running on the Communication Server to communicate with applications running on a host computer. This feature affects the following section:

- ["User-to-User Information over SCAI" \(page 162\)](#)

### **Other changes**

See the following sections for information about changes that are not feature-related.

### **Automatic Call Distribution Agent Expansion**

Automatic Call Distribution (ACD) Agent Expansion 30,000 is renamed ACD Agent Expansion 99,999 to reflect its new capacity. This change affects the following section:

- ["Software architecture" \(page 18\)](#)

### **Automatic Call Distribution**

The capacity of the ACD has been expanded to allow an increased number of agents, groups, subgroups and so on. This change affects the following section:

- ["Nortel Automatic Call Distribution " \(page 108\)](#)

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# About this document

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## Purpose and audience

This document provides information on enterprise features and applications that work with the Meridian SL-100 and the Nortel Communication Server 2100. This product information will help you make a new or upgrade purchase decision.

**Note:** For information about the hardware platform for the Meridian SL-100, see the *Communication Server 2100 Meridian SL-100 Product Guide* (555-4001-103). For information about the hardware platform for the Communication Server 2100 (CS 2100), see the *Communication Server 2100 Product Guide* (555-4001-806).

For more detailed technical information about the features and applications that work with the Meridian SL-100/CS 2100, refer to the Document reference section after the description of each feature or application in this document.

## Release

This release of the *Communication Server 2100 Application Planning Guide* (555-4001-108) covers features and applications in the Succession for Enterprise Release 09 (SE09).

## Market

This release of the *Communication Server 2100 Application Planning Guide* (555-4001-108) includes features and applications that are common to the Meridian SL-100/CS 2100.

## Related documents

See ["Related documents for the Meridian SL-100 and Communication Server 2100"](#) (page 12).

**Note:** Search [www.nortel.com](http://www.nortel.com) for referenced documents that are not included in this suite.

#### Related documents for the Meridian SL-100 and Communication Server 2100

Description	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Communication Server 2100 Meridian SL-100 Product Guide</i>	555-4001-103
<i>Meridian SL-100 DSN Feature Description Manual (Federal)</i> <i>Communication Server 2100 Feature Description Manual (Commercial)</i>	555-4021-801 555-4031-801
<i>DMS-100 Feature Description Manual</i>	297-1001-801
<i>DMS-100 BCS0-BCS27 Feature Description Manual</i>	PLN-1001-003

## How to check the version and issue of this document

The version and issue of the document are indicated by numbers (for example, 01.01).

Version	<ul style="list-style-type: none"> <li>• First two digits indicate the version (<b>01.01</b>)</li> <li>• Version number increases each time the document is updated to support a new software release.</li> <li>• Example: The first release of a document is 01.01. The second release of a document in the next software release is 02.01</li> </ul>
Issue	<ul style="list-style-type: none"> <li>• Second two digits indicate the issue (<b>01.01</b>)</li> <li>• Issue number increases each time the document is revised, but re-released in the same software release cycle.</li> <li>• Example: The first release of a document is 01.01. The second release of a document in the same software release is 01.02</li> </ul>

### ATTENTION

#### FOR MORE INFORMATION

To determine if you have the latest version of this document, and how documentation for your product is organized, check the release information in the *Communication Server 2100 Master Index of Publications* (555-4031-001).

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# Introduction

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## Introduction

This chapter contains the following information:

- "Overview of Application Planning Guide" (page 13)
- "Nortel Meridian SL-100" (page 13)
- "Evolution of the Meridian SL-100" (page 14)
- "Nortel Communication Server 2100" (page 15)
- "Overview of this release" (page 16)

## Overview of Application Planning Guide

The *Communication Server 2100 Application Planning Guide* (555-4001-108) contains the following information:

- summary of existing, updated, and new Nortel enterprise features and applications that operate with Nortel Meridian SL-100 and Communication Server 2100 (CS 2100)
- features and applications that are common to both the Meridian SL-100/Communication Server 2100 Commercial and Federal markets
- features and applications are released in the Meridian SL-100/CS 2100 SE09 Release, or released separately within the Release SE09 time frame
- summary of future Nortel enterprise features and applications for the Meridian SL-100/CS 2100 to assist you with your future network planning

**Note:** For information about the hardware platform for Meridian SL-100 and CS 2100, refer to the *Communication Server 2100 Product Guide* (555-4001-806).

## Nortel Meridian SL-100

The Nortel Meridian SL-100 enterprise switch is tailored for large enterprise networks of 4,000 plus lines, and has been an industry-leading enterprise Private Branch Exchange (PBX) for over two decades.

The Meridian SL-100 system has the following features:

- The largest member of Nortel enterprise family of business communications systems.
- A combination of DMS-1000 advanced hardware and software architecture with the premier PBX software features of the Meridian into a single enterprise solution.
- The system is available in two configurations:
  - The Meridian SL-100 SuperNode SE, with its 50,000-port capacity.
  - The Meridian SL-100 SuperNode, designed for higher capacity (up to 100,000 ports).

### Benefits of Meridian SL-100

The Meridian SL-100 includes the following benefits:

- **Proven Reliability.** Six-nines reliability is delivered using Nortel carrier-based architecture as the foundation for the Meridian SL-100. The Meridian SL-100 is the largest PBX in North America.
- **Flexibility.** The Meridian SL-100 combines both carrier and Nortel Meridian business features in a single enterprise solution. This allows the deployment of the features you need where you need them.
- **Investment Protection.** As your business grows and changes, Meridian SL-100 systems and applications can grow right along with it—from 4,000 to 100,000 ports.
- **Proven Track Record.** The Meridian SL-100 has delivered the valued features and applications, such as Unified Messaging and Call Centers to customers for 20 years.

### Evolution of the Meridian SL-100

With the evolution of Voice over Internet Protocol (VoIP), Nortel has updated the Meridian SL-100 platform to support VoIP architecture and protocols in the current software—now called the Succession for Enterprise (SE09) Release. The SE09 Release delivers the complete feature suite available on the Meridian SL-100 and continues to evolve a platform for delivery of new capabilities in the future with the Nortel Communication Server 2100. The migration to VoIP introduces the following benefits:

- An end-to-end network solution that supports all enterprise services.
- Rapid revenue growth by enabling new services while preserving the revenue flow from existing services.
- Accelerated service innovation by supporting open programmable interfaces and a complete open service environment.
- Reduced cost for deploying and operating the network.

- Smooth migration of services from Time Division Multiplexing (TDM) infrastructure to a packet infrastructure.
- Leveraged investment in the existing infrastructure.
- Reduced transition risk while maintaining existing standards for reliability.

## Nortel Communication Server 2100

### Superclass softswitch for large enterprises

Nortel Communication Server 2100 delivers the ubiquity, quality and reliability of the traditional TDM telephony network on a next-generation packet network. Built on proven, industry-leading, Linux-based software, it is both carrier-grade and fault tolerant, with system robustness associated with the DMS SuperNode. The Communication Server 2100 (CS 2100) is the ideal platform for government, universities, hospitals, financial institutions and major Fortune 500 companies that require the reliability of carrier-grade networks, scalability up to 200,000 ports, enterprise business features and ease of operations associated with a tandem softswitch. It is the cornerstone of a complete IP solution for large campus enterprises.

### XA-Core or Compact Processors

Nortel is the only vendor delivering a Superclass softswitch offering flexible solutions based on customer requirements and investment protection with two processors available: XA-Core or Compact. Installed base customers can protect their investment and cost effectively migrate to packet networks with XA-Core or leverage the Compact processor. The Compact-based system is built on a commercial, off-the-shelf platform, allowing enterprises to ride the technology curve and enabling full-featured greenfield and evolutionary networks in a reduced-footprint solution. New capabilities are available with the Compact, such as Geographic Survivability, allowing for the geographic dispersal of primary communication server processors.

For more information about the Communication Server 2100 XA-Core or Compact, refer to the section "Communication Server 2100" in the *Communication Server 2100 Product Guide* (555-4001-806).

### Benefits of the Nortel Communication Server 2100

The Communication Server 2100 includes the following benefits:

- **Carrier-grade technology designed for the enterprise business.** The system technology is the same technology deployed by major North American and global carriers. Nortel is the vendor of choice for VoIP technology in the carrier space where reliability and services cannot be compromised. With 99.999 percent reliability, the Communication Server 2100 enables highly reliable solutions over IP.
- **Extensive service offering.** The Communication Server 2100 expands traditional enterprise services and offers advanced multimedia

services such as productivity enhancing collaborative capabilities and presence-enabled call handling and directory services.

- **Open standards.** The Communication Server 2100 was designed with open standards to provide multivendor compatibility, such as H.248, H.323, MGCP and Session Initiation Protocol for Telephony (SIP-T) interfaces for the enterprise. The architecture promotes compatibility with equipment for standards-compliant packet switching, TDM circuit-switched facilities, and Network Management System (NMS) and billing operations.
- **Highly scalable, single system.** As a multi-function switch, scalable to 165,000 trunks and 200,000 lines, the Communication Server 2100 lowers a customer's network operational expenses and complexity. Large regional areas can be treated as one network. Interoperability features provide flexibility by offering customers an end-to-end Nortel solution or a multi-vendor solution based on their requirements.
- **Leveraging the power of Nortel portfolio breadth.** The Nortel Communication Server 2100 leverages the breadth of Nortel portfolio by embedding the reliability and performance of Ethernet Routing switch 8600, the transport and flexibility of Optera, and the capacity and capability of the Nortel Multiservice Switch Carrier Data portfolio. It delivers a complete solution from the wide range of Nortel capabilities.
- **Simplified management.** Management of the Nortel Communication Server 2100 is simplified by the use of the Integrated Element Management System (IEMS). IEMS provides a single point of integration and management for the elements that make up the CS 2100, and consolidates fault, performance, and security functions. This solution brings a simplified view of the CS 2100 with the power to quickly provision and manage CS 2100 components.

## Overview of this release

This release offers the following functionality:

- Adds further features and functionality to support the VoIP architecture and protocols
- Provides a bridge from the Meridian SL-100 to the Communication Server 2100, allowing customers to evolve to enterprise IP networks at their own pace
- Migrates previous Meridian SL-100 software releases to the SE software stream. Along with new SE09 features and functionality, the majority of the features and functionality introduced in previous MSL releases, are available in the SE09 release.
- Operates with the Meridian SL-100 and the Communication Server 2100 (XA-Core and Compact)

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# Software ordering

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## Introduction

This chapter contains the following information:

- "Highlights of this release" (page 17)
- "Software architecture" (page 18)

Meridian SL-100/Communication Server 2100 software is a layered software architecture supporting rapid feature development, enhanced switch performance, simplified ordering and faster deployment of services to end users.

## Highlights of this release

Highlights of this release include the following:

- Provides all the required software functionality for packet-based signaling on the Communication Server 2100 (XA-Core or Compact) or an existing Meridian SL-100 platform.
- Can be installed in a hybrid configuration—The Communication Server 2100 hybrid configuration allows the Communication Server 2100 to simultaneously manage Time Division Multiplexing (TDM) network elements and packet network elements.

The features for all Meridian SL-100/Communication Server 2100 system Product Computing-module Loads (PCLs - stand-alone and combined applications) are developed in the SE development stream. When the SE development stream is updated, each new product release is given a sequential number (for example, SE08, SE09). The availability of a new SE version allows new PCLs to be assembled from the SE development stream.

Nortel advertises availability for Meridian SL-100 system features by introducing the SE product release in which the feature is available. For example, a feature may become available in SE06. That means that PCLs built from SE06 and later will contain the feature. Note that the PCL

represents the ordered part of the software load. The MSL product release cannot be ordered, but represents the vintage of software from which the PCL is built.

## Software architecture

The Meridian SL-100/Communication Server 2100 software contains four major software layers:

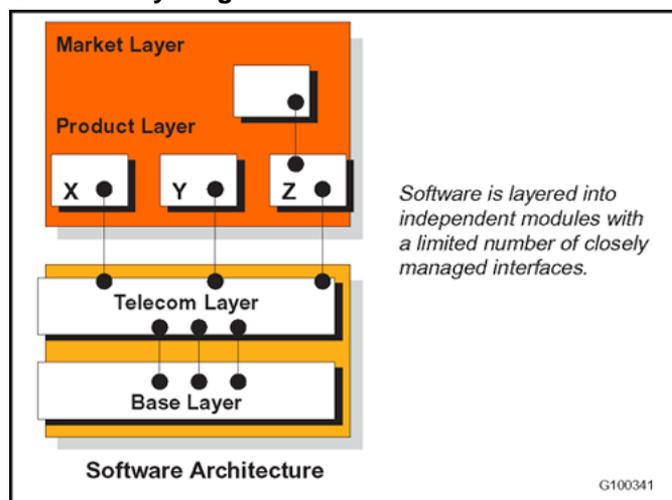
- Base layer
- Telecom layer
- Product layer
- Market layer

Software layering has the following advantages:

- The switch software is partitioned into relatively independent software modules with well-defined interfaces to other software modules. This software partitioning allows the software to take advantage of object-oriented programming and other efficiencies for faster service development.
- A software layer can be quickly and reliably updated and tested because there are few interactions to consider outside that layer.
- The application layers can be enhanced independently to quickly meet the specific requirements of customers.

"[Software layering](#)" (page 18) illustrates the software layers that make up the Meridian SL-100/Communication Server 2100 software.

### Software layering



## Product Computing-module Loads and Software Optionality Control

Nortel delivers the software layers together in a Product Computing-module Load (PCL).

This is no need to consider software layers when ordering Meridian SL-100/Communication Server 2100 software. Each new PCL automatically includes the latest available features in each software layer—Base, Telecom, Product, and Market—as well as Extended Peripheral Module (XPM) software.

Each PCL contains all the Generally Available software for a particular switch application in a particular market. There is no need to reload software to deploy a Generally Available feature, because all features are already present in the switch.

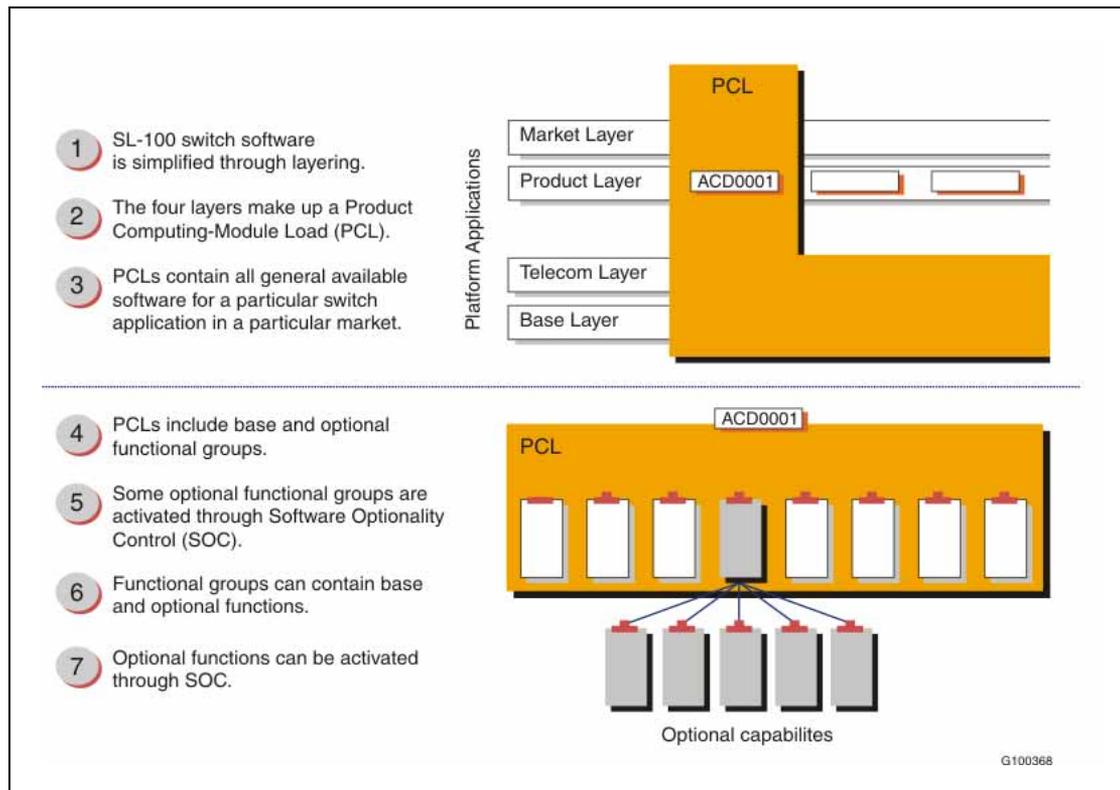
With PCLs, the customer receives software in the exact configuration it is developed. The customer chooses the services to be deployed either by choosing one of the PCLs applicable to their market or purchasing one of the software options in the PCL.

Each PCL has a PCL name and corresponding ordering code that describes the PCL product type, market application and the MSL/SE product release from which the PCL is built. Any addition or changes to PCLs in subsequent MSL/SE product releases may apply to that release only.

Software options in the PCL are activated by the Software Optionality Control (SOC). Nortel uses the SOC utility to activate newly purchased functionality that is considered "optional". Nortel distributes software passwords to activate options licensed by the customer. These small password files, known as Software Control Files, are transferred to customers through the same network where they receive software patches.

["Product Computing Load and Software Optionality Control" \(page 20\)](#) illustrates PCLs and SOC.

### Product Computing Load and Software Optionality Control



### Software options

All generally available Meridian SL-100/Communication Server 2100 system features reside in the software load. When a customer purchases software, for a new system or an upgrade to an existing system, they have the right to use all features resident in the software load, except the software options in table "Orderable software options for SE09" (page 20) that are ordered separately. The customer must purchase these software options from Nortel before use (unless previously purchased).

### Orderable software options

"Orderable software options for SE09" (page 20) lists the software options that are orderable in the SE09 base software load for all new systems and upgrades. Unless previously purchased, these Right-to-use (RTU) Required software options must be purchased from Nortel before use.

#### Orderable software options for SE09

Software options	Order code	MTC
ISDN - PRI	00033464	MSL00105
PRI on the RSC-S	00043354	MSL00113
ISDN - BRI	00033465	MSL00100

Software options	Order code	MTC
Automatic Call Distribution (ACD) Enabler	00033994	MSL00109
Intelligent Call Management (ICM) Enabler	00045497 or 00045498	MSL00119
IP Telephony IGW Client Enabler	00045978	MSL00126
IP Telephony Line Gateway Enabler	00045979	MSL00127
MSL SuperNode Data Manager Base S/W option	00049369	MSL00140
Geographic Survivability Option	00049350	MSL00146
Realtime Billing Option	00049314	MSL00148
OM Format to CSV Option	00049369	MSL00149
MSL CS 2100 Hybrid Option	00049370	MSL00142
MSL CS 2100 Compact Option	00049315	MSL00143
MSL CS 2100 Gateway Controller Option	00049373	MSL00145
MSL CS 2100 Interworking SPM IP	00049372	MSL00144
MSL IPCM Base Software	00048820	MSL00147
IPCM Client Enabler Option	00048821	MSL00138
Media Server 2010	MSL00167	MSL00167
Real Time Portal Feature	00049397	MSL00156
MSL CCS7 option	00033457 or 000444299	MSL00101
MSL Packet Handler option	00033459	MSL00102
ACD Agent Expansion	MSL00109	MSL00109
MSL ESDN CLASS Feat option	MSL00162	MSL00162
MSL GIAC Paging Modification	MSL00163	MSL00163
Media Gateway 3200	MSL00164	MSL00164
MSL Real Time OMs option	MSL00150	MSL00150
MSL MG9000 ESA option	MSL00151	MSL00151
H.323 Gatekeeper option	MSL00165	MSL00165
MSL Integrated Element Management System option	MSL00166	MSL00166
SIP Trunk ISUP option	MSL00169	MSL00139
IPCM DSN Enabler option	MSLD0103	MSLD0103
Media Gateway 9000 DSN Enabler option	MSLD0104	MSLD0104
Media Gateway 3500 option	MSL00171	MSL00171
Media Gateway 9000 option	MSL00172	MSL00172
MLPP ESA on MG 9000	MSL00175	MSL00175

Software options	Order code	MTC
MG 9000 ESA Call Diver	MSL00176	MSL00176
MLPP on MADN OPT	MSLD0105	MSLD0105
Redundant ICM Link	MSL00174	MSL00174
<p>For software options, you must purchase Right-to-use unless previously purchased. Requires Nortel Hardware and Software Engineering to activate.</p> <p>To simplify the tracking of your RTU options, beginning with MSL06, each option possesses a Master Tracking Code (MTC). The MTC eliminates the need to check several separate codes to verify RTU at the switch (in the SOC utility listing).</p>		

See the *Load Content Record (LCR)* for features in this release that are included or must be purchased for the Meridian SL-100/Communication Server 2100 market. The *Load Content Record* is included with the customer documentation and delivered to site before the software upgrade. Though resident in the load, those features identified as "INACTIVE" in the LCR are features which are required for lower layer interdependencies and/or have not been verified in the Meridian SL-100/Communication Server 2100 environment.

The end user is responsible for any service impact associated with the unauthorized activation of features that are Not Generally Available to the Meridian SL-100/Communication Server 2100 market.

Refer to "[Software ordering codes](#)" (page 22) for Meridian SL-100/Communication Server 2100 software options and ordering codes.

## Software ordering codes

This section contains the software options and ordering codes that are common to the Meridian SL-100/Communication Server 2100.

### Base software loads

"[Commercial Base Software loads for Meridian SL-100/Communication Server 2100](#)" (page 22) lists the Commercial Base software loads available in SE09 for the Meridian SL-100/Communication Server 2100.

### Commercial Base Software loads for Meridian SL-100/Communication Server 2100

PCL name	Description	Order code
SNMSL009	Commercial IVD	SE000009
SCMSL009	Commercial Compact load for Meridian SL-100/Communication Server 2100	SEC00009
SNMSD009	Federal IVD	SD000009
SCMSD009	Federal 3PC load for CS 2100	SDC00009

**Note:** "Base loads added functionality" (page 23) lists the order codes for the added functionality that must be purchased with each base load.

### Base loads added functionality

"Base loads added functionality" (page 23) lists the order codes for the functionality that must be purchased with each base load.

#### Base loads added functionality

Description	Increment	Order code
MSL System Line Enabler (non-LCME)	00033472	per wired line
MSL Enhanced System Line Enabler (LCME)	00033465	per wired LCME line

### Software upgrades

"Software upgrades" (page 23) list the software upgrades and order codes for Meridian SL-100/Communication Server 2100 software releases.

#### Software upgrades

Description	Order code
SE TDM generic upgrade	00049578
SE Packet generic upgrade	00049580
SE software application	00049577
Contact your Nortel authorized Meridian Distributor for site-specific pricing.	

### SE09 upgrade path

You must be operating a Meridian SL-100 (TDM) or Communication Server 2100 XA-Core/Compact (IP packet) with release SE08 to upgrade to release SE09.

### Design Release Units (DRUs) in SE09

SE08 PCLs are built on other Development Release Units (DRUs). "DRUs included in SE09" (page 23) lists all the DRUs included in SE09.

#### DRUs included in SE09

DRU name	Description
CSP22	Computing Services Platform, which includes the layers listed below
BASE23	Base Layer
TL22	Telecom Layer
CCM22	DMS 100 Common Layer
XPM22	Extended Peripheral Module Layer

DRU name	Description
SHR22	Shared Layer
CNA22	DMS-100 Custom Layer
MSH22	Multi-service Hub
<b>Note:</b> SHR21 is a library and only selected Load Content File (LCFs) are incorporated in SE08.	

## Features available with Base software loads for Meridian SL-100/Communication Server 2100

The following tables contain features that are available with Base software loads for the Meridian SL-100/Communication Server 2100.

### ACD Agent Expansion 99,999

"[ACD Agent Expansion 99,999 option](#)" (page 24) lists the functionality for ACD Agent Expansion 99,999 option.

#### ACD Agent Expansion 99,999 option

<b>Functionality name</b>	ACD Agent Expansion 99,999
<b>Functionality group</b>	MSL ACD OPT
<b>Functionality description</b>	This feature extends the maximum number of ACD agents provisioned on a single Meridian SL-100 switch from 30,000 to 99,999 agents. This activity does not increase the number of ACD groups per switch or the number of ACD agents per group. It only increases the switch-wide maximum number of total ACD agents. This feature is controlled by SOC. The level of SOC purchased determines the maximum number of ACD agents on the switch up to a maximum of 99,999 agents.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00109
<b>Order code</b>	00033994, 00045497, 00045498
<b>Increment</b>	Per agent

### MSL ESDN Class Feat Enhc

"[MSL ESDN Class Feat Enhc](#)" (page 24) lists the functionality for MSL ESDN Class Feat Enhc option.

#### MSL ESDN Class Feat Enhc

<b>Functionality name</b>	MSL ESDN Class Feat Enhc
<b>Functionality group</b>	MSL BASE

<b>Functionality description</b>	The MSL ESDN CC Feature Enhancements allows the following to existing feature options to be assigned to ESDN lines (these features were previously restricted from being added to an ESDN): <ul style="list-style-type: none"> <li>• Customer Originated Trace (COT)</li> <li>• Message Waiting (MWT)</li> </ul>
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00162
<b>Order code</b>	MSL00162
<b>Increment</b>	Per switch

### MSL GIAC Paging Modification

"MSL GIAC Paging Modification" (page 25) lists the functionality for MSL GIAC Paging Modification option.

#### MSL GIAC Paging Modification

<b>Functionality name</b>	MSL GIAC Paging Modification
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	The Group Paging for GIAC Enhancement feature modifies the existing functionality of the GIAC feature to: <ul style="list-style-type: none"> <li>• add the capability to assign one key for paging which saves the originator three keystrokes (the originator previously had to press four keystrokes)</li> <li>• create a one-way communication path for broadcasting the originator's message, rather than the existing two-way conference style.</li> <li>• expand the maximum member group size to 99 users (plus the originator)</li> </ul>
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00163
<b>Order code</b>	MSL00163
<b>Increment</b>	Per switch

**MSL Line Option for IPCM phones option**

"MSL Line Option for IPCM phones option" (page 26) lists the functionality for MSL Line Option for IP Client Manager (IPCM) phones option.

**MSL Line Option for IPCM phones option**

<b>Functionality name</b>	MSL Line Option for IPCM phones option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	The IPCLIENT line option has been created for the M5216 LCC to differentiate IPCM sets from M5216 sets provisioned on a CS 2100.
<b>Right-to-use Required</b>	No
<b>Master Tracking Code</b>	MSL00139
<b>Order code</b>	N/A
<b>Increment</b>	Per switch

**Media Gateway 3200**

"Media Gateway 3200" (page 26) lists the functionality for Media Gateway 3200 (MG 3200).

**Media Gateway 3200**

<b>Functionality name</b>	Media Gateway 3200
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	In a CS 2100 configuration, the Media Gateway 3200 (MG 3200) provides access to the Public Switched Telephone Network (PSTN). The MG 3200 provides options for 1, 2, 4, 8 and 16 spans of independent, simultaneous Voice over Packet calls. It supports up to 16 DS1s and communicates using the H.248 protocol. It supports NTNA PRI for both the network and user side.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00139
<b>Order code</b>	MSL00164
<b>Increment</b>	Per span (1, 2, 4, 8, 16)

**MSL Table CARID for SPM**

"MSL Table CARID for SPM" (page 27) lists the functionality for MSL Table CARID for SPM.

**MSL Table CARID for SPM**

<b>Functionality name</b>	MSL Table CARID for SPM
<b>Functionality group</b>	MSL Base
<b>Functionality description</b>	This feature adds the SPM peripheral to table CARID
<b>Right-to-use Required</b>	No
<b>Master Tracking Code</b>	MSL00001

**ECAN Enhancements**

"ECAN on SPM" (page 27) lists the functionality for ECAN Enhancements.

**ECAN on SPM**

<b>Functionality name</b>	ECAN Enhancements
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	Echo Cancellation (ECAN) on PRI and PTS Trunks feature provides the Spectrum Peripheral Module with the ability to provide Echo Cancellers for NTNA, NI-1 and PTS trunks for the Meridian SL-100
<b>Right-to-use Required</b>	No
<b>Master Tracking Code</b>	MSL00001
<b>Order code</b>	N/A

**MSL SuperNode Data Mgr option**

"MSL SuperNode Data Mgr option" (page 27) lists the functionality for MSL SuperNode Data Mgr option.

**MSL SuperNode Data Mgr option**

<b>Functionality name</b>	MSL SuperNode Data Mgr option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option enables the SuperNode Data Manager (SDM) to support Command Line Interfaces with security, secure file transfer and basic billing capabilities.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00140
<b>Order code</b>	00049369
<b>Increment</b>	Per switch

### MSL Geographic Survivability option

"MSL Geographic Survivability option" (page 28) lists the functionality for MSL Geographic Survivability option.

#### MSL Geographic Survivability option

<b>Functionality name</b>	MSL Geographic Survivability option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option enables the support for the Communication Server 2100 Compact Communication Server to be split by up to 120 km (75 miles). This capability delivers a higher degree of reliability by avoiding facility failures while not duplicating communications assets in a network
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00146
<b>Order code</b>	00049350
<b>Increment</b>	Per switch

### MSL Realtime Billing option

"MSL Realtime Billing option" (page 28) lists the functionality for MSL Realtime Billing option.

#### MSL Realtime Billing option

<b>Functionality name</b>	MSL Realtime Billing option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option allows billing records to be available for transfer from the SDM 30 seconds after the call is disconnected. Realtime billing downloads a small group of records to the Device Independent Recording Package (DIRP) billing file on the downstream destination as the records are added to the open billing on the SDM. To deliver records, Realtime billing uses File Transfer Protocol (FTP) through an Ethernet connection. This option also allows for the creation of filters that allow the display of records only matching a specific search criteria. The MSL Realtime Billing option should be applied for each SDM deployed at a customer site at customer request.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00148
<b>Order code</b>	00049314
<b>Increment</b>	Per SDM

**MSL OM Format to CSV option**

"MSL OM Format to CSV option" (page 29) lists the functionality for MSL OM Format to CSV option.

**MSL OM Format to CSV option**

<b>Functionality name</b>	MSL OM Format to CSV option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option provides the SDM Operational Measurement Delivery (OMD) application. SDM OMD collects customer-defined Operational Measurement (OM) data from the Communication Server 2100, and stores the data in OM report files on the SDM in comma separated value (CSV) format. The MSL OM Format to CSV option should be applied for each SDM deployed at a customer site at customer request.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00149
<b>Order code</b>	00049315
<b>Increment</b>	Per SDM

**MSL Real time OMs option**

"MSL Real time OMs option" (page 29) lists the functionality for MSL Real time OMS option.

**MSL Real time OMs option**

<b>Functionality name</b>	MSL Real time OMs option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	<p>This option provides the OM Delivery application. The application transfers operational measurement (OM) data to downstream destinations, and provides the ability to:</p> <ul style="list-style-type: none"> <li>• group related OMs together into report elements so that they can be monitored easily</li> <li>• select a subset of registers in an OM group</li> <li>• set the report interval to five minutes or to Office Transfer period (15 or 30 minutes) for each report element</li> <li>• specify when to collect OM data using data collection schedules, when to rotate the report file using report collection schedules, and when to transfer report files to a downstream system using file transfer schedules</li> </ul>

	<ul style="list-style-type: none"> <li>store OM data files on disk where they are available for regularly-scheduled, automated transfer to a downstream system using FTP</li> <li>schedule an unattended file transfer to a maximum of 16 downstream destinations (per schedule)</li> </ul>
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00150
<b>Order code</b>	MSL00150
<b>Increment</b>	Per switch

### MSL CS 2100 Hybrid option

"MSL CS 2100 Hybrid option" (page 30) lists the functionality for MSL CS 2100 Hybrid option.

#### MSL CS 2100 Hybrid option

<b>Functionality name</b>	MSL CS 2100 Hybrid option
<b>Functionality group</b>	MSL Succession Enterprise <ul style="list-style-type: none"> <li>CS2B COMMSVR2000 BASE</li> <li>CS2C COMMSVR2000 COM</li> <li>CS2N COMMSVR2000 NA</li> </ul>
<b>Functionality description</b>	This option enables support of traditional TDM equipment and allows for the migration from TDM-based systems to softswitch systems. "Back office" services like call center, billing, and so on, can be protected with little to no investment in those "back office" operations.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00142
<b>Order code</b>	00049370
<b>Increment</b>	Per switch

### MSL CS 2100 Compact option

"MSL CS 2100 Compact option" (page 30) lists the functionality for MSL Succession Enterprise Compact option.

#### MSL CS 2100 Compact option

<b>Functionality name</b>	MSL CS 2100 Compact option
<b>Functionality group</b>	MSL Succession Enterprise

<b>Functionality description</b>	This option enables the Compact Communication Server within the Communication Server 2100 solution. The Compact Communication Server is an open hardware and software architecture.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00143
<b>Order code</b>	00049371
<b>Increment</b>	Per switch

### MSL CS 2100 Intrwk SPM IP option

"MSL CS 2100 Intrwk SPM IP option" (page 31) lists the functionality for MSL CS 2100 Intrwk SPM IP option.

#### MSL CS 2100 Intrwk SPM IP option

<b>Functionality name</b>	MSL CS 2100 Intrwk SPM IP option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option is a bridge between TDM and IP. It allows for seamless migration of users from TDM and IP. It simplifies the deployment of IP by allowing for the sharing of database translations for TDM and IP. This option simplifies management and operations of a converged network by implementing one set of rules for TDM and IP.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00144
<b>Order code</b>	00049372
<b>Increment</b>	Per switch

### MSL IPCM Base Software option

"MSL IPCM Base Software option" (page 31) lists functionality for MSL IPCM Base Software option.

#### MSL IPCM Base Software option

<b>Functionality name</b>	MSL IPCM Base Software option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	The Meridian SL-100 IP Client Manager integrates seamlessly with existing corporate networks to unify the delivery of voice and data over IP connections. The IPCM acts as a gateway for UNISlim IP terminals in a Meridian SL-100 or Communication Server 2100 solution.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00147

<b>Order code</b>	00048820
<b>Increment</b>	Per gateway

### MSL IPCM Client Enabler option

"MSL IPCM Client Enabler option" (page 32) lists the functionality for MSL IPCM Client Enabler option.

#### MSL IPCM Client Enabler option

<b>Functionality name</b>	MSL IPCM Client Enabler option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option allows UNIstim IP clients served by an IPCM gateway to provide users access to the Meridian Business Set feature suite, in addition to advanced features available to IP telephony clients.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00138
<b>Order code</b>	00048821
<b>Increment</b>	Per switch

### MSL MG 9000 ESA option

"MSL MG 9000 ESA option" (page 32) lists the functionality associated with MSL MG 9000 ESA option.

#### MSL MG 9000 ESA option

<b>Functionality name</b>	MSL MG 9000 ESA option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This feature maintains call processing for MG 9000 lines and MG 9000 Access Bridging Interface subtending lines even when there is a failure on the call control link back to the Communication Server 2100.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00151
<b>Order code</b>	MSL00151
<b>Increment</b>	Per switch

**MSL Media Server 2010 option**

"MSL Media Server option" (page 33) lists the functionality associated with MSL Media Server 2010 option.

**MSL Media Server option**

<b>Functionality name</b>	MSL Media Server 2010 option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option is software to enable the Media Server 2010 (MS 2010). The MS 2010 is used to support conference, announcements and Lawful Intercept within a pure IP softswitch. The MS 2010 is not currently supported on a hybrid system. Existing announcement and conference services can be used in a hybrid system.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00167
<b>Order code</b>	MSL00167
<b>Increment</b>	Per switch

The following hardware is required for the MS 2010:

- NTRX51JJ— AMS, 120 ports, conferencing
- NTRX51JK—AMS, 120 ports, conferencing

**MSL Real Time Portal option**

"MSL UAS Real Time Portal option" (page 33) lists functionality for MSL Real Time Portal option.

**MSL UAS Real Time Portal option**

<b>Functionality name</b>	MSL Real Time Portal option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option is software that enables the Network Address Translation (NAT) and Firewall Traversal capabilities within the CS 2100 platform.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00156
<b>Order code</b>	00049397
<b>Increment</b>	Per switch

**H.323 Gatekeeper option**

"H.323 Gatekeeper option" (page 34) lists functionality for MSL H.323 Gatekeeper option.

**H.323 Gatekeeper option**

<b>Functionality name</b>	H.323 Gatekeeper option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option introduces gatekeeper to gatekeeper capabilities between a CS2100 and CS1000.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00165
<b>Order code</b>	MSI00165
<b>Increment</b>	Per gateway

**MSL Integrated Element Management System option**

"MSL Integrated Element Management System option" (page 34) lists functionality for MSL Integrated Element Management System option.

**MSL Integrated Element Management System option**

<b>Functionality name</b>	MSL Integrated Element Management System option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option provides a common interface for fault, performance, security and administration of the CS 2100.
<b>Right-to-use Required</b>	Yes
<b>Master Tracking Code</b>	MSL00166

**MSL 10-Digit Local Display option**

"MSL 10-Digit Local Display option" (page 34) lists functionality for 10-Digit Local Display option.

**MSL 10-Digit Local Display option**

<b>Functionality name</b>	MSL 10-Digit Local Display option
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	This option lets all 10 digits (3-digit area code and 7-digit number) be displayed on a display phone for non-intra-group calls from a PRI or CCS7 trunk.  This option requires a SOC code to activate it. This option is no additional charge to the customer.
<b>Right-to-use required</b>	No
<b>Master Tracking Code</b>	MSL00132

<b>Order code</b>	No
<b>Increment</b>	Per switch

### MSL Buzz Tone Length option

"MSL Buzz Tone Length option" (page 35) lists functionality for MSL Buzz Tone Length option.

#### MSL Buzz Tone Length option

<b>Functionality name</b>	MSL Buzz Tone Length option
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	This option allows the use of a preferred tone duration when it is invoked during an active call.  This option requires SOC to activate it. This option is no additional charge to the customer.
<b>Right-to-use required</b>	No
<b>Master Tracking Code</b>	MSL00133
<b>Order code</b>	N/A
<b>Increment</b>	Per switch

### MSL CND Pub Disp option

"MSL CND Pub Disp option" (page 35) lists functionality for MSL CND Pub Disp option.

#### MSL CND Pub Disp option

<b>Functionality name</b>	MSL Calling Number Delivery (CND) Public Display option
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	This option controls delivery functionality on Meridian SL-100/Communication Server 2100 loads using public network calls that have less than 10-digits.  When this option is activated: <ul style="list-style-type: none"> <li>• The subscriber can choose whether or not to answer the call.</li> <li>• Number recognition allows the subscriber to answer calls with personalized greeting.</li> <li>• The date and time of the incoming call are displayed.</li> <li>• The subscriber can see digits displayed from other phone switches.</li> </ul>

	This option comes with the Base load and requires SOC to activate it. This option is no additional charge to the customer.
<b>Right-to-use required</b>	No
<b>Master Tracking Code</b>	MSL00137
<b>Order code</b>	N/A
<b>Increment</b>	Per switch

### MSL Disable Ans Sup option

"MSL Disable Ans Sup option" (page 36) lists functionality for MSL Disable Ans Sup option.

#### MSL Disable Ans Sup option

<b>Functionality name</b>	MSL Disable Ans Sup option
<b>Functionality group</b>	MSL BASE
<b>Functionality description</b>	This option is used to control Answer Supervision Throttling for Direct Inward Dialing (DID) calls for Per Trunk Signaling (PTS) trunks.  This option comes with the Base load and requires SOC to activate it. The customer must meet regulatory requirements before it is activated. This option is no additional charge to the customer.
<b>Right-to-use required</b>	No
<b>Master Tracking Code</b>	MSL00111
<b>Order code</b>	N/A
<b>Increment</b>	Per switch

### MSL ISDN BRI option

"MSL ISDN BRI option" (page 36) lists functionality for the MSL ISDN BRI option.

#### MSL ISDN BRI option

<b>Functionality name</b>	MSL ISDN BRI option
<b>Functionality group</b>	MSL ISDN BRI  <b>Note:</b> This option includes the options in "Functionality included in the MSL ISDN BRI option" (page 37).

<b>Functionality description</b>	Extensions are subject to a Per-LCME wired Line charge. You must purchase the following hardware for this options: <ul style="list-style-type: none"> <li>• LCME Peripheral with: <ul style="list-style-type: none"> <li>— NTB02BA Enhanced D-channel Handler CP, and</li> <li>— NTB27AA ISDN 2B1Q U Line Card</li> </ul> </li> </ul>
<b>Right-to-use required</b>	Yes, if previously purchased
<b>Master Tracking Code</b>	MSL00100
<b>Order code</b>	00033465

#### Functionality included in the MSL ISDN BRI option

Functional Group Number	Functional Group Name	Functionality Name
MDC00058	MDC-MDC Minimum	MDC Line Capacity Inc
NI000007	NI0 ISDN Base	NI0 ISDN Basic AccessN
NI000007	NI0 ISDN Base	NI0 ISDN Adv Signaling
NI000008	NI0 NI-1 BRI	NI0 ISDN EKTS
NI000008	NI0 NI-1 BRI	NI0 ISDN Suppl Svcs
NI000008	NI0 NI-1 BRI	NI0 ISDN Display Svcs
NI000008	NI0 NI-1 BRI	NI0 ISDN/ISUP Interwkg
NI000008	NI0 NI-1 BRI	NI0 CLASS on NI0N
NI000008	NI0 NI-1 BRI	NI0 ISDN Routing
NI000008	NI0 NI-1 BRI	NI0 INFO & Enh Num Del
NI000008	NI0 NI-1 BRI	NI0 Multipoint EOC1
NI000009	NI0 NI-1 BRI Enhanced Mtc	NI0 Integrated Tst Base
NI000009	NI0 NI-1 BRI Enhanced Mtc	NI0 Tsting NI0N Services
NI000009	NI0 NI-1 BRI Enhanced Mtc	NI0 TL-1 Tsting I/F Base
NI000009	NI0 NI-1 BRI Enhanced Mtc	NI0 TL-1 Parsing I/F Base
NI000050	NI0 NI 2/3 BRI Svcs Ph1	NI0 Call Tpe Prov DN Bas
NI000050	NI0 NI 2/3 BRI Svcs Ph1	NI0 IVDT Sim Acc 2 B Chs
NI000050	NI0 NI 2/3 BRI Svcs Ph1	NI0 IVDT Sim Acc 2 B Chs
NI000050	NI0 NI 2/3 BRI Svcs Ph 1	NI0 Non-Initial Terms
NI000050	NI0 NI 2/3 BRI Svcs Ph 1	NI0 2 Simut nVce Calls

Functional Group Number	Functional Group Name	Functionality Name
NI000050	NI0 NI 2/3 BRI Svcs Ph 1	NI0 Dflt TSP LITD On Lp
NI000050	NI0 NI 2/3 BRI Svcs Ph 1	NI0 Intwk NI-1 Svcs
NI000050	NI0 NI 2/3 BRI Svcs Ph 1	NI0 IVDT/NIT ISDN Plft
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Calling Name
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 DCH Supt 2 Term+
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 EKTS CACH
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Flex Expl Xter N Con
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Flex 1 Call Trans UCD
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Flex3 Intwkg Atten
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Flex5 Simu asgn 3/6
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Flow Thru Prov Enh
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 I/Fconfig PhII
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Intrm I/F Config Enh
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 ISDN1 Inwkg Std Ann
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Prmtr Dwmlng V1
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 TR303 NI-2 Compl
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 CFW Uniformity
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 ACB&AR
NI000051	NI0 N1 2/3 BRI Svcs Ph II	NI0 Music on Hld
NI000052	NI0 NI-2 BRI Services	NI0 Net Prvd Clng Pry No
NI000052	NI0 NI-2 BRI Services	NI0 Fre Frmt SPID Prov
NI000052	NI0 NI-2 BRI Services	NI0 8 FITS On A Loop
NI000052	NI0 NI-2 BRI Services	NI0 MTCE Mult Terms
NI000052	NI0 NI 98 Enhmts Ph 1	NI0 Flex Clg De conf fac
NI000060	NI0 NI 98 Enhmts Ph 1	NI0 Aub Msg Wtg Ind
NI000060	NI0 NI 98 Enhmts Ph 1	NI0 Automatic SPID
NI000060	NI0 NI 98 Enhmts Ph 1	NI0 B Ch rest On TSP
NI000060	NI0 NI 98 Enhmts Ph 1	NI0 BRIV OE

**MSL CCS7 option**

"MSL CCS7 option" (page 39) lists the functionality for MSL CCS7 option.

**MSL CCS7 option**

<b>Functionality name</b>	MSL CCS7 option
<b>Functionality group</b>	MSL CCS7 OPT <b>Note:</b> This option includes the options in "Functionality included in the MSL CCS7 option" (page 39)
<b>Functionality description</b>	You must purchase the following hardware for this option: <ul style="list-style-type: none"> <li>• NT9X76AA STP Signaling Terminator CP</li> <li>• NT9X77AA STP V.35 I/F Paddleboard</li> <li>• NTEX22BB LG Processor/F Bus I/F</li> </ul> Channelized Access: <ul style="list-style-type: none"> <li>• NT9X76AA STP Signaling Terminator CP</li> <li>• NTEX26AA Channel Bus I/F</li> <li>• NTEX22BB LG Processor/F Bus I/F</li> <li>• NTZZ30MA Network I/F Unit</li> </ul>
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00101
<b>Order code</b>	00033457 or 00044299

**Functionality included in the MSL CCS7 option**

<b>Functional Group number</b>	<b>Functional Group Name</b>	<b>Functionality Name</b>
EQA00001	EQA Local	EQA C7ISUPlrta CntrEAEO
MDC00008	MDC MBS Std.	MDC Dist CWT Ringback
MDC00006	MDC MBG Std.	MDC Net Number Disp
MDC00006	MDC MBG Std.	MDC NRAG
MDC00006	MDC MBG Std.	MDC Net Msg Svc
MDC00005	MDC MBG Min	MDC IOBN ISUP Netinfo
ISP70001	ISP7 Base ISUP	ISP7 CCS7 Trnk Signlng
ISP70001	ISP7 Base ISUP	ISP7 Mass Trnk Conversion
ISP70001	ISP7 Base ISUP	ISP7 ISUP Option Controls
ISP70001	ISP7 Base ISUP	ISP7 2W Emulation
TEL00008	TEL CCS7 Base	TEL CCS7 Base

### MSL Packet Handler option

"MSL Packet Handler option" (page 40) lists the functionality for MSL Packet Handler option.

#### MSL Packet Handler option

<b>Functionality name</b>	MSL Packet Handler option
<b>Functionality group</b>	MSL Packet Hand OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL Packet Handler option" (page 40).
<b>Functionality description</b>	The customer must purchase the NTZZ30NA X.25/X.75 Link Interface Unit in the Link Peripheral Processor (LPP).
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00102
<b>Order code</b>	00033459

#### Functionality included with the MSL Packet Handler option

Functional Group Number	Functional Group Name	Functionality Name
NI000007	NI0 ISDN BASE	NI0 ISDN OAMBase; DPN
NI000007	NI0 ISDN BASE	NI0 ISDN Provisioning
NI000007	NI0 ISDN BASE	NI0 Integrated PH Mtc
NI000007	NI0 ISDN BASE	NI0 ISDN OAM Proc
NI000007	NI0 ISDN BASE	NI0 DPN PH Mtc
NI000007	NI0 ISDN BASE	NI0 ISDN Test Access
NI000010	NI0 NI-1 Packet	NI0 DMS Plt Base
NI000010	NI0 NI-1 Packet	NI0 DMS PH SERVORD

### MSL DWS option

"MSL DWS option" (page 40) lists the functionality for MSL DWS option.

#### MSL DWS option

<b>Functionality name</b>	MSL DWS option
<b>Functionality group</b>	MSL DWS OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL DWS option" (page 41).

<b>Functionality description</b>	The following hardware must be purchased for this option: <ul style="list-style-type: none"> <li>• Meridian SL-100 architecture, including ENET switching matrix.</li> <li>• ISDN DTCI with Enhanced Time Switch (NTAX78) and NTSX05AProcessor.</li> <li>• DS-1/PRI interface cards (NT6X50AB) to enable clear-channel, 64 Kilobits per second (kb/s) unrestricted data capabilities.</li> <li>• T1/PRI cable</li> </ul>
<b>Right-to-use required</b>	No, if purchased in SE06 release or later
<b>Master Tracking Code</b>	MSL00104
<b>Order code</b>	00033463

**Functionality included with the MSL DWS option**

Functional group number	Functional group name	Functionality name
NI000040	NI0 NI-2 DWS Scvs	NI0 Dialable DWS NI-2
NI000073	NI0 PRI DWS Base	NI0 DWS Flexible ACC NTNA
NI000073	NI0 PRI DWS Base	NI0 Enh Time SW
NI000073	NI0 PRI DWS Base	NI0 DWS Base
NI000073	NI0 PRI DWS Base	NI0 DWS PRI Base
NI000073	NI0 PRI DWS Base	NI0 DWS PRI Test Tool
NI000073	NI0 PRI DWS Base	NI0 DWS PRI End Office

**MSL ISDN PRI option and MSL PRI on RSC-S option**

"MSL ISDN PRI option and MSL PRI on RSC-S option" (page 41) lists the functionality for MSL ISDN PRI option and MSL PRI on RSC-S option.

**MSL ISDN PRI option and MSL PRI on RSC-S option**

<b>Functionality name</b>	MSL ISDN PRI option and MSL PRI on RSC-S option
<b>Functionality group</b>	MSL ISDN PRI OPT <b>Note:</b> These options include the options in "Functionality included with the MSL ISDN PRI and MSL PRI on RSC-S options" (page 42).

<b>Functionality description</b>	<p>The following hardware must be purchased for the MSL ISDN PRI option:</p> <ul style="list-style-type: none"> <li>• NT6X50AB DS-1 CP</li> <li>• NTB01BA ISDN Signal Processor CP (in the MCTMI Frame)</li> </ul> <p>The customer must purchase the following hardware for the PRI on RSC-S option:</p> <ul style="list-style-type: none"> <li>• NTMX75BA Minimum</li> </ul>
<b>Right-to-use required</b>	<p>If feature package NTX790AC was purchased prior to MSL03, software Right-to-use is granted and extensions are not subject to a Per-T1-charge (grandfathered).</p> <p>If feature package NTX790AC was purchased with MSL03 or above, software Right-to-use is granted, but extensions are subject to a Per-T1-charge.</p> <p>PRI on the RSC-S is a separate RTU charge and is not grandfathered under the Host PRI RTU.</p>
<b>Master Tracking Code</b>	MSL00105 and MSL00113
<b>Order code</b>	00033464 and 00043354

#### Functionality included with the MSL ISDN PRI and MSL PRI on RSC-S options

Functional group number	Functional group name	Functionality name
MDC00006	MDC MBG Std.	MDC Net Msg Svc
MSL00113	MSL ISDN PRI Opt	MSL PRI on RSC-S
NI000024	NI0 RLT on NI-1 PRI	NI0 RLT on NTNAPRI
NI000030	NI0 ISDN PRI CNAM	NI0 Calling Name Delivery
NI000033	NI0 NI-1 PRI	NI0 PRI ISA
NI000033	NI0 NI-1 PRI	NI0 PRI CCS7 Interwk
NI000033	NI0 NI-1 PRI	NI0 PRI Enh Num Del
NI000033	NI0 NI-1 PRI	NI0 Back-up D-Channel
NI000033	NI0 NI-1 PRI	NI0 PRI and DWS DTA
NI000033	NI0 NI-1 PRI	NI0 4ESS Interworking
NI000033	NI0 NI-1 PRI	NI0 5ESS Interworking
NI000033	NI0 NI-1 PRI	NI0 PRI Networking
NI000033	NI0 NI-1 PRI	NI0 PRI Network Disp
NI000033	NI0 NI-1 PRI	NI0 PRI MWI
NI000033	NI0 NI-1 PRI	NI0 PRI Base
NI000014	NI-0 NI-1 Tandem	NI0 ISDN/ISUP i/w

Functional group number	Functional group name	Functionality name
NI000043	NI0 PRI NI-2 Base	NI0 Call by Call NI-2
NI000043	NI0 PRI NI-2 Base	NI0 D Ch Backup NI-2
NI000043 (Network Side Only)	NI0 PRI NI-2 Base	NI0 2B Ch Trfr NI-PRI
NI000043	NI0 PRI NI-2 Base	NI0 NI-2 PRI Variant
NI000043	NI0 PRI NI-2 Base	NI0 NI-2 PRI MTC Basic
NI000043	NI0 PRI NI-2 Base	NI0 NI-2 PRI CC
NI000043	NI0 PRI NI-2 Base	NI0 NI-2 PRI Scrng
NI000043	NI0 PRI NI-2 Base	NI0 NI-2 TR 1268 Dch BKUP
NI000043	NI0 PRI NI-2 Base	NI0 NI-PRI B&D ch Mtc
NI000043	NI0 PRI NI-2 Base	NI0 NI0 PRI NI-2 to ISUP

### MSL CompuCALL (SCAI) option

"MSL CompuCALL (SCAI) option" (page 43) lists the functionality for MSL CompuCALL (SCAI) option.

#### MSL CompuCALL (SCAI) option

<b>Functionality name</b>	MSL CompuCALL (SCAI) option
<b>Functionality group</b>	MSL Compucall OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL CompuCALL (SCAI) option" (page 44).
<b>Functionality description</b>	<p>You must purchase the following hardware for this option:</p> <ul style="list-style-type: none"> <li>NT1X89BB Enhanced Multi-Protocol CP or NTFX30AA Input Output Module (IOM)</li> </ul> <p>To provide service between the switching system and the call center to employ MSL CompuCALL, you need these components:</p> <ul style="list-style-type: none"> <li>CompuCALL base software in the Meridian SL-100 (or Meridian SL-100 ACD Server) to send and receive SCAI messages</li> <li>The SCAI transport mechanism to physically link the switch to the computer or other external processor and carry SCAI messages.</li> </ul>

	<ul style="list-style-type: none"> <li>Application Programming Interface (API) software and business application software for the customer's computer system - both provided by computer and software vendors (The API, which resides in the computer system, converts SCAI messages into information that can be used by the computer's business application software.)</li> </ul>
<b>Right-to-use required</b>	Right-to-use is granted with the purchase of SE06 release or higher.
<b>Master Tracking Code</b>	MSL00106
<b>Order code</b>	00033467 & 00033468

#### Functionality included with the MSL CompuCALL (SCAI) option

Functional group number	Functional group name	Functionality name
ACD00002	ACD Compu-CALL Base	ACD CompuCALL Base
ACD00002	ACD Compu-CALL Base	ACD Compucall-FUNC
ACD00002	ACD Compu-CALL Base	ACD Compucall Functionality
ACD00002	ACD Compu-CALL Base	ACD Ctrx Coord V&Dta

#### MSL CLASS option

"MSL CLASS option" (page 44) lists functionality for MSL CLASS option.

#### MSL CLASS option

<b>Functionality name</b>	MSL CLASS option
<b>Functionality group</b>	MSL CLASS OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL CLASS option" (page 45).
<b>Functionality description</b>	<p>You must purchase the following hardware for CLASS features:</p> <ul style="list-style-type: none"> <li>NT6X78AB Class Modem Resource CP</li> </ul> <p>You must purchase the following hardware for Enhanced CLASS features:</p> <ul style="list-style-type: none"> <li>NT6X78AB Class Modem Resource CP</li> <li>NT6X92BB/BC/EA UTR Circuit Card</li> <li>NT6X69AD/QA Message and Tone Circuit Card</li> <li>XPM+</li> <li>DRAMS - Optional</li> </ul>

	<p>You must purchase the following hardware for Distinctive Ringing/Call Waiting:</p> <p><b>Note 1:</b> RES001000, CNDBO (nodal), and RES00101, CNDBO (network), are provided as part of MSL00107 CLASS, but require separate activation. Activation requires that each customer meet regulatory requirements.</p>
<b>Right-to-use required</b>	Right-to-use is granted with the purchase of SE06 release or higher.
<b>Master Tracking Code</b>	MSL00107
<b>Order code</b>	00033470 & 00033471

#### Functionality included with the MSL CLASS option

Functional group number	Functional group name	Functionality name
DTP00001	DTP Datapath	DTP CLASS for DataPath
MDC00004	MDC CLASS on MDC	MDC CLASS on MVP
MDC00004	MDC CLASS on MDC	MDC Customer Originated Trace Feature key Access
MDC00004	MDC CLASS on MDC	MDC MDC Class
MDC00004	MDC CLASS on MDC	MDC CLASS on MBS
MDC00004	MDC CLASS on MDC/MVP II	MDC CLASS on MDC/MVP II
MDC00004	MDC CLASS on MDC	MDC CLASS Name-MADN
MDC00004	MDC CLASS on MDC	MDC SCWID/DSCWID
MDC00004	MDC CLASS on MDC	MDC Teen Service
MDC00024	MDC TCAP name Delivery	MDC TCAP Name Del-MBG/MDC
NI000008	NI0 NI-1 BRI	NI0 CLASS on ISDN
RES00002	RES Advd Cstm Calling	RES SLE/ACBAR TCAP Query Disable
RES00003	RES Disp Funct & Prvcy	Calling No. Delivery Blocking Override
RES00003	RES Disp Funct & Prvcy	RES Calling Num Dsply
RES00003	RES Disp Funct & Prvcy	RES Calling Num Del Blk
RES00003	RES Disp Funct & Prvcy	RES Call Waiting Display
RES00003	RES Disp Funct & Prvcy	RES Call Wtg Delux (TR)

Functional group number	Functional group name	Functionality name
RES00003	RES Disp Funct & Prvcy	RES CMR OMs
RES00003	RES Disp Funct	RES CNAMD Interwork (TCAPNM) Local Lookup
RES00003	RES Disp Funct & Prvcy	RES Dialable Num Del Blk
RES00003	RES Disp Funct & Prvcy	RES Call Nm Disp SW/TCAP
RES00003	RES Disp Funct & Prvcy	RES Visual Msg. Waiting
RES00003	RES Disp Funct & Prvcy	RES VSLE & Call Logging
RES00003	RES Disp Funct & prvcy	RES Anonym. Caller Rej.
RES00003	RES Disp Funct & prvcy	RES Calling Na Del Blkng
RES00003	RES Disp Funct & prvcy	Single USOC for DSCWID & CFDA
RES00005	RES Non-Disp Serv.	RES AR Limited to 1
RES00005	RES Non-Display Services	RES Auto Callback
RES00005	RES Non-Disp Serv.	RES Cust Tracing Enh
RES00005	RES Non-Display Services	RES Dist Ring Call Wtg
RES00005	RES Non-Display Services	RES Select Call Accept
RES00005	RES Non-Display Services	RES Selective Call Fwd.
RES00005	RES Non-Display Services	RES Selective Call Rej.
RES00005	RES Non-Display Services	RES Customer Tracing
RES00005	RES Non-Display Services	RES Auto Recall
RES00006	RES Service Enablers	QCUST Command Enhancements
RES00006	RES Service Enablers	RES Enablers-RES Base
RES00006	RES Service Enablers	RES Enablers-CLASS LIOD
RES00006	RES Service Enablers	RES Enablers-Enh RES Svc
RES00006	RES Service Enablers	RES Enablers-Scr Lst Edit
RES00006	RES Service Enablers	RES Enablers-Prot (TR)
RES00007	RES Signaling Routing OAM	RES CLASS NPA Split
RES001000	RES CNDBO (nodal)	RES CNDBO (nodal)
RES00101	RES CNDBO (network)	RES CNDBO (network)

### MSL SMDI option

"MSL SMDI option" (page 47) lists functionality for MSL SMDI option.

#### MSL SMDI option

<b>Functionality name</b>	MSL SMDI option
<b>Functionality group name</b>	MSL SMDI OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL SMDI option" (page 47).
<b>Functionality description</b>	You must purchase the following hardware for CLASS features: <ul style="list-style-type: none"> <li>• Voice mail systems interface to the Meridian SL-100 through an Input/Output Controller (IOC), the Enhanced High Speed Multi-Protocol Controller (NT1X89BB) or NTFX30AA Input Output Module.</li> </ul>
<b>Right-to-use required</b>	Right-to-use is granted with the purchase of SE06 release or higher.
<b>Master Tracking Code</b>	MSL00108
<b>Order code</b>	00033488

#### Functionality included with the MSL SMDI option

Functional group number	Functional group name	Functionality name
RES00004	RES I/F Functionality	RES Simpl Mess Desk I/F
RES00004	RES I/F Functionality	RES High Speed SMDI
RES00004	RES I/F Functionality	SMDI ID Override

### MSL ACD option

"MSL ACD option" (page 47) lists functionality for MSL ACD option.

#### MSL ACD option

<b>Functionality name</b>	MSL ACD option
<b>Functionality group</b>	MSL ACD OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL ACD option" (page 48).
<b>Functionality description</b>	The following ACD Base, Networking and Capacity software features are available: <ul style="list-style-type: none"> <li>- ACD00101—ACD Networking—ACD Agent Expansion 29,999</li> <li>- ACD00109—ACD Networking—ACD Agent Expansion 99,999</li> </ul>

<b>Right-to-use required</b>	Right-to-use is granted if feature package NTX407AB was purchased prior to MSL03. Extensions are subject to a per-agent charge.
<b>Master Tracking Code</b>	MSL00109
<b>Order code</b>	00033994

#### Functionality included with the MSL ACD option

Functional group number	Functional group name	Functionality name
ACD00001	ACD Base	ACD MIS
ACD00001	ACD Base	ACD CP Control
ACD00001	ACD Base	ACD Basic
ACD00001	ACD Base	ACD Enhanced
ACD00001	ACD Base	ACD Load Mgmt
ACD00001	ACD Base	ACD on 2500 Sets
ACD00004	ACD Networking	ACD Supergroup
ACD00004	ADC Networking	ACD Network ACD on SS7
ACD00004	ACD Networking	ACD Network ACD on PRI
ACD00101	ACD Networking	ACD Agent Expansion 29,999
ACD00109	ACD Networking	ACD Agent Expansion 99,999

#### MSL Enhanced SMA option

"MSL Enhanced SMA option" (page 48) lists functionality for MSL Enhanced SMA option.

#### MSL Enhanced SMA option

<b>Functionality name</b>	MSL Enhanced SMA option
<b>Functionality group</b>	MSL Enhanced SMA OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL Enhanced SMA option" (page 49).
<b>Functionality description</b>	The customer must purchase the following hardware for this option: <ul style="list-style-type: none"> <li>• CMVI Cabinet or MVIE frame and Associated Pack Fill</li> </ul>
<b>Right-to-use required</b>	Right-to-use is granted with the purchase of the SE06 release or higher.

<b>Master Tracking Code</b>	MSL00110
<b>Order code</b>	00036464

#### Functionality included with the MSL Enhanced SMA option

Functional group number	Functional group name	Functionality name
SMA00001	SMA TR303 I/F	SMA TR303 MVI-28
SMA00002	SMA TR303 I/F	MBS/TR303 ACCESS
SMA00010	SMA TR303 I/F	RDT Refresh
SMA00012	SMA TR303 I/F	ESMA with ICB

#### MSL ICM option

"MSL ICM option" (page 49) lists functionality for MSL ICM option.

#### MSL ICM option

<b>Functionality name</b>	MSL ICM option
<b>Functionality group</b>	MSL ICM OPT <b>Note:</b> This option includes the options in "Functionality included with the MSL ICM option" (page 49).
<b>Functionality description</b>	Nortel Intelligent Call Management (ICM) is an enhanced version of Meridian CompuCALL that allows organizations with a Meridian SL-100/CS 2100 to offer leading-edge Computer Telephony Integration (CTI) solutions to end users over Ethernet TCP/IP links.
<b>Right-to-use required</b>	Right-to-use is granted if this option was previously purchased. Extensions are subject to a per-Link and/or a per-Agent charge.
<b>Master Tracking Code</b>	MSL00119
<b>Order code</b>	00045497 and 00045498

#### Functionality included with the MSL ICM option

Functional group number	Functional group name	Functionality name
ICM00001	ICM Call Manager I/F	ICM Ethernet TCP/IP I/F
ICM00002	ICM Call Manager I/F	ICM Increased ACE Groups / Session
ICM00003	ICM Call Manager I/F	ICM Originating Inbound DN
ICM00010	ICM Call Center Server	ICM DMS-Server Int
ICM00013	ICM Network ICM	ICM Network ICM
ICM00014	ICM ICM PRI Networking	ICM PRI Networking

Functional group number	Functional group name	Functionality name
ICM00020	ICM Call Queue Management	ICM Call Treatments
ICM00021	ICM Call Queue Management	ICM Give Multi RAN
ICM00021	ICM Call Queue Management	ICM Selective Queueing
ICM00050	ICM Enhanced ICCM Func	ICM 3WC Status Reporting
ICM00050	ICM Enhanced ICCM Func	ICM CONFIG CTRL 1
ICM00050	ICM Enhanced ICCM Func	ICM ECM STATUS QUERY
ICM00050	ICM Enhanced ICCM Func	ICM Emerg Key Enhs
ICM00050	ICM Enhanced ICCM Func	ICM ICM MADN Support
ICM00050	ICM Enhanced ICCM Func	ICM ICM TAPI Extensions
ICM00050	ICM Enhanced ICCM Func	ICM LINE OF BUSINESS
ICM00050	ICM Enhanced ICCM Func	ICM Load Management Enhs
ICM00050	ICM Enhanced ICCM Func	ICM MDC RES Call Queuing
ICM00050	ICM Enhanced ICCM Func	ICM Message Wait Indicator
ICM00050	ECM Enhanced ICCM Func	ICM Variable Wrapup

### MSL IP Client option

"MSL IP Client option" (page 50) lists functionality for MSL IP Client option.

#### MSL IP Client option

<b>Functionality name</b>	MSL IP Client option
<b>Functionality group</b>	MSL IP Client OPT
<b>Functionality description</b>	<p>The customer must purchase the following hardware for the MSL IP Line option and the MSL IP Client option:</p> <ul style="list-style-type: none"> <li>• IP ready LTCI</li> <li>• NT7X07AA IP Gateway card</li> <li>• Gatekeeper</li> <li>• Terminal Proxy Server</li> <li>• IP Client device</li> </ul>
<b>Right-to-use required</b>	Right-to-use is granted if this option was previously purchased. Extensions are subject to a per-link and/or a per-agent charge.
<b>Master Tracking Code</b>	MSL00126

<b>Order code</b>	00045978
<b>Increment</b>	Per link or per agent

### MSL IP Line option

"MSL IP Line option" (page 51) lists functionality for MSL IP Line option.

#### MSL IP Line option

<b>Functionality name</b>	MSL IP Line option
<b>Functionality group</b>	<b>Note:</b> This option includes the options in "Functionality included with the MSL IP Client option and MSL IP Line option" (page 51).
<b>Functionality description</b>	The customer must purchase the following hardware for the MSL IP Line option and the MSL IP Client option: <ul style="list-style-type: none"> <li>• IP ready LTCI</li> <li>• NT7X07AA IP Gateway card</li> <li>• Gatekeeper</li> <li>• Terminal Proxy Server</li> <li>• IP Client device</li> </ul>
<b>Right-to-use required</b>	Right-to-use is granted if this option was previously purchased. Extensions are subject to a per gateway charge.
<b>Master Tracking Code</b>	MSL00127
<b>Order code</b>	00045979
<b>Increment</b>	Per gateway

#### Functionality included with the MSL IP Client option and MSL IP Line option

Functional group number	Functional group name	Functionality name
CIP00001	CIP Centrex VoIP	CIP CM2XPM Development CIP Centrex MBS VoIP CIP Centrex VoIP Basic CIP Enhancements
MDC00058	MDC-MDC Minimum	MDC Line Capacity Inc
MSL00126	MSL IP Client Opt	MSL IP Client Opt
MSL00127	MSL IP Line Opt	MSL IP Line Opt

**SIP Trunk ISUP option**

"SIP Trunk ISUP option" (page 52) lists functionality for SIP Trunk ISUP option.

**SIP Trunk ISUP option**

<b>Functionality name</b>	SIP Trunk ISUP option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This is the first release of RFC 3261 compliant SIP on the CS 2100. The capabilities consist of SIP trunkability to support IBNT2 services over an ISUP based interface. The SIP trunking interface will only interoperate between multiple CS 2100s and between CS 2100, MCS 5100/5200 and the telephone operating companies
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00139
<b>Order code</b>	MSL00169

**IPCM DSN Enabler option**

"IPCM DSN Enabler option" (page 52) lists functionality for IPCM DSN Enabler option.

**IPCM DSN Enabler option**

<b>Functionality name</b>	IPCM DSN Enabler option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This option allows delivery of DSN features available on the LCM/LME onto the IP terminals on the IPCM gateway. The IPCM must support current DSN features. Support is provided on 5385 Blade IPCM and 5310 Chassis IPCM products.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSLD1000
<b>Order code</b>	MSLD0103

**Media Gateway 9000 DSN Enabler option**

"MG 9000 DSN Enabler option" (page 52) lists functionality for Media Gateway 9000 (MG 9000) DSN Enabler option.

**MG 9000 DSN Enabler option**

<b>Functionality name</b>	MG 9000 DSN Enabler option
<b>Functionality group</b>	MSLD Base

<b>Functionality description</b>	This option allows delivery of DSN features available on the LCM/LME onto the MG 9000 terminals, ABI link and peripherals that are supported.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSLD1000
<b>Order code</b>	MSLD0104

### Media Gateway 3500 option

"MG 9000 DSN Enabler option" (page 52) lists functionality for Media Gateway 3500 (MG 3500) option.

#### MG 3500 option

<b>Functionality name</b>	MG 3500 option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	The MG 3500 Voice over IP trunk gateway connects the Public Switched Telephone Network or Private Branch Exchange trunks to a packet network. It supports Primary Rate Interface (does not support Signaling System 7 and Channel Associated Signaling).
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00139
<b>Order code</b>	MSL00171

### Media Gateway 9000 option

"MG 9000 DSN Enabler option" (page 52) lists functionality for Media Gateway 9000 (MG 9000) option.

#### MG 9000 option

<b>Functionality name</b>	MG 9000 option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	The Nortel Media Gateway 9000 (MG 9000) is a multi-service media gateway that enables large enterprises to use a single access platform for a wide range of services, combining voice and data services to provide capability to support POTS, P-phone services, connecting subscriber interfaces directly to packet backbone networks.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00139
<b>Order code</b>	MSL00172

**MLPP ESA on MG 9000**

"MLPP ESA on MG 9000" (page 54) lists functionality for MLPP Emergency Stand Alone (ESA) on MG 9000 option.

**MLPP ESA on MG 9000**

<b>Functionality name</b>	MLPP ESA on MG 9000
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This feature provides Multi-Level Precedence and Preemption (MLPP) on the MG 9000. The MLPP feature provides a user with the ability to preempt a call in progress. If the originator dials a precedence level that is higher than the call which the terminator is involved, the call may be preempted. This feature is typically used in emergency situations and not during normal day to day phone calls.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00175
<b>Order code</b>	MSL00175

**MG 9000 ESA Call Diver**

"MG 9000 ESA Call Diver" (page 54) lists functionality for MG 9000 ESA Call Diver.

**MG 9000 ESA Call Diver**

<b>Functionality name</b>	MG 9000 ESA Call Diver
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	This feature provides the ability for busy or unanswered calls to be forwarded to another LEN in ESA Mode. This feature also supports Precedence call forwarding according to the 2003 GSCR.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00176
<b>Order code</b>	MSL00176

**MLPP on MADN option**

"MLPP on MADN option" (page 54) lists functionality for the MLPP on Multiple Appearance Directory Numbers (MADN) option.

**MLPP on MADN option**

<b>Functionality name</b>	MLPP on MADN option
<b>Functionality group</b>	MSL Succession Enterprise

<b>Functionality description</b>	This feature allows MADN Single Call Arrangement (SCA) and MADN Multi Call Arrangement (MCA) to be compatible with Autovon (AVT) and Preemptable (PREMTBL) features on Defense Switched Networks (DSN). AVT, PREMTBL, and MADN provide the ability to assign Autovon terminations and Preemption option to a MADN line.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSLD0105
<b>Order code</b>	MSLD0105

### Redundant ICM Link option

"Redundant ICM Link option" (page 55) lists functionality for the Redundant Intelligent Call Management (ICM) Link option.

#### Redundant ICM Link option

<b>Functionality name</b>	Redundant ICM Link option
<b>Functionality group</b>	MSL Succession Enterprise
<b>Functionality description</b>	The Redundant ICM Link option allows two TCP/IP connections per session.
<b>Right-to-use required</b>	Yes
<b>Master Tracking Code</b>	MSL00174
<b>Order code</b>	MSL00174



# Remote Gateway

## Introduction

Nortel Remote Gateway applications enable enterprise telecommuters to connect to their workplace from remote locations.

**Note:** For information about Meridian SL-100 remote access hardware, refer to the chapter "Meridian SL-100 remote units" in the *Communication Server 2100 Product Guide* (555-4001-806).

This chapter contains information about the following Nortel Remote Gateway applications for the Meridian SL-100/Communication Server 2100:

- "Nortel Remote Gateway 9150" (page 57)
- "Nortel Remote Gateway 9115" (page 59)

## Nortel Remote Gateway 9150

"Nortel Remote Gateway 9150 feature information" (page 57) lists feature information for Nortel Remote Office 9150.

### Nortel Remote Gateway 9150 feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL12 or higher, Enhanced XPEC Controller Card (NT7D07BA), IPE09AA IPE peripheral software, XPM 13 baseline</p> <p><b>Communication Server 2100:</b> Release SE06 or higher, Enhanced XPEC Controller Card (NT7D07BA), IPE09AA IPE peripheral software, XPM 13 baseline</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel Remote Gateway 9150 extends cost-effective, high-quality voice features to small remote gateways with up to 32 users, by leveraging a host Meridian SL-100, or Communication Server 2100.

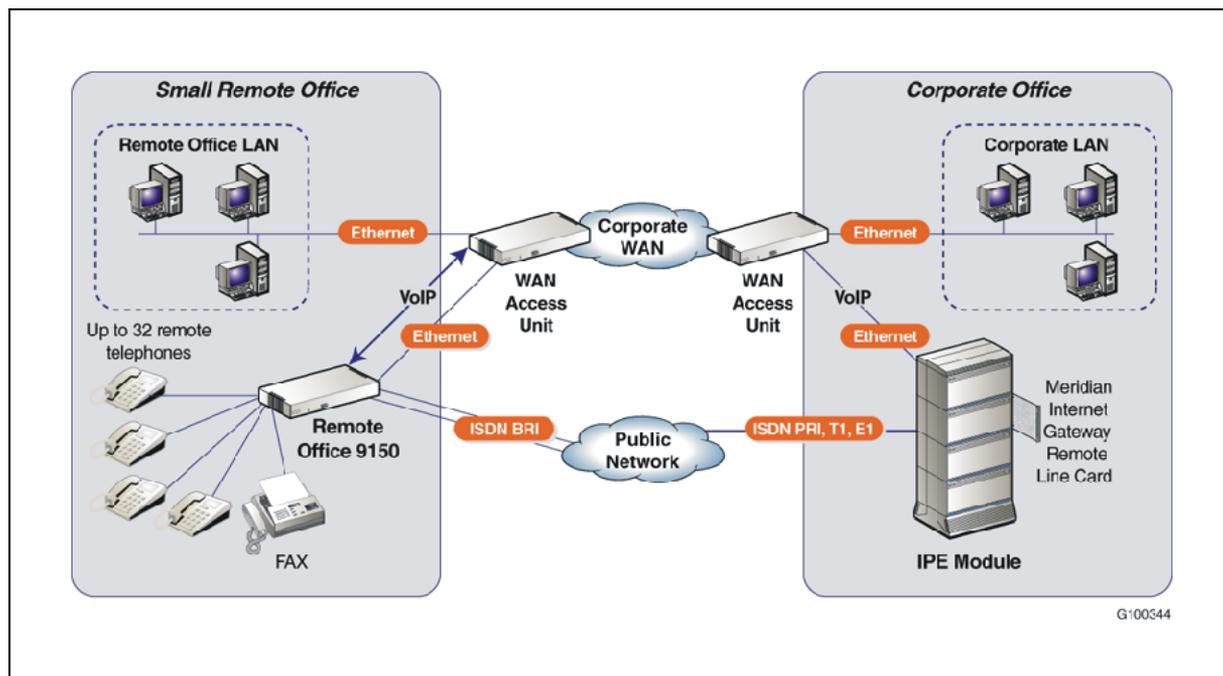
Nortel Remote Gateway 9150 is able to use packet or circuit-switched networks as the primary route for voice connectivity to the Meridian SL-100 or Communication Server 2100, depending on customer requirements and preferences.

Users seamlessly share the high-value applications such as CallPilot, Meridian Mail, and Symposium Call Center Server, allowing users at even the smallest remote offices to receive state-of-the-art features and functionality.

The solution is highly flexible and can use a customer's IP WAN and/or ISDN BRI connections to support voice connectivity between a Remote Gateway site and the main Meridian SL-100, or Communication Server 2100.

"Remote Gateway 9150 network configuration" (page 58) shows an example of a Remote Gateway 9150 network configuration.

#### Remote Gateway 9150 network configuration



#### Remote Gateway 9150 features and benefits

Nortel Remote Gateway 9150 offers the following features and benefits:

- Actively monitors key QoS parameters on VoIP sessions.

- Dynamically switches calls from packet networks to circuit-switched networks if voice quality degrades - Guaranteed Voice Quality and reliability. Teleworkers can benefit from a VoIP solution and the reliability of a dial-up analog line.
- Seamlessly supports distributed call center agents to a small office from a single call center server.
- BRI trunk connections support local inbound and outbound calls providing a "local presence" and toll savings.
- Fully survivable if remote unit loses contact with Meridian SL-100/Communication Server 2100.
- Supports multiple codecs to maximize WAN bandwidth.
- G.729 (8 Kilobits per second [kb/s]) encoding supports up to eight simultaneous calls back to the Meridian SL-100 on a single ISDN B-channel.
- Extension-to-extension calls are locally switched at the remote site.

### Remote Gateway 9150 document references

"[Remote Gateway 9150 document references](#)" (page 59) lists documentation references for Remote Office 9150.

#### Remote Gateway 9150 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Remote Office and R_C Release Notes</i>	P0988417
<i>Reach Line Card</i>	555-8421-210
<i>Remote Office 9150 Installation and Administration Guide</i>	555-8421-215
<i>Remote Office Network Engineering Guidelines</i>	555-8421-103

### Nortel Remote Gateway 9115

"[Nortel Remote Gateway 9115 feature information](#)" (page 60) lists feature information for Nortel Remote Gateway 9115.

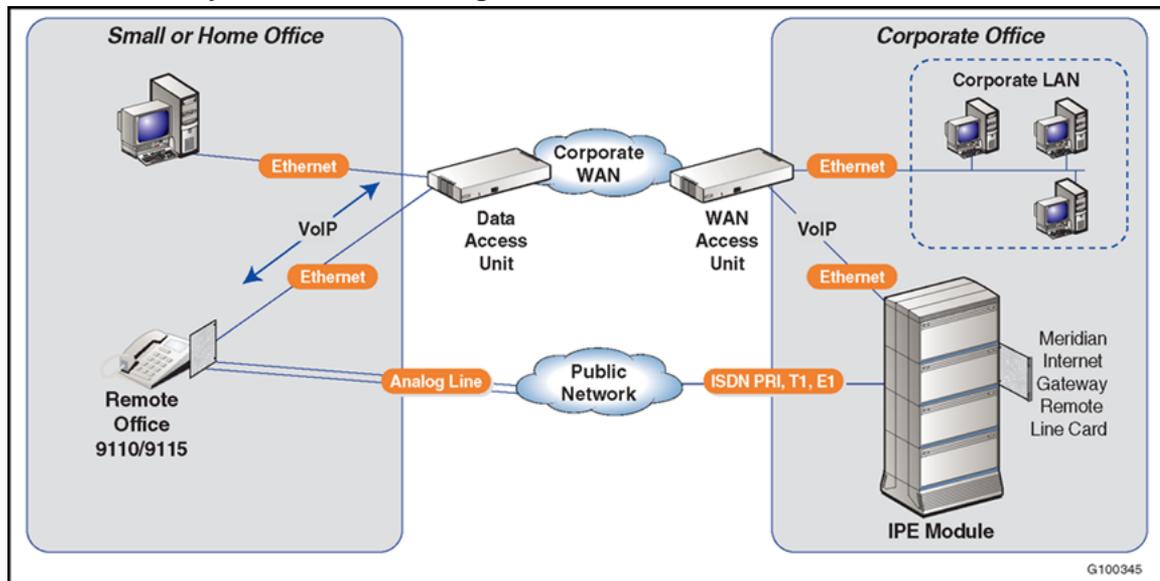
**Nortel Remote Gateway 9115 feature information**

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL12 or higher, enhanced XPEC Controller Card (NT7D07BA), IPE09AA IPE peripheral software, XPM 13 baseline</p> <p><b>Communication Server 2100:</b> Release SE06 or higher, enhanced XPEC Controller Card (NT7D07BA), IPE09AA IPE peripheral software, XPM 13 baseline</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel Gateway 9115 (external unit) provides full-featured voice communications between telecommuters and their corporate site, while maintaining voice quality and reliability, using Voice over IP (VoIP) technology. The high-speed data technologies (xDSL and Cable Modem), as well as the established ISDN services, can be leveraged to connect the corporate host site to the remote location for both voice and data.

Remote Gateway 9115 network configuration illustrates an example of Nortel Remote Gateway 9115 in a network configuration.

**Remote Gateway 9115 network configuration**



## Remote Gateway 9115 features and benefits

Remote Office 9115 offer the following features and benefits:

- Transparent feature and application access - Access to the full range of features and applications available on Meridian SL-100, including CallPilot Unified Messaging and Optivity Telephony Manager.
- Integrated host solution - No external equipment is required at the host site. The Meridian Internet Gateway Reach Line Card (RLC) is an Intelligent Peripheral Equipment (IPE) line card which installs in an IPE. As teleworking deployments grow, install additional line cards for more ports.
- Supports all remote solutions - The RLC supports a mix of products including models 9115 and 9150 unit. Spare RLC ports can be used to support locally attached digital telephones until needed for remote users.
- Flexible access options - The Remote Gateway 9115 can extend the digital telephone over an IP network and the dial-up circuit-switched network using an analog telephone line. It supports traditional analog line, broadband IP connection, or both.
- Quality of Service (QoS) switching - When the digital telephone connection is extended using Voice over IP, the IP network QoS is monitored. If QoS falls below preprogrammed acceptable thresholds, the 9115 units establish a connection over the analog line interface to the PBX Meridian Internet Gateway Reach Line Card. The call in progress will then be dynamically and transparently moved from the IP network to the analog line to ensure voice quality. Teleworkers can benefit from a VoIP solution and the reliability of a dial-up analog line.
- Simultaneous local calling - The primary function of the Remote Gateway 9115 solution is to extend the digital telephone set from the PBX to the remote user location. The remote telephone has access to the PBX trunks to make and receive calls. When using the IP network to connect between sites, the analog line is available to make or receive local calls while maintaining PBX connectivity over the IP network. This allows calls to be made or received within the local community without the PBX, which may be located in a distant city.
- Multiple users per port - The Meridian Internet Gateway Reach Line Card supports two methods of sharing ports between users. The multi-user ports allow up to eight remote teleworkers to access a specific telephone configuration (RLC port) on a shared basis. Examples would be remote agents, on-call technical support staff, evening help desk, and so on. Any of the eight users can access the assigned line card port, but only one at a time. They could work different shifts during the day, or different days during the week. The dynamic pool ports are used

in a call center environment. Remote agents call a specific number and are assigned to an available port. The telephone configuration is not important, because the agent ID used at log-in would identify the user for routing of calls and report details.

- Full remote agent functionality - The remote agent telephone provides all call center functionality available to local agents at the PBX. Management reports and supervisor monitoring include both local and remote agents. Both first-party and third-party call control CTI applications are supported with Remote Gateway 9115. CTI applications are able to monitor and intelligently control incoming and outgoing calls to the remote telephone set.
- Secure - The remote gateway is compatible with many different security models and can operate over a Nortel Contivity 100 for fully encrypted operation.
- Easy to Install and Support - The gateway requires no end-user retraining and follows similar programming of remote phones as local headquarters phones.
- E911 Compatibility - The remote gateway correctly routes E911 calls to the local analog line for fast local response.
- Scalable - Multiple cards in a system can scale up to large installations. The Meridian Internet Gateway Reach Line Card is available in 16- and 32-port versions, with each port supporting one user.

### Remote Gateway 9115 document references

"Remote Gateway 9115 document references" (page 62) lists documentation references for Nortel Remote Office 9115.

#### Remote Gateway 9115 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Release Notes for Remote Office and RLC</i>	555-8421-102
<i>Reach Line Card Installation and Administration Guide</i>	555-8421-210
<i>Remote Office 911x Series Installation and Administration Guide</i>	555-8421-220
<i>Remote Office Network Engineering Guidelines</i>	555-8421-103
<i>Remote Office Product CD-ROM</i> - contains firmware and software as well as PDF documentation	NTDR81AG

# Voice messaging

## Introduction

Nortel Voice Messaging enable enterprise customers to easily integrate voicemail, e-mail, and fax services, and access these voice messaging services from any location by phone or web-enabled PC.

This chapter contains information about the following Nortel Voice Messaging products:

- "CallPilot 4.0" (page 63)
- "Network Message Service (NMS)" (page 69)

## CallPilot 4.0

"Nortel CallPilot 4.0 feature information" (page 63) lists feature information for CallPilot 4.0.

### Nortel CallPilot 4.0 feature information

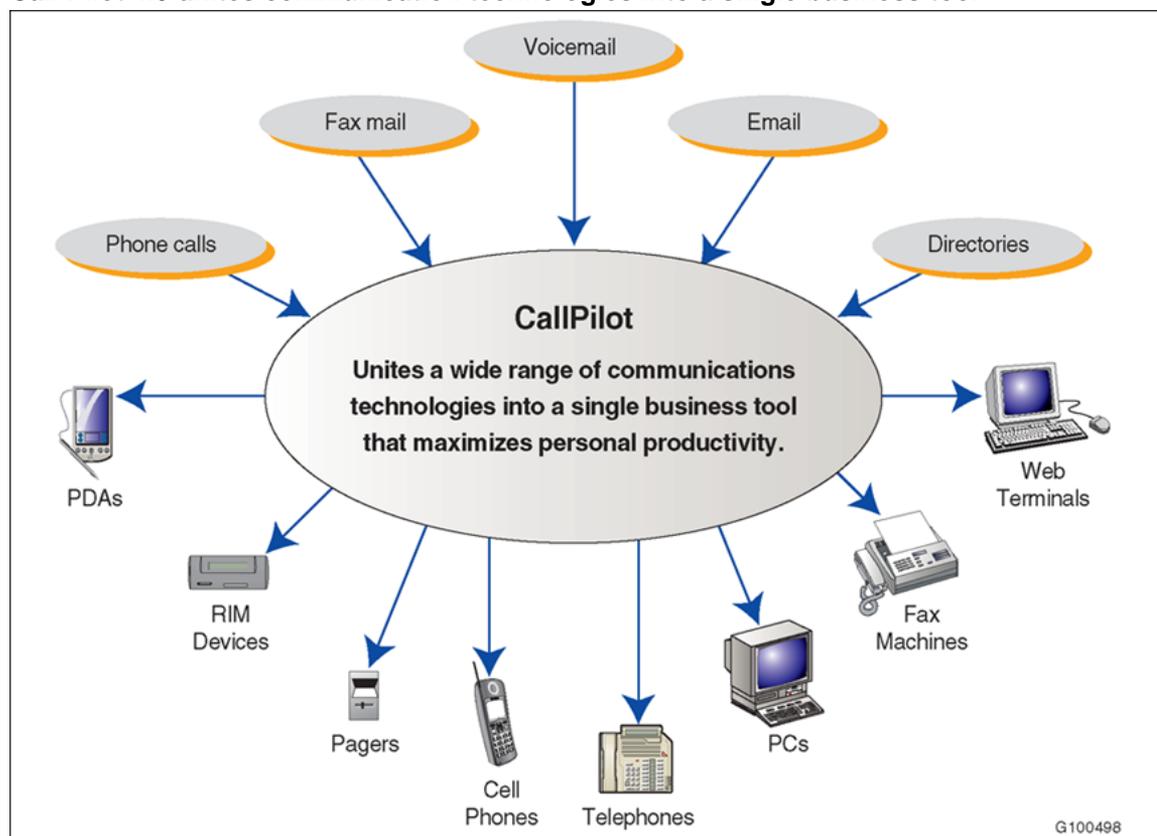
Platform compatibility	Meridian SL-100 and Communication Server 2100
Platform requirements	<b>Meridian SL-100:</b> Release MSL10 or higher <b>Communication Server 2100:</b> Release SE06 or higher CallPilot connection to switch requires a Simplified Message Desk Interface (SMDI) link and T1 connection (Line Side T1 cards in the Meridian SL-100).
Ordering information	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Nortel CallPilot 4.0 is now available for the Meridian SL-100 and Communication Server 2100. Software updates include direct upgrades from CallPilot 2.5 SU02.

Nortel CallPilot 4.0 is the leading unified messaging application in the market today. It combines voicemail, e-mail, and fax messages into a single mailbox that users can access from any location by phone or a PC using a web browser GUI.

"Call Pilot 4.0 unites communication technologies into a single business tool" (page 64) illustrates how Nortel CallPilot 4.0 unites a wide range of business technologies into a single business tool that maximizes productivity.

#### Call Pilot 4.0 unites communication technologies into a single business tool



For Meridian SL-100, CallPilot is available in model 1002rp, a PC server, rackmount configuration.

The CallPilot server connects to the Meridian SL-100/Communication Server 2100, the administrative PC, and, the customer LAN (CLAN) (connection to the CLAN only where Desktop Messaging is enabled).

For CallPilot, the Meridian SL-100 or Communication Server 2100

- uses Line Side T1 cards or channel banks to send the voice and data signals to the CallPilot server
- provides Simplified Message Desk Interface (SMDI) connectivity to the CallPilot server using either an IOC shelf with an NT1X89 card or an

IOM (NTFX30). CallPilot performs call control signaling to the Meridian SL-100/Communication Server 2100 using the SMDI signaling link. If colocated within 15.2 meters (50 feet) of the Meridian SL-100, a serial cable can be used for the SMDI link. If more than 15.2 meters (50 feet) apart, a dedicated modem link is required.

All T1 ports connect to the CallPilot server at the Dialogic D/480JCT-2T1 card. One or more D/480JCT-2T1 cards reside in the CallPilot server. Each D/480JCT-2T1 card supports up to two T1 links to the switch. Each T1 link supports up to 24 channels. Calls from the switch arrive at the D/480JCT-2T1 card and are passed on to the MPB cards for call processing. DSPs are provided on the MPB96 card in the form of 12 integrated MPCs. The MPCs process the voice and data signals that pass through the D/480JCT-2T1 cards. Each CallPilot server has at least one MPB96 card. The CTbus connects the D/480JCT-2T1 card to the MPB96 card.

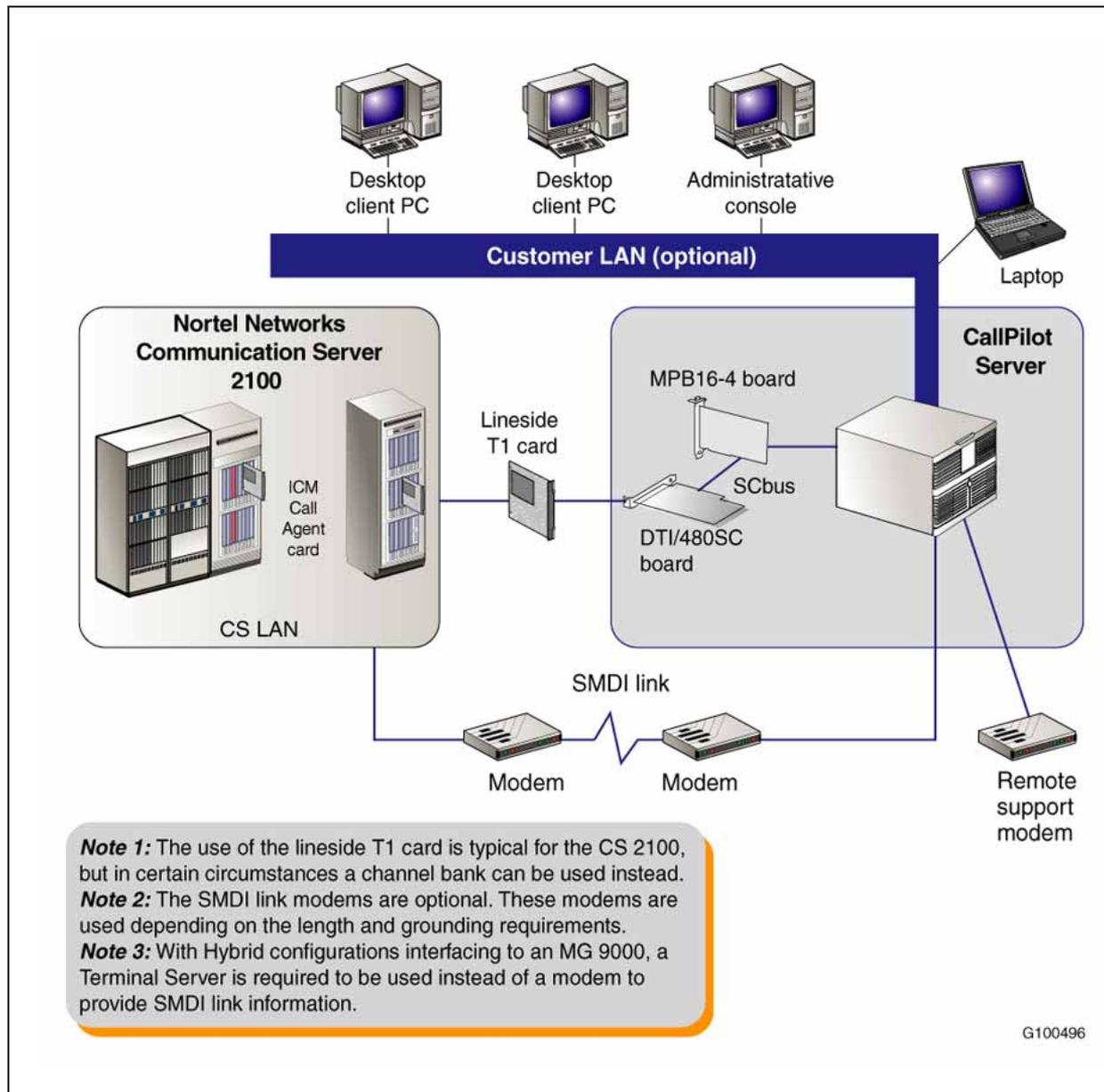
CallPilot client software is installed on an Administrative PC running Windows 98/NT Workstation/2000 Professional/XP Professional. The administrative PC provides administrative ability for the switch, server, and CallPilot software, access to CallPilot operational reports, and the ability to develop multimedia applications with both voice and fax functionality. You can connect an administrative PC directly to the server, remotely through a modem, or to the customer LAN.

The CallPilot server connects to a modem to allow remote access by a support PC for installation, maintenance and diagnostics.

You can install desktop client messaging software on client PCs to enable mailbox users to receive phone, fax and voicemail on their PCs.

["CallPilot 4.0 integration with Communication Server 2100" \(page 66\)](#) shows an example of a CallPilot rack-mount server integrated with the Communication Server 2100.

### CallPilot 4.0 integration with Communication Server 2100



### CallPilot 4.0 features and benefits

CallPilot 4.0 contains the following features and benefits:

- Upgrades to a new operating system
  - The upgrade to 4.0 includes upgrade from Windows NT to Windows 2003.
- Software Upgrades
  - Call Pilot upgrades from 2.5 SU02

- Platform support
  - 1002rp with Meridian SL-100 systems
- Channel capacity increase
  - CallPilot 4.0 includes support for 192 channels. CallPilot 4.0 enables a configuration with two MPB96 and four T1 cards for 192 channels and 192 MPUs or an additional MPB96 card can be added for 192 channels and 288 MPUs.
  - CallPilot 4.0 on the 1002rp will support 14,000 users.
- Directory Synchronization (LDAP) for Subscriber Management
  - Provides subscriber synchronization from an organization's primary directory with CallPilot (reduces data entry requirements and increases data accuracy)
  - Schedules synchronization with Microsoft Active Directory (support for additional LDAP directory servers)
  - Defines synchronization parameters through CallPilot Manager
  - Supports the following tasks:
    - adding an Active directory to the CallPilot server
    - removing an Active directory subscriber from the CallPilot server
    - linking an active directory subscriber with a CallPilot mailbox for future automated synchronization
    - linking subscribers and creating CallPilot mailboxes in batch mode
    - providing transaction logs and synchronization reports
- New Message Waiting Enhancements
  - Increase in the number of Multiple Message Waiting Indications (MWI) **DN targets** from one to eight per mailbox
  - MWI will light each DN assigned to a specific mailbox (useful when multiple operators are monitoring a specific mailbox)
- Message Forwarding
  - Enhanced user productivity
    - access CallPilot messages from Lotus iNotes, Novell Netmail, Microsoft Outlook web access
    - enables access to CallPilot messages from the e-mail inbox (Outlook, Notes, GroupWise) using PDAs

- auto-distribution of CallPilot messages to another CallPilot mailbox or to an e-mail account
  - forward CallPilot messages to a temporary mailbox for disaster recovery or for messages received during extended absences
  - archive all voice messages in an e-mail store
- Option to forward messages to e-mail server (CallPilot, Voice and Fax/Text Messages)
  - Configuring through My CallPilot
  - Sending messages as is (.VBK) or converted to a .WAV format
  - Forwarding all messages for all users to an e-mail archive through Admin option
- Unified Messaging Enhancements for My CallPilot
  - New menu on login page (easier support for multiple CallPilot servers)
  - Support for separate IMAP, SMPT and LDAP external email servers
  - Support for Linux, Mozilla and Firefox browsers
  - CallPilot voice greetings support (add, edit, delete)
  - External e-mail server address book (LDAP) for addressing email from My CallPilot
  - Directory call support (initiate a call from any directory entry)
  - Multiple MWIs can be enabled or disabled by user.
  - Improved SSL (HTTPs) support
  - The voice block configuration is moved to CallPilot Manager (lower cost of ownership).
  - The message list view has more sorting options (greater productivity).
- Unified Messaging Enhancements for Desktop
  - Call or contact the sender of an e-mail (allows users to contact the sender of a Novell GroupWise or Lotus Notes e-mail message).
  - Call Directory (initiate a call to any person listed in the desktop client address book)
  - Launch Instant Messaging Session via Microsoft Windows messenger or Nortel Multimedia PC Client (MCS 5100) from a CallPilot or e-mail message

- Novell Personal Address Book Enhancements (lets allows GroupWise users to send CallPilot messages using the phone and fax numbers from Frequent contacts and other Novell Personal Address book)
- Administrative Enhancements
  - Administrators can install or upgrade the desktop client with system management apps such as MS SMS, that utilizes a .msi file.
  - Provides centralized control through desktop configuration policies
- Robustness and Serviceability Enhancements
  - Simplified installation and upgrade process
  - Guardrails to prevent common mistakes
  - Reduced time to troubleshoot

### CallPilot 4.0 document references

"[CallPilot 4.0 document references](#)" (page 69) lists documentation references for CallPilot 4.0.

#### CallPilot 4.0 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>T1/SMDI and CallPilot Server Configuration</i>	555-7101-224
<i>What's New Guide</i>	555-7101-901
<i>Planning and Engineering Guide</i>	555-7101-101
<i>Upgrade Guide</i>	P0607573
<i>Application Builder Guide</i>	555-7101-325
<i>Meridian Mail to CallPilot Migration Utility Guide</i>	555-7101-801

### Network Message Service (NMS)

"[Network Message Service feature information](#)" (page 70) lists feature information for Nortel Network Message Service (NMS) for the Meridian SL-100/Communication Server 2100.

**Network Message Service feature information**

Platform compatibility	Meridian SL-100 and Communication Server 2100
Platform requirements	<b>Meridian SL-100:</b> Release MSL07 or higher <b>Communication Server 2100:</b> Release SE06 or higher NMS activation requires CCS7 and SMDI Right-to-use options. NMS over PRI requires PRI and SMDI options.
Ordering information	Refer to the current Product Catalog or contact your Nortel Channel Account Manager.  For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Network Message Service (NMS) enables customers to offer message service over a wide area to a large number of subscribers economically.

The service employs the CCS7 backbone network already installed or planned for Custom Local Area Signaling Services (CLASS) and other network services.

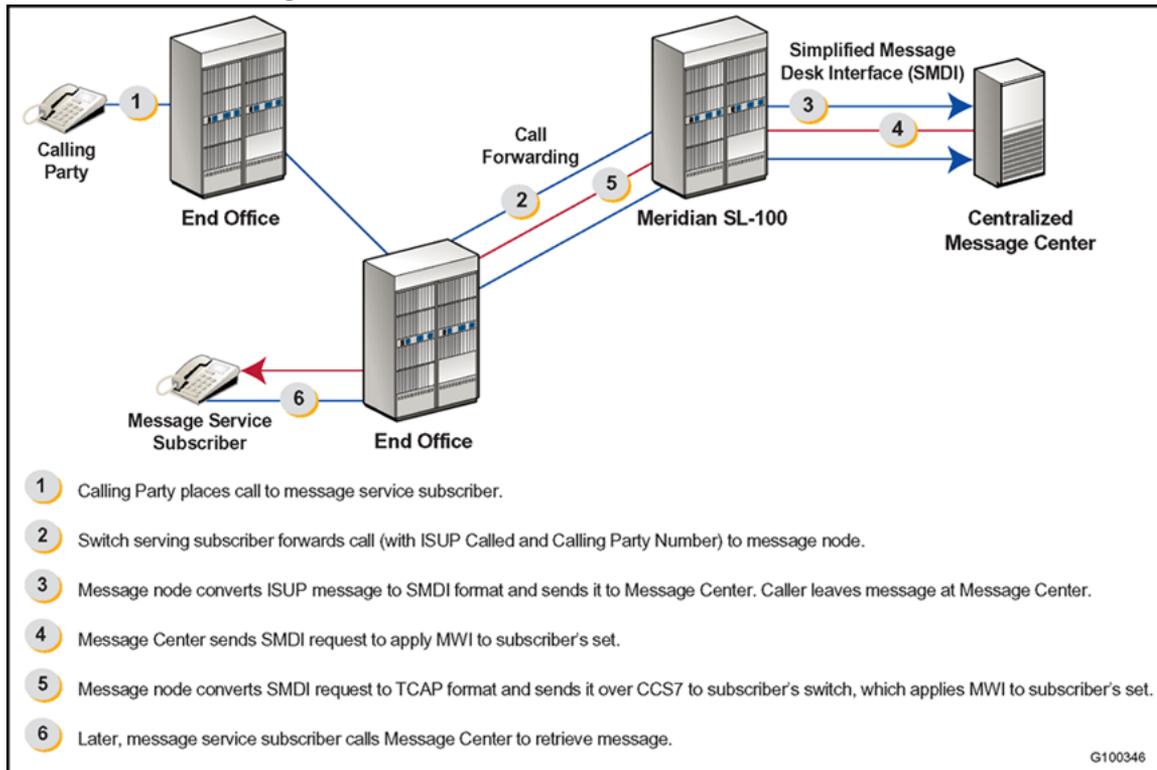
Because it is based on CCS7 and Simplified Message Desk Interface (SMDI) standards, Network Message Service works with any compliant voice-message node, switching system or message device.

NMS provides Message Waiting Indication (MWI) to users served by multiple Meridian SL-100 switches using CCS7.

"[CCS7 Network Message Service](#)" (page 71) shows how message service works in a CCS7 network. There are two components of NMS operation:

- Conversion between CCS7 Integrated Services User Part (ISUP) signaling and SMDI.
- Interworking between SMDI and Transaction Capability Application Part (TCAP) to apply MWI over CCS7 links with TCAP messaging.

## CCS7 Network Message Service



### ISUP Signaling to SMDI

When an incoming call (from inside or outside the LATA) is forwarded to the message center for a user, Call Forward Reason, Called Number and (optionally) Calling Number are sent by CCS7 ISUP messaging, converted in the message node to an SMDI format, and sent to the message center.

### SMDI Signaling to TCAP Messaging

After the message is recorded, the message center sends a message over the SMDI link to apply MWI to the subscriber's set. Software in the voice message node converts that request into a TCAP message that can be sent to other Meridian SL-100/Communication Server 2100 hosts in the CCS7 network. The TCAP message instructs the switch serving the user to apply MWI to the set.

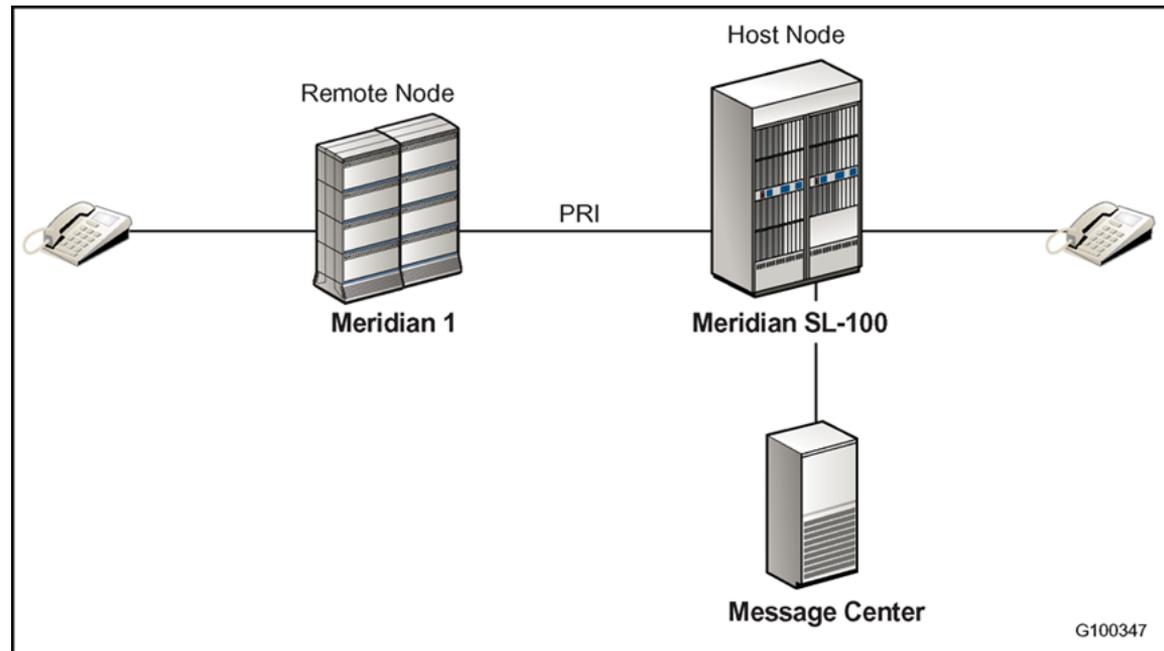
### NMS features and benefits

Network Message Service centralizes message service operation, freeing the customer from having to provision, maintain and administer SMDI interface at multiple switches. Through the wide area deployment of message service, calls can be completed with fewer call attempts, billable traffic is increased and the need for interoffice facilities is reduced.

### NMS configurations

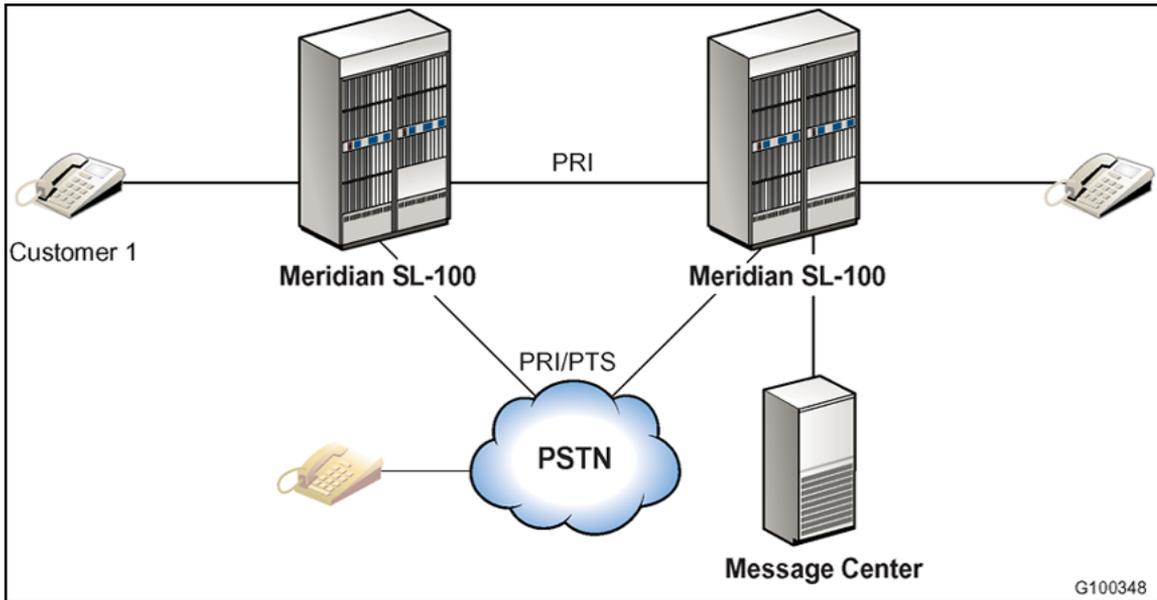
Meridian 1 to Meridian SL-100 connectivity is through PRI trunks. ["Meridian 1 connects to the Meridian SL-100 by PRI trunks"](#) (page 72) illustrates a Meridian 1 to Meridian SL-100 connection through PRI trunks.

#### Meridian 1 connects to the Meridian SL-100 by PRI trunks

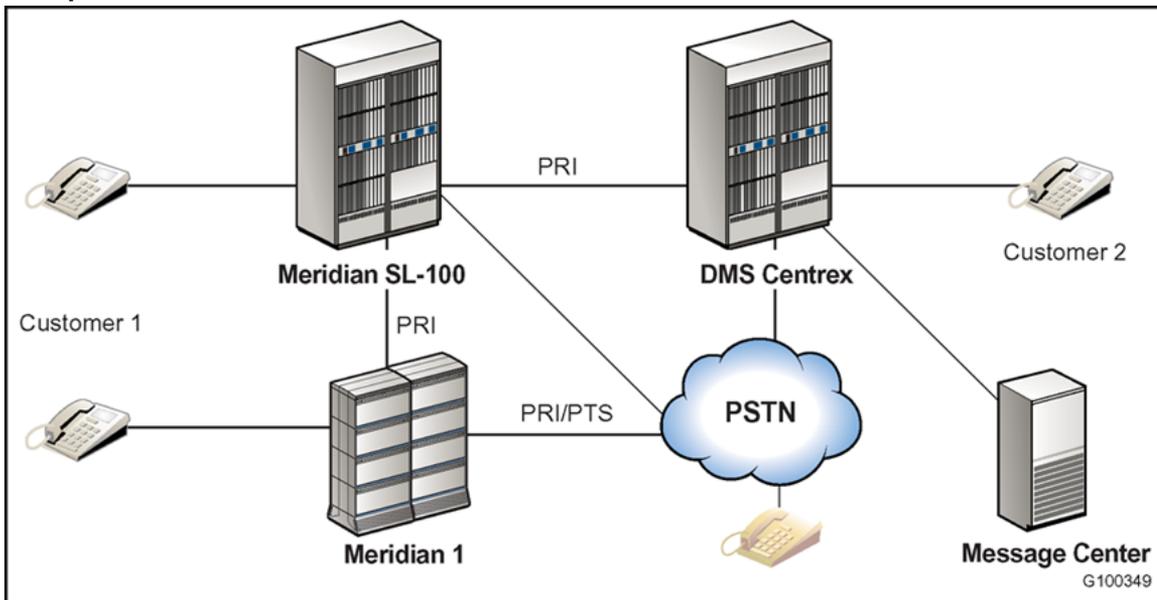


To support NMS over CCS7, Message Waiting Indication (MWI) can be passed over proprietary PRI between two Meridian SL-100s (refer to ["MWI passed over PRI that connect two Meridian SL-100s"](#) (page 73)), or a DMS-100 and a Meridian SL-100 (refer to ["MWI passed over PRI that connect a DMS-100 and a Meridian SL-100"](#) (page 73)), regardless of the location of the SMDI link.

**MWI passed over PRI that connect two Meridian SL-100s**



**MWI passed over PRI that connect a DMS-100 and a Meridian SL-100**



### Network Message Service document references

"Network Message Service document references" (page 74) lists documentation references for Network Message Service.

#### Network Message Service document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Meridian SL-100 Meridian 1 Interworking Services Guide</i>	555-4001-026

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# Conferencing and announcements

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## Introduction

Nortel Conferencing and announcements products enable customers with a Meridian SL-100/Communication Server 2100 to schedule and administer integrated conferences and announcements for their enterprise network.

This chapter contains information about the following Conferencing and Announcement products:

- "Nortel ICB Release 4.0" (page 75)

**Note:** The Universal Audio Server (UAS) and Media Server 2010 provide conferencing and announcement services for an IP softswitch. For more information, refer to the chapter "Media Servers" in the *Communication Server 2100 Product Guide* (555-4001-806).

## Nortel ICB Release 4.0

Nortel Integrated Conference Bridge Release 4 (ICB 4) is the fourth generation of Nortel conference bridge. The ICB 4 as its predecessors MICB, MICB2 and MICB 3 implements meet-me audio conference bridge. The audio conference bridge provides the capability to hold meetings and conferences from distance using phones, without moving anybody from their office. At the appointed time, each participant calls the number set for the bridge, or is called by the chairperson and is connected to the bridge.

The ICB 4 system supports various types of meetings - regular meetings with defined start and end time; permanent or "always on" bridge meetings which can be accessed at any time; emergency bridges and so on. More than one active meeting can exist simultaneously on the same card, limited only by the total ports used and by the configuration of the conference access numbers.

## New features available with ICB Release 4.0

### End-user features available with ICB Release 4.0

The following end-user features are available with ICB Release 4.0:

- **MS Outlook integration** - Outlook users can schedule an ICB conference from the Outlook GUI.
- **Meeting close second warning message** - ICB 4 adds a second and final warning to indicate that meeting will be closed in two minutes.
- **Copy a conference** - User or Super user can schedule a new conference by copying an existing conference without having to re-enter all of the detailed information.
- **Calendar for scheduling meetings** - A calendar icon is added to the "Schedule a New Conference" window. It is a more friendly way to choose a date. Clicking on the calendar icon opens a new window called "Calendar - Select Date".
- **Chairperson Control of Conferee Volume** - Lets the chairperson to control volume for individual participants using the BUI Chairperson control.
- **Current speaker indication** - This feature provides to the BUI Chairperson Control an indication which participant is the current speaker. The current speaker is indicated by a different color in the participant's row on the "participant list". Every time that the "Conference Call Manager" window is refreshed the current speaker is updated.
- **Questions and Voting display** - In a lecture meeting there is often a need to allow questions and answer or to vote on particular items. This can be managed by adding DTMF commands for conferees the results of which would displayed on the BUI Conference Control screen.
- **Ad-hoc meeting** - This feature provides the ICB users the ability to create an "ad hoc" meeting using the available card resources (ports and DNs that are not booked for other meetings). The meeting is not scheduled from the BUI or Outlook. It is created automatically by the ICB card when the user dials to the card and enters their TUI login as meeting ID and their TUI password. The user is now the chairperson of this new meeting.
- **Executive users** - This feature provides a new type of user called "Executiveuser". The Executive user can"
  - access the scheduling application for scheduling, viewing and modifying their own meetings
  - view meetings of all users

This user can schedule meetings from the BUI or Outlook.

## Administration features available with ICB Release 4.0

The following Administration features are available with ICB Release 4.0:

- **Default conference settings** - This feature allows the administrator to set some defaults of the conference parameters.
- **Outlook integration as a key coded option** - The Outlook integration feature is provided as a keycode option. So the customer can purchase not only ports, but also this feature. In the Browser User Interface (BUI), in the "Card Upgrade" window, a new field is added to support this option. The options are "ADVANCED" for advanced features and "BASIC" for basic features.

The ADVANCED features are: Outlook integration.

The BASIC features are: all other features.

- **Define Outlook users** - The administrator BUI is changed to include users access permission to the Outlook GUI. In user configuration the administrator can define the following for each Super User and Regular User:
  - Outlook Only
  - BUI Only
  - Outlook and BUI
- **Separated User and Administrator BUI Help text** - In ICB 4 the Help is separated so super user and regular user cannot see the administrator help text. This provides only the information the current user requires when looking for help.
- **Increased the capacity of users up to 500** - Card can host up to 500 BUI users. The same goes for dual ICB: each card can have up to 500 users. The Scheduling BUI server can handle up to 20 users simultaneously (the same as MICB3).
- **Billing Report enhancement** - In ICB 4 the following reports are added to the Billing report:
  - The booked and used ports for each meeting.
  - The events corresponding to the own ID that booked the meeting.
  - The department number of the user that booked the meeting. The existing Billing account is to be used for department number.

To support the Billing Report enhancements, ICB 4.0 adds the following information to the billing report:

  - **Owner ID** is an attribute of a user (up to 10 characters), defined by the administrator (as user ID for browser login). Each user has a unique ID. This field is added to all events.

- **Ports booked** is the number of ports that were booked by the user. This field is added to all Meeting End events.
- **Used ports** is the number of ports that actually were used (the high water mark for ports used). This field already was used in all Meeting End events.
- **Enlarge the recurring limit to 52 iterations** - In MICB3 the recurring is limited to 30 iterations. In ICB 4 this number is enlarged to 52.
- **Define ICB Time Zone** - Scheduling from Outlook BUI will translate the user time zone to the ICB time zone. Calculation is done automatically. ICB 4 provides a new attribute called "Time Zone" in the Installation Wizard
- **E-mail Notification** - add Toll Free Prefix - ICB 4 provides another prefix called Toll Free prefix for 800 access.
- **Define volume level default** - The volume of the speech, voice prompts and voice records heard on ICB 4 calls can be controlled. The administrator can affect the volume on the overall system. The volume is handled separately for the following options:
  - Voice Prompt Playing - prompts that announce to participant not in a conference
  - Voice recording (for example, to save participant name)
  - Participants in a conference
  - Speak direction
  - Listen direction

### **ICB release 4.0 hardware**

ICB 4 is based on a new hardware platform called Telrad Services Platform (TSP). Its interface toward the rest of the Meridian 1/ Succession 1000/Meridian SL-100 is an emulation of the Extended Digital Line Card (XDLC), so it is software transparent. The card is designed with 32 voice ports, which is supported on a Meridian SL-100 having the minimum software release of MSL09. The new ICB card is the NT5D51BC.

ICB 4 is either a single card or a pair of cards (if dual meeting is required). For dual meeting only, the primary card uses ports on the secondary card; for all other purposes (users access, scheduling) each card is an individual system. This means that:

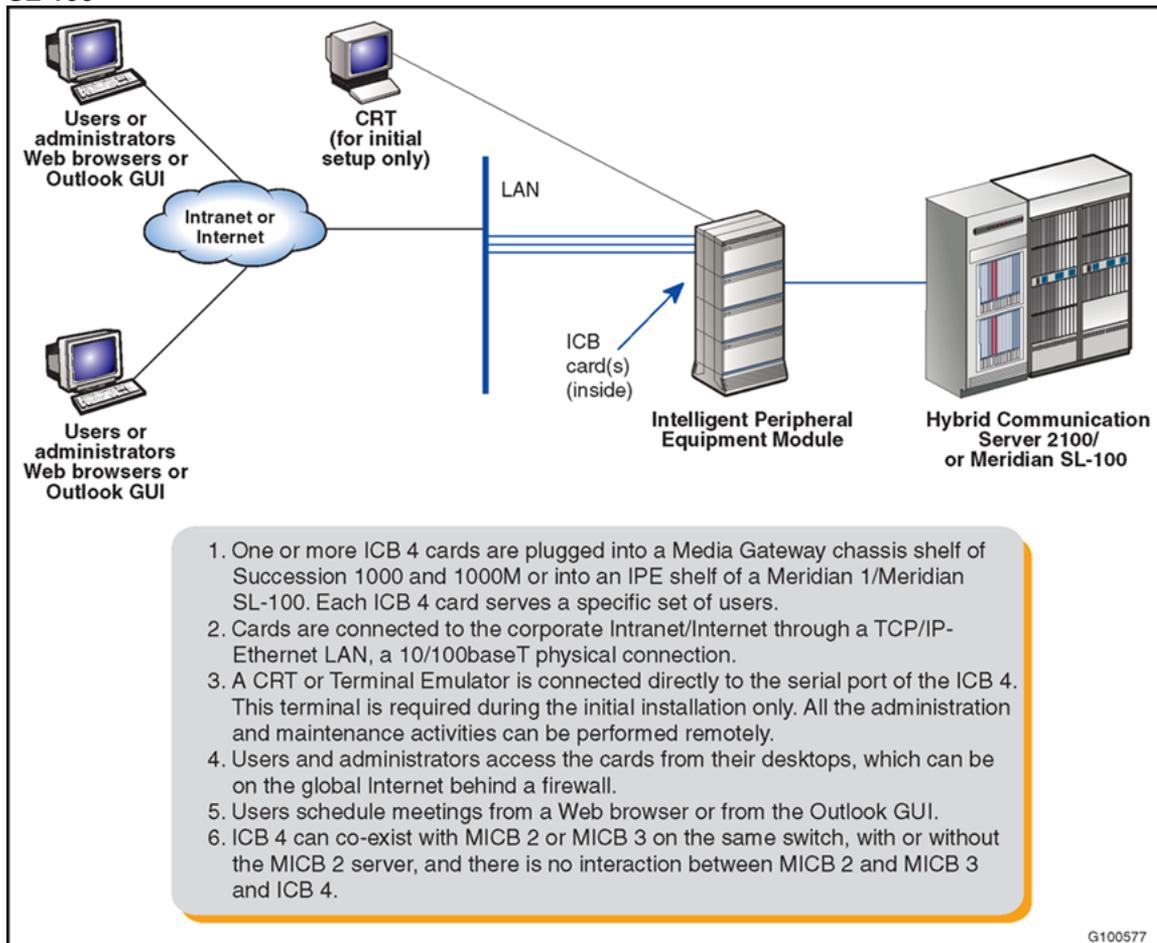
- Each card (primary, secondary) has its own list of users. There is no common list for both cards.
- To schedule a conference, users log to the card in which their account is defined. If a user (the person) has two accounts, one on each card,

they must try each card separately to find available resources for the conference. There is no automatic pooling between the cards.

- A dual meeting can be scheduled by users of the primary card only.

"ICB Release 4.0 line card interaction with a Hybrid Communication Server 2100 or Meridian SL-100" (page 79) shows the interaction between an ICB Release 4.0 line card and a Hybrid Communication Server 2100 or Meridian SL-100.

### ICB Release 4.0 line card interaction with a Hybrid Communication Server 2100 or Meridian SL-100





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# System management

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## Introduction

Nortel System management products for enterprise enable customers with a Meridian SL-100/Communication Server 2100 to manage their telephony network.

This chapter contains information about the following enterprise System Management products that work with the Meridian SL-100/Communication Server 2100:

- "M3900/EXPEC Firmware Manager" (page 81)
- "Real-time Station Message Detail Recording" (page 84)

## M3900/EXPEC Firmware Manager

"M3900/EXPEC Firmware Manager feature information " (page 81) lists feature information for M3900/EXPEC Firmware Manager for the Meridian SL-100 and Communication Server 2100.

### M3900/EXPEC Firmware Manager feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100</b>MSL11 Release or higher, Meridian SL-100 must be equipped with a LIS of FLIS shelf on which an EIU is installed. The EIU must be connected to the same LAN segment as the Windows systems on which the OTM applications will run. To use the Enhanced IPE and M3900 tools, the Meridian SL-100 must be equipped with enhanced IPEs and M3900 sets.</p> <p><b>Communication Server 2100</b>:SE06 or above.</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

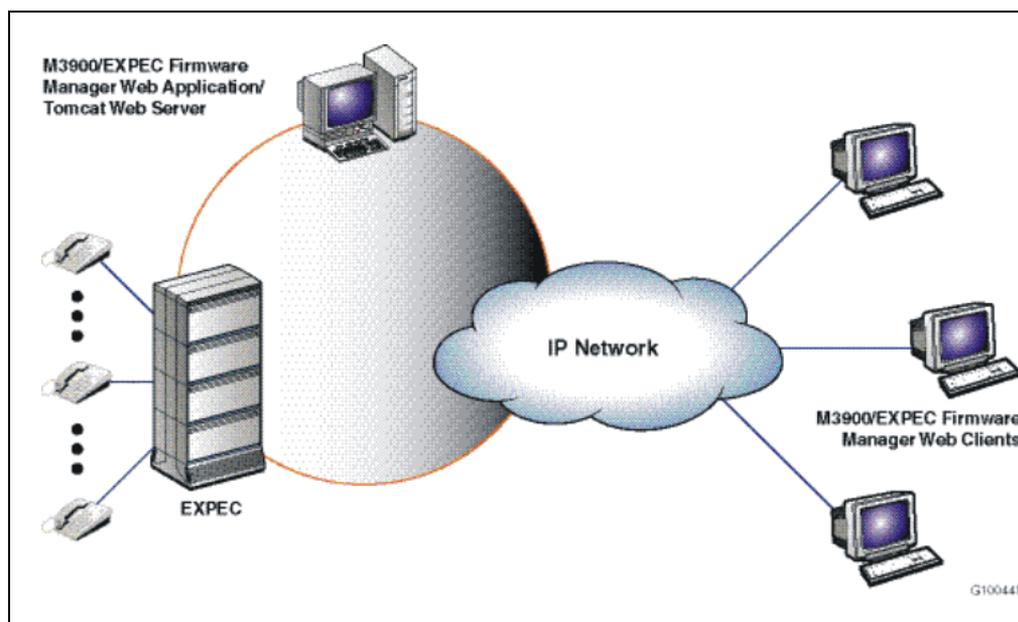
M3900/EXPEC Firmware Manager (MEFM) is a web-based interface through which the firmware on the M3900 telephone sets and the Enhanced Intelligent Peripheral Equipment (EIPE) controller, that is, the Enhanced Extended Peripheral Equipment Controller (EXPEC) can be downloaded.

The MEFM application is responsible for authenticating client login, providing Client Sessions, maintaining client information in the database, managing connections to the EXPECs and to the file servers for firmware downloads. Managing secure connections to the web clients is among its many other capabilities.

The M3900/EXPEC Firmware Manager architecture allows the load transfer function of the M3900 to be integrated into the CS 2100 management system. MEFM is written in Java and runs on the Apache Tomcat web server providing cross-platform support.

[M3900/EXPEC Firmware Manager Web Application/Tomcat Web Server](#) illustrates an example of M3900/EXPEC Firmware Manager web application on a Tomcat web server.

#### **M3900/EXPEC Firmware Manager Web Application/Tomcat Web Server**



#### **M3900/EXPEC Firmware Manager features and benefits**

M3900/EXPEC Firmware Manager includes the following features and benefits:

- Limited user access - Only users who log in with a correct password can use the MEFM system. An administrator has full access to all the features of the system.

- Secure web access - Secure Socket Layer (SSL) is used between the web clients and the web server.
- Encryption – For MEFM, encryption is used for passwords and other confidential information stored on the server.
- Scheduler – The scheduler is used to schedule downloads either to the M3900 sets or the EXPEC. The current status of all scheduled jobs is available from the web client. Scheduled jobs are kept in a database until they are executed.
- EXPEC load management - MEFM provides load management for EXPEC. The loads are transferred through the Ethernet portion of the EXPEC card. There is reduced transfer time and the Intelligent Peripheral Equipment (IPE) remains in service while the load file is being transferred.
- Load management and maintenance - Load management functions include initiating load transfers to the EXPEC, viewing loads on EXPEC and M3900 sets, deleting loads from the EXPEC and much more. The maintenance of loads includes the ability to schedule sending loads to one M3900, or sequentially to all M3900s, on an IPE or multiple IPEs.
- Logging - A flat file stores information about items including errors, critical events such as startup of the application, and firmware load operation.
- XML database - An XML database is kept for persistent information such as user information, scheduled jobs, EXPECs, M3900s and other application configuration information.
- The Apache Tomcat web server handles client session, serving up web pages and transaction handling.

### M3900/EXPEC Firmware Manager document references

"[M3900/EXPEC Firmware Manager document references](#)" (page 83) lists documentation references for M3900/EXPEC Firmware Manager.

#### M3900/EXPEC Firmware Manager document references

Document title	Document number
<i>Meridian SL-100 M3900 Digital Telephones Reference Guide</i>	555-4001-136
<i>Communication Server 2100 M3900/EXPEC Firmware Manager User Guide</i>	555-4001-317

## Real-time Station Message Detail Recording

"Real-time Message Detail Recording feature information" (page 84) lists feature information for Nortel Real-time Message Detail Recording for the Meridian SL-100/Communication Server 2100.

### Real-time Message Detail Recording feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL11 or higher <b>Communication Server 2100:</b> Release SE06 or higher
<b>Ordering information</b>	Refer to the current Product Catalog or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Real-time Message Detail Recording provides a real-time Station Message Detail Recording (SMDR) enhancement to the SMDR feature introduced in MSL11. It is also referred to as "Real-time Billing over EIU".

Real-time Message Detail Recording provides the following capabilities:

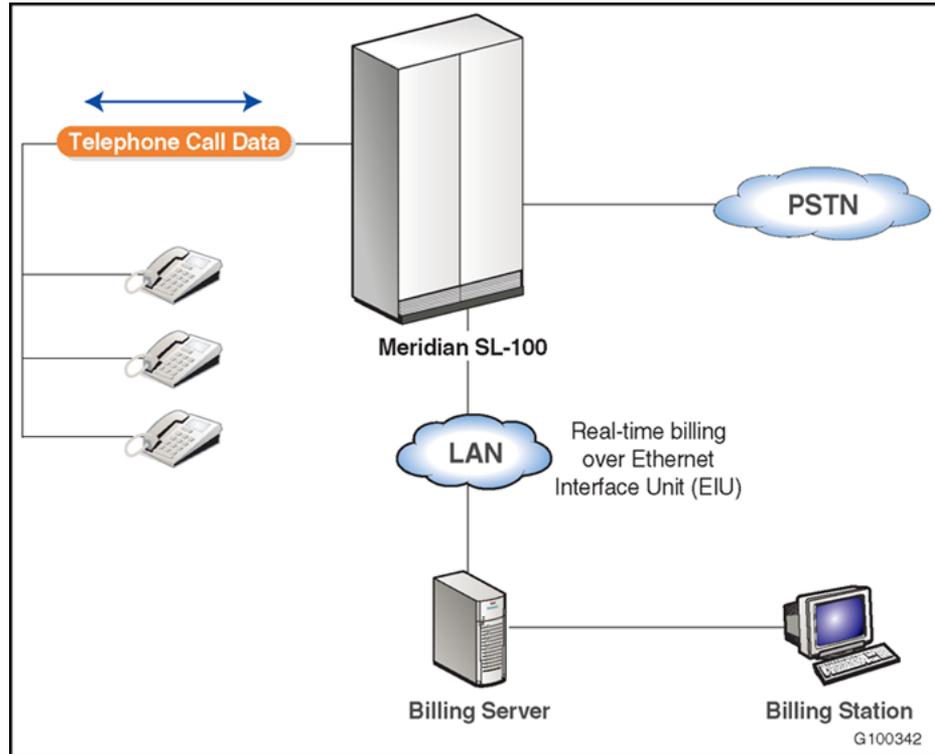
- Immediate access to billing records
- Input into a fraud management system (real-time)
- Data to assist in monitoring network engineering requirements (real-time)

Real-time SMDR uses the EIU to deliver billing information spooled immediately upon call completion. This capability enables enterprises, such as hotels and hospitals, to gather billing information, real-time, for calls made by guest or patients. This billing information is available immediately upon call completion for both local and long distance.

To enable this service, real-time SMDR delivers a billing stream from the Meridian SL-100 over Ethernet through an Application Interface Unit (AIU) to the organization's downstream processor. The information can then be passed on to a billing station, such as a checkout desk or cashier's station terminal. The real-time billing feature also provides the capability to generate revenue from the guest or patient's use of telephone set features.

"Station Message Detail Recording network configuration" (page 85) shows how the Real-time SMDR feature is configured.

## Station Message Detail Recording network configuration



Real-time SMDR provides data to support fraud management. An enterprise can track phone usage and the historical calling characteristics of subscribers. Real-time SMDR can pass this information to a third-party fraud management system for analysis. A telephone administrator can notice unusual phone usage and initiate immediate investigation. For instance, if a subscriber who historically has not made international calls, suddenly has such call types attributed to their phone, the administrator can contact the subscriber to determine if the subscriber has, in fact, been making long-distance calls. If the subscriber answers, "No", the administrator is alerted to the fraud situation and can take steps to stop future fraudulent use of the subscriber's terminal or codes.

Real-time SMDR also provides data that can support monitoring of network traffic. This aspect of the feature enables a telephone administrator to use information about traffic over the system/switch in real-time. They can use that information to calculate the grade of service being delivered. If the grade of service falls below acceptable levels, the administrator can add resources or rearrange resources to bring the grade of service back within an acceptable range.



# Voice and data services

## Introduction

Nortel voice and data services enable voice and data to be efficiently and seamlessly integrated over a Meridian SL-100/Communication Server 2100.

This chapter describes the following voice and data services that work with the Meridian SL-100/Communication Server 2100:

- "Nortel Integrated Services Digital Network (ISDN)" (page 87)
  - "National ISDN" (page 88)
  - "ISDN Basic Rate Interface" (page 92)
  - "ISDN Primary Rate Interface (PRI)" (page 93)
  - "ISDN Operations, Administration and Maintenance" (page 95)
- "Specialized data services" (page 96)
- "Narrowband Services" (page 96)
- "Wideband services" (page 99)
- "Common Channel Signaling 7 (CCS7)" (page 102)

## Nortel Integrated Services Digital Network (ISDN)

"Nortel ISDN feature information" (page 87) lists Nortel Integrated Services Digital Network (ISDN) feature information.

### Nortel ISDN feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL07 or higher, DTCL, LTCI. <b>Communication Server 2100:</b> Release SE06 or higher, Media Gateway 7480/15000, Mediant.
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>

ISDN is a set of standards for end-to-end digital voice/data transmission over the public switched network. These standards, defined by the International Telecommunications Union (ITU), are modified for North America in accord with the recommendations of Bell Communications Research (Bellcore). ISDN specifies physical interfaces, electrical characteristics, protocols for encoding information in the network and standards for the operation and processing of calling features such as Call Waiting and Call Forward.

ISDN subscriber-side interfaces connect switching systems to privately owned equipment such as computers, telephones, voicemail devices and Private Branch Exchanges (PBXs). There are currently two major ISDN subscriber interfaces:

- Basic Rate Interface (BRI) line service
- Primary Rate Interface (PRI) trunk service

ISDN services can be extended between switches by Common Channel Signaling No. 7 (CCS7) or PRI trunks, permitting more efficient use of network resources and allowing the delivery of advanced network services such as Calling Line Identification (CLID).

## **National ISDN**

National ISDN achieves industry convergence on a single ISDN implementation and removes many obstacles that have hindered ISDN deployment. A single standard stops the proliferation of proprietary implementations, allowing terminal and switching equipment from different vendors to interwork. This helps lower ISDN equipment costs, reduce operations expenses and improve service ubiquity. National ISDN also ensures service uniformity, making services easier to understand and market.

### **National ISDN-1**

The National ISDN-1 (NI-1) specifications developed by Bellcore partition ISDN capabilities into functional areas. These areas constitute a set of network building blocks that form the foundation upon which uniform ISDN services can be developed in response to market demand.

The NI-1 requirements and Meridian SL-100/Communication Server 2100 capabilities in each area are summarized in the following list:

- Access, call control and signaling

Under this category, there are the following requirements:

- Definition of a uniform Basic Rate Interface (BRI) protocol: This requirement is the definition of uniform Basic Rate Interface protocol. It enables "terminal portability", which means that a switch supports ISDN voice and data terminals from many manufacturers, allowing customers to choose from different terminal vendors and keep their

ISDN terminals when moving to another location. The Meridian SL-100/Communication Server 2100 have terminal portability.

- Definition of uniform CCS7 interoffice and internetwork interfaces for internetworking BRI: Since December of 1990, Nortel has met all CCS7 standards, which define the language different switches will use when communicating with one another. CCS7 supports ISDN services across multiple switches, enabling the wide area coverage necessary for service ubiquity.
- Uniform interface configurations for BRI
  - Definition of two uniform user-to-network interface configurations for BRI: The Meridian SL-100/Communication Server 2100 support both of the interface configurations required by NI-1 (single user with multiple applications and single line shared between two users.)
- Uniformity of BRI services
  - Establishment of a minimum set of BRI services to be provided to the end user in either a uniform or supplier-specific manner: The feature-rich foundation of the Meridian SL-100/Communication Server 2100 exceeds the NI-1 BRI service requirements, providing numerous Bellcore-compliant services in addition to those required for NI-1. The Meridian SL-100/Communication Server 2100 also allows NI-1 lines to interwork with pre NI-1 ISDN lines and analog lines. This essential capability is unique to the Meridian SL-100/Communication Server 2100. Other switch vendors require that ISDN lines be kept strictly separate.
- Primary Rate Interface (PRI) capabilities
  - Definition of a basic set of PRI capabilities, in a supplier-specific manner: The Meridian SL-100/Communication Server 2100 PRI product provides true multivendor interoperability and has been successfully tested with a number of PBXs, switches and multiplexers from other suppliers.
- Data capabilities
  - Introduction of a fundamental set of circuit-switched and packet-switched data capabilities: Nortel pioneered circuit-switched data capabilities and is also a world leader in packet switching technology. Building on this foundation of expertise, the Meridian SL-100/Communication Server 2100 offers fully NI-1 compliant data capabilities.
- Operations support capabilities

- Introduction of fundamental operations capabilities, either in a uniform or supplier-specific manner, that allows service providers to provision and maintain their National ISDN offerings: The Meridian SL-100/Communication Server 2100 provides a robust set of operations capabilities for National ISDN.

### **National ISDN-2**

National ISDN-2 builds on the foundation laid by NI-1, by further standardizing the interface protocols and services, and expanding the functionality. Both NI-2 PRI (trunking) and BRI (line) capabilities are supported in phases beginning in Release MSL07

Under National ISDN-2 the network and user sides have different capabilities with regard to particular functionalities. Network-side implementation refers to the Meridian SL-100/Communication Server 2100 acting as the CO or originating switch.

The following capabilities are supported from both the network and user perspectives beginning in Release MSL09 (except Two B-channel Transfer):

- NI-2 PRI capabilities
  - Basic call - provides NI-2 PRI access, call control and signaling capabilities including:
    - Support of TR-1268 compliant PRI trunking
    - Interworking to CCS7 in accordance with TR-444
    - B-channel availability procedures (allows the Meridian SL-100 to mark a channel as "out of service" and skip that channel in call processing)
    - Calling Line Identification Services (supports the delivery, restriction, and blocking calling number delivery services over PRI based upon service parameters and privacy indicators)
    - Redirecting Numbers
    - Screening Functions
  - Backup D-channel and Multiple T-1 support - supports a spare signaling channel on a second PRI span to enhance survivability should the primary D-channel fail.
  - Call by Call - provides trunking efficiencies by allowing several services over a single trunk. Channels can be dynamically allocated based on busy hours of different call types (DID, DOD, INWATS, OUTWATS, Foreign Exchange and Tie lines).
  - Two B-channel Transfer - allows the Meridian SL-100/Communication Server 2100 to more efficiently use PRI trunk connections for ISDN traffic. When a call is forwarded or transferred from an NI-2

TBCT compliant PBX back to the originating Meridian SL-100, two channels in a PRI trunk are used. Two B-channel Transfer allows an NI-2 TBCT compliant PBX to notify the originating (network-side) Meridian SL-100 to drop the superfluous channel, making that channel available for future calls. Both B-channels must be on the same PRI span.

- Billing capabilities - The Meridian SL-100 provides NI-2 compliant single-stream AMA/SMDR records for circuit-mode and packet-mode calls.
  - Dialable Wideband - NI-2 compliant fractional circuit-switched services are available in MSL09 and above.
  - Calling Name delivery - The Meridian SL-100 serves as both network and user side for delivery of Calling Name. Calling Name is accepted by the Meridian SL-100 from a network side switch assuming presentation is allowed. In addition, Calling Name is built into the setup message of the Meridian SL-100, and sent to the next PBX in the customer network.
- NI-2 BRI capabilities

The Meridian SL-100 provides a high degree of uniformity for BRI services, including the following key capabilities (for additional information, see the full listing of functionalities under NI000050, NI000051, NI000052 and NI000060 included in the BRI Option):

    - Single Directory Number - An integrated terminal can have one Directory Number. The same number can be used for all circuit-switched call types and can simultaneously access both B-channels.
    - Single Terminal Endpoint Identifier (TEI) - A single TEI can be used to operate an integrated terminal, regardless of the number of call types or whether one B-channel or two B-channels are being used simultaneously.
    - Assignment of feature keys to a default terminal service profile for non-Initializing terminals - provides non-initializing terminals the ability to use feature keys for feature activation and deactivation.
    - Calling Name delivery - offers name delivery to the called party from the ISDN set.
    - Parameter downloading - enables an initializing terminal to read certain parameters directly into its memory, synchronizing the terminal and switch databases.
    - Shared Directory Number with different call types - allows a Directory Number to be shared between a circuit non-initializing terminal or fully initializing terminal and a packet mode terminal.

- Electronic Key Telephone service and virtual key application - provides call handling flexibility for multiple appearances of the same Directory Number using Call Appearance Call Handling (CACH) so that calls can originate from and terminate to any combination of call appearances. In addition, the end-user can provision the call offering sequence.

### **ISDN Basic Rate Interface**

The Basic Rate Interface (BRI) is the basic subscriber loop, delivering two 64-kilobits per second (Kb/s) B-channels and one 16-Kb/s D-channel over a standard twisted-pair loop. Each of the circuit-switched B-channels can transmit voice or data simultaneously, while the D-channel transmits call control messages and user packet data.

### **ISDN voice services**

Meridian SL-100 ISDN is a complete business service that offers the largest number of productivity-enhancing voice features in the industry.

Meridian SL-100 ISDN offers functional-signaling features in accordance with Bellcore standards. Already, over 200 standard features designed to Bellcore Technical Recommendations (TRs) have been implemented on Meridian SL-100 ISDN lines. Standard ISDN allows service providers to offer a consistent grade of service to all customers, regardless of the serving switch. When fully implemented, standard ISDN allows a wider choice of telephone and terminal vendors, because they will build their products to the same standards.

For customers with special feature needs, Nortel also offers Meridian Feature Transparency, a line option that gives ISDN Business Sets access to the full set of Meridian SL-100 features. Standard ISDN lines have access to the standard Bellcore features.

### **Circuit-switched data**

The ISDN user has access to digital circuit-switched data service at up to 64 kb/s over either or both B-channels, with access to ISDN data features and value-added services such as Bearer Capability.

### **Packet-switched data**

ISDN packet services switch data in packets of digital information. Each packet is individually addressed and sequentially numbered by the Packet Assembler/Disassembler (PAD) in the transmitting terminal. The packets are then routed individually over ISDN lines and trunks, private networks, or Public Packet-Switched Networks (PPSNs). When the packets reach their destination, the PAD in the destination terminal places the packets in sequential order and removes the addressing information, restoring the data to the form originally transmitted by the originator.

Packet switching is the most cost-effective transmission technology for lower-speed "bursty" data applications. With its end-to-end error checking and correction, packet switching offers a superior level of data connectivity.

Meridian SL-100 ISDN fully supports these packet services:

- D-channel packet data from 1200 bps to 9.6 Kb/s using X.25 LAPD (CCITT 1988)
- B-channel packet data (provisioned) up to 64 Kb/s using X.25 LAPB (CCITT 1984 and 1988)
- X.75/X.75' networking among multivendor packet networks

Customer wiring is simplified, because access to both packet-data service and circuit-switched data service is over one standard twisted-pair loop. Each Meridian SL-100 ISDN loop can support up to eight packet-data terminals, the CCITT standard.

**Note:** Software Right-to-use is required to deploy ISDN BRI Services, unless previously purchased.

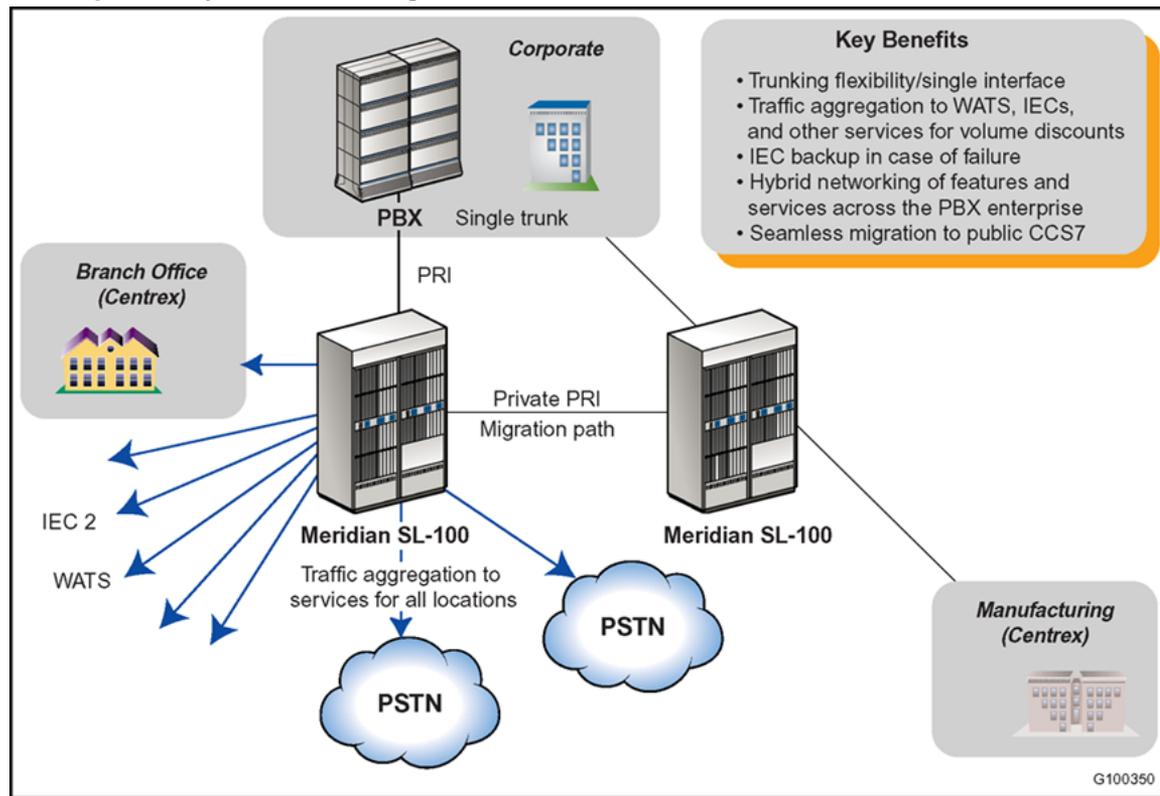
### **ISDN Primary Rate Interface (PRI)**

Businesses are increasingly managing hybrid networks of public and private facilities. The problems of maintaining access to public network services, connectivity with network elements and a consistent grade of service at all customer locations are becoming more complex. The Nortel Primary Rate Interface (PRI) capability can help customers solve these problems, while increasing enterprise network capacity.

The Primary Rate Interface is a CCITT-defined ISDN trunking technology that delivers 64-Kb/s clear channels and standardized out-of-band signaling. PRI can serve Customer Premises Equipment—such as a Private Branch Exchange (PBX), Local Area Network (LAN) gateway, or host computer—or it can serve as a trunk interface between central switches. PRI is a practical, cost-effective option that can deliver significant cost savings and service improvements to the PBX owner.

"PRI improves hybrid networking" (page 94) illustrates the benefits of PRI in a hybrid network.

## PRI improves hybrid networking



### PRI benefits

PRI has the following benefits:

- Access to Dialable Wideband Service - PRI is the subscriber access to Dialable Wideband Service (DWS), which allows subscribers to indicate the desired bandwidth (from 128 Kb/s through 1.536 megabits per second (Mb/s) in 64-Kb/s increments) and dial a single standard Directory Number to make a connection to any multi-rate ISDN subscriber. This service is supported for both proprietary PRI and NI-2.
- Integrated Services Access (ISA) - ISA provides call-by-call service selection to increase the efficiency of PBX-to-CO trunks. Trunk types are allocated dynamically on the PRI link within customer-determined limits to accommodate changes in traffic so that multiple trunk types can share the same physical facilities. This service is supported for both proprietary PRI and NI-2.
- Network-wide calling features - Network-wide calling features such as Calling Line ID, Call Forward with Reason and Network Ring Again increase call handling productivity. Because Nortel PRI interworks with CCS7, PRI delivers these not only within the company, but also across the CCS7 public network.

- Enhanced Equal Access - Enhanced Equal Access centralizes access to multiple Interexchange Carriers (IECs) at a single Meridian SL-100. Because the business is not "locked in" to a single IEC, it can choose the service options and price that best suit its current needs. Access to multiple IECs through the end switch ensures continued long distance service in case of IEC failure - an impossibility with dedicated Tie trunks to a single IEC. Multiple access also permits a customer to aggregate traffic to each IEC to obtain volume discounts.
- Network reliability - PRI links are more robust and reliable than other kinds of trunking. Backup D-channel for PRI links provides a backup D-channel that automatically takes over for a failed primary D-channel (NI00001 and NI000043), enhancing the survivability of PRI links. This capability is now available from a network-side perspective in MSL08 and above.

**Note:** Software Right-to-use is required to deploy ISDN PRI services, unless previously purchased on the host.

## ISDN Operations, Administration and Maintenance

### ISDN Basic Access Software

Basic Access Software (Functional Group NI000007) is an option (Right-to-use required) as part of the Base load. However, the functionality is not operational until the ISDN LGC/DTCI peripheral hardware (NTSX05AA Processor, EISP, and EDCH) is installed.

"Base OAMP functionality for ISDN" (page 95) lists Base OAMP functionality for ISDN.

### Base OAMP functionality for ISDN

Functionality	Feature	Name	Description
NI0 ISDN Test Access	AQ0875	ISDN Digital Test Access	Provides monitoring of circuit-switched B-channels and D-channel packet data connections (Bd) by an external protocol analyzer.
TEL Telecom Layer func	AL2540	NTSX05AA Processor Integration in ISDN LGC/LTC-I	Required to support the rollout of National ISDN-2 and ISDN-3 features on the Meridian SL-100.
NI0 ISDN BASE	AF4839	RSC-S Digital Test Access	Provides host Digital Test Access (DTA) equivalency to RSC-S.
NI0 Multipoint EOCI	AQ0947 AQ0948	Multipoint EOC 1	Supports the multipoint embedded operations channel on the Meridian SL-100, allowing digital loopback testing on intermediate elements of ISDN 2B1Q loops.

Functionality	Feature	Name	Description
NIO Integrated Tst Base	Various	Integrated Testing Base	Gives the Meridian SL-100 family the cost-effective infrastructure to support testing of current and future subscriber services.
NIO Tsting NION Services	Various	Testing ISDN Services	Adds standalone NT1 test capability and ISDN line card and loop testing to the standard Meridian SL-100 testing system.

### **Enhanced DCH Integration in ISDN LGC/LTC (Functional Group NI000007)**

The Enhanced D-Channel Handler (EDCH) integrates the EDCH into the ISDN Line Group Controllers and Line Trunk Controllers (LGC/LTC). The EDCH provides a 300 percent improvement in memory. The additional memory, along with the 25 percent improvement in real-time provided by the EDCH, is essential for the continued rollout of ISDN features and enhancements (AS2572).

Hardware: This feature requires the NTSX05AA Processor, the Enhanced ISDN Signaling Preprocessor (NTBX01AB) and the Enhanced D-Channel Handler (NTBX02BA).

### **Enhanced DCH Patcher**

This feature reduces time to repair by providing Source Code Patching for the new Enhanced D-Channel Handler (EDCH) circuit card. Feature AL2572 integrates the EDCH into the ISDN LGC/LTC. The Enhanced DCH Patcher requires Functional Group BAS00003 and the EDCH.

## **Specialized data services**

Demand for data communications services is increasingly outstripping the demand for voice communications and data networking is recognized as an essential element of corporate communication structures. Many businesses view their data networks as a strategic asset that differentiates them from their competitors.

The Nortel data communications portfolio can provide business customers reductions in private line leasing and administrative costs and by offering additional value-added data services across the spectrum of transmission bandwidths - from narrowband to wideband to broadband.

## **Narrowband Services**

Narrowband offers bandwidths of up to 64 kb/s. Narrowband services meet the needs of lower-bandwidth data applications, including access to public data networks and low-speed data transport.

Nortel narrowband data service portfolio includes:

- SL-100 Modem Pooling

The Narrowband data services portfolio provides data access services and lower-bandwidth data transport services through Meridian SL-100 switching systems. The Nortel narrowband portfolio of access technologies can support a wide range of data services and applications.

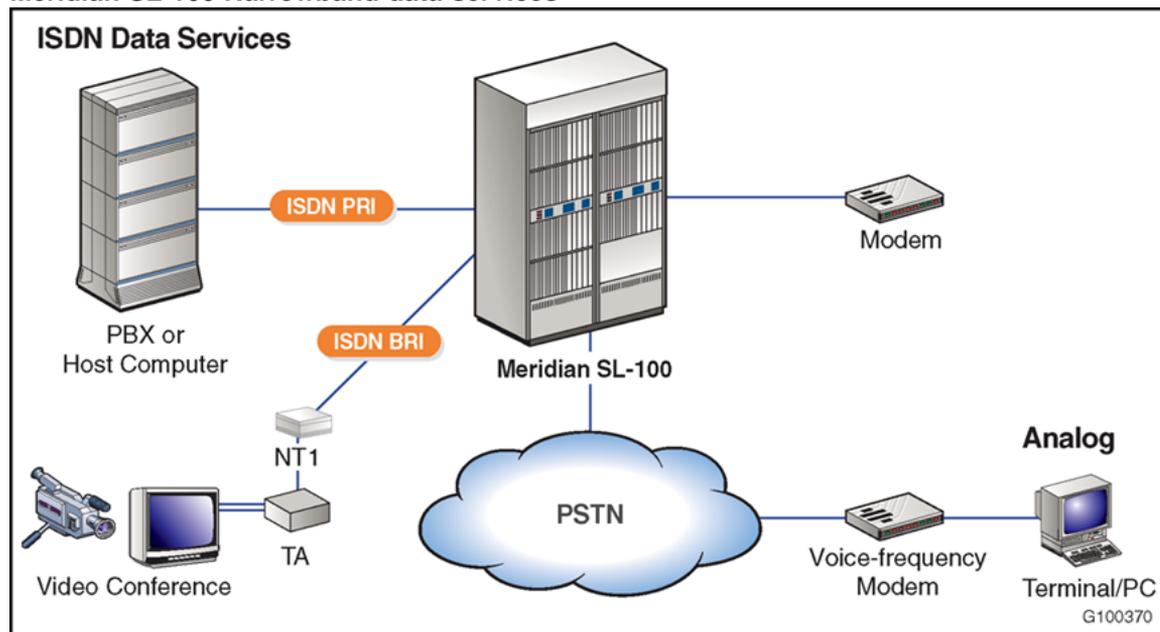
Narrowband data services positions the Meridian SL-100 as a key resource in developing enterprise data networks by providing "value-added" data services such as the following:

- Local or Wide Area Networking - Nortel Narrowband Data Services can connect users within a building or locality, or across a state or continent. Narrowband services can be used to access wideband data transport services.
- Convenience and cost effectiveness - Because Narrowband Data Services are provided over standard twisted-pair wiring, moving data terminal equipment becomes as easy and inexpensive as moving a telephone. And after the move, data service can be restored much faster than it would be if a private line network had to be reconfigured. In addition, network management is easier because the existing voice switching network is used for switching Narrowband Data Services.
- Flexible access to multiple hosts and peers - Because Nortel narrowband services provide switched access, there is no need for data terminal equipment to be limited to dedicated access to a given network, host or set of peers. Data terminals can access multiple networks, hosts and peers as quickly and as easily as dialing a normal voice call.
- Additional security for data - Narrowband lines are assigned to specifically defined customer groups in the central switch. A customer group can include all of a customer's lines or a subset of them (for instance, the lines serving the accounting department or the lines serving both accounting and payroll). Through their ability to block all calls from outside the customer group on an optional basis and to allow only calls from specified customer groups, narrowband services provide an additional level of data security beyond that provided by the customer's host computer.
- Digital connections to the analog world - Meridian SL-100 Modem Pooling supplies the analog-to-digital and digital-to-analog conversions needed for end-to-end data transmission when analog trunks or modems are involved in the connection.
- System reliability - Nortel Narrowband Data Services are unsurpassed in terms of survivability, bit-error rate, redundancy within the network and integration within the switch. The customer gains the inherent reliability of services provided across the enterprise.

All narrowband services are completely compatible. As "Meridian SL-100 Narrowband data services" (page 98) illustrates ISDN Data Services interwork transparently with one another and with analog voice frequency modems.

Narrowband service compatibility also includes access to Wideband Data Services. ISDN B-channels are compatible with frame relay, providing access to a public frame relay network. This compatibility enables customers to select the combination of narrowband services that best meets their application needs.

### Meridian SL-100 Narrowband data services



Any of these data capabilities can serve as access technologies to support most hybrid data applications. The user's specific requirements for efficiency and performance determine the optimum supporting technology.

### ISDN data services

ISDN data services are summarized in the following list:

- ISDN Basic Rate Interface delivers fully integrated voice services and digital circuit- and packet-switched (X.25, X.75/X.75') data transport at speeds of up to 64 Kb/s to as many as eight devices over a single twisted pair. ISDN data services at 64 Kb/s also provide access to high-speed data networks (X.75/X.75').
- ISDN Primary Rate Interface, with 23B+D connectivity, not only supports Dialable Wideband Service (DWS), but enables data terminals served by a Meridian SL-100 ISDN node to have fully digital circuit - and

packet-switched ISDN interworking with data terminals served by PBXs. Meridian SL-100 PRI also provides the efficiency and speed of clear 64-Kb/s channels for connections to high-speed data networks or host computers.

- 3270 Switched Access Service (Coax elimination) connects IBM 3270- and 3194-family terminals and host computer cluster controllers using a Terminal Interface (TIF) unit and Control Unit Interfaces (CUIFs) to standard twisted-pair wiring and the Meridian SL-100 switched network. The switched access and public facilities used by 3270 Switched Access Service make it a cost-effective alternative to dedicated private-line data networks.

## Wideband services

Wideband services offer bandwidths greater than 64 Kb/s and less than 45 Mb/s. Wideband services meet the needs of data applications requiring high-speed data transport and access.

Nortel offers wideband circuit-switched data service which provides users up to 1.5 Mb/s of bandwidth in 64-Kb/s increments.

Nortel Wideband data services offer bandwidths greater than 64 kb/s, allowing high-speed data transport and access, as well as supporting a diverse range of data services and applications.

Wideband data services offer users and their customers the following advantages:

- Metropolitan or Wide Area Networking - Central switch-based Wideband Data Services can connect users within a building or locality, or across a state or continent. Central switch-based Wide Area Networks (WANs) offer the required bandwidth for fast LAN-to-LAN, LAN-to-host, host-to-host and terminal-to-host communications.
- LAN interconnect services - To meet the demands of the fast-growing LAN interconnection market, frame relay provides a fast-packet service. The frame relay network meets the demands of LAN interconnection configurations, offering high-speed bandwidth on demand, point-to-multipoint connections, robustness and minimal CPE investment.
- Video conferencing - Dialable Wideband can provide customers with video conferencing services that are as simple to operate as dialing the phone. Users are no longer required to schedule fractional or whole DS-1 services before a conference.
- Reliability of central switch services - Nortel central switch-based Wideband Data Services are unsurpassed in terms of survivability, bit-error rate, redundancy within the network and integration within the switch. With Nortel wideband products, the user gains the inherent reliability of services.

### **Dialable Wideband Services (DWS)**

Dialable Wideband Services (DWS) provides a simple way for users to extend their existing ISDN services to match the higher bandwidth requirements emerging for video conferencing, multimedia, imaging, and other high-speed applications. DWS bridges the gap between narrowband services (64 kb/s) and broadband services (> 1.536 Mb/s). Dialable Wideband Services, the Nortel version of multi-rate ISDN, offers dialable, on-demand bandwidth in 64 Kb/s increments up to 1.536 Mb/s. It is also available on the Meridian SL-100 for the NI-2 standardized version, NX64.

DWS is based on an extension of the current ISDN Primary Rate Interface standard. This technology enables users to provide wideband connectivity within the boundaries of the existing circuit-switched facilities. DWS permits an end user to set up wideband calls (from 128 Kb/s through 1.536 Mb/s) over an ISDN Primary Rate Interface (PRI) in real-time and in the same manner as any other circuit-switched ISDN connection. The bandwidth of the call is determined by the originating end user at the time of call setup.

#### **DWS benefits**

DWS addresses the needs of both current and future wideband subscribers.

DWS has the following benefits:

- On demand, dial-up bandwidth - DWS provides the end user with the flexibility to dial a single Directory Number, select the desired bandwidth (NX64 Kb/s where N = 2 to 24) on a per-call basis, and to dial any other multirate ISDN subscriber.
- Standards based - DWS is based upon American National Standards Institute (ANSI) standards and is therefore compatible with many CPE products.
- Constant delay performance - DWS is a circuit-switched service and is therefore appropriate for applications that have stringent delay requirements, such as video conferencing.
- Flexible access to Public Switched Wideband services - A variety of public carriers have deployed and tariffed multirate ISDN services. With integrated access to the public network, wideband services can be extended far beyond the boundaries of the enterprise network.
- Savings on Carrier services - multirate ISDN services are typically priced lower than the equivalent bandwidth derived by inverse multiplexing multiple dialed channels. For example, one H0 circuit (384 Kb/s) is priced approximately 25 percent less than six inverse multiplexed DS0 (64 Kb/s) circuits. Similarly, the cost of one H11 circuit (1.536 Mb/s) is approximately 40 percent less than 24 DS0 circuits.

- Call setup performance - The call setup time for DWS can be as much as an order of magnitude faster than other alternate methods of delivering switched wideband services.
- Call recording - Dialable Wideband calls generate a single call record, instead of multiple records. Each record indicates the call duration and the bandwidth allocated for the call, which simplifies the billing and traffic measurement process.

### **DWS applications**

Dialable Wideband Services allow several sophisticated applications to be easily integrated into the enterprise network.

Prime examples of DWS applications are listed below:

- Video transmission - The number of video conferencing systems in use has grown dramatically over the last few years. Businesses increasingly use these systems for intracorporate and intercorporate communications. With DWS, video users can easily interconnect with other video conferencing wideband subscribers. The current and constantly improving video compression algorithms make it possible to achieve excellent quality at 768 Kb/s (half a T-1).
- Distance learning - Distance learning represents another ideal application for DWS. For example, many universities cannot afford expert instructors in every field of study. Through distance learning, scarce professional teaching resources can be shared with other educational institutions. An interface from the classroom to the Public Network using DWS offers a cost-effective means of delivering course instructions to students who do not have convenient access to the main, centralized campus.
- On-demand LAN/WAN interconnectivity - DWS can also be used for interconnecting Local Area Networks into Wide Area Networks. DWS can connect LANs anywhere in the network to create corporate or intercorporate WANs on-demand. This ability to make intercorporate connections can be of particular advantage to corporations that need to share information with key suppliers and customers.
- Imaging (medical, engineering or scientific imaging applications) - DWS is also ideal for imaging applications. With DWS, a hospital can cost effectively provide on-the-spot consultation and diagnostic services to remote clinics in small towns or rural areas. A remote clinic could use an X-ray scanner to record information about a patient's condition, and forward the information to another location that has the latest analysis equipment.
- Video to the desktop - New, emerging technologies are expanding the capability for LANs to provide isochronous (constant delay) communications for applications such as video to the desktop. One of

the most promising of these new technologies is called ISOEthernet (a registered trademark of National Semiconductor). With ISOEthernet, you have the ability to meld multi-rate ISDN and 10BaseT technologies, delivering Nx64 kb/s services to the desktop. An interface from the LAN to the Public Network over DWS facilities provides intercorporate multimedia bandwidths to a large number of subscribers who need to more effectively communicate with suppliers, customers and strategic business partners.

### DWS limitations and restrictions

Dialable Wideband Service in the Meridian SL-100 market is available with the following limitations and restrictions:

- All the B-channels used on an incoming or outgoing wideband call must reside on the same physical PRI facility and be in the same trunk group.
- A satellite hop is not supported.
- Off-hook and on-hook queuing are not supported for wideband trunk groups.
- IBN and DTMF digit collection (that is, PIN digits, account codes, authorization codes, and so on) is not supported. Wideband calls routed to an operator receive the ORIGINATION\_DENIED treatment.
- Internal echo canceller control is not supported.
- B-channel negotiation is not supported
- Wideband test calls are not supported.
- Continuity testing is not supported for wideband trunk group agencies.

**Note:** Software Right-to-use is required to deploy Dialable Wideband Services, unless previously purchased.

## Common Channel Signaling 7 (CCS7)

"CCS7 feature information" (page 102) lists feature information for Nortel Common Channel Signaling 7 (CCS7) for the Meridian SL-100.

### CCS7 feature information

<b>Platform compatibility</b>	Meridian SL-100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL07 or higher
<b>Ordering information</b>	Refer to the current Product Catalog or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

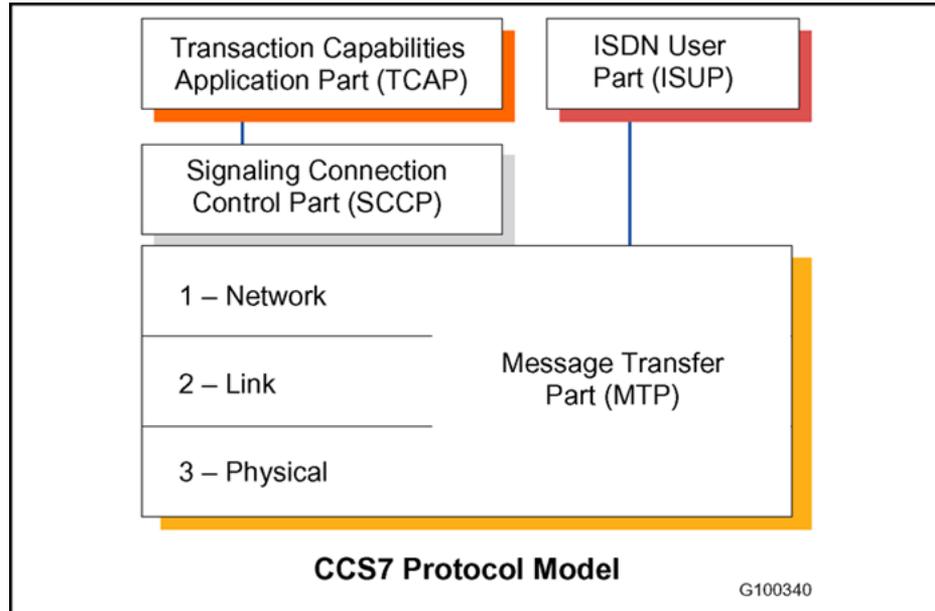
The Link Peripheral Processor (LPP) supports Common Channel Signaling 7 for a Meridian SL-100 environment.

**Note:** For more information about the LPP, refer to the Meridian SL-100 hardware overview chapter in the *Communication Server 2100 Product Guide* (555-4001-806).

CCS7 signaling and control functions are divided into the following four protocol levels:

- Message Transfer Part (MTP) - The MTP contains Open Systems Interconnection (OSI) Layer 1 (physical characteristics), Layer 2 (link characteristics) and Layer 3 (network characteristics). The MTP is a connectionless transport system, providing a reliable transfer of messages between physically separated users or applications.
- Signaling Connection Control Part (SCCP) - The SCCP completes Layer 3 of the OSI architecture by providing additional functions to the MTP for connection less services, as well as CCS7 network, point code and subsystem management. The MTP and SCCP together are called the Network Service Part (NSP).
- Transaction Capabilities Application Part (TCAP) - The TCAP is an application layer protocol providing services to support non-circuit-related, transaction-oriented applications such as database-dependent replacement number and calling card services.
- ISDN User Part (ISUP) - The ISUP defines the CCS7 protocol that supports signaling functions required for POTS. It provides voice and non-voice services in an Integrated Services Digital Network (ISDN).

"[CSS7 Protocol model](#)" (page 104) illustrates the CCS7 protocol model.

**CSS7 Protocol model****Available services for CCS7**

The following services are currently available for CSS7:

- Gateway Screening (Functional Group BAS00003) paves the way for the end-to-end delivery of CCS7-based advanced network services by allowing network providers to control access to their CCS7 databases and to protect against unauthorized use of other CCS7 facilities and services. This capability enables the secure interaction of CCS7 equipment across the enterprise, permitting advanced features to be extended to all facilities.
- LPP Enhanced Maintenance and BERT (Functional Group TEL00008 [OPT]) reduces expenses and extends maintenance abilities by providing DS-0A loopback recognition and Bit Error Rate Test (BERT) capabilities.
- The V.35 Subrate Links package (Functional Group BAS00003) enables the V.35 version of the LIU7 paddleboard to administer CCS7 links at subrates of 2.4 kb/s through 19.2 kb/s.
- MTP Preventative Cyclical Retransmission (PCR) (Functional Group BAS00003) provides error recovery for CCS7 Signaling Data Links (SDLs) that have high propagation delays. This capability increases network reliability and speed by allowing the efficient operation of SDLs, including satellite communications, that have a one-way delay of 15 milliseconds or more.
- CCS7 Protocol Monitor Tool (PMT7) (Functional Group TEL00008 [OPT]) provides access to a protocol test tool to monitor and test key protocol areas of CCS7 messages.

- MTP/SCCP on LPP-Based Platforms (Functional Group TEL00008 [OPT]) provides the base CCS7 protocol capability for the LPP to handle MTP- and SCCP-level messages.

### **CCS7 trunk signaling features and benefits**

For the network providers, CCS7 increases both the efficiency of interoffice trunking facilities and the opportunities for network-wide services. With CCS7 trunk signaling, premium services such as ISDN and CLASS can be easily and efficiently extended across the network.

CCS7 trunk signaling offers the following benefits for Meridian SL-100 customers:

- Improves call setup times for calls, including 800 service and PVN calls.
- Expands ISDN service across public/private boundaries.
- Provides the platform for transparently extending Meridian SL-100 business services nationwide to multilocation customers.
- Extends the reach of such CLASS features as Calling Number Delivery, Calling Number Delivery Blocking and Customer-Originated Trace.

CCS7 trunking capabilities interwork fully with both existing Multi Frequency (MF) trunks and CCS7 networks. The Meridian SL-100 can provide direct associated signaling between switches.

### **Available services for CCS7 Trunk Signaling**

The following services are currently available for CCS7 trunk signaling:

- CCS7 Trunk Signaling (Functional Group ISP70001) with DTC7 Module Split (AJ1498) enhances the robustness of the CCS7 network by providing overload protection for Digital Trunk Controllers. Also, ISUP Maintenance Procedural Enhancements increase OAMP flexibility by giving network providers the option of throttling specific CCS7 User Part log reports.
- CCS7 2-Wire Emulation of Continuity Test (Functional Group ISP70001) with CC COT (AJ1485) and XPM COT (AJ1486) Enhancements for Cutover eases the capping or replacing of an analog switch by enabling continuity tests to be performed on trunks between the Meridian SL-100 and other vendor two-wire switches.

### CCS7 document references

"CCS7 document references" (page 106) lists documentation references for CCS7.

### CCS7 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806

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# Call Centers and Computer Telephony Integration

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## Introduction

Nortel's powerful Call Center and Computer Telephony Integration (CTI) applications are ideal for any workplace that handles large volumes of incoming calls for numerous call center requirements, such as customer inquiries, product sales and service and message taking. This chapter contains information about the following Nortel Call Center and CTI products for the Meridian SL-100/Communication Server 2100 (CS 2100):

- "Nortel Automatic Call Distribution " (page 108)
- "Automatic Call Distribution Management Information System over Transmission Control Protocol " (page 111)
- "Nortel Intelligent Call Management " (page 114)
  - "Redundant ICM Links" (page 119)
  - "ICM Queue Expansion" (page 120)
- "Nortel Symposium products" (page 121)
  - "Nortel Symposium TAPI Driver for ICM Release 1.1" (page 122)
  - "Nortel Symposium Call Center Server Release 5.0" (page 126)
  - "Nortel Symposium Call Center Web Client Release 4.5" (page 133)
  - "Nortel Symposium Agent Release 2.3" (page 136)
  - "Nortel Symposium LinkPlexer Release 1.2" (page 139)
  - "Nortel Symposium Web Center Portal 4.0" (page 143)
- "Nortel Call Center Management Information System Release 6.0" (page 146)
- "Nortel Media Processing Server 500 Release 2.1" (page 148)
- "Nortel Media Processing Server 1000 Release 2.1" (page 150)
  - "Nortel Peri-ICM Release 2.0" (page 154)

- "Lightweight Directory Access Protocol Synching" (page 157)
- "User-to-User Information over SCAI" (page 162)

## Nortel Automatic Call Distribution

"Nortel ACD feature information" (page 108) lists Nortel Automatic Call Distribution (ACD) feature information.

### Nortel ACD feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL12 or higher <b>CS 2100:</b> Release SE06 or higher
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Nortel ACD lets the Meridian SL-100/CS 2100 offer ACD capabilities to customers who have call center requirements.

Nortel ACD efficiently handles calls by equally distributing incoming calls to a designated group of agent positions (ACD telephones). Balancing the call workload between agents ensures that each customer receives prompt and professional service. Each Meridian SL-100/CS 2100 switch can support up to 99,999 agents and 5000 groups (configuration dependent).

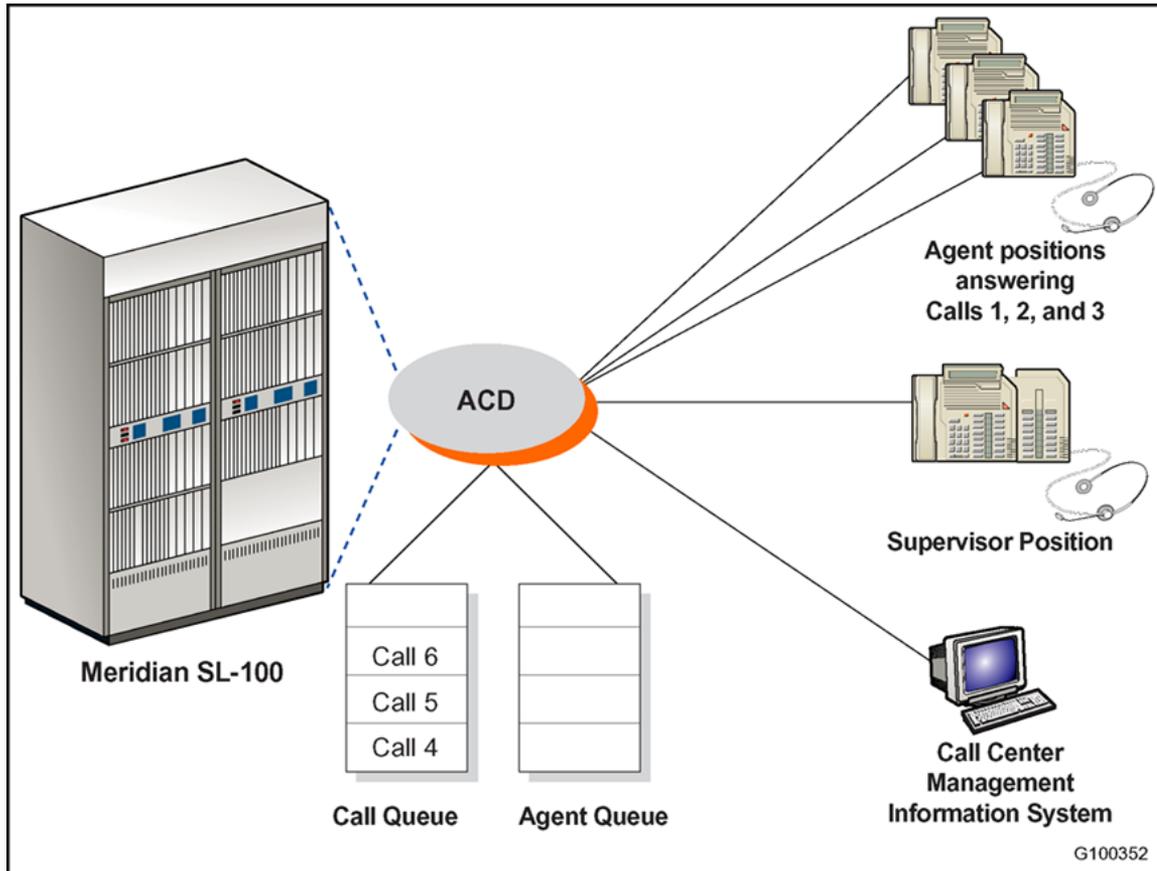
Nortel ACD answers each call immediately and, if necessary, holds it in a queue until it is directed to the next available agent position. The agent positions are queued so that the agent who has been idle the longest gets the first incoming call. When all agents are busy, calls are queued and answered in order of arrival.

Nortel ACD effectively manages groups of agents by providing a full set of supervisory features, including advanced Management Information Systems that provide both real-time data and historical reports.

Nortel ACD supports several terminal options (for example, M2216 ACD agent and supervisor sets, M5216 ACD business sets, 2500-type sets, M3905 sets) allowing functional and cost efficiency on an application-specific basis. For more information about terminals, refer to the *Communication Server 2100 Product Guide* (555-4001-806).

"Automatic Call Distribution for the Meridian SL-100" (page 109) illustrates Nortel ACD for the Meridian SL-100.

## Automatic Call Distribution for the Meridian SL-100

**ACD features and benefits**

Meridian SL-100/CS 2100 ACD offers the following features and benefits:

- ACD call center software is broken down into three basic components: call processing features, agent features and supervisor features:
  - Call Processing features: Enables you to customize ACD configurations to meet your organization's unique needs, handling high volumes of incoming calls and distributing them to answering agents or devices.
  - Agent features: Designed to ensure that customers receive the best possible service by providing agents with productivity tools.
  - Supervisor features: Enables administrative staff to monitor agent's work and provide agents with the support they need. Supervisors can access current status displays, as well as historical information collected by the system, in the day-to-day management of call center operations.

- Both agents and supervisors use the flexible Meridian digital ACD telephones, with built-in displays, add-on key modules, optional data adapters and a choice of standard headset connections. Additionally, single-line telephones can be assigned as agents and can access ACD features by dialing codes.
- Working in concert, the various ACD features will save you time and money, and help you generate new revenues by increasing customer satisfaction and encouraging repeat business.
- A sophisticated ACD service using the most modern telecommunications hardware and software: Customers can have a system that can be continually tailored to meet their changing needs. For example, a second large capital investment is not required if the growth of a division was underestimated, or money is not wasted if a reorganization reduces the size of an ACD group.
- Assurance that their Automatic Call Distribution system will stay competitive without continual expenditures on system operation, administration, maintenance and expansion.
- Fully integrated with other Meridian SL-100 features, such as Ring Again and Calling Name Display
- Evolvable to Integrated Services Digital Network (ISDN), which lets agents to send and receive data transmissions while simultaneously answering calls.
- True networking capability, using Common Channel Signaling System 7 (CCS7) or ISDN Primary Rate Interface (PRI), to link agents in multiple locations, providing optimum use of agents.

### ACD document references

"ACD document references" (page 110) lists documentation references for Nortel ACD.

#### ACD document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Automatic Call Distribution Maintenance Guide</i>	297-2041-500

## Automatic Call Distribution Management Information System over Transmission Control Protocol

"Nortel ACD feature information" (page 108) lists Nortel Automatic Call Distribution Management Information System (ACDMIS) over Transmission Control Protocol (TCP) feature information.

### Nortel ACDMIS over TCP feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL12 or higher <b>CS 2100:</b> Release SE06 or higher
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

The ACDMIS over TCP feature provides additional ACD messaging about ACD events that occur on the Meridian SL-100/CS 2100 to a Downstream Processor (DSP).

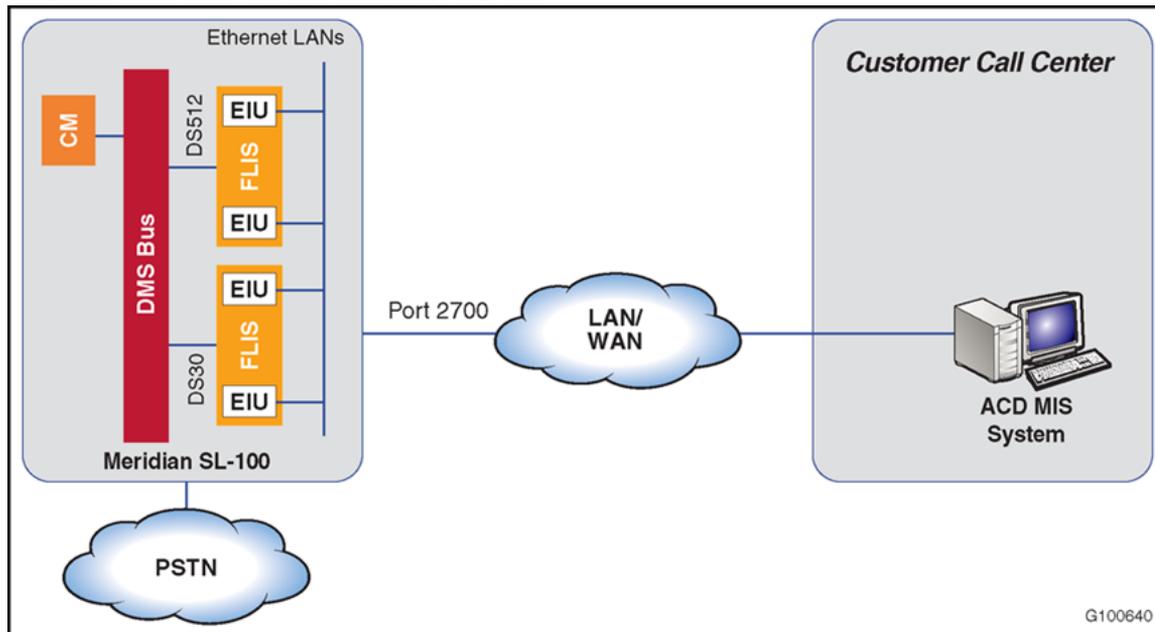
### ACD MIS over TCP feature and benefits

- The ACDMIS link is a messaging interface provided by the Meridian SL-100/CS 2100 to the host Management Information System computer (or DSP). The information carried across the messaging link lets ACD applications running on the Meridian SL-100/ CS 2100 to communicate with Management Information System applications running on the host computer. The two-way information flow lets the switch and the host computer to provide enhanced services to an ACD customer (for example, a call center can receive average call holding times and Agent statistics to be able to better allocate resources).
- Prior to this feature, ACDMIS connectivity between the Meridian SL-100/CS 2100 and the Downstream Processor was implemented using an X.25 link through a Multi-Protocol Controller (MPC) card in the Input-Output Controller (IOC) module. The TCP/IP transport method is an additional option to the X.25 transport method. The transport mechanism used, either TCP/IP or MPC X.25, is transparent to any application using the ACDMIS link to communicate with the host computer.

**Meridian SL-100 configuration**

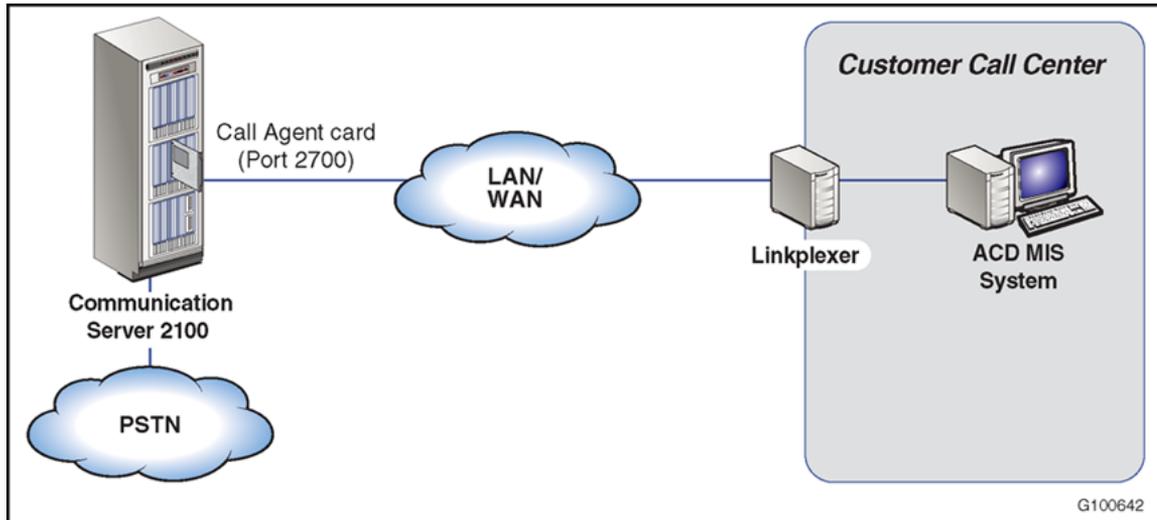
The Meridian SL-100 implements the TCP/IP transport through an Ethernet Interface Unit located in the FiberLink Interface Shelf (FLIS). "ACDMIS over TCP on the Meridian SL-100" (page 112) shows a Meridian SL-100 example configuration of ACDMIS over TCP.

**ACDMIS over TCP on the Meridian SL-100**



**Communication Server 2100 configuration**

The Communication Server implements the TCP/IP transport through an Ethernet port on the Call Agent card. "ACDMIS over TCP on the Communication Server 2100" (page 113) shows a CS 2100 example configuration of ACDMIS over TCP.

**ACDMIS over TCP on the Communication Server 2100****Limitations and restrictions**

The ACDMIS over TCP has the following restrictions:

- The maximum number of TCP/IP connections to a single Meridian SL-100/CS 2100 is 96.
- The number of ACDMIS TCP/IP links per single Meridian SL-100/CS 2100 is limited to 60.

**ACDMIS over TCP document references**

"[ACDMIS document references](#)" (page 113) lists the documentation references for additional information on ACDMIS over TCP

**ACDMIS document references**

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Communication Server 2100 Feature Description Manual</i>	555-4031-801
<i>Communication Server 2100 Data Schema Reference Manual</i>	555-4031-851

## Nortel Intelligent Call Management

"Nortel ICM feature information" (page 114) lists Nortel Intelligent Call Management (ICM) feature information.

### Nortel ICM feature information

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL12 or higher, Ethernet Interface Unit (EIU), LPP</p> <p><b>CS 2100:</b> Release SE06 or higher, Call Agent card, SAM21 shelf</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel Intelligent Call Management (ICM) is an enhanced version of Meridian CompuCALL allowing organizations with an Meridian SL-100/CS 2100 to offer leading-edge Computer Telephony Integration (CTI) solutions to end users over Ethernet TCP/IP links.

Instead of the Meridian SL-100/CS 2100 system being responsible for all the call processing (including routing and treatments), ICM permits a Nortel or third-party CTI application to dictate specific call handling decisions. ICM requires an Ethernet Interface Unit for connectivity to the Meridian SL-100.

Sophisticated CTI applications require increased messaging bandwidth. To meet this need, Nortel introduced the TCP/IP-based ICM link. ICM provides cost-effective, flexible configurations using industry-standard Ethernet technology - replacing the original CompuCALL X.25 transport. ICM's TCP/IP links transmit data at speeds up to 350 kb/s versus 19.2 kb/s with X.25 transport.

ICM supports standard call center applications, putting customers in charge of their own call flows. CTI applications that work with Nortel ICM are Q.SyS Phoneware, IBM CallPath, AnswerSoft Sixth Sense and Nortel Symposium Telephony Application Programming Interface (TAPI) server.

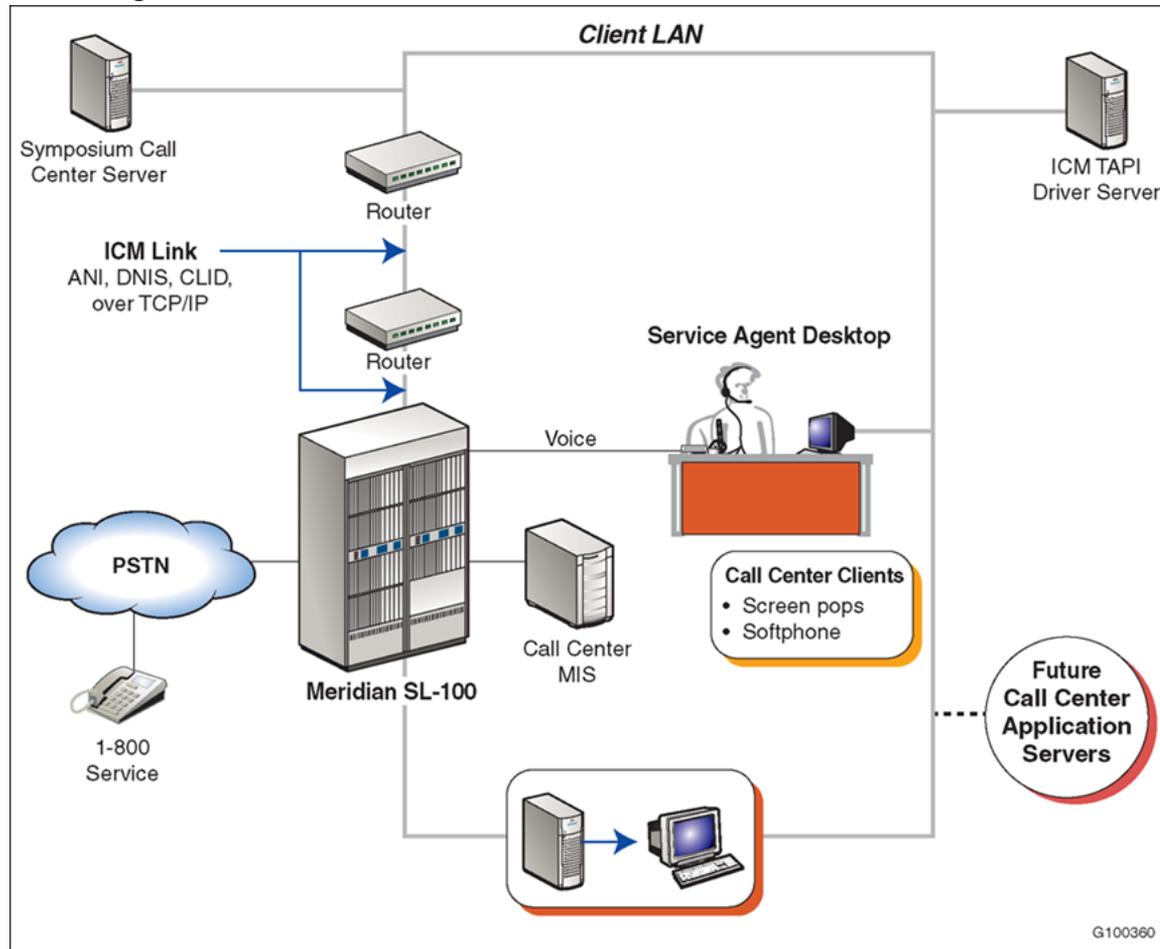
### ICM in a Meridian SL-100 configuration

ICM interfaces between the Meridian SL-100 and a call center workstation by way of TCP/IP over an ethernet network. The Ethernet network connects to an Ethernet Interface Unit (EIU) housed in a Link Peripheral Processor (LPP). The LPP is deployed in a Meridian SL-100. With ICM, each Meridian SL-100 can support up to 16 Ethernet TCP/IP addresses (customers) for

connection to customer sites - 96 Ethernet TCP/IP addresses with CCM14. ICM requires additional Customer Premises Equipment (for example, routers and hubs).

"[ICM configuration with a Meridian SL-100](#)" (page 115) illustrates the Intelligent Call Management (ICM) configuration with a Meridian SL-100.

### ICM configuration with a Meridian SL-100

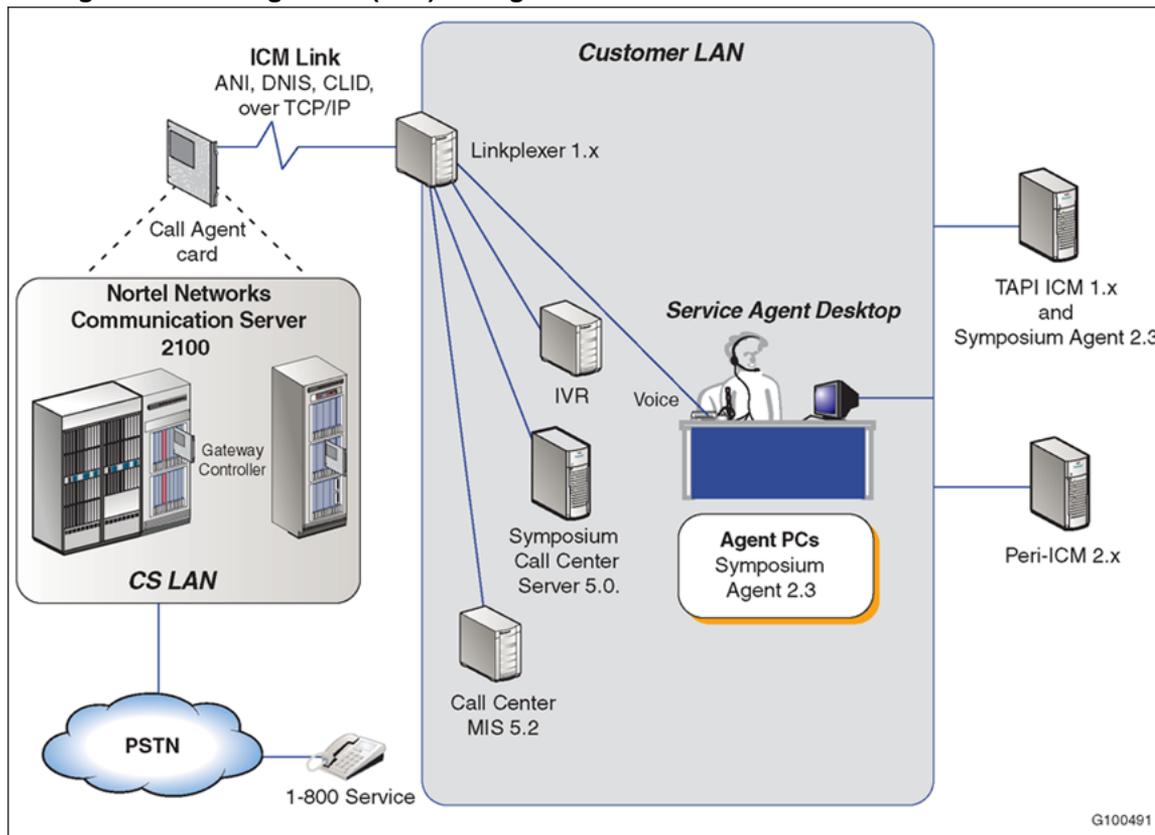


### ICM in a CS 2100 Compact configuration

In a CS 2100 Compact configuration, ICM interfaces to an Ethernet port on a Call Agent card, instead of an EIU. The Call Agent card is inserted in a SAM21 controller shelf.

"[Intelligent Call Management \(ICM\) configuration with a Communication Server 2100](#)" (page 116) illustrates the ICM configuration with a CS 2100.

## Intelligent Call Management (ICM) configuration with a Communication Server 2100



The ICM link introduces new and expanded call center and non-call center functionality. New capabilities for screen-based telephony, call-handling, and messaging are available through the following Nortel applications:

- **Nortel Symposium Call Center Server (SCCS)** - uses the ICM link and the Meridian SL-100/CS 2100 to offer a suite of applications that includes call processing and agent handling, management and reporting, and third-party application interfaces for call centers. For more information, refer to "[Nortel Symposium Call Center Server Release 5.0](#)" (page 126).
- **Nortel Symposium TAPI Driver for ICM** - Nortel Telephony Applications Programming Interface (TAPI) software provides translation services between a Windows telephony server and a Meridian SL-100/CS 2100 system. This functionality enables Microsoft Windows clients running TAPI applications to manage Centrex voice or ACD calls on the user's desktop. Symposium TAPI Driver supports the ICM Link, allowing control of the Call Queue and Controlled Directory Number messages from a user's desktop using a TAPI application. For more information, refer to "[Nortel Symposium TAPI Driver for ICM Release 1.1](#)" (page 122).

- Interactive Voice Response (IVR) - enables the caller to communicate with a host computer through touch-tone key presses or voice recognition, automating routine inquiries and transactions. IVR gives customers direct, confidential access to information and services 24 hours a day. It can also reduce agent call volume significantly, often resulting in substantial off-loading of calls. Also available are time-in-queue and position-in-queue announcements.
- Outdialing (through Symposium Partnering Programs) - automatically places outbound calls during call agent lulls. When the dialer finds a live customer, it links the agent immediately. Skills-based routing helps ensure that the most qualified agent receives the call. Outdialing makes the best use of an agent's time and eliminates unnecessary downtime.
- Predictive Dialing (through Symposium Partnering Programs) - verifies the availability of call agents and the probability of reaching a customer in person to determine the rate to automatically place outbound phone calls. Dialing is automatic, providing increases in efficiency ranging from 70 to 300 percent.
- Agent headgear and terminals - Offers ergonomically designed single-line or multi-line telephones for fast, convenient access to call center capabilities. The latest in display technology is built in, including a two-line by 24-character display. Many terminals offer headset capability and comfortable and efficient headsets.
- Remote agent support- Enables agents to work from off-site locations with the same productivity and customer service as those in the main call center. Agents receive calls and information on their screens just as if they were actually sitting in the call center. Remote agents appear on supervisor screens along with other call center agents, providing integrated monitoring and management.
- Symposium Agent - A client-server application that automates business applications. It enables call center managers to cost-effectively design customer interaction applications. These applications range from data retrieval applications that dramatically improve customer service, to fully-customized tele-sales, to tele-service solutions that help agents generate new revenues. By automating many routine agent tasks, Symposium Agent enables agents to focus on solving customer issues, rather than collecting customer information. For more information, refer to "[Nortel Symposium Agent Release 2.3](#)" (page 136).

## Nortel ICM features and benefits

Nortel ICM includes the following features and benefits:

- ICM Call Center Server functionality - enables the server of the end user to share call processing responsibilities with the switch. Currently, the Meridian SL-100 call processing software is fully responsible for Call Control Routing (CCR). ICM Call Center Server functionality

introduces Controlled Directory Number (CDN) queues that can be used in conjunction with ACD subscribers.

Each CDN queue can hold a maximum of 511 calls. Calls placed into a CDN queue remain there until the system receives a message from the host computer instructing the switch on how to handle the call, or a specified timeout triggers the system to redirect the call to a default destination. The CDN acts as a temporary place to hold incoming calls while user applications determine where to route the calls - providing the basis for innovative call center CTI applications.

ICM Call Center Server functionality provides the basic framework for Nortel or third-party applications (running on the host computer) for subscribers requiring increased CCR capabilities. It provides new application-based revenue opportunities for new and existing Centrex customers, and allows a server to make call-by-call routing decisions based on a caller's dynamic needs.

- ICM Call Queue Management - After a call is put into an ACD or CDN queue, the end user's host computer can instruct the system to apply a specific treatment to the call using the Selective Queuing feature. Selective Queuing lets the host computer route any queued call, regardless of its place in the queue. This capability expands subscriber control and allows the end user more choices for call disposition. End users have the ability to assign different treatments locally on a call-by-call basis. A single message sent by the host computer determines the call treatment. Callers maintain their priority and place in queue regardless of the call treatment.

Up to six call treatments can be defined and include one, or a series, of the following: recorded announcement, music, service tones, ringing and silence.

ICM Call Queue Management gives end users greater control over their call queues and call treatments; allows call treatments to be applied to individual calls, not just groups; and supports new telephony applications such as user call screening.

- ICM reduces facilities costs offering the immediate benefit of a more cost-effective link. Now the data portion of an incoming call can travel over an industry-standard TCP/IP transport. This flexible link can involve the Internet or a corporate intranet for all or part of the connection.
- Supports third-party solutions. Migrating the CompuCALL specification to an open TCP/IP transport introduces the Internet's standard transport-level protocol to the Meridian SL-100/CS 2100 CTI system. The ICM link supports a wide range of applications, because many of these applications depend on TCP/IP for reliable, full-duplex operation for connectionless, best packet delivery service.

- Enables Skills-base Routing through Symposium Call Center Server (SCCS).
- Allows each call to be uniquely identified to support interswitch transfers and applications that track call history.
- Displays the use of the Emergency Key feature and records statistics on its use.

### **Redundant ICM Links**

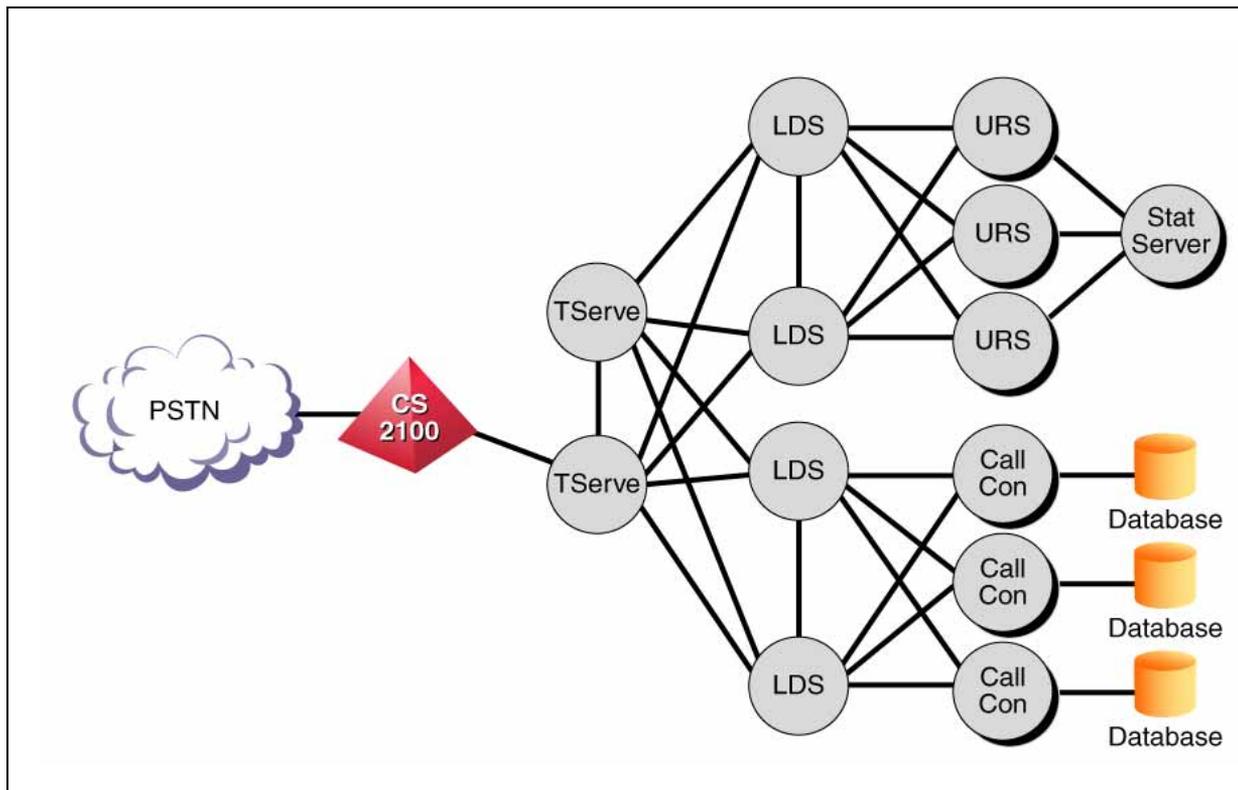
Starting in SE09, Redundant ICM Links allows the SL-100/CS 2100 to support an active/active call center server architecture, to address the issue of a link/server failure. Because Redundant ICM Links send call events to two servers at the same time, the call center can withstand a failure, with little to no impact to the call center traffic.

Previously ICM has only one TCP/IP link per linkset. The addition of Redundant ICM Links lets two TCP/IP connections exist in one SCAI session. The second link mirrors the first by broadcasting all switch to host messages to both of the TCP links. The switch only expects a response where necessary from the host through one of the TCP links within the linkset.

This design uses multiple EIUs connected to multiple subsets. Each ICM link within a linkset is on a different ethernet subnet. Each hub is connected to a different port on the router. The EIUs on each can have backups for more reliability.

Figure 22 illustrates Redundant ICM configuration with a Communication Server 2100.

## Redundant ICM Configuration with a Communication Server 2100

**ICM Queue Expansion**

From Release SE09 onward, Intelligent Call Management (ICM) Queue Expansion increases the ICM temporary queue size and enhances its capability to handle messages during high traffic periods.

For every ICM link datafilled in Table SCAICOMS, one incoming and one outgoing ICM work queue is allocated. All messages coming from the host computer are queued by the transport into the incoming ICM work queue. Messages sent by the switch are queued by the ICM application into the outgoing ICM work queue. When the ICM work queue becomes full, such as during times of high traffic, messages coming into it are lost.

Temporary work queues are an allocated pool of 10 incoming/outgoing queues. These pools are created by datafilling the first 10 links in Table SCAICOMS. In previous releases, the pool of incoming/outgoing queues were available to any of the 351 links that experience high traffic. This pool of 10 temporary queues is in addition to the Switch Computer Application Interface (SCAI) incoming/outgoing work queue, which is capable of handling up to 128 messages at a time. When the item count of an ICM work queue, incoming or outgoing, reaches the threshold value of 128, a temporary queue from allocated pool of 10 temporary queues is made available. During high traffic, if the number of messages goes beyond 640,

the message is lost. ICM queue expansion increased the size of the ICM temporary queue to support 1024 messages at a time. This ensures that during high traffic conditions, message loss is minimized to a large extent.

Each time an ICM message is sent or received an Invoke ID is used. This Invoke ID remains in use until the message receives a response. In support of the increase of the ICM temporary queue the Invoke ID range is increased from 0-1024 to 0-3072.

### ICM document references

"[ICM document references](#)" (page 121) lists documentation references for Nortel ICM.

#### ICM document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806

## Nortel Symposium products

Nortel comprehensive Symposium products create versatile, end-to-end customer care centers that deliver complete, seamless customer experiences. Companies can start modestly with a single call center or ambitiously, with a global, multimedia center with thousands of representatives.

Introduced in 1997, the Nortel Symposium product line provides Computer Telephony Integration (CTI) and call center applications. Nortel Symposium products continue to evolve, signifying Nortel's commitment to provide state-of-the-art products and services for call centers and CTI markets.

### Symposium server requirements

Nortel provides the software applications for the Symposium product line. However, the customer or distributor must provide the hardware server platform based on the minimum hardware requirements.

The following Nortel Symposium applications require their own server:

- Symposium Call Center Server Release 5.0
- Symposium LinkPlexer Release 1.2
- Symposium Call Center Web Client Release 4.5
- Peri-ICM Release 2.0
- Symposium Agent Release 2.3 and Telephony Application Programming Interface (TAPI) Driver for ICM Release 1.1 (both applications can reside on one server)

## Nortel Symposium TAPI Driver for ICM Release 1.1

"Symposium TAPI Driver for ICM Release 1.1 feature information" (page 122) lists Nortel Symposium TAPI Driver Release 1.1 for ICM feature information.

### Symposium TAPI Driver for ICM Release 1.1 feature information

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL12 or higher, ICM Link, EIU, LPP <b>CS 2100:</b> Release SE06 or higher, Call Agent card, ICM Link, SAM21 shelf
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Symposium TAPI Driver for Intelligent Call Management (ICM) provides a cost-effective interface that lets CTI applications running on Windows NT/Windows 2000 server monitor and intelligently control incoming and outgoing calls within the Meridian SL-100/CS 2100.

The Symposium TAPI Driver for ICM translates between the message set generated by a TAPI Release 2.1/2.3/3.0 compliant application and the ICM message set understood by the Meridian SL-100/CS 2100. With ICM TAPI Driver, Meridian SL-100/CS 2100 users can take advantage of off-the-shelf CTI solutions – making it possible to extend CTI support throughout an enterprise economically and with less complexity.

The Symposium TAPI Driver supports the ICM link. This enables control of the Call Queue and Controlled Directory Number messages from a user's desktop that is operating a TAPI application.

The ICM TAPI driver software works in a distributed client/server environment that logically integrates the telephone on a user's desktop with client and server-based applications. The telephone is physically connected to the switch and is not physically connected to the PC. Users' desktops do not require special telephones, connectors, PC circuit cards or new wiring.

The ICM TAPI driver software connects to the Meridian SL-100/CS 2100 through the ICM link (TCP/IP connection). The Client PC is equipped with the Remote TAPI Service Provider (SP) software and a TAPI application such as Nortel Symposium Agent.

Symposium TAPI Driver for ICM enables intelligent answering and routing. Intelligence from the public network - such as Caller ID, Automatic Number Identification (ANI), and Dialed Number Identification Service (DNIS) - is

passed from the SL100/CS 2100 system to the TAPI-based telephony server. This capability enables access to information about the caller, or assistance in call routing, or other purposes defined by the CTI application. The result is coordinated voice and data and screen-based telephony into both knowledge worker and call center environments.

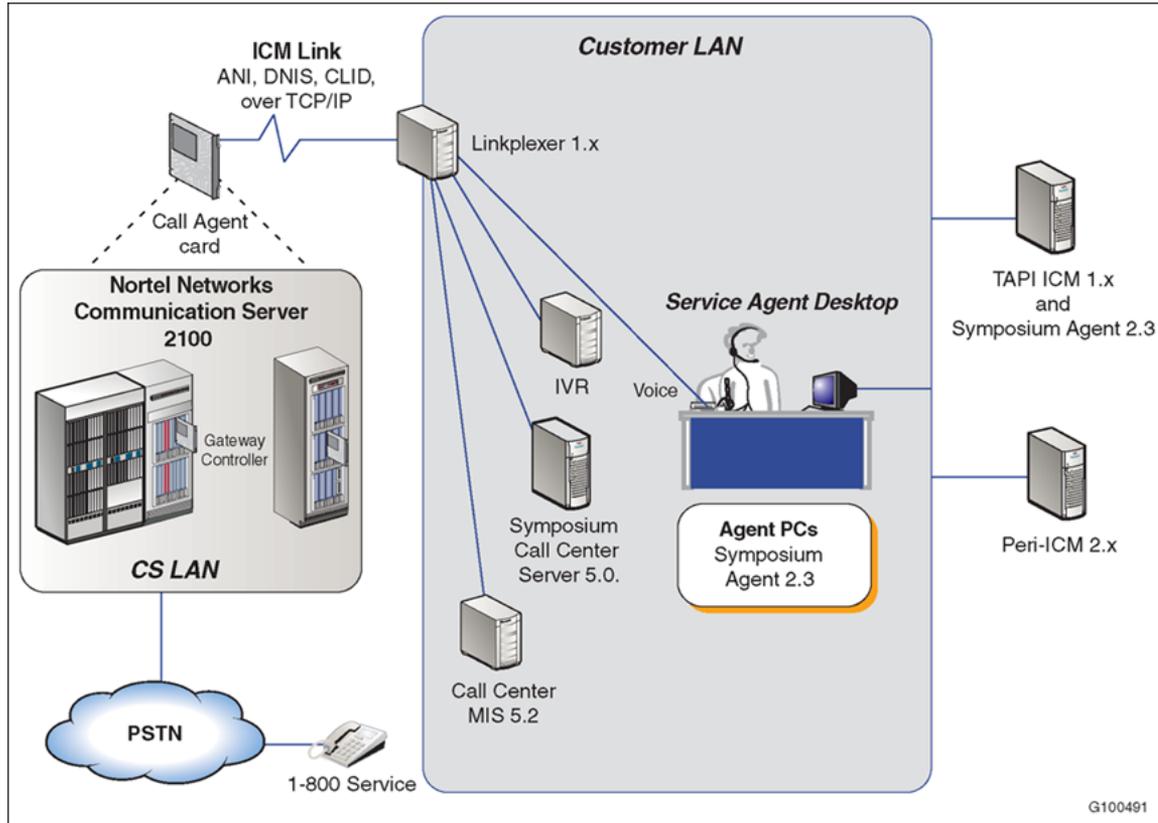
The Symposium TAPI Driver for ICM provides for a non-proprietary call control interface into the Meridian SL-100/CS 2100 system. This interface provides a TAPI application with the control and management of voice, data and IVR. Additionally, this interface enables enhanced call control support.

The Symposium TAPI Driver for ICM handles up to 1200 lines opened at a time. This implies there can be 1200 clients that can attach through the Remote Server Provider (RSP) to the server.

Meridian SL-100/CS 2100 TAPI Server communicates over a TCP/IP connection to the Meridian SL-100/CS 2100 using ICM messages. When a user's TAPI application starts, the ICM link is automatically established. The TAPI driver for ICM connects to client PCs over a TCP/IP LAN.

["An example of TAPI ICM 1.2 Server in a Communication Server 2100 network configuration"](#) (page 124) illustrates ICM TAPI server with a CS 2100.

## An example of TAPI ICM 1.2 Server in a Communication Server 2100 network configuration

**Symposium TAPI Driver for ICM Release 1.1 features and benefits**

Symposium TAPI Driver for ICM Release 1.1 provides the following features and benefits:

- Basic Call Control includes support for the following features:
  - Make Call Answer Call
  - Release Call
  - Hold Call
  - Un-hold Call
  - Conference Call
  - Transfer Call (Blind and Supervised)
- The following ACD features are supported:
  - Login/Logout
  - Ready/Not Ready
  - Make Set Busy

— Make Set In Service

- The exchange API interface enables the ICM TAPI driver to pass private data to an application involved in bringing up a screen of data, commonly referred to as screen pops.
- The dynamic database allows the removal or addition of lines without any of the applications having to shutdown the server.
- Integration with Interactive Voice Response (IVR) Units enables the Symposium ICM TAPI driver to offer an open interface to IVR systems. This allows the IVR systems pass call related data, such as caller entered digits, to the TAPI server and then onto the TAPI-compliant applications.
- The ICM TAPI driver supports outbound and predictive dialing application products that use the TAPI interface for call control and monitoring.
- Switch failure recovery is enabled through the ICM TAPI Driver. The driver detects when the link is dropped and the switch does not respond. The ICM TAPI Driver reinitializes after three minutes.
- ICM TAPI Release 1.1 supports Symposium Call Center Server Release 5.0 and the Microsoft Server operating system Windows 2000 on a Pentium III 1GHz server.
- Supports the latest SCAI 17 release.
- Incorporates new messages to track calls to non TAPI monitored devices.
- Improvements to error logging and utilities.
- Eliminates the need to edit the Windows Registry to enable maintenance configuration features.

### Symposium TAPI Driver for ICM document references

"[Symposium TAPI Driver for ICM document references](#)" (page 125) lists documentation references for Nortel Symposium TAPI Driver for ICM.

#### Symposium TAPI Driver for ICM document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806

## Nortel Symposium Call Center Server Release 5.0

"Nortel Symposium Call Center Server Release 5.0" (page 126) lists feature information for Nortel Symposium Call Center Server (SCCS) Release 5.0.

### Nortel Symposium Call Center Server Release 5.0

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL09 or higher, Automatic Call Distribution (ACD), Intelligent Call Management (ICM) Link, ICM switch translation software Release ICM00001, ICM00010, ICM00020</p> <p><b>CS 2100:</b> Release SE06 or higher, Automatic Call Distribution (ACD), Intelligent Call Management (ICM) switch translation software Release ICM00001, ICM00010, ICM00020</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel SCCS Release 5.0 is Nortel next generation call center application that works with the Meridian SL-100/CS 2100. SCCS Release 5.0 is designed to provide a call center solution for varied and changing business requirements by offering a suite of applications that includes call processing and agent handling, management and reporting, and third-party application interfaces.

### SCCS components

The following is a list of SCCS components:

- Server (supplied by distributor or customer) containing SCCS software application.
- SCCS clients provide the Graphical User Interface to the product. The Operations PC workstation connected to either the dedicated LAN or Customer LAN (CLAN), operates the SCCS client application and administers the SCCS.
- Meridian SL-100/CS 2100 switch for telephony services and voice network connectivity.
- Front End IVR system for voice processing capabilities (optional).
- Third-party Application (optional).

## SCCS hardware and software requirements

SCCS is built on a client/server architecture with functionality distributed among various component as follows:

- The SCCS server performs the call processing and data collection services, and provides the repository for administration data. The server for SCCS is a general purpose Intel Pentium-based platform running Microsoft Windows 2000. The server for SCCS includes a software base for applications including system management, fault management, server configuration, event scheduling and a time server. The minimum hardware requirements for the server are as follows:
  - Intel-based Pentium II CPU at 300 MHz in a single or dual CPU configuration. The Quad CPU is not supported.
  - 256 Mbytes of RAM memory (higher RAM is supported providing partitioning takes into account the larger swap file.), 8 GB minimum disk space, SCSI Controller, one floppy drive, CD-ROM drive, two serial ports (RS232) and one parallel port
  - One Ethernet network interface card (for ELAN) and one Ethernet (or token ring) network interface card (for CLAN)
  - Video card +Monitor (800x600 minimum resolution), keyboard, mouse, external modem and backup tape drive

**Note:** Enhanced performance can be expected through additional RAM and faster, dual processors, while fault tolerance can be achieved through RAID hot-swap drives, redundant and hot-swap power supplies and fans and hot-swap network interface cards.

- The clients for SCCS are PCs running Microsoft Windows 95, Windows 98 or Windows 2000 and they provide a Graphical User Interface to the product.
- The Administration workstation is a PC running the SCCS Client Application and is used to administer the server. The Administration workstation can be connected to either the Embedded LAN (ELAN) or CLAN.

If calls are to be successfully routed in SCCS, the resources shared by SCCS and the Meridian SL-100/CS 2100 must be configured to be able to exchange information. A Controlled Directory Number (CDN) on the Meridian SL-100/CS 2100 is the initial point of entry for any call processed in SCCS. A CDN serves as a holding place while information is gathered from the call (for example, Calling Line Identification number) and treatments that are applied to the call (for example, recorded announcements). The

call information gathered by the CDN is sent from the Meridian SL-100/CS 2100 to SCCS. The SCCS uses this information to define the path the call follows through the call center.

SCCS offers Skills-based Routing (SBR). SBR moves queuing logic from the Meridian SL-100 software to the SCCS. In SCCS, there are no ACD DN's. Instead, SCCS uses SBR to automatically route callers to the agent best suited to handle specific inquiries or customer segments (Skillsets). Call agents are assigned to skillsets rather than queues, and calls are queued to skillsets. Skillsets are not numbers you can dial and they can be reached only through Control Directory Numbers (CDN). Incoming calls to the Meridian SL-100, or calls originated internally by the Meridian SL-100, must first arrive at a CDN before they have access to skillsets. Scripts then provide customized and specialized treatment and routing of calls.

SCCR uses scripts to define the behavior of SBR call processing. Scripts combine the features of a programming language with a set of functions unique to call center processing needs. Scripts determine what skillsets a call requires, queue the calls to skillsets, provide music, and so on. A script executes for each call, and each call can execute a number of either primary or secondary scripts, depending on customer requirements. Scripts can send data, query and receive responses from a customer developed application. Data is passed between script and the application by including variables as parameters within the script.

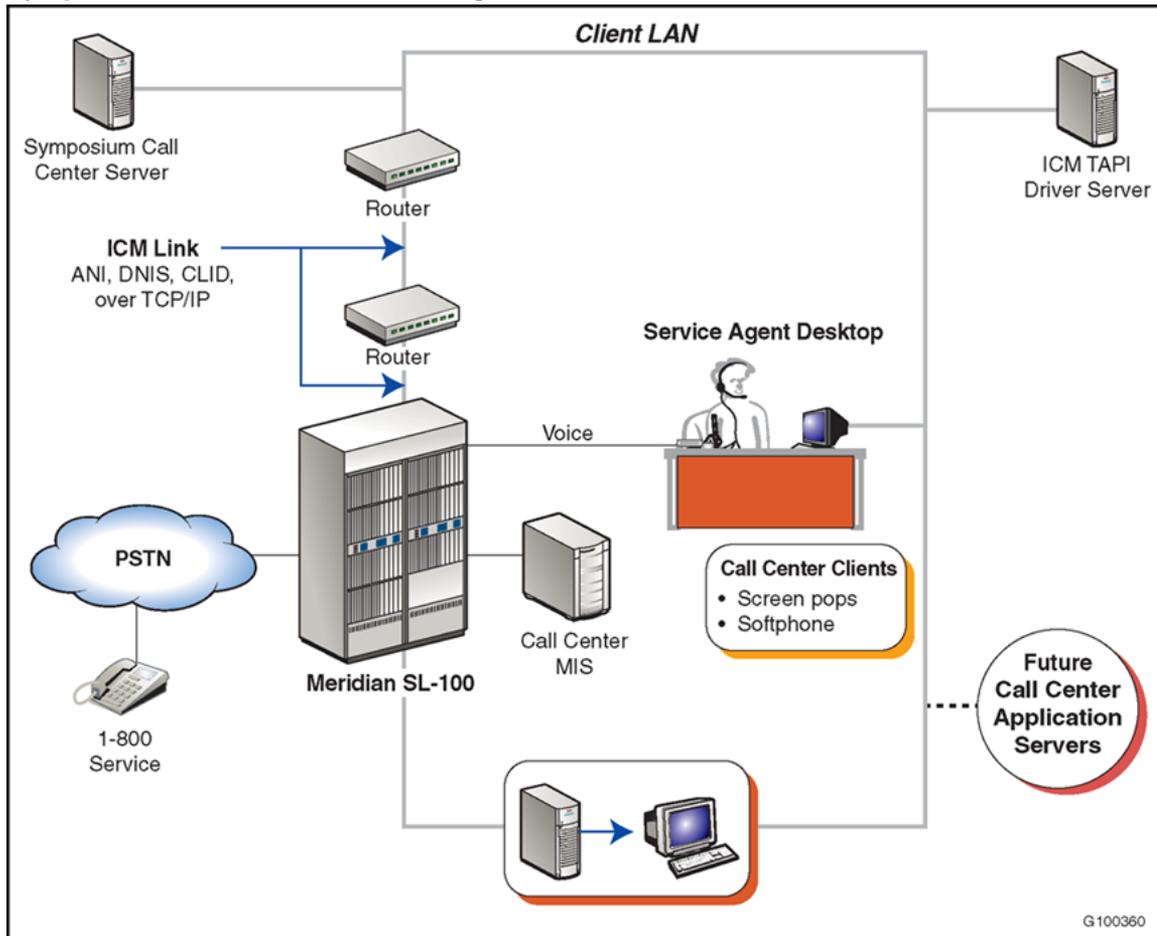
Real-time Statistics Multicast (RSM) interface provides basic status reporting capability to third-party application developers using IP Multicast technology. This allows third-party applications to interface with the SCCS responsible for collecting and maintaining real-time display statistics. The third-party application can obtain real-time statistics from the SCCS for use in basic call center status reporting applications such as readerboards and agent desktop applications.

### **SCCS with the Meridian SL-100**

With the Meridian SL-100, the server for SCCS and the Meridian SL-100 connect to an ELAN. The Meridian SL-100 ICM link running on a TCP/IP protocol over an Ethernet Interface Unit (EIU) provides the interface between the Meridian SL-100 switch and the SCCS.

"[Symposium Call Center Server configuration with the Meridian SL-100](#)" (page 129) illustrates an example of a SCSS configuration with Meridian SL-100.

### Symposium Call Center Server configuration with the Meridian SL-100



### SCCS with the Communication Server 2100

With the CS 2100, the SCCS server and the CS 2100 connect to an ELAN. The Meridian SL-100 ICM link running on a TCP/IP protocol interfaces to an Ethernet port on a Call Agent card, instead of an EIU. The Call Agent card resides in a SAM21 controller shelf.

### SCCS Release 5.0 features and benefits

SCCS Release 5.0 provides the following features and benefits for Meridian SL-100/CS 2100:

- Intelligent Call Handling - Customize call routing and treatments based on customer-defined combinations of call center conditions.
- Skill-based Routing (SBR) - Automatically route callers to the agent best suited to handle specific inquiries or customer segments.
- Comprehensive Management Reporting - Provides managers with decision-making tools—from real-time displays to historical

reports—reflecting contact center activity, agent performance, resource utilization and trends.

- Open Interfaces - Supports third-party applications such as readerboards, workforce adherence and scheduling.
- Investment Protection - Grows and adapts to your company's evolving needs, employing open architecture, flexible design and built-in scalability.
- Real-Time Statistics Multicast (RSM) enhancements - SCCS Release 5.0 provides RSM enhancements that allow for improved inter operability with Nortel Remote Agent Observe and other third-party applications that access RSM data. With Release 5.0, the agent record is expanded to store the following information, which is now available in the agent multicast stream:
  - Answering Application ID: enables access to the SCCS application for which the agent is currently answering a call.
  - Answering CDN: enables access to the Controlled Directory Number (CDN) for which the agent is currently answering a call.
  - Answering DNIS: enables access to the Dialed Number Identification Service (DNIS) for which the agent is currently answering a call.

**Note:** This feature is available only through Symposium Web Client.
- Scripting enhancements include the following:
  - Larger Master Script Size: SCCS Release 5.0 allows all scripts to support 50,000 characters. This increase allows for greater complexity in the master script for those customers wishing to write their call processing script with a large element of call processing performed in the master script.
  - Agent ID/Skillset in HDX: For SCCS Release 5.0, the variable types Agent ID and Skillset are available in the Host Data Exchange (HDX) command set. This enhancement results in simpler scripts with increased scripting flexibility, especially with regard to Symposium Web Center Portal integration - Agent ID and Skillset can be passed from Symposium Web Center Portal and used directly in SCCS scripts, making integration scripts more manageable.
  - Wild variables: SCCS Release 5.0 introduces a new type of call variable: wild variable. Wild variables are modifiable by the call and client, and accessible to all calls, opening up new possibilities for script design. For example, putting the call center into emergency operation with a call to a designated CDN can set a wild variable flag indicating emergency, which other calls can check.

Two new script commands specific to wild variables are introduced: READVAR and SAVEVAR. A new wild variable table holds the "wild" value of the call variable. All calls have access to this table and calls can save their current value of a particular call variable to the table using SAVEVAR for other calls to access using READVAR. Usage of this feature is enabled completely by scripting.

- Platform Vendor Independence (PVI) - Customers will purchase their servers for SCCS from various vendors, other than Nortel.
- Centralized administration of network skillsets and routing tables.
- Comprehensive real-time displays and network reports.
- Capacity enhancements - increased agent capacity, skillset capacity and IVR capacity including the following:
  - Increased agent capacity: Increases agent capacity to 3300 active and 6000 configured agents.
  - Increased skillset capacity: Allows you to have a maximum of 1000 skillsets, including system-defined skillsets, local skillsets and networked skillsets. With Release 5.0, all 1000 skillsets are capable of being networked.
  - Increased IVR capacity: Supports up to a maximum of 1000 IVR ports.
- Database Integration Wizard - Delivers a Symposium Database Integration service that:
  - provides interfaces to Open Database Connectivity (ODBC) for accessing company databases and to TAPI for attaching data to calls without custom programming.
  - enables modification of database access/call data attachment without requiring software changes.
  - provides access to ODBC and TAPI while consuming just a single connection to the HDX server.

Database Integration is delivered as a robust Windows 2000 service, fully integrated on the SCCS Release 5.0 server, with an intuitive Graphical User Interface (the Database Integration Wizard).

The Database Integration Wizard simplifies integration with ODBC-compliant contact center applications and/or Computer Telephony Integration applications (using Symposium TAPI Service Provider). Database queries can be easily integrated into call flows (for data directed routing, customer validation, and so on) and customer data can be transferred to an agents workstation for screen pops.

- Historical reporting enhancements - SCCS Release 5.0 includes the following historical reporting enhancements:
  - new historical reporting fields
  - pegging enhancements for Agent Login/Logout
  - support for Crystal Reports 9.0
  - new Network Consolidated Skillset Call Distribution report
- Improved Server install and uninstall - SCCS Release 5.0 provides enhancements to the server installation and uninstallation process:
  - streamlined installation process
  - elimination of install-time PEPs
  - improved uninstallation process
- Server upgrade and migration: For the Meridian SL-100, SCCS Release 5.0 supports the following direct upgrade paths using the platform migration process:
  - SCCS Release 4.0 > SCCS Release 5.0
  - For any release prior to SCCS 4.0, you must migrate to SCCS Release 4.0 (for Release 3.0 Meridian SL-100 sites) as an intermediate step and then migrate to SCCS Release 5.0.
- PVI updates - PVI updates for Symposium Call Center Server Release 5.0 include the following:
  - support for a quad CPU configuration
  - support for remote access through VPN client (Contivity)
  - support for configuration of dynamic disks on Windows 2000
- Enables the exchange of real-time data and host data.
- Integrates with multimedia transaction handling and web-enabled functionality.
- Supports Time Division Multiplexing (TDM) and/or a Voice over IP (VoIP) network infrastructure.
- SCCS Release 5.0 for Meridian SL-100/CS 2100:
  - support for SCAI17 with backward compatibility to SCAI12
  - support for iButton adapter alternatives to the parallel port
  - support for call hold/unhold reporting
  - ability to display skillset name on the agent telset display when routing a call to an agent

- Support for pcAnywhere - SCCS 5.0 provides support for pcAnywhere 11.0. It is supplied with SCCS 5.0 on a separate CD.
- Symposium Standby Server - Release 5.0 supports the integration of SCCS and Sybase Replication Server to support warm standby replication.
- Upgraded Sybase ASE compatibility - Symposium Call Center Server Release 5.0 uses Sybase ASE 12.5.

### SCCS document references

"SCCS document references" (page 133) lists documentation references for SCCS.

#### SCCS document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>What's New in Release 5.0</i>	297-2183-802
<i>Supervisor's Guide</i>	297-2183-907
<i>Historical Reporting and Data Dictionary</i>	297-2183-803
<i>Administer's Guide for the DMS/MSL-100</i>	297-2183-401
<i>Planning and Engineering Guide</i>	297-2183-106
<i>Installation and Maintenance Guide</i>	297-2183-202
<i>Scripting Guide for the DMS/MSL-100</i>	297-2183-913
<i>Setup Guide for the DMS/MSL-100</i>	P0911820
<i>Symposium and DMS/MSL-100 Switch Guide</i>	297-2183-912

### Nortel Symposium Call Center Web Client Release 4.5

"Nortel Symposium Call Center Web Client Release 4.5" (page 133) lists feature information for Nortel Symposium Call Center Web Client Release 4.5.

#### Nortel Symposium Call Center Web Client Release 4.5

<b>Platform compatibility</b>	Meridian SL-100 and CSr 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL09 or higher, SCCS 4.0 or higher <b>CS 2100:</b> Release SE06 or higher, SCCS 4.0 or higher
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Symposium Call Center Web Client Release 4.5, a browser-based thin client, is compatible with Symposium Call Center Server Release 4.0 or higher. Symposium Call Center Web Client is a browser-based tool for call center administrators and supervisors. You can use Symposium Call Center Web Client to manage and configure a call center and its users, define access to data, and view real-time and historical reports.

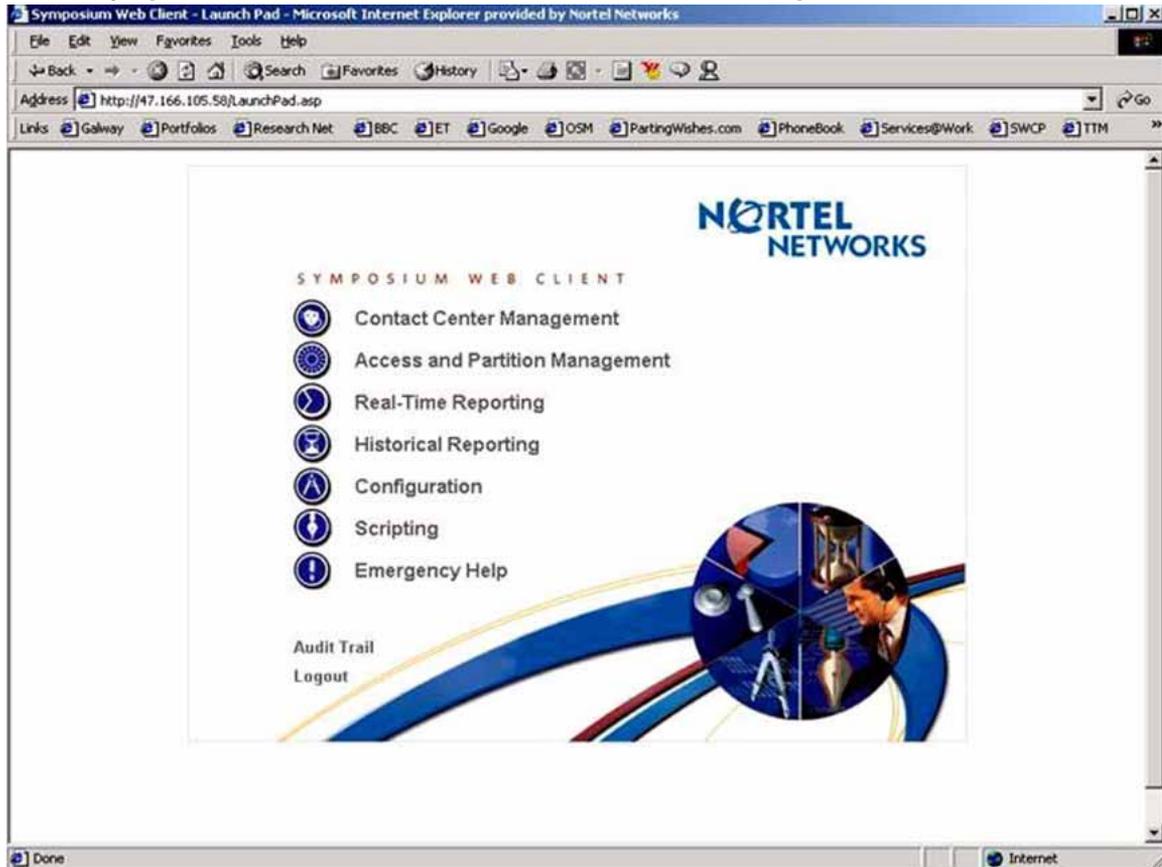
**Note:** Symposium Call Center Web Client Release 4.5 comes bundled with SCCS Release 5.0.

Symposium Call Center Web Client provides the following functions with these components:

- Contact Center Management - Add, edit, view, or delete users on a server in SCCS, agent-to-supervisor assignments, or agent-to-skillset assignments.
- Access and Partition Management - Add, edit, view or delete Symposium Call Center Web Client users, partitions, access classes, report groups for Historical Reporting, basic rights to different Symposium Call Center Web Client components.
- Configuration - Configure and administer SCCS, upload and download SCCS configuration and user information.
- Scripting - SCCS uses scripts to route calls. Create and modify call routing instructions for your call center.
- Real-Time Reporting - View the dynamics of call activity. Real-time displays are available for both networked and single sites.
- Historical Reporting - Use to gather information about past performance of the call center.
- Emergency Help - System notifies the supervisor automatically whenever an agent presses the Emergency key on their phone. The Emergency Help panel shows information about the agent, including the agent's name, location and time when the Emergency key was pressed.
- Audit Trail - Records the actions performed in the Configuration component and identifies the user ID of the person who made the changes.
- Agent Desktop Displays - Provides real-time skillset monitoring to agents.

["Nortel Symposium Call Center Web Client Release 4.5 launch pad"](#) (page 135) shows the browser-based launch pad for Symposium Call Center Web Client Release 4.5.

## Nortel Symposium Call Center Web Client Release 4.5 launch pad



### Symposium Call Center Web Client Release 4.5 features and benefits

Nortel Symposium Call Center Web Client Release 4.5 provides the following features and benefits:

- Centralized Management - client software is moved to a dedicated application server and accessed through an Internet Explorer browser for centralized installation, configuration, management and administration.
- New Agent Desktop Displays - Real-time displays provide agents with performance statistics.
- Improved User Management - Drag-and-drop agent reassignments save time and simplify supervisor assignments. Multiple sites can be managed using a single Web browser.
- Graphical Real-Time Displays - View critical real-time contact center information through a collection of graphical displays that can be customized.

- Historical Reporting - Centralized reporting enables sharing of public reports and provides e-mail notifications on the completion of scheduled reports.
- Improved User Interface - Real-time displays, reporting, configuration, and user management screens have been re-designed to further enhance usability and data presentation.
- Multiple Report Templates - More than 70 standard report templates are available.
- Standard Internet browser enables connections to powerful management tools, reports and real-time displays from virtually any computer within their corporate network.
- Network Consolidated Real-Time Displays - New network consolidated displays show call information from multiple locations, allowing for grouping and subtotals of call statistics.
- Increased Security - Web clients now can be separated from the Symposium server by a firewall.
- Enhanced Service Bureau Support - Real-time and historical reports can be partitioned for a service bureau environment. Skillsets and applications can also be filtered.

### Symposium Call Center Web Client document references

"[Symposium Call Center Web Client document references](#)" (page 136) lists documentation references for Symposium Call Center Web Client.

#### Symposium Call Center Web Client document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Planning Installation Administration Guide SU02 Dec2003</i>	297-2183-117
<i>Supervisor's Reference Guide SU02 Dec2003</i>	297-2183-918
<i>Data Extraction Tool User's Guide for Meridian 1</i>	297-2183-919

### Nortel Symposium Agent Release 2.3

"[Nortel Symposium Agent Release 2.3 feature information](#)" (page 137) lists feature information for Nortel Symposium Agent Release 2.3.

**Nortel Symposium Agent Release 2.3 feature information**

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL07 or higher with ICM, Symposium TAPI Driver for ICM, one of the following phones: M5000 series, POTS, M2008, M2216, or M2616</p> <p><b>CS 2100:</b> Release SE06 or higher, Symposium TAPI Driver for ICM, one of the following phones: M5000 series, POTS, M2008, M2216, or M2616</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel Symposium Agent is a sophisticated CTI productivity solution that enables call center agents to provide highly intelligent and personalized customer care. Its thin-client/server-based application framework takes full advantage of industry-standard desktop and server components to integrate all of the computer and telephony tasks into a single, cohesive interface. Symposium Agent automates business applications using data provided by the carrier network, or information provided by the caller through touch-tone or speech recognition.

**Server requirements for Symposium Agent Release 2.3**

Symposium Agent Release 2.3 has the following server requirements:

**Note:** Symposium Agent and TAPI server for ICM can reside on one server.

- Microsoft Windows NT Server 4.0 with Service Pack 6.0 or higher, Internet Explorer 4.0 or higher, Microsoft Data Access Components 2.1 or higher, Sybase Adaptive Server 12.0, TAPI Server or Remote TAPI Service Provider (if running separate servers).  
Windows 2000 Server or Windows 2000 Advanced Server software, Sybase Adaptive Server 12.0.
- Pentium II 400 MHz or higher, minimum 256 MB RAM, 6 GB disk space, CD-ROM drive, mouse, keyboard and monitor.
- Ethernet connection.

### **Client requirements for Symposium Agent Release 2.3**

Symposium Agent Release 2.3 has the following client requirements:

- Windows 95, Windows 98, or Windows NT Workstation 4.0 with Service Pack 4.0 or higher, Windows 2000 Professional, Internet Explorer 4.0 or higher, Microsoft Data Access Components 2.1 or higher (if you are using Windows 2000 Professional, you do not need to install Internet Explorer or MS Data Access Components), Remote TAPI Service Provider.
- Pentium PC 200 MHz or higher, minimum 25 Mbytes free hard disk space, minimum of 32 Mbytes of RAM.
- Ethernet connection.

### **Symposium Agent Release 2.3 features and benefits**

Symposium Agent Release 2.3 includes the following features and benefits:

- A third-party CTI call center application that integrates your telephone and PC in an easy-to-use Graphical User Interface (GUI).
- Lets agents handle calls directly from their computer while simultaneously viewing or entering data into a file related to the call.
- Uses rules-based intelligence to automatically launch desktop applications.
- Access caller data from multiple applications and populate on a custom-defined form. Events trigger the software to provide relevant caller data from the caller's repositories (client/server and host-based) and deliver the data together with the call to the agent's desktop. Data collected by IVR systems can also be passed to the agent's desktop.
- Centralized Call Rule and Trigger administration makes it easier to integrate telephony-enabling legacy applications. The Call Rule's database resides on a PC server and is configured from any Web browser.
- Provides support for powerful OLE, DDE, and keystroke integration and pre-packaged agentTriggers for Microsoft Outlook, Remedy, Siebel98, Siebel SupportTEAM, and Clarify ClearCallCenter applications.
- Centralized Agent Data administration dramatically simplifies solution management. All data is stored on a common server, allowing for a central point of storage and administration. This function supports agent mobility - all agent data configuration moves with the agent when they move to a different phone. This includes browser-based configuration, administration, and centrally stored speed dial lists and agent directories.
- AgentExplorer provides a unified interface to all Symposium Agent functions and a browser-based interface to many other Intranet and Internet services and add-in applications.

- AgentCompass makes it possible to develop powerful, dynamic (telephony-enabled) Web applications that put critical information at an agent's fingertips. AgentCompass applications can simplify data entry, guide agents through complex transactions and help agents cross-sell company products.
- AgentTelephony improves agent productivity by including access to Lightweight Directory Access Protocol (LDAP) directories, agent messaging service, centrally-stored agent call and event logs, including unattended event logging and centrally administered dialing plans.
- Symposium Agent connects to the host using CompuCALL (SCAI or ICM) on the agent's Microsoft Windows PC or NT-based desktop with a TAPI 2.1 client.

### Symposium Agent document references

"Symposium Agent document references" (page 139) lists documentation references for Symposium Agent.

#### Symposium Agent document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Installation Guide</i>	sainstall0101
<i>Programmer's Guide</i>	saprogram0101
<i>Planning and Engineering</i>	sape0601
<i>Symposium Agent 2.3 Supplementary Technical Information</i>	P-2003-0157

### Nortel Symposium LinkPlexer Release 1.2

"Nortel Symposium LinkPlexer Release 1.2" (page 139) lists feature information for Nortel Symposium LinkPlexer Release 1.2.

#### Nortel Symposium LinkPlexer Release 1.2

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL09 or higher, Intelligent Call Management (ICM) link, Ethernet Interface Unit (EIU) <b>Communication Server 2100:</b> Release SE06 or higher, ICM link
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Nortel Symposium LinkPlexer Release 1.2 is a Windows 2000 Server application that acts as a proxy server between multiple IP clients and the Meridian SL-100/CS 2100. This arrangement lets the IP clients share the same session and the resources of the Meridian SL-100/ CS 2100. LinkPlexer 1.2 can connect to the switch through TCP/IP (ICM) or X.25 (CompuCALL) (the CS 2100 does not support X.25 connections). When LinkPlexer 1.2 acts as an IP-capable server, it lets applications that can only connect over TCP/IP communicate with a switch that uses an X.25 connection.

**Note:** Windows NT 4.0 with Service Pack 6 is supported to enable an upgrade without having to change operating systems.

Symposium LinkPlexer 1.2 allows applications to share Directory Number (DN) association between different eBusiness applications. For example:

- Interactive Voice Response (IVR) voice ports controlled by IVR and monitored by SCCS.
- A system where, SCCS performs the call routing, the IVR controls the voice response system, and Symposium TAPI Server/Symposium Agent controls softphones and screen pops.
- When agent positions are controlled by TAPI Server/Symposium Agent (TAPI) (or desktop CTI) are monitored by SCCS.
- In systems where call queues and agent positions monitored by third-party applications, such as voice recorders.

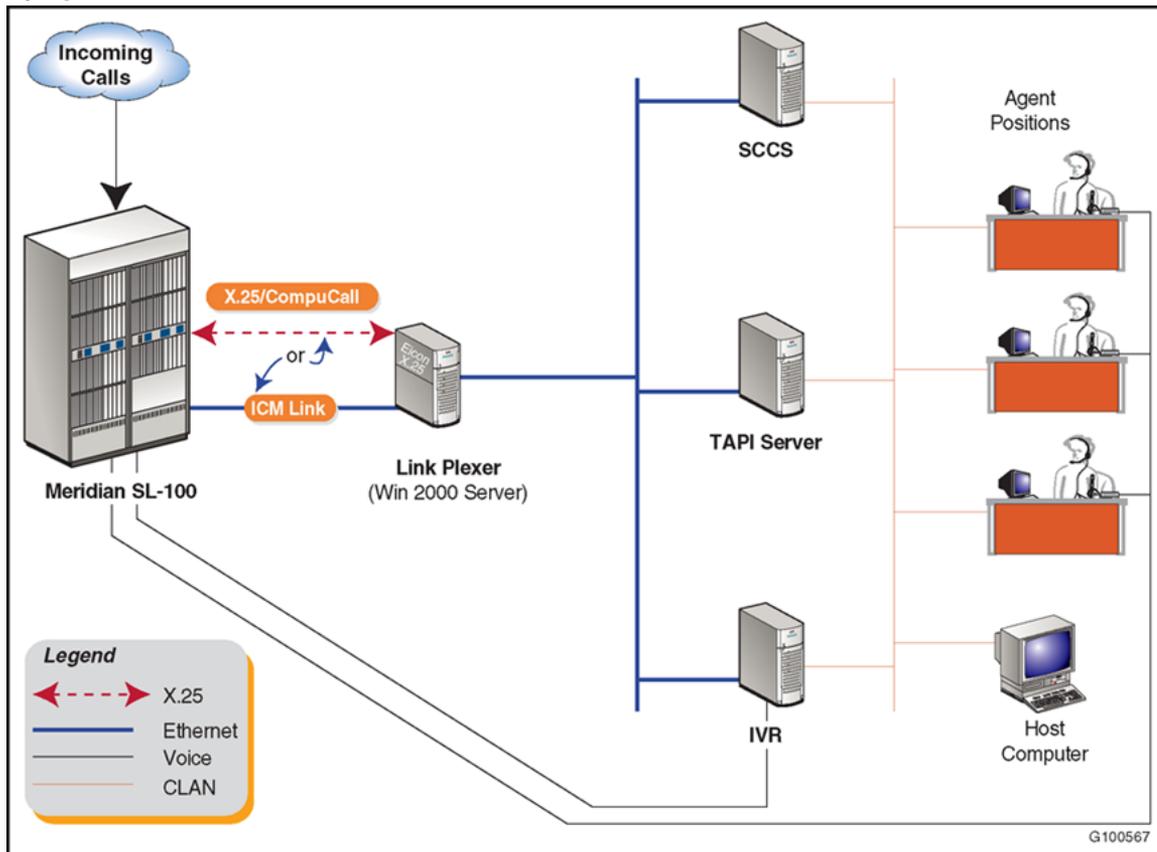
"[Symposium LinkPlexer 1.2 architecture](#)" (page 141) illustrates the Symposium LinkPlexer Release 1.2 architecture.

### **Server requirements for LinkPlexer Release 1.2**

Symposium LinkPlexer Release 1.2 has the following server requirements:

- Pentium III - 900MHz, MS Windows 2000, 128 MB RAM, 18 GB storage.
- Security dongle and keycode; parallel port for dongle.
- LinkPlexer supports two Network Interface Cards (NICs). Two NICs are required if LinkPlexer is co-resident with the ICM TAPI Driver.
- If X.25 is being used, two communication ports are required (only one for ICM), Eicon card, Motorola V.3600 modem.

## Symposium LinkPlexer 1.2 architecture



## Symposium Linkplexer Release 1.2 features and benefits

Symposium LinkPlexer Release 1.2 has the following features and benefits:

- DN association sharing - Both CompuCALL and Intelligent Call Management (ICM) limit the association of resources to a single session. Two host applications with simultaneous CompuCALL/ICM application sessions established with a given switch cannot have the same resource associated with the two sessions at the same time. LinkPlexer 1.2 overcomes this limitation by propagating all resource messages from the Meridian SL-100 to all clients.

For example:

A dv-call-offered message from the Meridian SL-100 is propagated to all clients and not just the client that originally issued the dv-dn-association request.

- ICM application multiplexing - The Meridian SL-100 only allows one resource to be associated per link session with the switch. However, LinkPlexer 1.2 acts as a proxy server between multiple ICM applications and a DMS, Meridian SL-100 CompuCALL, or ICM switch link. It enables

ICM clients to share, over TCP/IP, the same session and Meridian SL-100 resources and manages messages to and from the switch.

- Connectivity of ICM client to CompuCALL - LinkPlexer 1.2 supports a single connection to the Meridian SL-100 switch, either Ethernet TCP/IP or X.25. This connection allows ICM-only applications to access CompuCALL-equipped systems. LinkPlexer relays messages to the X.25/ICM link on the switch.
- Messaging - LinkPlexer 1.2 has three general types of messaging and tracks each message from an application to the Meridian SL-100. The initial response message is sent only to the sending application. Event messages are broadcast to all connected applications. To the application communicating with LinkPlexer 1.2, the socket exactly emulates the Meridian SL-100 ICM interface.
- DN Association Management - LinkPlexer 1.2 keeps a track of which DNs and Agent Position IDs are associated with each agent/client (for example, SCCS, TAPI and so on) connection. This is required to ensure that DNs and Agent Position IDs associated with a particular agent/client connection are not disassociated by a dv-Dn-Associate (delete) being received from another agent/client connection.
- Session Management - Session Management is carried out by LinkPlexer 1.2 and operates as follows:
  - On LinkPlexer 1.2 service startup, a connection is established with the switch and a login session is started (by sending a dv-Appl-Logon message).
  - When the last agent/client disconnects from LinkPlexer 1.2, the link between LinkPlexer 1.2 and the switch is also disconnected. After a short period (less than 10 seconds) LinkPlexer 1.2 will re-establish the connection to the switch and restart the login session (by sending a dv-Appl-Logon message).
- Client connection management - LinkPlexer 1.2 manages all client connections to ensure connection integrity. A client connection is any successful socket connection to LinkPlexer 1.2. Each connection uses one client license. The number of client connections is limited, by the keycode, to 150. LinkPlexer 1.2 maintains the integrity of the connection between the LinkPlexer 1.2 server and each connected client. This allows LinkPlexer 1.2 to free the client license when a client disconnects.
- Generation of dv-Set-Offhook-U on behalf of Softphone - LinkPlexer 1.2 enables multiple applications to monitor and control devices on a single link. In the direct-connect to the Meridian SL-100 scenario (no LinkPlexer 1.2), the application always has knowledge of the operations being performed on a device, since the application is responsible for instructing the Meridian SL-100 to perform the operation. With

LinkPlexer 1.2, an application can initiate an operation on a device that negatively impacts another application on the link.

- Migration - LinkPlexer 1.2 facilitates the introduction of Nortel applications (such as SCCS) into existing CompuCALL or ICM-based networks without the need to displace the existing applications. LinkPlexer 1.2 architecture is component architecture, rather than a monolithic model with SCCS as the focal point.
- Connectivity - LinkPlexer 1.2 provides conversion of ICM to X.25 and vice-versa allowing ICM-only applications to be used with existing CompuCALL links.
- Compatibility - LinkPlexer performs no protocol conversion. Applications conforming to the NIS Q218 CompuCALL/Meridian SCAI Interface Specification should work in a LinkPlexer integrated environment.

### Symposium LinkPlexer document references

"Symposium LinkPlexer document references" (page 143) lists documentation references for Symposium LinkPlexer.

#### Symposium LinkPlexer document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>LinkPlexer 1.2 Installation and Configuration Guide</i>	P0993516

### Nortel Symposium Web Center Portal 4.0

"Nortel Symposium Web Center Portal 4.0" (page 143) lists feature information for Nortel Symposium Web Center Portal Release 4.0.

#### Nortel Symposium Web Center Portal 4.0

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL09 or higher, Symposium Call Center Server Release 5.0, TAPI-ICM</p> <p><b>CS 2100:</b> Release SE06 or higher, Symposium Call Center Server Release 5.0, TAPI-ICM</p> <p><b>Note:</b> Symposium Web Center Portal Release 4.0 is supported only on Symposium Call Center Server Release 5.0</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Symposium Web Center Portal (SWCP) Release 4.0 is a Microsoft Windows NT client/server multimedia contact center application blending e-mail, web and telephony communications using Symposium Call Center Server and Symposium Express applications. SWCP is a modular, software-only solution that can be implemented in stages. The modules are E-mail Manager with Click-to-Call, Multimedia Manager and Web Communication Manager.

Agents can view, respond to, and track requests from the Internet. Unlike conventional e-mail requests to a single e-mail account, Symposium Web Center Portal lists all of your customers' requests, and records all of your agents' responses with the initial request. This allows you to measure and control the volume of traffic from the Internet. Supervisors and administrators can view real-time displays of contact center activities and run historical reports.

The agent/client interface presents the agent with a browser-based Graphical User Interface. Symposium Web Center Portal agents can respond to contacts through a variety of media, including callback responses, e-mail, Internet text chat and form sharing.

Symposium Web Center Portal 4.0 offers intelligent e-mail routing, call blending, text chat capability, click-to-call features, and the management tools to easily integrate today's Web-based customer inquiries into the dynamic contact center environment.

The Symposium Web Center Portal system is integrated directly with Symposium Call Center Server through the Host Data Exchange (HDX) and OAM interfaces. The HDX interface allows for the integration with Symposium Call Center Server scripting for the purposes of routing. The OAM interface allows Symposium Web Center Portal to access the information in the Symposium Call Center Server about configured agents, supervisors, skillsets, and the mapping of these users to skillsets.

Symposium Web Center Portal is also integrated with the TAPI server through the Dynamic Transaction Handler (DTH). The DTH presents multimedia contacts to Symposium Call Center Server to queue, route and report in the same way as Symposium Call Center Server handles voice contacts. TAPI call data identifies the Symposium Web Center Portal contact for the associated call. The Portal Desktop then uses this data to route the contact to the appropriate agent.

### **Symposium Web Center Portal Release 4.0 features and benefits**

Symposium Web Center Portal provides these functions with these components:

- E-mail Manager with Click-to-Call has the following features:

- 
- Skill-Based Routing handles e-mail inquiries as effectively and efficiently as phone calls.
  - Prioritization and preferred Agent Routing - Queue to Individual Agents.
  - Automated responses to Frequently Asked Questions.
  - Customer Initiated call back request.
  - Configured option to Pull or Push e-mails to Agents.
  - Single point of administration for skillsets, supervisors and agents.
  - Single Agent Login for Symposium Web Center Portal and Symposium Call Center Server.
  - Agent productivity tools.
- Click-to-Call offers customers an immediate or scheduled call back with the click of a button. Connects customers with agents when they need help and at their convenience.
  - Agent Interface allows an agent to view the details of a customer transaction after accepting a click-to-call request.
  - In Symposium Web Center Portal 4.0, the Portal server runs on the Windows 2000 Server and Windows 2000 Advanced Server operating systems.
  - Symposium Web Center Portal 4.0 uses Sybase 12.5.
  - Symposium Web Center Portal 4.0 requires that TAPI be installed on every agent desktop to enable unified login with Symposium Call Center Server.
  - Escalation and Case Management of e-mails. E-mails can be forwarded to another skillset, a list of e-mail addresses or a specific agent.
  - Leverages the same business routing rules for e-mails and phone calls.
  - Offers priority routing to preferred customers' e-mails.
  - Improves first call resolution.
  - Reduces contact handling costs.
  - Improves staff productivity and morale.
  - Preserves full contact center investment, including integration of business applications.
  - Reduces cost of deployment and total cost of ownership.
  - Symposium Web Center Portal Release 4.0 empowers businesses to "Web-enable" their contact centers and expand the way they do business with their customers - anytime, anywhere, anyway.

- Nortel Symposium Web Center Portal Release 4.0 opens the door for companies to increase revenue, reduce their costs of customer service, offer anytime/anywhere access to their products and services, and, most importantly, increase customer loyalty as customers increasingly use the Internet for business.

### Symposium Web Center Portal document references

"Symposium Web Center Portal document references" (page 146) lists documentation references for Symposium Web Center Portal.

### Symposium Web Center Portal document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Nortel Symposium Web Center Portal - Planning and Engineering Guide</i>	297-2183-115

### Nortel Call Center Management Information System Release 6.0

"Nortel Call Center Management Information System Release 6.0" (page 146) lists feature information for Nortel Call Center Management Information System (CC MIS) Release 6.0.

### Nortel Call Center Management Information System Release 6.0

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<p><b>Meridian SL-100:</b> Release MSL07 or higher with CCM10, CCM11, or CCM12, SCCS 4.0</p> <p><b>CS 2100:</b> Release SE06 or higher, Symposium TAPI Driver for ICM, Symposium Agent</p>
<b>Ordering information</b>	<p>Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.</p> <p>For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>.</p>

Nortel Call Center Management Information System (CC MIS) 6.0 is the command center for the Centrex ACD call center, enabling the Call Center manager to view agent and queue statistics in real-time, generate a wide variety of standards and reports that can be customized, execute changes to ACD parameters and much more. The addition of wallboards from Nortel complete line enables supervisors to keep from 25 to 30,000 agents informed of their performance. The familiar Windows interface and user-friendly screens make operation simple and training of new supervisors easy.

CC MIS has been supplied as a turnkey hardware and software solution for over 10 years. As the industry has evolved to decouple hardware supply from software applications, Nortel now supplies CC MIS as a software application that runs on customer provided hardware. In this respect, the CC MIS 6.0 is designed to operate on customer supplied Intel-based server hardware running Red Hat Enterprise Linux 3.0.

Customers can purchase the Intel-based server platform direction from their hardware vendor. Platform guidelines are published by Nortel along with a list of tested and approved platforms. CC MIS 6.0 server software is available in Linux version only.

**Note:** Networking with CC MIS Release 5.2 systems is supported, but requires different CC MIS client versions to be used to access 5.2 versus 6.0 servers.

### **CC MIS Release 6.0 features and benefits**

Nortel CC MIS Release 6.0 offers the following features and benefits:

- Linux Personal Firewall – CC MIS Release 6.0 is designed to work with the personal firewall and dynamically open/close ports in the firewall as required.
- Anti-Virus Software– CC MIS has been tested with Anti-Virus software from reputable vendors, such as Linuxshield (by McAfee) and eTrust Antivirus (by Computer Associates).
- Security Banner – Customers can define when the security banner dialog is displayed. When enabled, a security notice dialog is displayed requiring the user to acknowledge the security notice. Each customer has individual security banner configuration.
- Increased Capacity – Increased capacity creates opportunities for Contact Center consolidation by reducing the number of servers to manage and maintain. Capacity enhancements include an increase from 256 to 2000 supervisors and a partition increase from 32 to 64.
- Walkaway Code Definition – This feature enables an optional code-specific threshold to be defined that impacts the highlighting of positions in walkaway state in the Agent Status Display.
- System Reporting- CC MIS reports, which provide a listing of various CC MIS database tables, can be sent to files on disk or as emails in the same manner currently used for historical reports.
- Report Sending - Reports can be sent as emails directly from the CC MIS 6.0 server without requiring the report to be sent from an e-mail account accessible to one or more CC MIS clients. This increases security and also eliminates the need to have a selected CC MIS client running at all times.

- Switch Connectivity - Live TCP/IP switch links and simulator links can be defined in CC MIS Release 6.0. Direct X.25 connection to the switch and X.25 switch link cannot be configured on Linux systems. Links to the switch must be made using a Nortel Multiservice Switch ARN configured to provide an IP to X.25 bridge.
- Importing Functionality - New import functionality allows databases to be imported from another system running CC MIS 5.2 or later.

### CC MIS document references

"CC MIS document references" (page 148) lists documentation references for Nortel CC MIS.

#### CC MIS document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>CC MIS Maintenance and Administration Guide</i>	297-2671-545
<i>CC MIS Getting Started Guide</i>	297-2671-175
<i>CC MIS System Description</i>	297-2671-150
<i>CC MIS Release Notes</i>	297-2671-211

### Nortel Media Processing Server 500 Release 2.1

"Nortel Media Processing Server 500" (page 148) lists feature information for Nortel Media Processing Server 500 (MPS 500)

#### Nortel Media Processing Server 500

<b>Platform compatibility</b>	Meridian SL-100 and CSr 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL09 or higher <b>CS 2100:</b> Release SE06 or higher
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

The Media Processing Server (MPS) 500 is the ideal self-service solution for medium-sized enterprises. This full-featured, competitively-priced solution provides an advanced suite of capabilities including a full portfolio of Advanced Speech solutions, VoiceXML and Session Initiation Protocol (SIP). Nortel integration packages and native interfaces enable MPS 500 to seamlessly integrate with numerous CTI applications for fast, intelligent call routing.

The MPS 500 consists of one Telephony Media Server (TMS) which supports eight T1/E1 spans (up to 240 ports) or comparable capacity VoIP channels. The MPS 500 is capable of providing full IVR functionality including fax, caller message recording, conferencing, speech recognition and text-to-speech (using OSCAR resource servers), SQL database access, host screen scrape access and CTI integration. It supports building and running of an application to control a given call.

### **Media Processing Server 500 features and benefits**

Nortel Media Processing Server 500 has the following features and benefits:

- Improves contact center efficiency by automating routine requests and freeing agents for more complex inquiries. MPS 500 announcements, stored in industry standard audio file format (MMF or .wav), are easy to create, reducing costs and providing flexibility.
- Delivers friendlier self-service and more personalized customer experience by using robust, multi-language advanced speech capabilities.
- Extends your web applications to callers by using VoiceXML, JAVA and other internet technologies.
- Supports a hybrid environment of traditional and VoIP telephony protocols that enable smooth transition to VoIP without costly hardware upgrades.
- Provides a dual application development environment that grants customers the choice to develop applications in VoiceXML or PeriProducer. This integration strategy provides investment protection and a migration path from one environment to another if and when required.
- Supports digital and IP telephony simultaneously. This support includes Session Initiation Protocol, which enables phased migration to VoIP that fits your business strategy without costly upgrades and positions your business for evolution to Engaged Applications.
- Enables multiple host and database access that allows MPS 500 to simultaneously pull customer information from multiple databases. MPS 500 easily integrates into an existing data and network infrastructure without costly re-engineering.
- Accelerates deployment, simplifies system integration and delivers faster return on investment through native CTI interfaces – MPS 500's standard, out-of-the-box integration packages.
- Streamlines system configuration and management through browser-based system management that runs as a Java client or in an industry standard browser window.

- Increases customer satisfaction in the sending, receiving and composing of faxes by automating the distribution or collection of documents such as part lists, application forms, registration, claim forms, confirmations and so on, through an MPS 500 application for faster, more convenient customer access.
- Improves customer services by increasing probability of first call resolution by providing capability to conference a caller with additional agents or supervisors.
- Enables you to chose the operating system that best suits your corporate infrastructure, due to availability on a Solaris or Windows Operating System.
- Interfaces to all of the most common PBXs, including Meridian SL-100 and Communication Server 2100. For businesses with a variety of PBXs in their Network, the MPS 500 is the self-service solution that can interface to them all.
- Expands capability and size easily through modular architecture, which enables you to protect your investment by buying what you need today and still accommodate future growth.

### Media Processing Server 500 document references

"[Media Processing Server 500 document references](#)" (page 150) lists documentation references for Media Processing Server 500.

#### Media Processing Server 500 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Nortel Media Processing Server 500 Customer Supplied Rack Solutions</i>	P0608292
<i>Media Processing Server Series 500 (MPS 500) Overview</i>	P0603951
<i>MPS 500 Hardware Installation and Maintenance Manual</i>	P0603484

### Nortel Media Processing Server 1000 Release 2.1

"[Nortel Media Processing Server 1000](#)" (page 151) lists feature information for Nortel Media Processing Server 1000 (MPS 1000).

**Nortel Media Processing Server 1000**

<b>Platform compatibility</b>	Meridian SL-100 and CS 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL09 or higher <b>CS 2100:</b> Release SE06 or higher
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager.  For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

The MPS 1000 is Nortel multimedia self-service solution for enterprise high volume call centers. The ideal platform for mission-critical installations that require continuous availability and high transaction throughput, the MPS 1000 provides automated transaction handling and application controlled call handling uniquely combined in an integrated, non-blocking system. The MPS 1000 supports comprehensive networking and data communication.

The MPS 1000 is the next hardware and software generation of the VPS/is. It runs on the Solaris and Windows platforms and offer all available call processing options. The MPS 1000 is offered in the same rack systems as the current VPS/is systems.

The Nortel Media Processing Server 1000 starts at four DS1 connections and scales up to 384 DS1 connections. All DS0 connections in the Nortel Media Processing Server 1000 can be bridged together. The 384 DS1 connections are distributed across 48 Telephony Media Servers residing in 12 chassis. Each Telephony Media Server is capable of supporting eight DS1 connections. The Nortel Media Processing Server 1000 is capable of providing full IVR functionality including OSCAR resources (for example, LVR, TTS, and so on), programmable switching functionality, or a mixture of both. The Nortel Media Processing Server 1000 also provides fault resiliency with the call protect feature.

**Media Processing Server 1000 features and benefits**

Nortel Media Processing Server 1000 has the following features and benefits:

- A highly scalable solution, the MPS 1000 supports the following:
  - 96 - 9216 ports (T1)
  - 120-11520 ports (E1)
  - 120-11520 VoIP ports

- a combination of digital and VoIP connections in a single system
- Smaller systems can easily be expanded over time, delivering a growth path that matches the needs of your business.
- The MPS 1000 is designed to offer the following options for writing self-service applications:
  - the intuitive, graphical development environment of PeriProducer
  - the text-based markup language of VoiceXML
- VoiceXML applications can invoke PeriProducer applications, and vice versa. Nortel implementation of VoiceXML complies to version 2.0 of the VoiceXML specification.
- For customers who are committed to JAVA for their Business Logic, the MPS 1000 provides a Java Services Bridge (JSB) as a message interface between Nortel self-service applications created with PeriProducer and any Java facility accessible through a Java API.
- System management is simplified through the use of the PeriView suite of GUI tools. PeriView runs as a standalone java client application or in a common web browser window industry-standard browser.
- Compact footprint reduces floor-space requirements, saving real estate and maintenance costs. A single, typical telco-grade cabinet supports up to 1536 T1 or 1920 E1 channels in a 0.5 square meter/5.2 square foot.
- The MPS 1000 easily integrates into your existing infrastructure by supporting a wide variety of telephony and network protocols, hosts and databases essentially eliminating the need for costly re-engineering.
- Many shared system resources are not required by a port for the full duration of the call, nor are they required by all lines at any given time. The MPS 1000 is unique in its ability to dynamically allocate such resources to ensure maximum usage, while at the same time reducing the amount of hardware required and ultimately reducing system cost speech resources.
- Additional features supported include Conference, Fax and Caller Message Recording.
- The MPS 1000 delivers mission-critical reliability through redundant system components for protection against lost service revenue. Redundant hardware can be configured to ensure the continuous operation of critical components.
- For friendlier self-service and more personalized customer experience, the full suite of Advanced Speech capabilities are supported, including:
  - Large Vocabulary Recognition

- Natural Language Understanding
  - Speaker Verification
  - Text to Speech
- Because the MPS 1000 supports both digital and IP voice protocols, customers who require a hybrid digital/VoIP environment are provided a smooth migration path designed to protect existing hardware investment. The MPS 1000 supports H.323 and SIP protocols.
  - The MPS 1000's non-blocking, programmable call-handling platform delivers connectivity of any port to any port, or to any shared resource, reducing hardware requirements and monthly trunking costs, while increasing system flexibility.

### Media Processing Server 1000 document references

"[Media Processing Server 1000 document references](#)" (page 153) lists documentation references for the Media Processing Server 1000.

#### Media Processing Server 1000 document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806
<i>Media Processing Server Series 1000 Software Installation Guide</i>	P0988081
<i>Media Processing Server Series Telephony Reference Manual</i>	P0988082
<i>Media Processing Server Series COMMGR Reference Manual</i>	P0988083
<i>Media Processing Server Series System Reference Manual</i>	P0988084
<i>Media Processing Server Series Caller Message Recording</i>	P0988085
<i>Media Processing Server Series GeoTel Features User Manual</i>	P0988087
<i>Media Processing Server Series Solaris System Operator's Guide</i>	P0988097
<i>Media Processing Server Series Application Programming Guide</i>	P0988090
<i>Media Processing Server Series Transition Guide</i>	P0988098
<i>Media Processing Server Series 1000 Release Notes</i>	P0988100
<i>Simple Network Management Protocol in the MPS Environment</i>	P0989517
<i>Glossary of Media Processing Server Series Terminology</i>	P0991722
<i>MPS Disk Mirroring Installation, Configuration, and Recovery</i>	P0992698
<i>Java Services Bridge User's Guide</i>	P0987095
<i>Java Services Bridge Release Notes</i>	P0989404
<i>HTML Service Daemon User's Guide</i>	P0988465

## Nortel Peri-ICM Release 2.0

"Nortel Peri-ICM Release 2.0 feature information" (page 154) lists Nortel Peri-ICM Release 2.0 feature information.

### Nortel Peri-ICM Release 2.0 feature information

<b>Platform compatibility</b>	Meridian SL-100 and Communication Server 2100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL12 or higher, ICM Link, EIU <b>CS 2100:</b> Release SE06 or higher, Call Agent card, ICM Link, SAM21 shelf
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

Nortel Periphonics Intelligent Call Management Link (Peri-ICM) Release 2.0 is a native VPS/is implementation of the DMS ICM interface. It delivers Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) information from a Nortel Meridian SL-100/Communication Server 2100 to a Nortel Integrated Voice Response (IVR) system.

Peri-ICM offers the following:

- Supports ICM Link over TCP/IP behind a Meridian SL-100/Communication Server 2100.
- Supports ICM Link over TCP/IP behind LinkPlexer.
- Supports an interface to SCCS to provide Customer Entered Data (CED) delivery.

Peri-ICM along with IVR integration components (IVR/SCCS Integration package and IVR/TAPI integration package) provide an open, yet integrated environment for enhanced voice processing, call/data delivery, screen pops and other call center-related applications in client/server installations.

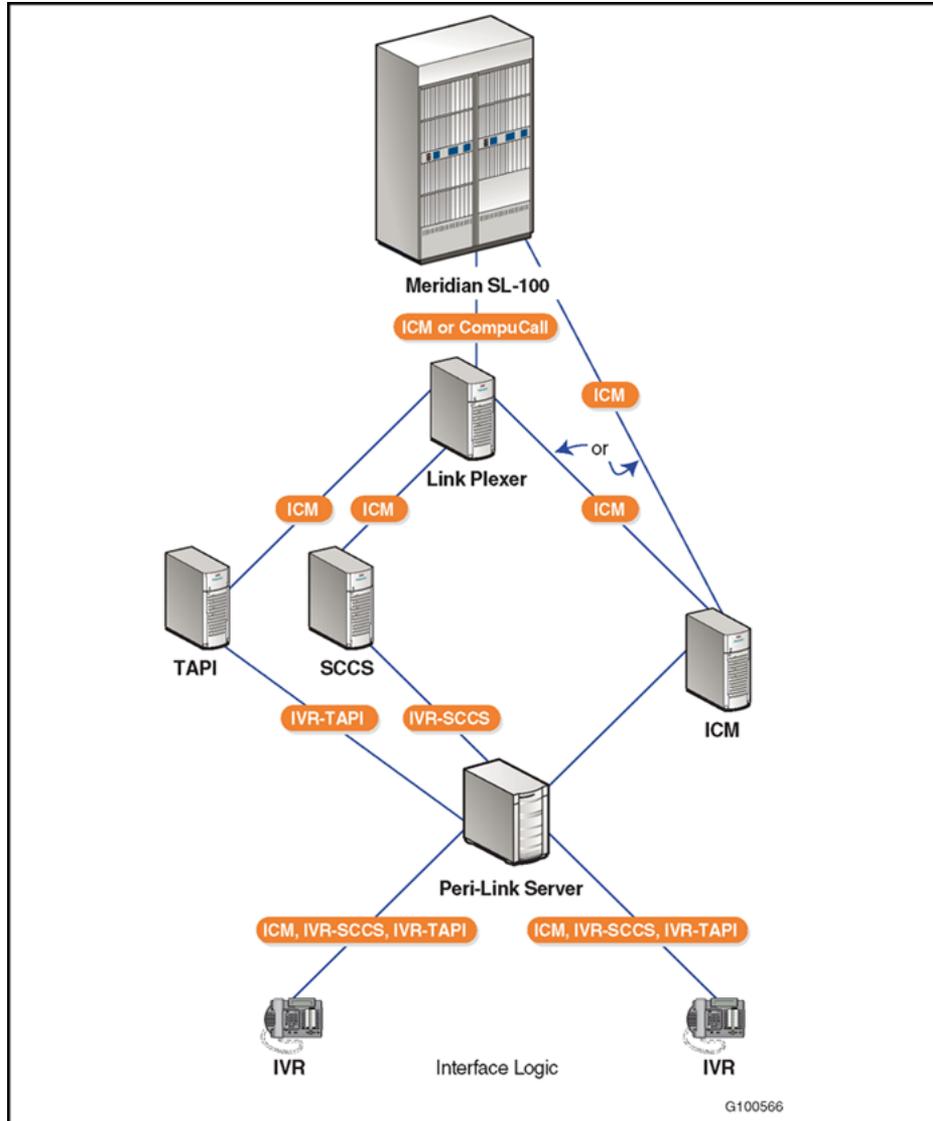
The Peri-Link Server Release 2.0 provides support to Peri-ICM (Release 1.0 and Release 2.0), the IVR to Symposium Call Center Server (IVR to SCCS) interface, and/or the IVR to TAPI Server interface in situations where integration is required to a Solaris-based VPS/is (Rel 5.4.1 and above) and/or to multiple (NT or Solaris-based) VPS/is (Rel 5.4.1 and above) systems.

From a hardware perspective, Peri-Link Server is an external Microsoft WinNT server available as a rackmounted unit or a desk unit.

**Note:** The Peri-Link server is not required for a single WinNT VPS/is using Peri-ICM (Release 2), IVR-SCCS and IVR-TAPI.

"Peri-ICM and IVR integration with a Meridian SL-100" (page 155) is an example of Peri-ICM and IVR integration with a Meridian SL-100.

### Peri-ICM and IVR integration with a Meridian SL-100



### Peri-ICM Release 2.0 features and benefits

Peri-ICM Release 2.0 includes the following features and benefits:

- Allows for digital call transfers that save up to four seconds per call.
- Enables ACD agents to digitally login and logout of IVR ports, providing significantly faster login/logout than traditional DTMF functionality.
- Peri-ICM provides tight integration between the Nortel IVR and a Meridian SL-100, by enabling the IVR application to send/receive all

required telephony requests, responses and event messages to and from the Meridian SL-100.

- The IVR/Symposium Call Center Server (SCCS) Integration Package has the following capabilities:
  - Provides an interface to pass IVR collected data from the VPS/is to SCCS. This data can be used to retrieve skillset queue information such as estimated wait time, number of agents logged into the skillset, ready and not ready, number of calls in queue, and to select a skillset on which to queue the call. It then matches caller needs to agent skills, thereby allowing the call center to offer preferred customer treatment and priority.
  - Includes the CSHDX and the CSRSM interfaces. The CSHDX interface provides "Skills-Based Routing" information to the SCCS. The CSRSM interface provides statistics from SCCS to the Processing Server application script.
  - In a Meridian SL-100/Communication Server 2100 configuration, passing IVR collect data from the VPS/is to the SCCS for the purposes of skill set selection and call routing uses the SCCS Host Data Exchange (HDX) interface and requires Peri-ICM Release 2.04.
  - Passing the real-time skill queue data from the SCCS to the VPS/is enables IVR applications with "Estimated Wait Time" and other "Time in Queue" applications to use the Real-time Statistics Multicast (RSM) interface on SCCS.

**Note:** SCCS 4.0 or higher is required to support HDX or RSM.

- The IVR/TAPI Integration Package has the following capabilities:
  - Provides an interface to pass IVR collected customer-entered data from the VPS/is to the TAPI Server (Meridian SL-100/Communication Server 2100). TAPI can use this data to populate messages or to trigger events with the TAPI Server/Driver. The passing of messages with customer-entered data provides better agent information and eliminates the need for customers to provide information multiple times.
  - In a Meridian SL-100/Communication Server 2100 configuration, the TAPI interface used is IVR.DDL.
  - IVR/TAPI can run directly on one Windows 2000 VPS/is. A Peri-Link Server is required for Solaris VPS/is or a configuration with multiple VPS/is (Windows 2000 or Solaris).
  - Requires VPS/is 5.4.2 or higher.
  - Requires TAPI Server 2.1/2.2 or higher for Meridian SL-100/Communication Server 2100 environments.

- Peri-Link Server 2.0.4 - a Windows 2000 Server that provides a dedicated processing environment for Peri-IPML, IVR/SCCS interfaces, IVR/TAPI interfaces and IVR CTI Desktop Toolkit.

### Peri-ICM document references

"Peri-ICM document references" (page 157) lists documentation references for Nortel Peri-ICM.

#### Peri-ICM document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806

## Lightweight Directory Access Protocol Synching

"Nortel LDAP Synching" (page 157) lists feature information for Nortel Lightweight Directory Access Protocol Synching.

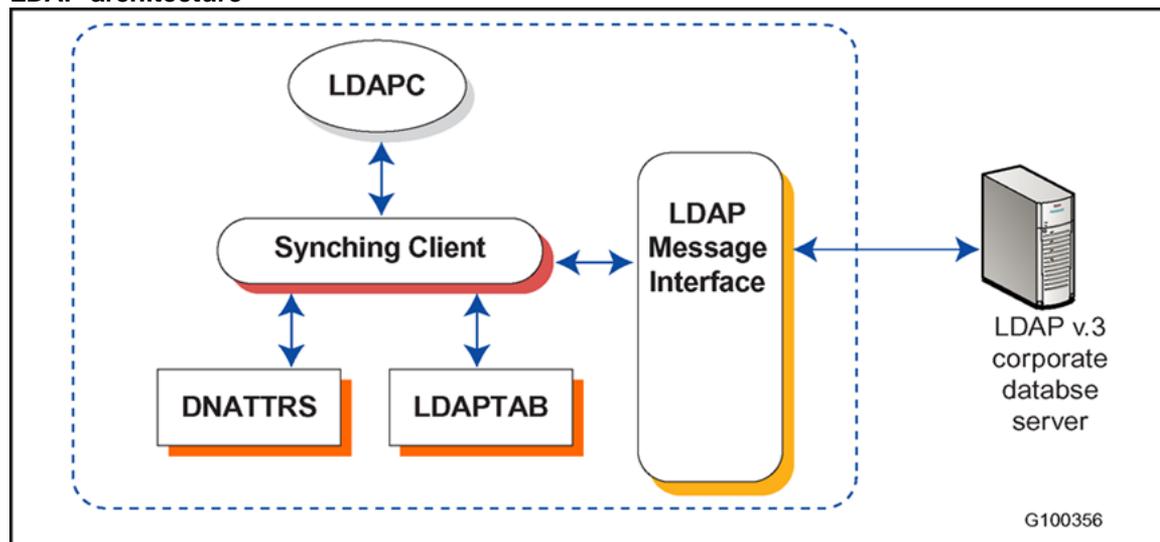
#### Nortel LDAP Synching

<b>Platform compatibility</b>	Meridian SL-100
<b>Platform requirements</b>	<b>Meridian SL-100:</b> Release MSL15 or higher, ICM link, EIU
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a> .

LDAP Synching for the Meridian SL-100 can automatically update a corporate LDAP version 3 database with telephone number changes from the Meridian SL-100. In addition, when changes are made in the corporate LDAP version 3 database, LDAP Synching has the ability to update the name associated with a Directory Number on the Meridian SL-100. The Meridian SL-100 can synchronize with an LDAP version 3 authoritative database on three attributes: Directory Number, name and a unique identifier.

With LDAP Synching for Meridian SL-100, the Meridian SL-100 functions as an LDAP client and synchronizes to an LDAP version 3 corporate database server. "LDAP architecture" (page 158) illustrates the LDAP architecture.

## LDAP architecture



The Synching Client is responsible for Start-up and Continuous Synchronization. It communicates with and extracts information from the LDAP version 3 corporate database server using the LDAP Messaging Interface. The LDAP Messaging Interface encodes and decodes messages to and from the LDAP version 3 corporate database server. The start-up process associates the DNs on the Meridian SL-100 with a unique identifier (Unique ID) on the LDAP version 3 corporate database server. On the Meridian SL-100, information associated with the DN is stored as follows:

- The name associated with the DN is stored in Table DNATTRS.
- The unique ID associated with a DN is stored in either Table IBNFEAT or KSETFEAT.

Changes in the name or unique ID are identified and queued against the Synching Client. The Synching Client reads Table LDAPTAB to connect to the LDAP version 3 corporate database server. Table LDAPTAB contains the IP address, LDAP server port and other information needed to connect to the LDAP version 3 corporate database server. The Synching Client then compares data that resides on the Meridian SL-100, using the unique identifier to match up the DN and name with the data that resides on the LDAP version 3 corporate database.

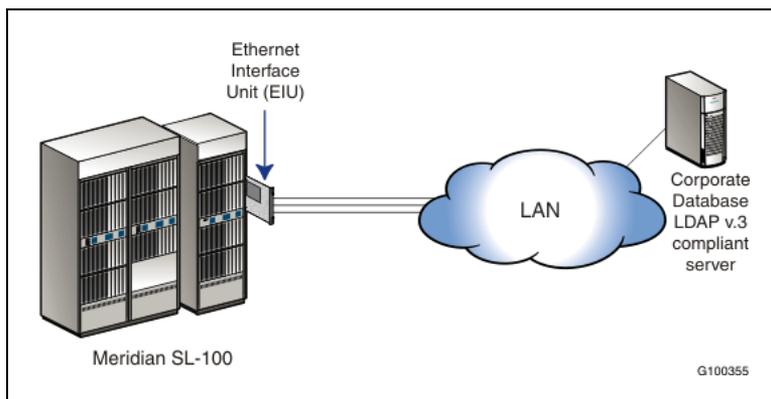
The Directory Numbers that reside on the Meridian SL-100 and on the LDAP version 3 corporate database must have a unique identifier in order for synchronization to occur. If the data on the Meridian SL-100 differs from that on the corporate database, the Synching Client makes the appropriate modifications. DN changes associated with a Unique ID in the Meridian

SL-100 are communicated to the LDAP version 3 corporate database server. Name changes in the corporate database are communicated to the Meridian SL-100.

There is a TCP/IP connection between the Meridian SL-100 and the LDAP version 3 corporate database server. The TCP/IP connection is opened using the new CI tool LDAPCI. A maximum of 100 queries can be made every time a TCP/IP connection is opened with the LDAP version 3 corporate database server. LDAP Synching for Meridian SL-100 continues to synchronize with the corporate database, until all the updates for the session are completed. In Table LDAPTAB, customers may specify the frequency of the synchronization in hours.

[TCP/IP connection between Meridian SL-100 and LDAP version 3 corporate database sever](#) illustrates the TCP/IP connection between the Meridian SL-100 and LDAP version 3 corporate database server. The connection between the Meridian SL-100 and the LDAP version 3 server should be in the same LAN or in a LAN configured in such a way that both IP addresses can communicate.

#### **TCP/IP connection between Meridian SL-100 and LDAP version 3 corporate database sever**



For the initial synchronization of the Meridian SL-100 with an LDAP version 3 corporate database, the subcommand POPULATE in the LDAPCI tool is used to initially populate the unique IDs. The POPULATE command also populates Table DNATTRS with "unknown" for the Public Network Name. During the startup phase, the Meridian SL-100 will loop through every DN in the Meridian SL-100 and try to find a Unique ID for that DN. It will then associate that unique ID to the DN. If the Meridian SL-100 does not find a unique ID for that DN on the LDAP version 3 corporate database server, it deletes that DN from the LDAP version 3 corporate database server.

After the initial synchronization of the Meridian SL-100 and the LDAP version 3 corporate database server, in which the DNs and Unique IDs are associated, the syncing process should be started using LDAPCI and repeat itself based on the datafill in the field FREQSYNC (Frequency of Sync) in Table LDAPTAB.

The continuous synchronization command, START, updates Table DNATTRS with the actual names that reside in the LDAP version 3 Corporate Database Server. It then keeps the Meridian SL-100 and the LDAP version 3 corporate database in synchronization. The syncing client needs to be started manually the first time through the START command in LDAPCI. DN changes on the Meridian SL-100 are communicated to the LDAP version 3 corporate database server, and name changes on the LDAP version 3 corporate database server are communicated to the Meridian SL-100. After synchronization is completed, the syncing client automatically stops. In the event that it should be necessary to manually stop the synchronization, a STOP command is provided with the LDAPCI tool.

Mappings contain the names of the attributes on the LDAP version 3 corporate database server that correspond to attributes on the Meridian SL-100. Flexibility is provided on the Meridian SL-100 to allow the administrator to dataflow the mappings to match up to those on the LDAP version 3 corporate database server.

In the event that the primary corporate database server should not be available for synchronization with the Meridian SL-100, LDAP Syncing provides the capability for the Meridian SL-100 to synchronize with a shadow database that is LDAP version 3 compliant.

Access to the LDAP version 3 corporate database server is authenticated by a password during each query/update to the LDAP server from the Meridian SL-100. The password is encrypted and can only be changed from the LDAPCI tool.

### **LDAP Syncing limitations and restrictions**

LDAP Syncing has the following imitations and restrictions:

- The name associated with a directory number on the LDAP version 3 corporate database should be stored as one of the following categories:
  - DISPLAY NAME
  - COMMON NAME
  - FIRST & LAST NAME
  - GIVEN NAME & SURNAME

- The network where the Meridian SL-100 and the LDAP version 3 corporate database reside, should be a secure network. Currently, KERBEROS authentication is not provided with this feature.
- For synchronization to occur, the LDAP version 3 corporate database server must have a unique identifier for each DN that resides on the Meridian SL-100. If the LDAP version 3 corporate database does not have a unique ID associated with an entry that contains a DN, the Meridian SL-100 deletes that DN from the LDAP version 3 Corporate Database Server.  
**Note:** If there is an entry (or entries) on the LDAP version 3 Corporate Database Server with a DN but no unique ID and the DN does not reside on the Meridian SL-100, the Meridian SL-100 ignores that entry.
- This feature provides components of the LDAP protocol to allow the Meridian SL-100 to synchronize with an LDAP version 3 server. However, the Meridian SL-100 is not fully LDAP version 3 compliant.
- Synchronization can occur with only one LDAP version 3 server at a time.
- The USERNAME and PASSWORD (through LDAPCI), BASEDN and DIGDEL fields (in Table LDAPTAB) should be populated within single quotes so that the Meridian SL-100 does not convert these fields to upper case characters.
- In Table LDAPTAB, blank characters are not accepted in the USERNAME and BASEDN fields. PIPES (|) should be entered for any blank characters needed. The Synching client will convert these to blanks.
- In Table LDAPTAB, the number of digits to be synchronized with the LDAP version 3 Corporate Database Server must be specified. In LDAPTAB, there is a provision to enter the Electronic Switched Network (ESN) mappings. However, the ESN cannot be synchronized with the LDAP version 3 authoritative database.
- During each synching session, a maximum of 1,000 DN changes in Table DNATTRS are queued for synching. All of the tuple deletions in Table DNATTRS are queued for synchronization. However, the queue can only take a maximum of 1,000 per synching session. It is recommended that when more than 1,000 DN changes in DNATTRS are needed that the synching session be run after each 1,000 DN changes are entered. The frequency of the synching sessions can be datafilled in the field FREQSYNC of the new Table LDAPTAB.

## LDAP Synching features and benefits

LDAP Synching includes the following features and benefits:

- Reduces your costs and manpower requirements to update your corporate LDAP databases with telephone number changes.
- Updates the Meridian SL-100 system with name and/or unique identifier changes made in the corporate LDAP database.

## LDAP Synching document references

"LDAP Synching document references" (page 162) lists documentation references for LDAP Synching.

### LDAP Synching document references

Document title	Document number
<i>Communication Server 2100 Product Guide</i>	555-4001-806

## User-to-User Information over SCAI

"UII over SCAI" (page 162) lists Nortel User-to-User Information (UUI) over Switch-Computer Application Interface (SCAI) feature information.

### UUI over SCAI

<b>Platform compatibility</b>	CS 2100
<b>Platform requirements</b>	SE09 and SN09
<b>Ordering information</b>	Refer to the current Product Catalog, or contact your Nortel Channel Account Manager. For more information, contact your Nortel representative, call 1-800-4-Nortel or 1-800-466-7835 from anywhere in North America, or go to the Nortel website at <a href="http://www.nortel.com">http://www.nortel.com</a>

Switch-Computer Application Interface (SCAI) is a signaling interface provided by the CS 2100 to a host computer. The information carried across the signaling link allows applications running on the Communication Server to communicate with applications running on the host computer. User-to-User Information (UUI) over SCAI preserves the Call Center UUI header information and setup message received by the CS 2100, which uses this information to provide Computer Telephony Integration (CTI) screen pops on the host computer.

Integrated Services Digital Network (ISDN) users communicate through the network User-to-User Service (UUS) to exchange application-specific information; transferred calls also include required user information. UUS allows the call server to convey information between ISDN users across

the network using the Primary Rate Interface National ISDN 2 (PRI NI-2) protocol. The information is exchanged implicitly during the call request, call confirmation, and call clearing phases.

In general, the CS 2100 supports delivery of UUI over the following trunks:

- PRI National ISDN 1 (PRI NI-1; for CS 2100-to-CS 1000 connectivity).
- PRI NI-2 (for CS 2100-to-CS 2100 connectivity).
- ISUP (for CS 2100-to-CS 2100 connectivity).

This feature supports delivery of UUI in the following SCAI messages:

- DV\_Call\_Received\_C
- DV\_Call\_Queued\_U
- DV\_Call\_Offered\_U
- DV\_Call\_Released\_U

To support UUI, the maximum size of outgoing Intelligent Call Management (ICM) messages is increased from 256 bytes to 512 bytes.



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# Custom Local Area Signaling (CLASS)

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## Introduction

Nortel offers a substantial suite of Custom Local Area Signaling Services (CLASS) features for the Meridian SL-100/Communication Server 2100 (CS 2100).

CLASS feature availability depends on the Meridian SL-100/CS 2100 Product Computing-Module Load (PCL) of the customer. Therefore, not all CLASS feature enhancements may be available to all customers.

This chapter contains the following information about the Nortel CLASS features available for the Meridian SL-100/CS 2100:

- "Overview of CLASS features" (page 165)
- "CLASS features over CSS7" (page 166)
- "CLASS Features over PRI" (page 168)
- "Limitations and restrictions for PRI variants NTNA and NI-2" (page 179)
- "CLASS hardware requirements" (page 179)
- "Implementing CLASS" (page 182)

## Overview of CLASS features

The Meridian SL-100/Communication Server 2100 offers the following CLASS features:

- Network CLASS with Common Channel System 7 (CCS7) trunks to the network.
- CLASS features over Primary Rate Interface (PRI) using PRI trunks with one of the following:
  - the Nortel North America (NTNA) variant
  - the National Integrated Services Digital Network-2 (NI-2) variant

With the PRI NTNA variant, the Meridian SL-100/Communication Server 2100 must be connected to a DMS-100 central office.

With PRI NI-2 variant, CLASS features over PRI are supported if the Meridian SL-100/Communication Server 2100 is connected to a DMS-100 and/or a 5ESS central office switch.

### Benefits of CLASS features

CLASS features have the following benefits:

- CLASS features offer enhanced capabilities that provide users with greater privacy, security, and the flexibility to better manage their incoming and outgoing telephone calls.
- CLASS features are already in customer homes, and users are familiar with their features and benefits.
- Providing CLASS features to business increases user satisfaction and productivity, and requires little or no training for the end users. It also provides revenue opportunities for many business environments.

### CLASS features over CSS7

"CLASS features over CSS7" (page 166) explains the CLASS features delivered over CSS7 services.

#### CLASS features over CSS7

CLASS feature name	CLASS feature description
Customer Originated Trace Feature Key Access	<ul style="list-style-type: none"> <li>• Enhances the CLASS COT feature by allowing users to activate Call Tracing through a feature key on an MBS, M2000 or M3900 series telephone set.</li> <li>• Provides Meridian SL-100/Communication Server 2100 users with the capability to initiate a query on the last call terminated (which can be the active call) by a feature key access method. This activity also permits an ACD agent to initiate the query on the last call terminated, which can be the call on which the ACD agent is active.</li> <li>• Overcomes the limitation of dialing the feature access code for COT activation from an MBS or IVD set. It allows the query on an incoming/active call when the call is in stable state (that is, talking state, for users and ACD agents). Upon activation of COT from the called party, the Calling party is put on hold. Upon completion of COT tone/announcement to the calling party, which in this case is COT requesting party, connection between the calling party and the calling party is restored if both parties are still in the call. For calls extended by the Attendant Console, the calling number may not be available. For ACD Agents, COT Feature Key Access cannot be activated against a call in the call-waiting queue. However, it can be activated using the COT access code.</li> </ul>

CLASS feature name	CLASS feature description
Single USOC for DSCWID and CFDA	<ul style="list-style-type: none"> <li>• Changes option DSCWID of subfield FEATNAME of field FEATDATA in Table RESOFC to include a new option CFDCHECK. However, if the option CFDCHECK is set to N, any type of DSCWID and any type of default treatment is assigned to the line, regardless of the line having the CFDA/CFD option. The customer is responsible for ensuring that scripts based on whether the line has the CFDA/CFD are downloaded.</li> </ul> <p><b>Note:</b> When DSCWID is assigned to a line in SERVORD, a validation is made to determine if Call Forward Don't Answer is assigned to the line. If CFDA/CFD is not assigned to the line, none of the SCWID types, except proprietary, can be assigned. Also, lines cannot have default treatment specified as FWD (forward) in case CFDA/CFD is not present.</p>
RES CNAMD INTERWORK (TCAPNM) Local Lookup	<ul style="list-style-type: none"> <li>• By using the TCAPNM suboption, names can be locally datafilled in order to avoid performing TCAP name queries. This capability allows Meridian SL-100/Communication Server 2100 customers to avoid sending a TCAP name query through a Service Transfer Point (STP) to the TCAP name database located at a Service Control Point (SCP).</li> <li>• By setting the TCAPNM suboption to LOCAL, calling party Directory Numbers (DNs) that have an entry in the local Meridian SL-100 name database or the Party Info Parm (PIP) parameter of the Initial Address Message (IAM) will use the local lookup feature to obtain the name from that local Meridian SL-100 database.</li> <li>• RES CNAMD INTERWORK (TCAPNM) Local Lookup has the following limitations and restrictions: <ul style="list-style-type: none"> <li>— Administrative requirement to maintain two name databases, TCAP name database and local Meridian SL-100/Communication Server 2100 database.</li> <li>— Local database consists of entries in Meridian SL-100/Communication Server 2100 table and names pass via the Party Info Parm (PIP) in the Initial Address Message (IAM). Names in the local Meridian SL-100/Communication Server 2100 table have precedence.</li> <li>— SUPPRESS NAME line option of a line-to-line call will affect the local name lookup privacy status, unlike the TCAP name since the TCAP name privacy is stored at the SCP.</li> <li>— TCAP name privacy status located at the SCP is not used to determine local name lookup privacy.</li> <li>— The TCAP name local lookup feature applies to all agents that are compatible with the TCAP name framework (that is, CLASS RES and IBN, MDC M5000, and ISDN).</li> </ul> </li> </ul>

CLASS feature name	CLASS feature description
QCUST Command Enhancements	<ul style="list-style-type: none"> <li>When performing the CI command QCUST after a CKLN, a record 12 is output. The record 12 indicates that the old LEN is now unassigned. The QCUST retrieves all the line data within all the customer groups.</li> <li>When QCUST was originally designed, RESFEAT was not included in the tables to traverse. With this feature enhancement, Table RESFEAT is also transversed in order for the features such as ADSI, CNAMD, CND, DDN, DRCW, SCA, SCF and SCRJ to be displayed for a customer group.</li> </ul>
ACB, AR, and ACRJ on IVD M2000/M3900 Series Sets	<ul style="list-style-type: none"> <li>Automatic Callback (ACB), Automatic Recall (AR), and Anonymous Caller Rejection (ACRJ) features are available on the Intelligent Peripheral Equipment (IPE) for the Meridian Digital M2000 series terminals beginning with Release MSL10 and for the M3900 series terminals beginning with software Release MSL11.</li> <li>ACB enables Meridian Digital users to enter a feature code that will automatically set up a call to the last Directory Number that was dialed, regardless of whether the call was answered, unanswered or busy.</li> <li>AR enables Meridian Digital users to enter a feature code that will automatically set up a call to the Directory Number of the last incoming call. If the DN called is busy, the user is notified and instructed by an announcement/display. Automatic processing of the call continues until both lines are idle.</li> <li>ACRJ allows Meridian Digital users to reject calls for calling name and number display information that has been intentionally blocked. The only calls that are rejected are calls that have had information blocked.</li> </ul>
RES SLE/ACBAR TCAP Query Disable	<ul style="list-style-type: none"> <li>This feature provides the option to disable TCAP query functionality that is currently used by the ACB, AR and SLE features. The SLE features include SCRJ, SCA, SCF and DRCW. Disabling TCAP query for these features will allow networks without full TCAP connectivity the ability to provide limited versions of these features. Each feature will have an option to independently disable the TCAP query.</li> </ul> <p><b>Note:</b> Note that when TCAP is disabled, SLE numbers that are user programmed cannot be validated.</p>

## CLASS Features over PRI

CLASS Features over PRI (NTNA and NI-2 Variants) provides CLASS features using PRI trunks for customers who do not have CCS7 trunking to the network. From Meridian SL-100 Release MSL10 or higher, customers can implement CLASS network-type services using PRI connectivity to the public network. The following CLASS features can be implemented across PRI trunks using either the NTNA variant to a DMS-100 central office, or the NI-2 variant to a DMS-100 and/or 5ESS central office.

**CLASS features over PRI with the NI-2 variant only**

"CLASS features over PRI with the NI-2 variant only" (page 169) explains CLASS features over PRI that are available only with the NI-2 variant.

**CLASS features over PRI with the NI-2 variant only**

CLASS feature name	CLASS feature description
Anonymous Caller Rejection (ACRJ)	<p>Allows subscribers with or without CLASS Calling Number Display and Calling Name Display to reject calls for which calling name and number display information has been intentionally blocked. Only calls for which the information has been blocked are rejected.</p> <p><b>Note:</b> ACRJ is only available with the NI-2 variant. For a call to be anonymous, it must be blocked in both name and number.</p>

**CLASS features over PRI with the NI-2 variant and NTNA variant**

"CLASS features over PRI with the NI-2 and NTNA variant" (page 169) explains CLASS features over PRI available with the NI-2 and NTNA Variant.

**CLASS features over PRI with the NI-2 and NTNA variant**

CLASS feature name	CLASS feature description
Automatic Recall (AR)	<ul style="list-style-type: none"> <li>• Enables a user to enter a feature code that will automatically set up a call to the Directory Number of the last incoming call.</li> <li>• CLASS feature Automatic Recall has the following limitations and restrictions: <ul style="list-style-type: none"> <li>— Automatic Recall will not monitor the set state and continue to try to place a call to the last incoming Directory Number. In order for AR to work over PRI, it is required that the SLE/ACBAR NOTCAP SOC option must be enabled in the Meridian SL-100 (set to "ON"). In addition, in Table RESOFC, the TCAP Query Enable must be set to "N" (No).</li> <li>— A user can automatically reoriginate a call to the last incoming DN by entering the activation code. If the two-level feature activation is provided, the user will hear an automatic recording announcing the DN of the last incoming call. However, with a CCS7 network, if the DN is busy, the user is notified and instructed by an announcement, and automatic processing of the call continues until both DNs are idle. With a PRI network, automatic processing of the call is not supported.</li> </ul> </li> </ul> <p><b>Note:</b> Because of the differences in how this feature operates when using PRI trunking vs. CCS7, customers may wish to rename this feature to their user base to avoid confusion with the feature operation in the public network.</p>

CLASS feature name	CLASS feature description
Auto Recall Blocking of Private Calls (CABOP)	<ul style="list-style-type: none"> <li>• Provides functionality to prevent the disclosure of a "private" Directory Number upon activation of Automatic Recall. Without this feature, when AR is activated to a long distance number that is a private number, the telephone number can appear on the billing record.</li> <li>• There are three office-wide options for a RES line and two office-wide options for IBN and M5000 set lines. <ul style="list-style-type: none"> <li>— RES Line Options are described below: <ul style="list-style-type: none"> <li>– All Automatic Recall activated calls to private numbers are blocked.</li> <li>– Only long-distance Automatic Recall activated calls to private numbers are blocked.</li> <li>– No Automatic Recall activated calls to private numbers are blocked.</li> </ul> </li> <li>— IBN and M5000 set Line Options are described below: <ul style="list-style-type: none"> <li>– All Automatic Recall activated calls to private numbers are blocked.</li> <li>– No Automatic Recall activated calls to private numbers are blocked.</li> </ul> </li> </ul> </li> </ul>
Call Waiting Deluxe (DSCWID)	<ul style="list-style-type: none"> <li>• Enhances Call Waiting Display by allowing the user options on how to handle an incoming second call. The calling party is provided audible ringing, and the DSCWID called party is alerted that a call is "waiting".</li> <li>• The called party can choose one of several options for the incoming call: <ul style="list-style-type: none"> <li>— Answer the new call and put the existing call on hold</li> <li>— Disconnect the existing call and answer the new call</li> <li>— Forward the new call</li> <li>— Connect the new call to a busy announcement</li> <li>— Put the new call on hold after connecting to a hold announcement</li> <li>— Conference the new call with the existing call</li> </ul> </li> </ul> <p><b>Note:</b> This feature requires an ADSI-compliant telephone or display device.</p>
Calling Name Delivery (CNAMD)	<ul style="list-style-type: none"> <li>• The name associated with the incoming DN party appears after the first ringing cycle. The date and time of an incoming call also appear.</li> <li>• Requires a telephone set or an adjunct to the phone capable of displaying an alphanumeric set of characters.</li> </ul>

CLASS feature name	CLASS feature description
Calling Name/Number Delivery (CNND)	<ul style="list-style-type: none"> <li>Allows the user to have their name and number delivered on a per-call basis to a called party. If the user's line or customer group, or the Meridian SL-100/Communication Server 2100, is configured to suppress the calling name and number, then dialing the access code for this feature will send the calling party's name and number for that call.</li> </ul>
Calling Number Delivery (CND)	<ul style="list-style-type: none"> <li>Identifies the 10-digit DN of the calling party. The calling number is displayed on a telephone set or adjunct that is capable of displaying the incoming DN - after the first ringing cycle. Date and time of the incoming call are also displayed.</li> </ul>
<b>Restrictions and limitations for CLASS features CNAMD, CND, and CNND</b>	
<ul style="list-style-type: none"> <li>For NTNA, Calling Name Delivery (CNAMD), Calling Number Delivery (CND), and Calling Name/Number Delivery (CNND), Table NETNAMES must be datafilled as follows: PUBLIC 010 (NMDSP SETUP) \$ in order for all calling name and number delivery and blocking features to function correctly.</li> <li>The DMS-100 central office from which the Meridian SL-100/Communication Server 2100 PRI trunks are provided should have Table ISDNPARM and Table TRKSGRP datafilled.</li> <li>If the Central Office has CCS7 and uses TCAP then the name cannot be delivered to the Meridian SL-100 using NTNA. The Meridian SL-100 cannot initiate a query to the DMS-100 with NTNA.</li> </ul>	

### Restrictions and limitations for CLASS features CNAMD, CND, and CNND

CLASS features CNAMD, CND, and CNND have the following limitations and restrictions:

- For NTNA, Calling Name Delivery (CNAMD), Calling Number Delivery (CND), and Calling Name/Number Delivery (CNND), Table NETNAMES must be datafilled as follows: PUBLIC 010 (NMDSP SETUP) \$ in order for all calling name and number delivery and blocking features to function correctly.

**Note:** For features that are dependent upon Name Display with NTNA, if the name is not delivered to the Meridian SL-100/Communication Server 2100, the feature will not display the name.

- For NI-2, Calling Name Delivery (CNAMD), Calling Name/Number Delivery (CNND) and Calling Number Delivery (CND) the following dataflow is required:

TAB LTDATA - entry required for both USER and NETWORK side trunk as follows:

```
ISDN <LTID> SERV SERV Y Y ALWAYS TCAP_CNAM N $
TAB CUSTNTWK
<cust_grp_for_network> PUBLIC 2 $CLID OFFNET
```

```
TCAPNM LOCAL $<cust_grp_for_user> PUBLIC 2 $CLID
OFFNET TCAPNM LOCAL $
TAB NETNAMES
PUBLIC 0 0 NMDSP SETUP $
```

TAB ISDNPARAM - The following entry maps to the PARMNAME field in Table TRKSGRP for NI2 trunk:

```
TEST SETUP BOTH MAP DIE MAP $
```

- In addition, the DMS-100 central office that contains the Meridian SL-100/Communication Server 2100 PRI trunks must have certain parameters and options set up for the NI-2 PRI name that is sent to the Meridian SL-100/Communication Server 2100:

#### Parameters and options set up for the NI-2 PRI to hook to the Meridian SI-100

Step	Description
1. NI-2 PRI trunk	Determine the name of the NI-2 PRI trunk group on the DMS-100 that is to hook to the Meridian SL-100.
2. LTMAP table	Go to the Table LTMAP and find the LTERM_INDEX (LTKEY) associated with the desired NI-1 PRI trunk group.
3. LTDATA table	Go to Table LTDATA and position on that same LTKEY with "SERV" as the third party of the key. Ensure that the TCAP_CNAM option is specified and that "N" is chosen for the CNAM_SUSP portion of that option.
4. OFCENG table	Go to Table OFCENG and position on IAM_USE_NAME_CHARS. Ensure this is set to "Y".
5. TRKSGRP table	Go to Table TRKSGRP and position on the trunk subgroup associated with this NI-2 PRI trunk. Locate the "PARMNAME" field of that tuple - it is the last field before the PM type is specified.
6. ISDNPARAM table	Using the information from "PARMNAME", go to Table ISDNPARAM. Locate a tuple with the key "SETUP". Ensure that DFLTACT is set to MAP.

#### Calling No. Delivery Blocking (CNDB)

CLASS feature Calling No. Delivery Blocking (CNDB) is described below:

- This feature allows users to prevent Calling Number Delivery on a per-call basis by dialing an access code. Individual lines can be set up either to send or suppress calling number information. When the line is set up to send calling number information, dialing the access code suppresses the calling number information for that call. If the line is set up to suppress calling number information, dialing the access code sends the calling number information for that call.
- CLASS No. Delivery Blocking (CNDB) has the following limitations and restrictions:

- With NTNA, the privacy indication requested by the CLASS CNDB service must be correctly mapped into the outgoing PRI SETUP message from the Meridian SL- 100/Communication Server 2100.

### Calling No./Name Delivery Blocking (CNNB)

CLASS feature Calling No./ Name Delivery Blocking (CNNB) is described below:

- This feature allows users to control the display of their DN or their name and number at a terminating station on a per call basis. CNNB is activated by dialing an access code and it is available to users whether their telephone has Calling Name Delivery or Calling Number Delivery assigned.
- CLASS No./Name Delivery Blocking (CNNB) has the following limitations and restrictions:
  - For NTNA, “Unknown Name” may be displayed instead of “Private Name.” The message “Private Number” can be displayed, depending upon the set and trunk type. Although the privacy flag is only sent across the network for the number, the name is not displayed to the terminating party. The originating switch blocked the name from being sent.

### CALLOG

CLASS feature CALLOG is described below:

- Call Logging provides a log entry for the unanswered, busy and forwarded calls of a user - even if the caller does not leave a message. Each log will provide the following information:
  - Calling party Directory Number and name (if available)
  - Time and date
  - Number of times that the calling party called
  - Status of the called party’s line when the call was logged
  - Current status (new or old entry)

**Note:** This feature requires an ADSI-compliant telephone or display device.
- CALLOG has the following limitations and restrictions:
  - For NTNA and NI-2, it will not initiate Automatic Recall (AR) on a softkey.

## **CLASS on IPE**

CLASS feature CLASS on IPE is described below:

- This feature provides support for CLASS functionality to CLASS or 2500-type sets designed to work with CLASS features. Many of the non-display features worked prior to this feature.
- CLASS Display features require the NT8D09AL or lower line cards.
- This feature provides the capability to display the incoming Calling Line Identification and calling party's name on CLASS, ADSI and 2500-type sets with display adjuncts that are datafilled on the IPE.
- This feature ensures that display messages for CNDB, CNAB and CNNB are provided per CLASS feature descriptions and that CLASS feature Message Waiting Indication functions properly on the IPE.
- The following CLASS features are supported on the IPE and over PRI trunks:
  - Anonymous Caller Rejection (ACRJ)
  - Automatic Recall (AR)
  - Auto Recall Blocking of Private Calls (CABOP)
  - Calling Name Delivery (CNAMD)
  - Calling Name/Number Delivery Blocking (CNNB)
  - Calling Number Delivery (CND)
  - Calling Number Delivery Blocking (CNDB)
  - Callog
  - CLASS Message Waiting Indication (CMWI)
  - Customer Originated Trace (COT)
  - Dialable Number Delivery (DDN)
  - Selective Call Acceptance (SCA)
  - Selective Call Forwarding (SCF)
  - Selective Call Rejection (SCRJ)
  - Spontaneous Call Waiting Identification (SCWID)
  - Spontaneous Call Waiting Identification with Disposition (DSCWID)

## **CLASS Per Use SMDR Billing**

CLASS feature CLASS Per Use SMDR Billing is described below:

- This feature provides the capability to charge end users a fee based on usage as opposed to a flat monthly rate.

- This feature has the ability to generate an SMDR extension record based on usage sensitivity upon successful completion of Customer Originated Trace (COT), Calling Number Delivery Blocking (CNDB), Automatic Recall (AR), Calling Number Delivery (CND), Selective Call Acceptance (SCA), Selective Call Forwarding (SCF), Selective Call Rejection (SCRJ), Distinctive Ringing/Call Waiting (DRCW), Calling Name Delivery (CNAMD), Dialable Number Delivery (DDN), Deluxe Spontaneous Call Waiting Display (DSCWID) and Bulk Calling Line Identification (BCLID) features.
- Optionality for the generation of the billing record after successful completion of a CLASS features.
- When a DF09 SMDR record is generated, there is the generation of a corresponding Meridian SL-100/Communication Server 2100 log.
- CLASS Per Use SMDR Billing has the following limitations and restrictions:
  - Some logs/records may not generate due to restrictions or limitations defined for the specific features. As an example, CLASS Feature Code 0066 AR timeout: A log/record generates when the feature is activated, but not completed (timed out) because the originator or terminator was off-hook. Because AR does not monitor the set and continue to try to place the call, this type of record would not be applicable.

### **CLASS Message Waiting Indicator (CMWI)**

CLASS feature CLASS Message Waiting Indicator (CMWI) is described below:

- This feature provides a visual indication at the user's station that messages are waiting and offers several message waiting options:
  - With display sets or adjuncts, message waiting indicator on the display with date and time that the messages were left (if the voicemail system provides this function)
  - Lights a visual indicator lamp
  - Audible indication (intermittent dial tone)
  - Combination of audible and visual
- CLASS Message Waiting Indicator (CMWI) has the following limitations and restrictions:
  - With NI-2, Network Message Waiting cannot be used with NI-2 to display message waiting notification (light the message waiting lamp).

### COT and SCF on IVD Sets

CLASS feature COT and SCF on IVD Sets is described below:

- This feature provides the capability for CLASS features, Customer Originated Trace (COT) and Selective Call Forwarding (SCF) on the IPE for M2000 and M3900 type sets (Integrated Voice and Data Sets). This capability is available for M2000 sets beginning with software release MSL10, and for M3900 sets beginning with software release MSL11.
- This feature provides the ability for users with the following IVD sets to activate COT and SCF:
  - M2616, M2008, M2008HF, M2006, M2216ACD and M2317
  - M3901, M3902, M3903, M3904 and M3905

### Customer Originated Trace (COT)

CLASS feature Customer Originated Trace (COT) is described below:

- This feature allows users to activate an immediate trace of the last incoming call, without requiring prior approval and manual intervention by switch personnel.
- COT is activated on a per-call basis and the service is deactivated when the user goes on-hook.
- Two-level feature activation is available, which provides recorded announcements that inform the subscriber of the state of the COT.
- The Meridian SL-100/Communication Server 2100 prompts the user for a decision to proceed or not to proceed with the trace.

**Note:** When the calling number is blocked, the number can be sent over the PRI trunk with a flag indicating that the number should not be displayed to the called party. If the called party initiates COT, the number can be traced. However, some telephone companies may not send the calling number to a PBX, if the calling party blocks it.

### Dialable Number Delivery

CLASS feature Dialable Number Delivery (DDN) is described below:

- This feature delivers the DN of the calling party after the first ringing cycle.
- The difference between Calling Number Delivery and Dialable Number Delivery is the CND delivers the 10-digit DN of the calling party; however, DND only delivers the digits required for the called party to return the call. For example, if the incoming call is local, a 7-digit DN is displayed, if it is an intra-LATA toll, 1+7-digit number is displayed.
- The 10-digit telephone number is always sent across the network.

- DDN allows the Meridian SL-100/Communication Server 2100 to translate the number into a dialable number (that is, 7 digit versus 10 digit).

### **Distinctive Ring/Call Waiting Tone (DRCW)**

CLASS feature Distinctive Ring/Call Waiting Tone (DRCW) is described below:

- With this feature, incoming calls for up to 31 DNs can be automatically identified by distinctive ringing.
- If the user is engaged in conversation and a call from one of the designated DNs arrives, a distinctive call waiting tone accompanies the incoming call. Calls from other DNs ring normally.
- DRCW is accessed by dialing a service-specific access code.
- Modifications to the DRCW list can be made by using the keypad.
- Refer to "[Limitations and restrictions for PRI variants NTNA and NI-2](#)" (page 179) for restrictions/limitations applicable to this feature.

### **RES SLE/ACBAR TCAP Query Disable**

CLASS feature RES SLE/ACBAR TCAP Query Disable is described below:

- This feature should be activated in the Meridian SL-100 (set to "ON").
- In Table RESOFC, the TCAP Query Enable must be set to "N" (No).

### **Selective Call Acceptance (SCA)**

CLASS feature Selective Call Acceptance (SCA) is described below:

- This feature uses the Screening List Editing function to store up to 31 DNs from which a user wishes to receive calls.
- An incoming call from a DN that is not on the SCA list is routed to an announcement stating that the called party does not wish to receive the call.
- SCA is accessed by dialing an access code and modifications to the list are made with the telephone keypad.
- Refer to "[Limitations and restrictions for PRI variants NTNA and NI-2](#)" (page 179) for restrictions/limitations applicable to this feature.

### **Selective Call Forward (SCF)**

CLASS feature Selective Call Forward (SCF) is described below:

- This feature allows users to ensure that selected calls reach them when they are away from their telephone.
- Incoming calls for up to 31 DNs can be forwarded to another telephone.

- Calls from DNs that are not on the SCF list will receive whatever treatment the user has arranged (that is, voicemail, and so on).
- SCF is accessed by dialing an access code and entries can be changed using the keypad.
- Refer to "[Limitations and restrictions for PRI variants NTNA and NI-2](#)" (page 179) for restrictions/limitations applicable to this feature.

### **Selective Call Rejection (SCRJ)**

CLASS feature Selective Call Rejection (SCRJ) is described below:

- This feature allows the user to selectively program a list of up to 31 DNs from which calls are rejected or blocked.
- Incoming calls that are on the SCRJ list are routed to an announcement informing the caller that the called party does not wish to receive the call.
- It is accessed by dialing an access code and modifications to the list are made using the keypad.
- Refer to "[Limitations and restrictions for PRI variants NTNA and NI-2](#)" (page 179) for restrictions/limitations applicable to this feature.

### **Spontaneous Call Waiting Display (SCWID)**

CLASS feature Spontaneous Call Waiting Display (SCWID) is described below:

- The name and/or number of a waiting call appears immediately upon the call's arrival at the called party's line, allowing the called party to decide whether to continue their call in progress or to answer the incoming call.
- ADSI-compliant display capability is required to receive and display the incoming call information.
- Spontaneous Call Waiting Display (SCWID) has the following limitations and restrictions:
  - With both NTNA and NI-2 when Tie trunks are used, the CWI (Call Waiting Intragroup) option should be assigned.
  - Name display is not currently supported with this feature. In a normal CCS7 central office configurations, the messaging using NI-2 to the telephone set on the Meridian SL-100/ Communication Server 2100 does not fit the SCWID messaging. If the name were to be sent, it would require interrupting the speechpath again.

### **Visual Screen List Editing (VSLE)**

CLASS feature Visual Screen List Editing (VSLE) is described below:

- This feature allows users of an ADSI-compliant telephone set to perform screen list editing of CLASS features SCF, SCA, SCRJ and DRCW using softkeys.

- Refer to "[Limitations and restrictions for PRI variants NTNA and NI-2](#)" ([page 179](#)) for restrictions/limitations applicable to this feature.

## Limitations and restrictions for PRI variants NTNA and NI-2

With the following SLE features, there are restrictions/limitations with both NTNA and NI-2. Announcements need to be set up for these features to provide appropriate treatment:

- Distinctive Ring/Call Waiting Tone (DRCW)
- Selective Call Acceptance (SCA)
- Selective Call Forward (SCF)
- Selective Call Rejection (SRFJ)

### PRI variant NTNA limitations and restrictions

With NTNA, the following limitations and restrictions apply:

- If no SS7 Links are available to perform TCAP query of DN's off another switch, then the TCAP\_QUERY\_ENABLED field for each of the SLE features in Table RESOFC must be set to "N". The RES00073 SLE/ACBAR TCAP ON SOC option can be ON or IDLE.
- Without a TCAP query, a check cannot be done to ensure that the DN entered in the list is a valid number.

### PRI variant NI-2 limitations and restrictions

With NI-2, the following limitations and restrictions apply:

- If no SS7 Links are available to perform TCAP query of DN's off another switch, then the TCAP\_QUERY\_ENABLED field for each of the SLE features in Table RESOFC must be set to "N". The RES00073 SLE/ACBAR TCAP ON SOC option can be ON or IDLE.
- The datafill in Table LTDATA (same as that required for CNND) is required to support incoming calls where the DN and Name are blocked.
- Without a TCAP query, a check cannot be done to ensure that the DN entered in the list is a valid number.

## CLASS hardware requirements

"[CLASS minimum hardware requirements](#)" ([page 180](#)) lists CLASS minimum hardware requirements. Refer to the "[CLASS hardware notes](#)" ([page 181](#)) for specific information about CLASS hardware.

**CLASS minimum hardware requirements**

Feature	6X17 AC/ BA	6X21 AC	6X51 AB/ AC	6X69 AC	6X69 AD/ QA	6X78 AB	1X80 AA/ BA	6X92 BA/BC/ EA
ACB	M	M	M	M	O	O	O	N/A
ACRJ	M	N/A	M	M	O	O	O	N/A
AR	M	M	M	M	O	O	O	N/A
CALLOG	M	N/A	M	N/A	M	O	O	M
CMWI	M	N/A	M	M	O	M	O	N/A
CNAMD	M	N/A	M	M	O	M	O	N/A
CND	M	N/A	M	M	O	M	O	N/A
CNDB	M	M	M	M	O	M	O	N/A
CNNB	M	M	M	M	O	M	O	N/A
COT	M	M	M	M	O	O	O	N/A
DDN	M	N/A	M	M	O	M	O	N/A
DRCW	M	M	M	M	O	O	M	N/A
DSCWID	M	N/A	M	N/A	M	O	O	M
SCA	M	M	M	M	O	O	M	N/A
SCF	M	M	M	M	O	O	M	N/A
SCRJ	M	M	M	M	O	O	M	N/A
SCWID	M	N/A	M	N/A	M	O	O	M
VSLE	M	N/A	M	N/A	M	O	O	M

**Note:** M = Mandatory O = Optional

**CLASS feature and card definitions**

"Definitions of CLASS features and cards" (page 180) defines CLASS features and cards that are listed in "CLASS minimum hardware requirements" (page 180).

**Definitions of CLASS features and cards**

CLASS feature definitions	CLASS card definitions
ACB = Automatic Callback	6X17AC/BA = Analog Line Card
ACRJ = Anonymous Caller Rejection	6X21AC = P. Phone (MBS) Line Card
AR = Automatic Recall	6X51AB/AC = LCM Processor
CALLOG = Call Logs	6X69AC = Message Protocol and Tone Circuit Pack

CLASS feature definitions	CLASS card definitions
CMWI = CLASS Message Waiting Indication	6X69AD/QA = Message Protocol and Tone Circuit Pack
CNAMD = Calling Name Delivery	6X78AB = CLASS Modem Resource Card
CND = Calling Number Delivery	3X68AC = Distinctive Ringing/Call Waiting Circuit Pack
CNDB = Calling Number Blocking	1X80AA/BA = Enhanced Digital Recorded Announcement
CNNB = Calling Name/Number Blocking	6X92BB/BC/EA = Universal Tone Receiver
COT = Customer Originated Trace	
DDN = Dialable Number Delivery	
DRCW = Distinctive Ringing/Call Waiting	
DSCWID = Call Waiting Deluxe	
SCA = Selective Call Acceptance	
SCF = Selective Call Forwarding	
SCRJ = Selective Call Rejection	

### CLASS hardware notes

The following notes refer to the CLASS hardware and features listed in "[CLASS minimum hardware requirements](#)" (page 180).

**Note 1:** For XPM+, MSL03 and above is required. Universal Tone Receiver (UTR) circuit card (NT6X92BB/BC/EA) is required for Enhanced Display Services, such as VSLE, SCWID, DSCWID, and CALLOG.

**Note 2:** The NT2X17 Line cards in the older line module can work for other CLASS functions, but Calling Name and Number are not displayed on sets. NT2X17 line cards are not supported for CLASS features.

**Note 3:** NT6X17AA/AB cards do not support CLASS Calling Name and Calling Number features.

**Note 4:** Early versions of the 6X21 may not deliver the message to the display immediately. The 6X21AC delivers immediately (MBS sets do not require CMR cards). The user cannot assign CND or CNAMD to a MBS set which uses a 6X21 line card, but a user can assign some of the SLE CLASS features to the MBS sets. In addition, Calling Name and Calling Number features cannot be assigned to MBS sets.

**Note 5:** CLASS features which can be assigned to MBS sets include the following: Automatic Recall (AR), Automatic Callback (ACB), Customer-Originated Trace (COT), Selective Call Acceptance (SCA),

Selective Call Rejection (SCRJ), Selective Call Forwarding (SCF) and Distinctive Ringing/Call Waiting (DRCW).

**Note 6:** The ELCM/LCM must have 6X51AB and the larger 256K load to support Calling Number delivery. This load is required to support the Incoming and Outgoing Call Memory (ICM and OCM).

**Note 7:** If announcements are used, DRAMS or EDRAMS are required.

**Note 8:** If a site is installing an ESMA, a MX76CA circuit card is needed.

## Implementing CLASS

The following information is important to consider when implementing CLASS:

- CLASS Features which use AMA versus SMDR are not currently supported in the Meridian SL-100 market (for example, Subscription Usage Sensitive Pricing/Billing).
- If EDRAM is implemented with CLASS Services, appropriate DRAM software and hardware are needed (other interdependencies may be applicable).
- The implementation of CLASS features requires careful planning from a user's perspective to consider the complicated hardware, software and memory provisioning implications, as well as the extensive impact to software translations. As a result, all proposals for CLASS services contain a minimum amount of Nortel Hardware and Software Engineering labor.
- Interdependencies for ISDN and Datapath should be verified, if NI000008, NI0 NI-1 BRI with CLASS on ISDN, and/or DTP00002, DTP Datapath with Datapath Screen List Editing are implemented.
- Already present in the Meridian SL-100 system, MDC00001, MDC Minimum, and MDC 00003, MDC Standard are required interdependent features for CLASS.
- RES00027, Visual Message Waiting, requires the following interdependencies: MDC MDC00003, MDC Standard; MDC 00006, MDC MBG Std; and RES 00004, RES I/F Functionality.

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# Appendix A

## Safety and regulatory requirements

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### Introduction

This chapter describes the safety and regulatory requirements for Meridian SL-100/Communication Server 2100 PBX systems and accessories.

### Safety and regulatory requirements

The Meridian SL-100/Communication Server 2100 system and accessories have been tested and met the following regulatory requirements:

- FCC Part 15 and Part 68
- Industry of Canada CS-03 Issue 8 and ICES 003 Issue 3.
- All terminals in the Meridian SL-100 system are hearing-aid compatible (HAC).
- Effective January 1, 2000, all telephones (including cordless telephones) manufactured in the United States for domestic use, or imported for use in the U.S., must have volume control. Secure telephones, telephones used with public mobile services and telephones used in private radio services are exempted.
- Effective April 21, 1998, ISDN phones must have FCC Part 68 approvals.
- Effective August 28, 1998, all CPE that connects to telephone networks must survive two types of surge tests.

The Meridian SL-100/Communication Server 2100 provides the following functions:

- user access to interstate and intrastate providers of operator services by using access codes that conform to the Telecommunications Act of 1996
- proper answer supervision conforming to FCC Part 68, Paragraph 68.314(h) of 1990
- 15-digit International Direct Distance Dialing (IDDD) conforming to ITU-T and Bellcore recommendations



## Appendix B

# Functionality descriptions

### Introduction

This chapter describes software features up to and including the SE09 Release that are common to the Meridian SL-100/Communication Server 2100. Optional features and hardware dependencies are indicated.

### SE09 software functionality listing

Functionalities in the TEL Telecom Layer function are not described separately in this document. These are basic telecom functions that are contained in all releases. For specific functionality descriptions, see the *Meridian SL-100 Translations Guide (555-4031-350)*.

**Note:** The *Application Planning Guide* is for planning purposes only and is not a comprehensive provisioning guide. Nortel reserves the right to add, delete, or change content without notice.

"[Sample entry for functionality descriptions](#)" (page 185) shows an example of a functionality description as described in this chapter.

### Sample entry for functionality descriptions

Name, group code/name	Description
Name: <b>RES Selective Call Rej.</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W Required: NT6X78AB	This functionality allows the user to selectively program a list of up to 31 DNs from which calls are rejected or blocked. Incoming calls that are on the SCR list are routed to an announcement informing the caller that the called party does not wish to receive the call. It is accessed by dialing an access code and modifications to the list are made using the keypad.
<b>LEGEND:</b> Name = Functionality name FG = Functional Group Code [OPT] = Right-to-use Required FGN = Functional Group Name H/W = Required Hardware	

## SE09 Functionality listing

Name, group code/name	Description
<b>ACD Agent Increase</b> FG.ACD00001 [OPT] FGN.ACD ACD Base	<p>This enhancement increases ACD datafill capacity as follows:</p> <ul style="list-style-type: none"> <li>• The maximum number of ACD agents per group from 256 to 512.</li> <li>• The maximum total number of ACD agents from 5000 to 9999.</li> </ul> <p>The ACD agent maximum configuration can vary from switch to switch because of engineered capacities and feature limitations.</p>
<b>ACD Basic</b> FG.ACD00001 [OPT] FGN.ACD Base	<p>This software provides basic agent supervisor capabilities for Meridian SL-100 Meridian ACD.</p> <p>The following features (together) enable a supervisor to continuously monitor (visually) or observe (audio-monitor) individual ACD agent activities on both the agent's Primary Directory Number (ACD calls) and one Designated Secondary Directory Number (DSDN):</p> <ul style="list-style-type: none"> <li>• ACD Observe-Agent Enhanced</li> <li>• ACD Status-Lamp Enhancement</li> <li>• ACD-Limited Enhanced Agent</li> </ul> <p>Call monitoring and call observe work together to allow a supervisor to both monitor and observe agent activity as an agent moves from call to call (a supervisor's set with display is needed for full functionality).</p> <p>Some other features provided by this functionality are as follows:</p> <ul style="list-style-type: none"> <li>• ACD Observe - Agent/Three Way Calling</li> <li>• Agent - Status Lamp</li> <li>• Automatic Call Distribution Show</li> <li>• Call - Agent Key</li> <li>• Display Queue - Status Key</li> <li>• Observe - Agent Key</li> </ul>

Name, group code/name	Description
<b>ACD CompuCALL Agent Desktop Functionality</b> FG.ACD00019 FGN.ACD CompuCALL	<p>This feature enhances the existing CompuCALL capabilities to provide basic ACD agent desktop functionality on Meridian Business Sets. Specifically, the feature provides the following benefits:</p> <ul style="list-style-type: none"> <li>• Three-way call or Call Transfer events and lamp synchronization.</li> <li>• Call Center Management Information System (CC MIS) notification for calls originated, terminated, and released from secondary DNs, using CompuCALL Call Control messages.</li> </ul>
<b>ACD CompuCall Base</b> FG.ACD00002 [OPT] FGN.ACD Compu-CALL Base H/W: NT1X89BB	<p>This software supports a variety of applications requiring switch-to-host communications. Together, the features in this functionality provide base support for Meridian COMPUCALL services, such as:</p> <ul style="list-style-type: none"> <li>• an interface to the initial message transport medium (X.25)</li> <li>• a common data structure and common datafill for all Meridian COMPUCALL applications</li> <li>• the capability to use multiple links in a Meridian COMPUCALL session</li> <li>• support for multiple application sessions over a single Meridian COMPUCALL link</li> <li>• control of application level flow</li> <li>• mechanisms for recovery by redundant or additional links</li> </ul>
<b>ACD Compucall-FUNC</b> FG.ACD00002 [OPT] FGN.ACD Compu-CALL Base H/W: NT1X89BB	<p>This Meridian CompuCALL software provides concurrent delivery of a voice call and data from the customer's business computer to an ACD agent.</p>
<b>ACD Compucall Functionality</b> FG.ACD00002 [OPT] FGN.ACD Compu-CALL Base H/W: NT1X89BB	<p>This functionality provides for greater interworking between Meridian SL-100 ACD call processing functions (for example, consultation/ transfer and conferencing) and voice processing units (for example, Interactive Voice Response [IVR] systems, Voice Response Units [VRU's], and so on) thus allowing increased call processing efficiency. For instance, Voice Processing Integration uses IVR systems and VRUs to obtain additional information about callers and direct them to the appropriate agent.</p> <p>In addition, an IVR system can request the transfer of a call from the IVR system to an ACD Directory Number using SCAI messaging on the SCAI link. The call is then transferred instantaneously, eliminating the dead space normally heard during a manual transfer.</p>

Name, group code/name	Description
<b>ACD CompuCALL RSBbscr</b> FG.ACD00014 FGN.ACD CompuCALL	This feature provides basic web-based telephony functions available with the Nortel Web Call Manager, including the delivery of Calling Name using TCAP query. In addition, the feature introduces the ability to control the delivery of Caller Name, number or both using a TCAP query.
<b>ACD CompuCALL SCallCtrl</b> FG.ACD0002 [OPT] FGN.ACD CompuCALL	This features enhances the existing CompuCALL interface by allowing the following new CompuCALL host application-initiated capabilities: <ul style="list-style-type: none"> <li>• Answer - allows the host computer application, on behalf of the users, to answer an incoming call.</li> <li>• Release - allows the host computer application, on behalf of the user, to release the current call.</li> <li>• Hold - during an active call, this feature allows the host computer application to place the call on hold.</li> <li>• Unhold - with a call on hold, this feature allows the host computer to return the call to active status.</li> </ul>
<b>ACD CP Control</b> FG.ACD00001 [OPT] FGN.ACD Base	This software provides basic ACD system and station features. Modifications to IBN tables are included to denote Electronic Business Sets as ACD agent/supervisor sets.
<b>ACD Ctrx Coord V&amp;Dta</b> FG.ACD00002 [OPT] FGN.ACD Compu-CALL Base	This functionality provides messaging for Meridian SL-100 lines to support delivery of data to the screen with the voice call to non ACD agents.
<b>ACD ACD Group Increase</b> FG.ACD00001 [OPT] FGN.ACD Base	This feature expands the maximum number of ACD groups from 256 to 1024.
<b>ACD Enhanced</b> FG.ACD00001 [OPT] FGN.ACD Base	<p>ACD Station Maintenance and Configuration Enhancements provides several enhancements for ACD stations. Some enhancements are Optional "Not Ready" capability, ACD Station Ringer Test and Emergency Key back-up tracking. ACD Agent Stability During Switch Maintenance allows agents to maintain their logged-in status and to continue to receive calls after switch events.</p> <p>This software also makes PIN Origination and Class of Service available. PIN Origination provides configuration flexibility over the current PIN methodology. PIN partitions are introduced that allow duplicate PINs to exist within different partitions, allowing users to select any subset of possible PIN numbers they wish to use.</p> <p>This functionality also enhances the current agent-observation capabilities by providing the ability to automatically observe selected call types to gauge the service level provided by the call center.</p>

Name, group code/name	Description
	Additionally, this software allows the user to predefine the layout of Automatic Call Distribution (ACD) feature keys for business sets.
<b>ACD Load Mgmt.</b> FG.ACD00001 [OPT] FGN.ACD ACD BASE	This functionality allows senior supervisors to manipulate the configuration of Meridian ACD groups to optimize the handling of current ACD call traffic.
<b>ACD MIS</b> FG.ACD00001 [OPT] FGN.ACD ACD Base	<p>The Automatic Call Distribution Management Information System (ACDMIS) provides the Down Stream Processor with the ability to request and assemble ACD information from the Meridian SL-100. This information can then be used for historical reports and real-time statistics. This software also counts the number and records the time of occurrence of calls redirected to Night Service. Calls that reach Threshold Route after not finding an available Overflow Route are also recording, thus enhancing the MIS with additional data.</p> <p>This software also allows the Meridian ACD Load Management and ACDSHOW capabilities to be implemented from a supervisor terminal linked to the downstream processor.</p>
<b>ACD Network ACD on PRI</b> FG.ACD00004 [OPT] FGN.ACD Networking	This software offers optional functionality that extends the reach and range of ACD base, enhanced and optional software to very large multinode call centers.
<b>ACD Network ACD on SS7</b> FG.ACD00004 [OPT] FGN.ACD Networking	This software offers optional functionality that extends the reach and range of ACD base, enhanced and optional software to very large and/or multi node call centers.
<b>ACD on 2500 Sets</b> FG.ACD00001 [OPT] FGN.ACD ACD Base	This functionality provides system and station software and features required to support Automatic Call Distribution (ACD) on 2500 sets. The capability for a 500/2500 set to be designated as an ACD supervisor position is also provided and allows the user of such a set to use the ACD Observe Agent feature.
<b>ACD Routing Enh</b> FG.ACD00001 [OPT] FGN.ACD ACD Base	Currently, when a call to an ACD group in Night Service or Overflow is rerouted to another ACD group in Night Service or Overflow, the call terminates to a busy tone, instead of continuing to reroute. This feature provides up to three reroutes.
<b>ACD Supergroup</b> FG.ACD00004 [OPT] FGN.ACD Networking	This functionality introduces the capability to network ACD groups locally within the Meridian SL-100 or across a network of Meridian SL-100 switches. Networked ACD provides the capability for each NACD group to broadcast status information about its own ACD load traffic and store ACD load status information about the rest of the network. This package also provides Priority and Time Based Overflow Queues, Algorithm Implementation, RLM Enhancements and MIS Enhancements.

Name, group code/name	Description
<b>AFG Add Option</b> FG.MDC00014 FGN.MDC Tailored MDC3	<p>Access Feature Group (AFG) Add Option is included in the Service Order Simplification Feature Group. This feature increases the flexibility of AFG and allows the administrator to customize the AFG by adding features to or them from a specific line using simple SERVORD commands. This feature currently supports MBS sets only.</p> <p>Quick conference key feature that reduces the number of keystrokes required to transfer an incoming call. Provides Public Service Access Point (PSAP) agent capability to transfer a call by activation of a single predefined feature key on an MBS or IVD set. Assignment of the feature is not limited to E911 agents.</p>
<b>AFG Add Option</b> FG.MDC00014 FGN.MDC Tailored MDC 3	<p>This functionality provides enhancements to the Access Feature Group feature. The new capabilities include:</p> <ul style="list-style-type: none"> <li>• support of additional line options by feature groups</li> <li>• support of feature groups for business set options requiring assignment of dedicated key</li> <li>• partition of various applications with Power Features (PF)</li> <li>• access to feature group definition tables for CCD users using Partitioned Table Editor</li> </ul> <p>This feature supports MBS and IVD sets, except for PF options on IVD terminals.</p>
<b>BAS Bellcore CAMA Format</b> FG.BAS00003 FGN.BAS Generic	<p>This software enables Automatic Message Accounting (AMA) records to be produced in a format that is compatible with Bell specifications. In addition, a variety of recording options are provided to meet Bell requirements.</p>
<b>BAS Bellcore LAMA Format</b> FG.BAS00003 FGN.BAS Generic	<p>This software formats the AMA data of the Meridian SL-100 to the Bell LAMA format and provides a variety of recording options required by Bell. It also provides new AMA record types (call codes) for Conference Trunk Usage and Call Forwarding Activation/Continuation/Deactivation.</p> <p>An enhancement to the existing record types is provided by adding a service feature field. This software was enhanced in BCS 28 and 29 by the addition of the following:</p> <ul style="list-style-type: none"> <li>• VFG AMA support for FX and ETS calls</li> <li>• AMA test call capability to designate an originating or terminating line as an AMA test call line</li> <li>• new line option that allows an originating or terminating line (IBM or POTS) to be designated as an AMA test call line</li> <li>• AMA test call enhancements enable the AMATEST option to be used on business sets, data units and selected trunk group types</li> </ul>

Name, group code/name	Description
<b>BAS Business Lines</b> FG.BAS00003 FGN.BAS Generic	<p>This functionality provides additional data regarding INWATS lines by pegging and allows access to 800-service (INWATS) lines from local lines, local incoming trunks, and local test trunks. In addition, this feature provides the ability for Meridian SL-100 users to receive telephone calls that have been placed without charge to the originating party from within specified areas and full and measured time services. An enhancement to the Outward Wide Area Telephone Service (OUTWATS) increases the number of geographical zones that can be defined. OUTWATS screening can be done on the first six digits of the called number as opposed to only the NPA's three digits and can accommodate both INWATS and OUTWATS on the same line.</p>
<b>BAS CAMA</b> FG.BAS00003 FGN.BAS Generic	<p>CAMA includes administration and Number Identification Charging features. Administration features include the following options:</p> <ul style="list-style-type: none"> <li>• AMA Failure Routing Options</li> <li>• Blue Box Fraud Prevention</li> <li>• Flexible Long Duration Call Reporting</li> <li>• Route Transfer RONI/CAMA Positions</li> </ul> <p>Number Identification Charging includes the following options:</p> <ul style="list-style-type: none"> <li>• AMA Record of Tandem Switch Seizure-only Calls</li> <li>• AMA Single Entry Format</li> <li>• Automatic Rotation of Storage Device</li> <li>• BCD Recording</li> <li>• CAMA Supervision, including:               <ul style="list-style-type: none"> <li>— Answer Timing</li> <li>— Called Disconnection Timing</li> </ul> </li> <li>• End of Tape Alarm</li> <li>• Magnetic Tape Local Inhibit</li> <li>• ONI Services</li> <li>• ONI Switching on ANI Fail</li> <li>• Option to Record Uncompleted Calls</li> <li>• Printout on ANI Failure</li> <li>• Receipt of Bell ANI Format</li> <li>• Remote ONI               <ul style="list-style-type: none"> <li>— To TOPS</li> </ul> </li> </ul>

Name, group code/name	Description
	<p>— To WE TSPS</p> <ul style="list-style-type: none"> <li>Total Calls Summary on AMA Record</li> </ul>
<b>BAS Cancel Call Waiting</b> FG. BAS00003 FGN.BAS Generic	This functionality allows the customer to assign the Cancel Call Waiting feature on either a line-by-line or a switch-wide only basis. Previously, Cancel Call Waiting could be assigned on a switch-wide basis.
<b>BAS CallProgres/Cmfrt Tone</b> FG. BAS00003 FGN.BAS Generic	This software provides the caller with audible tones during the post-dial delay of a CCS7 call setup that requires Service Switching Point database query. The tones inform the caller that the call is in progress, thus reducing abandons and retries due to uncertainty about the progress of the call.
<b>BAS Call Waiting [POTS]</b> FG. BAS00003 FGN.BAS Generic	This functionality allows non-controlling parties in a three-way call, who have Call Waiting, to have incoming calls waited against them. Previously, if a party, having the Call Waiting feature, was engaged in a three-way call, calls to that party were not call waited.
<b>BAS Centralized Alarms</b> FG. BAS00003 FGN.BAS Generic	This functionality provides Centralized Alarm Reporting (CALM) capabilities, which allow OAM activities for the Large Business Remote (LBR) switching network at a hosting Dynamic Network Controller (DNC).
<b>BAS Civic Services</b> FG. BAS00003 FGN. BAS Generic	This software provides Bureau Forced Disconnect, Bureau to Trunk Integrity Check and Calling Party Switch Hook Status (AC/DC Signaling). The Civic Services feature also provides Outpulsing Over 911 Trunks, Ringback (Coded Ringing and Timed), Ringdown Trunk for 911 Service, 911 Service/Call Hold and 911 Service (Trunk) with Automatic Number Identification (ANI) Outpulsing.
<b>BAS CIng No Announcement</b> FG. BAS00003 FGN. BAS Generic	This functionality provides Calling Number Announcement (CNA) and CNA Enhancements. The Meridian SL-100 uses these features to 1) verify Service Order/line transfer cross-connections, 2) to verify assignment records, 3) to identify pairs in the event of a cable cut and 4) to identify two- and four-party line users (when ANI is used). The Enhanced CNA provides options for announcement over the line only, loudspeaker only, or a combination of line and loudspeaker.
<b>BAS CM COMMON</b> FG. BAS00003 FGN.BAS Generic	This software enhances the DMS-bus clock software to improve the reliability of the software.

Name, group code/name	Description
<b>BAS Coin Services</b> FG.BAS00003 FGN.BAS Generic	This functionality provides timed initial and overtime periods. Coins are collected 30 seconds (s) before the end of each charging period. The sound of the coin being collected provides an indication to the calling party that the initial period is near completion and that the calling party must either hang up or make an overtime deposit to continue uninterrupted. At the end of each period, if a disconnection has not been detected, an overtime coin test is made. If a coin is present, timing for the next period commences. If a coin is not present, either an announcement or a tone as specified by the telephone company is returned to instruct the customer to make an overtime deposit. Another coin test is performed after the announcement and if a coin is not present, the call is terminated.
<b>BAS Dialable Line Ckt ID</b> FG.BAS00003 FGN.BAS Generic	This functionality allows identification of tip and ring cable pairs in the outside plant environment. It also provides a convenient, dialable method of inserting a short, when it is required, for fault diagnosis.
<b>BAS Digital Sub Svcs</b> FG.BAS00003 FGN.BAS Generic H/W: NT6X78AB	This software introduces a new type of trunk (PX), modifications to the trunk group data for P2 trunks, new link options for PBX lines and a new table for the PBX customer group option. This type of trunk group can be connected with various kinds of PBXs.
<b>BAS Dual RCC</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality allows the Remote Switching Center (RSC) to double its capacity from 5,760 to 11,520 lines. In addition to enabling larger initial RSC applications and cost-effective growth for RSCs already deployed, the dual RCC configuration minimizes costs through its intraswitching and interswitching features. Intraswitching permits calls that originate and terminate within one RCC to be switched without using links to the host, except during initial call setup. This capability enables substantial conservation of host resources and reduced expenses for DS-1 links, host interface equipment, repeaters and other network resources. Interswitching further reduces cost by permitting local switching between two Arcs in the dual configuration, thus significantly increasing the number of subscriber calls that can be switched without using host links or draining host capacity.
<b>BAS Enhanced Coin Svcs.</b> FG.BAS00003 FGN.BAS Generic	This functionality allows the generation of an Automatic Messaging Accounting (AMA) record for all calls made from a coin line with a call code of 136. Thus, the telephone company can track and account for all calls made, including the number dialed and the duration of each call, so that the billing requirements for private coin line companies and interexchange carriers can be reconciled accurately and so that the revenue levels of company-owned coin stations can be verified.

Name, group code/name	Description
<b>BAS Enhanced Netwk Mgmt</b> FG.BAS00003 FGN.BAS Generic	<p>The following features are provided with this functionality:</p> <ul style="list-style-type: none"> <li>• A code blocking (CBK) control that provides a means of blocking a percentage of the traffic destined for a congested area based on the destination code.</li> <li>• Directional Reservation Equipment (DRE) that gives priority to completing traffic by reserving a number of idle trunks in a group for this completing traffic (applied to two-way trunk groups).</li> <li>• An incoming trunk busy (ITB) control that allows the Network Manager to restrict incoming attempts to an overloaded switch by selectively removing from service (that is, busy out) a percentage of incoming or two-way trunk groups that are equipped for remote-make-busy.</li> <li>• Network management improvements.</li> <li>• A network management status.</li> <li>• Controlled input/output.</li> <li>• The Flexible Reroutes (FRR) feature.</li> <li>• Outgoing trunk group control.</li> <li>• Position and display for continuous status information.</li> <li>• Protective Reservation Equipment (PRE).</li> <li>• Route Controls - cancel from/skip, Cancel to Route Controls that limit traffic attempts over one-way outgoing or two-way trunk group and routes to a specified announcement.</li> <li>• Route Controls - Reroute and Network Management Signal Distribution (NWMSD) that enable dynamic allocation of memory so that each site uses only as much data store as is necessary for the "New Table Control".</li> </ul>
<b>BAS Enhanced TWC [POTS]</b> FG.BAS00003 FGN.BAS Generic	<p>This functionality allows a non-controlling party in an existing three-way call to invoke the three-way call feature and add another party to the call, thus chaining three-way calls together.</p>
<b>BAS Enh Call FWD [POTS]</b> FG.BAS00003 FGN.BAS Generic	<p>This software allows calls that terminate to a busy station to be forwarded to another (remote) station inside or outside the Meridian SL-100 switch. The Directory Number of the remote station is fixed and must be entered when this package is assigned to a POTS line. The permitted number of simultaneously forwarded calls is also fixed and must be entered when this package is assigned.</p>

Name, group code/name	Description
<b>BAS Enablers-10 Dig LIOD</b> FG.BAS00003 FGN.BAS Generic H/W: NT6X78AB	<ul style="list-style-type: none"> <li>This functionality enhances the flexibility of CLASS routing by increasing the called-party field of the TCAP (Transaction Capabilities Application Part) message from six to ten digits. This capability allows the correct and efficient routing of CLASS calls to Directory Numbers whose NNX code exists in more than one central switch. This feature requires CCS7 hardware and software and Network CLASS capabilities.</li> </ul>
<b>BAS Feature Group A</b> FG.BAS00003 FGN.BAS Generic	This functionality provides better terminator billing to produce records when a local (for example, seven-digit) call terminates to a line.
<b>BAS FGB AMA End ATT fmt</b> FG.BAS00003 FGN.BAS Generic	This functionality allows Feature Group B (FGB) calls that are routed through a FGB access tandem to be billed in the end office and provides non-zero data for the AMA records.
<b>BAS FGB AMA Tndm ATT fmt</b> FG.BAS00003 FGN.BAS Generic	This functionality involves the routing and billing of ENFIA-type calls through a tandem switch to an OCC switch.
<b>BAS Intra RLCM Calling</b> FG.BAS00012 FGN.BAS Remotes Generic	<p>This software provides three basic functionalities: Intraswitching OM, RLCM Intraswitched End-To-End Signaling, and RLCL Intraswitching.</p> <p>Intraswitching OM (RLCM) provides Operational Measurements (OM) for intraswitched calls on the Remote Line Concentrating Module (RLCM). This data provides the customer with measurements that are useful for equipment provisioning for the remote site.</p> <p>RLCM Intraswitched End-To-End Signaling enables an Electronic Telephone Set to outpulse Dual Tone Multifrequency (DTMF) digits while active on a call. The regular End-To-End Signaling feature works on non-intraswitched calls only. This package provides the same capability to an ETS user when the call is intraswitched on a RLCM .</p> <p>RLCM Intraswitching allows calls that both originate and terminate within a RLCM to be switched without using DS-1 links to the host, except during initial call setup. Links within the RLCM, containing 32 channels each, are specifically assigned for intraswitching. All IBN features can be invoked on intraswitched calls, except for End-To-End Signaling from Meridian SL-100 Electronic Telephone Sets.</p>
<b>BAS Intra-RLM Calling</b> FG.BAS00012 FGN.BAS Remotes Generic	<p>This functionality provides for intra and interbay calling, within the same RLM, without utilization of the DS-1 links to the host switches, except during the call setup stage. The intrabay link provides the basic capability of establishing 12 connections per bay. This capability can be extended to provide an additional 12 connections per intrabay link at the expense of inter-bay and DS-1 links to the host switch. An inter-bay link on the other hand, provides the capability of establishing 24 inter-bay connections.</p>

Name, group code/name	Description
<b>BAS 1A/1B EADAS I/F</b> FG.BAS00003 FGN.BAS Generic	The EADAS/DC interface provides a data link to ATandT EADAS data collection centers. EADAS computers at these centers poll the Meridian SL-100 for Operational Measurement data. The Meridian SL-100 collects and stores the data, and in response to the polls, uses the EADAS/DC interface to transfer the data to the ATandT EADAS/DC center. After the data has been sent to an EADAS/DC center, it can be transferred to an ATandT EADAS network management location where network administrators can monitor network performance.
<b>BAS Line Card Monitor</b> FG.BAS00003 FGN.BAS Generic	This functionality enables the switch to analyze and perform troubleshooting on faulty lines.
<b>BAS Line Log Reduction</b> FG.BAS00007 FGN.BAS Logs	This functionality reduces log messages in the Meridian SL-100 by as much as 30 percent. Benefits include lower operations costs, improved operations performance and reduced processing demands on OSs. The reduction in volume is achieved by suppressing permanent signal and partial dial (PSPD) logs, until all checks and tests have been completed. Many logs such as those generated by customer dialing errors are eliminated. The result is more meaningful logs, making it easier for the OS to analyze the logs in identifying potential cable troubles.
<b>BAS Line Test Pos (LTP)</b> FG.BAS00003 FGN. BAS Generic	With this software, automatic line testing, line transmission tests, LTP-digitone testing, LTP monitor, talk, balance off-hook tests, LTP-send functions (coin and ringing), software control of cut-off relay on posted lines and tone generation are features made available. <ul style="list-style-type: none"> <li>• With this software, automatic line testing, line transmission tests, LTP-digitone testing, LTP monitor, talk, balance off-hook tests, LTP-send functions (coin and ringing), software control of cut-off relay on posted lines and tone generation are features made available.</li> </ul>
<b>BAS Local AMA</b> FG.BAS00003 FGN.BAS Generic H/W: NT6X78AB	This functionality provides the following: <ul style="list-style-type: none"> <li>• AMA failure routing option</li> <li>• AMA single entry format</li> <li>• Binary Coded Decimal (BCD) recording</li> <li>• end of tape alarm</li> <li>• flexible long duration call reporting</li> <li>• Local Automatic Message Accouting (LAMA) supervision (answer timing and call disconnect timing)</li> <li>• magnetic tape local inhibit is provided at the Maintenance and Administration Position (MAP) to prevent tampering with the tape drive through switches on the drives</li> </ul>

Name, group code/name	Description
	<ul style="list-style-type: none"> <li>• Operator Number Identification (ONI) service</li> <li>• option to record uncompleted Direct Distance Dialing (DDD) on AMA tape</li> <li>• remote ONI to Traffic Operator Position System (TOPS)</li> <li>• recording of AMA tape call counts by call type at the end of the tape when a tape transfer is executed</li> </ul>
<b>BAS Local CDR</b> FG.BAS00003 FGN.BAS Generic	Local Call Detail Recording facilitates the charging of local calls. With this feature, lines that are assigned to this service can be billed an amount proportional to the conversation time for all local calls.
<b>BAS Local Features I</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the base administration and maintenance options, in addition to routing and translations. There are several basic features contained in this package. In BCS35 (GA BCS36), this package was enhanced in a way that allows existing MDC trunk features, such as Line Screening Code Restrictions, to be extended across an MBG and operate transparently. The feature also improves Attendant Console operations in an MBG.
<b>BAS Local Features II</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the base administration and maintenance options, in addition to routing and translations. There are several basic features contained in this package.
<b>BAS Maint Assistance Pkg</b> FG.BAS00003 FGN.BAS Generic	This functionality offers the following features: Basic Operational Measurements, Circuit Locate (Core, Line, Trunks) and Silent Switchman, which enables a technician to test the Outside Plant without the need of a second person in the switch to open the cable pair. An alarm sending and checking feature, which conveys alarm indications to a remote point whenever a switch is unattended, is also made available. In addition, this feature provides: call tracing, flexible alarm sending, identification of alarms, Intercept, Outpulse ANI Digits, identification of killer trunks, incoming/outgoing trunk irregularities detection, threshold and exception reporting, trunk circuit type identification and a trouble log that provides a history of all errors encountered in the system over a certain time frame.
<b>BAS Multilink ASCII Drvr</b> FG.BAS00003 FGN.BAS Generic	This software makes Multi-Link ASCII Device Driver and 1X67 Firmware Throughput Enhancement features available.

Name, group code/name	Description
<b>BAS Multiunit Msg Rt Svc</b> FG.BAS00003 FGN.BAS Generic	This functionality produces billing information for message rate local calls. It provides data structures to help the telephone companies in defining the characteristics of Multi-unit Message Rate Services. The service can be assigned only to single- or two-party lines and to PBX trunks with line terminations at the Central switch.
<b>BAS New Periph Maint Pkg</b> FG.BAS00003 FGN.BAS Generic	This functionality provides a speech test for the links between a Line Module (LM) and a network. The test can be initiated either manually from the NET level of the Maintenance and Administration Position (MAP) or by the system, when the Meridian SL-100 detects a problem with a LM speech link. This feature also enhances the real time generation of Peripheral Module (PM) 180 log reports. Two other features offered by this package are XPM Party Audit and LCM Takeover/Takeback Enhancement. XPM Party Audit provides an audit to monitor XMS-based Peripheral Module (XPM) memory for parity errors. The LCM Takeover/Takeback Enhancement reduces the time of Pulse Code Modulation (PCM) transmission breaks to approximately 100 milliseconds (ms) during CC-controlled LCM active switches. Recent improvements made to this package include Enhanced 6X69 Diagnostics, CC Static Data Manager, PCM Diagnostic Enhancements Phase I, XPM Static Data Manager, XPM RTSS – Memory Recovery, Enhanced Warm SWACT and adding MAPCI perform level for the DTCL.
<b>BAS NOS Data Collection</b> FG.BAS00003 FGN.BAS Generic	The XFER Subsystem Table feature in this functionality provides a table to replace the DEFINE command at the Remote Data Polling System level of a MAP terminal. The information contained in table XFERSSYS can be edited using table editor commands and is not lost during a software upgrade. Some other features made available through this software are: Automatic Trunk Testing Report, Conversion of NOS File Transfer to Generic RO Service, File Transfer Server for Bell of PA and Killer Trunk Report Separation.
<b>BAS Office HW Inv Pkg</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the telephone companies with a mechanism for establishing and maintaining an inventory of operational and spare circuit cards. The data is stored in the DMS data store. The resulting database is also used by Nortel for support, engineering and change control purposes.
<b>BAS Offnet Access Svcs</b> FG.BAS00004 FGN.BAS Generic OAM	This functionality allows calls that are made on a Meridian SL-100 to access offnet information and services. This feature also provides access to information on the billing of these calls such as Station Message Detail Recording (SMDR) information, Automatic Number Identification (ANI) information and account codes information. NSS Dialtone Immediate is included in this functionality.

Name, group code/name	Description
<b>BAS OM Enhancements</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the following Operational Measurement (OM) enhancements: a 5-minute (min) OM register transfer period option in addition to the 15- and 30-min periods, three registers containing a rolling 15-min history in 5-min segments and four registers containing a rolling 1-hour (h) history in 15-min segments.
<b>BAS Online Peripheral SW</b> FG.BAS00003 FGN.BAS Generic	This software allows PM S/W loads to be kept in the protected area of the main memory, rather than on a magnetic tape. It is required for unmanned switches equipped with a single magnetic tape drive for the office image. However, any switch can be equipped with this package to take advantage of increased speed of loading, as well as freeing up a MTU for other purposes.
<b>BAS OPM Maintenance</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality provides the necessary host software to automatically rotate and recharge the emergency batteries to protect against AC failure. If an AC failure should occur, this package automatically reschedules the recharge of emergency batteries.
<b>BAS 4X opr Bell Fmt ANI</b> FG.BAS00003 FGN.BAS Generic	This functionality provides Coin Control Capability on Super CAMA (SC) trunk groups.
<b>BAS OSS I/F Enhancement</b> FG.BAS00004 FGN.BAS Generic OAM	This functionality provides a new command ITALK that enhances the flexibility of the user's Operation Support System (OSS) by enabling the OSS to use any BCS syntax (from BCS30 onward) to talk to the Meridian SL-100.
<b>BAS PBX Interface I</b> FG.BAS00003 FGN.BAS Generic	This functionality provides Stop Hunt Key Interaction With Overflow, Directory Number Hunting (DNH) With Call Waiting Termination (CWT) and Preferential Hunt Options, Hunt Group Enhancements and Hunt Group Size Expansion.
<b>BAS PBX Interface II</b> FG.BAS00003 FGN.BAS Generic	This functionality provides answer supervision to PBXs for Toll Calls, called party hold where a terminator having the option has the control to disconnect the call, Direct Inward Dialing (DID) to a PBX and Direct Outward Dialing (DOD) from a PBX on the same transmission facilities using a two-way trunk, the capability for an incoming call from the exchange network (not special circuits, for example, FX, WATS) to reach a specific station line without attendant assistance and provides two commands in the Service Order repertory to allow association of Directory Numbers (or block of DN) with an office route (for example, DID trunk group, test lines).

Name, group code/name	Description
<b>BAS Poll OM Data via Dpk</b> FG.BAS00003 FGN.BAS Generic	This software permits a micro- or minicomputer-based centralized system to automatically dial over the Direct Distance Dialing (DDD) or DATAPAC network to reach Meridian SL-100 switches and extract Operational Measurement (OM)/Automatic Message Accounting (AMA) data from the disk or tape file. Thus, the OM and AMA tapes need not be physically dismounted from the switch and transported to the data processing center for downstream processing. This package also provides the Meridian SL-100 with a DATAPAC interface in accordance with CCITT 1980 specifications for Link Access Procedure Balanced (LAPB) mode. LAPB provides a common standard for link access, in addition to the currently available LAP.
<b>BAS 411 Rec on Mag Tape</b> FG.BAS00003 FGN.BAS Generic	This functionality provides a facility to allow XMS-based Peripheral Modules (XPM) to support service tones for different markets using the new common hardware.
<b>BAS Remote Call FWD</b> FG.BAS00003 FGN.BAS Generic	Remote Call Forwarding (RCF) Base Directory Number (DN) allows the Meridian SL-100 switching system to assign the Multiunit Message Rate billing option to a Remote Call Forwarding base Directory Number. This feature permits the accurate billing of RCF service as a message rate service, as is normally required for business services.
<b>BAS Remote Act of LLC</b> FG.BAS00003 FGN.BAS Generic	This software enhances the current Line Load Control (LLC) capability by providing the ability to activate or deactivate LLC for all sites connected to the Meridian SL-100. With this feature, sites can be controlled independently of the Meridian SL-100.
<b>BAS Remt MB via Scan Pt</b> FG.BAS00003 FGN.BAS Generic	This functionality allows the Meridian SL-100 user to select any outgoing to two-way trunk circuit, or group of trunk circuits and remove them from, or return them to, service.
<b>BAS ROTL</b> FG.BAS00003 FGN.BAS Generic	The Remote Office Test Line (ROTL) capability provided by this package is an essential part of the Automatic Trunk Testing (ATT) system. The ATT system schedules and performs transmission and signaling tests on trunk circuits connecting different switches in the area. To perform maintenance testing over a specific circuit, an Automation Products Company (APC) is connected at each end of the test circuit. The controller end (ROTL) provided by this package enables: 1) communication with the central processor in a predetermined format, 2) direct/indirect connections, or both, to the circuit being tested, 3) initialization and performs the requested test(s) and 4) it reports the measured results to the central processor. The ROTL can also perform as the Responder, at the responding end. In addition, this package provides a mapping facility between the Common Language Location Identifier (CLLI) group numbers and the Meridian SL-100 CLLI groups.

Name, group code/name	Description
<b>BAS RLCM</b> FG.BAS00012 FGN.BAS Remotes Generic	The Remote Line Concentrating Module (RLCM) is a member of the Meridian SL-100 remotes based on the LCM (Line Concentrating Module). The RLCM provides a physical capacity of 640 lines. This package provides host switch line features and the testing and maintenance capabilities to the RLCM.
<b>BAS RLM</b> FG.BAS00012 FGN. BAS Remotes Generic	This functionality provides RLM interface with #3 Line Test Controller (LTC), RLM interface to Badger 612A, variable quantities of T1 lines depending on traffic, Digital Carrier Module-Remote (DCM-R) diagnostics, T1 maintenance, High-Level Data Link Controller (HDLC) maintenance and Reswitch HDLC over a secondary T1 link. This package also allows line testing using line test units (LTU/MAP), RLM maintenance that comprises all the aspects associated with the Line Module (LM) base, the service of remote lines with host switch features. RLMs can be located up to a maximum of more than 161 kilometers (km) (100 miles [mi]) from the host switch, with the size ranging from 100 lines up to 1280 lines interfacing with from two to eight DS-1 links. In addition, this software provides signaling channel supervision and basic translation and routing.
<b>BAS RLM EmrgncyStnd Alone</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality allows abbreviated dialing (dialing from three to seven digits) to complete a call to another line in the Emergency Stand Alone (ESA) mode. This allows Meridian SL-100 switches that support Directory Numbers of less than seven digits to have their RLMs in ESA mode behave in the same way as with the standard operation. This package also provides the ESA optional feature that enables the RLM to provide service between Meridian SL-100 users in the event of a complete failure of DS-1 links (between the RLM controllers and the host switch DCM-Rs).
<b>BAS RSC</b> FG.BAS00012 FGN.BAS Remotes Generic	The RSC is a Meridian SL-100 remote. It is based on the enhanced peripherals and has a physical line capacity of 5,760 lines. This feature provides the capability to support lines in the RSC.
<b>BAS RSC Enh ESA-Lns only</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality provides RSC Warm Entry/Warm Exit to ESA.
<b>BAS RSC En ESA (L&amp;Tks)</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality provides for ESA capability. It allows warm entry and fast (1 min) cold exit for dual non-ISDN RSCs in the ESA state.
<b>BAS RSC ESA OPLnetrk</b> FG.BAS00012 FGN.BAS Remotes Generic	This software enables the RSC to emulate the Clear Coded Channel (CCC) whenever contact with the host has been lost.
<b>BAS RSC-intra RSC Cling</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality provides the capability for switching intra RSC line-to-line calls within the RSC.

Name, group code/name	Description
<b>BAS RSC-Rem-Off Rmt</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality supports the connection of an RLCM or Outside Plant Module (OPM) to the peripheral side of a RCC. The connection of the RLCM and OPM to an RCC is accomplished with DS-1 links.
<b>BAS RSC-S BASIC</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality provides Remote Switching Center-Second series (RSC-S) compliance with the Nortel Network offering of National ISDN-1 (NI-1) as described in the ISDN Basic Rate Access User – Network Interface Specification (NIS S208-6 issue 1.0) for Functional Call-Control Signaling (basic call) and Supplementary Services.
<b>BAS RSC-S Extend Dist</b> FG.BAS00009 FGN.BAS RSC-S H/W: NTMX76AA (Messaging Circuit Card)	Network providers deploying the Meridian Cabinet Remote Module - Second series (MCRM-S) can reach farther than ever into the network with Extended Distance Capability (EDC; BAS00009). With this software, the MCRM-S can be deployed at distances greater than 241 km (150 mi) from the host, depending on transmission characteristics of the host links. The specific distance depends on the transmission facilities being used, as well as traffic levels the switch has been engineered to meet. However, service to distances of up to 840 km (500 miles) are possible.
<b>BAS RSC Trunking</b> FG.BAS00012 FGN.BAS Remotes Generic	This functionality allows trunks to intraswitch at the RCC or use network channels through dynamic channel allocation. Dynamically-allocated trunks use intraswitch channels whenever possible. This software also provides RLCM ESA Table Control, which handles the collecting and delivery of translation data to the RLCM ESA processor to support ESA translation and call processing. Translation data is delivered automatically from the host to the RLCM on a daily basis. Manually-initiated delivery at any convenient time also can be arranged.
<b>BAS Service Analysis</b> FG.BAS00003 FGN.BAS Generic	This software provides a service analysis for calls on intertoll, TOPS and Auxiliary Operator Services System (AOSS) trunks that route to AOSS positions.
<b>BAS SubLine Usage</b> FG.BAS00003 FGN.BAS Generic H/W: NT6X78AB	This functionality allows the Meridian SL-100 user to assign registers to measure usage on particular Meridian SL-100 user lines. It also provides for two peg count line measurement registers to be assigned, when assigning a usage register, one each to count originating and terminating attempts.
<b>BAS Sw Bit Err Rate Mntc</b> FG.BAS00003 FGN.BAS Generic	The purpose of this software is to provide a tool that allows a Meridian SL-100 user to monitor the bit error rate performance of a switch. A bit error rate is a measure of the number of bits in error in a transmission stream.
<b>BAS SYNC &amp; STRATUM 2.5</b> FG.BAS00003 FGN.BAS Generic	This functionality deals with synchronization of a digital network and the use of plesiochronous (not synchronized, but virtually zero slips) operation on digital links between networks requiring the use of a highly-accurate clock.

Name, group code/name	Description
<b>BAS Term Call Blng (NT)</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the option to automatically produce billing records when a call terminates to a specified line, similar to INWATS calls. The software is implemented as a hunt group option.
<b>BAS Toll Features I</b> FG.BAS00003 FGN.BAS Generic	SAS Toll Features I includes the following enhancements: <b>Administration</b> <ul style="list-style-type: none"> <li>• Calling Line Identification (CLID) - Trunk Termination</li> <li>• Directory Assistance Charging (411 Calls on AMA) Traffic and Operational Measurements</li> </ul> <b>Maintenance</b> <ul style="list-style-type: none"> <li>• Test Lines:               <ul style="list-style-type: none"> <li>— Loop Around</li> <li>— Open Circuit Termination</li> <li>— Short Circuit Termination</li> <li>— 1120 - Nonsynchronous (originating)</li> <li>— 1181 - Synchronous (originating)</li> </ul> </li> </ul> <b>Signaling and supervision</b> <ul style="list-style-type: none"> <li>• Special Billing Codes</li> <li>• Switched ~/DP Pulse Conversion</li> </ul> <b>Switching and translation</b> <ul style="list-style-type: none"> <li>• Home/Foreign Area Translation and Screening</li> <li>• Local Call Intercept</li> <li>• Office Code Sharing - Thousands Digit Translation</li> <li>• Routing Across NPA Boundaries</li> <li>• Trunk Class Screening</li> <li>• Unauthorized/Code Blocking</li> </ul> <b>Toll Services</b> <ul style="list-style-type: none"> <li>• Switched Access from Operator (Non-Coin)</li> <li>• Switched Access to Operator (Non-Coin)</li> <li>• Verification Switching</li> </ul>

Name, group code/name	Description
<b>BAS Toll Features II</b> FG.BAS00003 FGN.BAS Generic	<p>This functionality includes the following:</p> <p><i>Administration</i></p> <ul style="list-style-type: none"> <li>• Magnetic Tape for Operational Measurements</li> </ul> <p><i>Maintenance/testing</i></p> <ul style="list-style-type: none"> <li>• E&amp;M Test Repeat Two Test 104 Originating and Terminating Test Line I05 Terminating Test Line</li> </ul> <p><i>Switching and Translations</i></p> <ul style="list-style-type: none"> <li>• Combined MF Trunk Group (1+, 0+, 0-, Coin, Non-Coin)</li> <li>• Combined Verification and Toll Completing</li> <li>• INWATS/OUTWATS</li> <li>• Local Tandem</li> <li>• Nailed-up Connection</li> <li>• Tandem Switching, No Digits Incoming               <ul style="list-style-type: none"> <li>— One-way Trunks</li> <li>— Two-way Trunks</li> </ul> </li> </ul> <p><i>Toll Services</i></p> <ul style="list-style-type: none"> <li>• Coin Control, Line Number Method</li> </ul>
<b>BAS Traffic Sep Peg Cut</b> FG.BAS00003 FGN.BAS Generic	<p>This functionality implements the Traffic Separation Measurement System (TSMS) needed in the Equal Access End Office (EAEO) environment. The separation uses the destination number and the carrier number to separate the traffic. This feature also provides: overflow peg counts required in the EAEO environment, point-to-point peg counts for the direct dial, operator assisted and no prefix type calls. In addition, this package extends the Traffic Separation Measurement System (TSMS) capability of attempt pegs to type 3 traffic calls from the Meridian SL-100 or remote lines and this package extends existing TSMS capabilities to include Integrated Business Network (IBN) peg counts.</p>
<b>BAS Traffic Sep Report</b> FG.BAS00003 FGN.BAS Generic	<p>This functionality provides output reports for the Traffic Separation Measurements System (TSMS) that are needed in the equal access environment. It extends the TSMS to MDC lines and incorporates the MDC TSMS into the reports generated by the TSMS, provides a traffic separation output report of the OMs with a summation of registered data and multiple column output and it extends the "TMS Report Summarized" features' capabilities to include PDAB/PDIO (Partial Dial Abandon/Partial Dial Timeout) type of calls.</p>

Name, group code/name	Description
<b>BAS Traffic Sep Usage</b> FG.BAS00003 FGN.BAS Generic	This functionality also implements the TSMS needed in the Equal End Office (EAEO) environment. This software provides an optional feature that supplements the basic traffic analysis to satisfy traffic separation requirements (setup and connect time usage). It also extends existing TSMS capabilities to include IBN usage measurements, as well as extending the TSMS capability of usage measurements to type 3 traffic calls.
<b>BAS TTP Digit Verificatn</b> FG.BAS00003 FGN.BAS Generic	This functionality provides a feature that monitors the signaling path of the Meridian SL-100 message system. All incoming messages from the trunk peripheral module (digital or analog) are intercepted and displayed on the Trunk Test Position (TTP) for the monitored circuit. This feature also has the ability to verify Meridian SL-100 translation data. By specifying a called number and an incoming trunk group using a TTP position, the actual routing of calls can be verified without setting up a connection.
<b>BAS Unauth Dgt Svc Det</b> FG.BAS00003 FGN.BAS Generic	This functionality identifies DP Meridian SL-100 users using Digitone Receivers for digit collection. When the feature is activated, Digitone Receivers are allocated to all calls, including those originating from DP classed Meridian SL-100 users. Thus, service is provided for unauthorized Meridian SL-100 users too. Lines using unauthorized DT phones are identified.
<b>BAS Vert Services [POTS]</b> FG.BAS00003 FGN.BAS Generic	This functionality provides OM Peg Count of feature activation, Call Forwarding, Call Waiting, Custom Calling - Four-Second Delay Cancellation, Fixed Call Forwarding, Three-Way Calling, Toll Call Forwarding and Speed Calling (long/short list).
<b>Generic BAS XPM+ in RSC</b> FG.BAS00012 FGN.BAS Remotes	The combined features of this functionality provide support for unified processor capabilities for the Remote Switching Center.
<b>BAS XPM Maintenance</b> FG.BAS00003 FGN.BAS Generic	This functionality is a powerful maintenance tool that identifies and prioritizes, at the MAP, the most significant line- or trunk-related problems requiring maintenance attention, thereby optimizing the effectiveness of switch maintenance personnel. The MAP enables a technician to quickly identify the system element at fault and thus perform the required maintenance actions. This software eliminates the need for printing, sorting and analysis of logs for trouble identification.
<b>BASE BILGE</b> FG.BASE0001 FGN.BASE <ul style="list-style-type: none"> <li>• <b>BASE BILGE</b>                FG.BASE0001                FGN.BASE</li> </ul>	This functionality contains root-level call processing tasks that are common to all features and phones. It is the operating system software for the Meridian SL-100 switch. <ul style="list-style-type: none"> <li>• This functionality contains root-level call processing tasks that are common to all features and phones. It is the operating system software for the Meridian SL-100 switch.</li> </ul>

Name, group code/name	Description
<b>BASE BILINGUAL INTERFACE</b> FG.BAS00003 FGN.BAS Generic	This software enables the Meridian SL-100 user interface (MAP or other VDU) to operate in both English and French. It is a truly bilingual system in which a terminal user can select the language of preference. This selection is made by a MAP command on a per-terminal basis. The MAP terminal keyboard can be arranged to provide bilingual designations. All descriptive messages are resident in the machine in both languages.
<b>BASE CM BILGE</b> FG.BAS00003 FGN.BAS Generic	BASE CM BILGE provides base operating software common to support SL-100 configurations.
<b>BASE COMMON BASIC</b> FG.BASE0001 FGN.BASE	This functionality provides software to verify line drawer states over BCS applications, improve the memory fault detection ability of the CC, improve the return-to-service sequence to the CMC and modify the descriptiveness of CC mismatch logs. Recent improvements to this package include CC Warm SWACT MMI Enhancements - Phase II and BUS Message Flow Control - Phase III. Subsequent enhancements were made since this feature's introduction: 1. Enhancements to the existing Auto Apply feature, and 2. Enhancements to the TABAUDIT feature.
<b>BASE DISK DATA STORAGE SYS</b> FG.BAS00003 FGN.BAS Generic	This functionality provides semiautomatic DIRP Disk to Tape Copy as well as Data Recording and Recall (Storage of AMA and OM Data and Automatic Remote Transmission of AMA/OM Data). An optional Journal File feature provides the facility to record activated Data Modification Orders (DMOs). Service Orders are provided for backup purposes in the event that the contents of the data table are inadvertently destroyed. The capability to store OM register contents on magnetic disk and poll the current files at predetermined intervals is provided as is the disk storage of peripheral loads, loading and unloading of non-resident programs and a 14-inch Winchester Disk Drive that can replace the tape drive for Office Image loading and dumping. The time required for either loading or dumping is reduced, because of higher transfer speeds and direct positioning capabilities.
<b>BASE DIRPPARALLEL STOREINC</b> FG.BAS00003 FGN.BAS Generic	This functionality allows an increase in Device Independent Recording Package recording media and modifies DIRP-related user interface commands for easier operation.

Name, group code/name	Description
<b>BASE DMS SNSE COMMON</b> FG.BAS00003 FGN.BAS Generic	This functionality addresses the software and firmware issues related to introducing the SuperNode SE Platform (SNSE). Central and Local DMS-BUS S/W maintenance issues are addressed by this package. All SNSE DMS-BUS development, except for the support of both CMIC links on one interface card (feature A00857) and the support of SR-128 MS-ENET links (feature A00858) are addressed by this feature. All SNSE S/W and F/W development is integral to the SL-100 product structure and is within the DMS stream.
<b>BASE DMS SuperNode SLM</b> FG.BAS00003 FGN.BAS Generic	This software modifies System Load Module (SLM) hardware to accommodate the use of higher capacity tape cartridges and disk drives. It also modifies P-side Message Controller (PMC) and SLM maintenance software to support the high performance Fault Tolerance File System (FTFS). In addition, this package provides further modifications to the special operations layer of the System Load Module file system and enables Computing Module (CM) and Message Switch (MS) image dumps to be prescheduled and transported to the System Load Module without user intervention.
<b>BASE ENHANCED ADMIN</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the following: 1) an "echo" of Service Orders both at the input terminal and remote terminal located at the MDF, as they are being entered, 2) a loading of data modifications into the Meridian SL-100 from a magnetic tape or from a file on some external device containing all Data Modification Order (DMO), 3) a DMO pretesting, which allows routing data to be validated and tested before being placed in service, and 4) a facility for storing Table Editor commands or DMOs that are intended to be executed at some later date.
<b>BASE ENH SECRTY PW ENCRIP</b> FG.BAS00003 FGN.BAS Generic	This functionality is identical to Base ENH SECRTY W/O PW ENCRIP (see next entry) with one exception: passwords are encrypted to provide additional security.
<b>Base ENH SECRTY W/O PW ENCRIP</b> FG.BAS00003 FGN.BAS Generic	With this functionality a customer can control a user's access by controlling login access to Attendant Consoles. Attendant Consoles can be selectively enabled or disabled. This software also implements an audit trail for all security related events by providing up to 1000 secure reports. The Automatic Logout of Dial Up Line feature increases the Meridian SL-100 system security by automatically logging out unauthorized terminal users. Other features made available with this functionality are: Enhanced Command Screening, Password Control and Security Table Enhancements.
<b>BASE ENH SECURITY PKG II</b> FG.BAS00003 FGN.BAS Generic	This functionality provides a further level of access control, automatic dialback on modems to control remote terminal access to the switches.

Name, group code/name	Description
<b>BASE FAULT TOLRT FILE SYS</b> FG.BAS00003 FGN.BAS Generic	This software serves as the foundation for state-of-the-art capabilities for management of billing and intelligent networking data.
<b>BASE IEM EVNT CONSOLIDATN</b> FG.BAS00003 FGN.BAS Generic	This functionality allows applications on such new components as the File Processor (FP) to chain together logs into a consolidated message that provides all pertinent information about a potential problem. Instead of spending valuable time trying to analyze numerous log messages, technicians can get right to the task of finding a problem and fixing it.
<b>BASE MS BASE LINK MAINT</b> FG.BAS00003 FGN.BAS Generic	This feature provides the following enhancements: <ul style="list-style-type: none"> <li>• Support for datafill and maintenance of SubRate 256 (SR256) and 128 (SR128) DS512 inter-Message Switch (interMS) links.</li> <li>• Improvements to existing inter-MS link maintenance to prevent message loss on controlled link closure.</li> <li>• Indication of failure to open the Frame Transport System (FTS) messaging route on Return To Service (RTS) and in-service test of an inter-MS link.</li> <li>• Groundwork for the future implementation of the automatic rerouting of Input/Output Utility Interface (IOUI) messages through the inter-MS links when link outages prevent tandem messaging through a single MS.</li> </ul>
<b>BASE MS BILGE</b> FG.BAS00003 FGN.BAS Generic	This functionality provides the reception of static data tables from the Central Controller (CC) necessary for ESA translation and call processing. Along with table reception, this feature provides storage allocation for these tables and rudimentary auditing procedures for checking of the validity of data.
<b>BASE MS COMMON</b> FG.BAS00003 FGN.BAS Generic	This functionality enhances the original software code to improve its reliability. The approach taken is to make each clock's function into Finite State Machines (FSM). Using FSM to describe each clock's function provides a well understood behavioral model that can be validated and optimized by known theoretical methods. Tools can be use to simulate the clock software and generate test cases to validate the clock functions under a controlled environment. This method allows each clock function to be data independent of other clock functions, permitting easy evolution of the clock software.
<b>BASE OM SELECTIVE OUTPUT</b> FG.BAS00003 FGN.BAS Generic	This functionality gives the OM system the ability to generate totals for the fields of OM groups LMD, TRK, CARR and SLU, while also providing the ability to print selected tuples of an OM group.

Name, group code/name	Description
<b>BASE ROBUSTNESS ENH</b> FG.BAS00003 FGN.BAS Generic	This functionality addresses corruptions and/or unauthorized manual actions that affect operating system data as they relate to system stability. It provides software interface procedures to calculate and maintain checksums over critical semistatic run time system data on a software module basis.
<b>BASE SLM FILE SYSTEM</b> FG.BAS00003 FGN.BAS Generic H/W: NT9X76AA, NT9X77AA, NTEX22BB	BASE SLM FILE SYSTEM supports the Device Independent Recording Package (DIRP) on SLM II capability. This functionality allows a customer to move existing Disk Drive functions into SLM II.
<b>BASE SYNC CESIUM MSTR CLK</b> FG.BAS00003 FGN. BAS Generic	This functionality deals with synchronization of a digital network and the use of plesiochronous (not synchronized, but virtually zero slips) operation on digital links between networks requiring the use of a highly-accurate clock.
<b>BASE SYNC STRATUM 3</b> FG.BAS00003 FGN.BAS Generic	This functionality supports the Bellcore Synchronization Plan and offers the appropriate mode of operation to provide the prescribed minimum bit slip between switches. A Stratum 3 switch synchronizes its local oscillator to an external clock (Stratum 2 or a slave with higher integrity). Recent enhancements to this software include: Outgoing Timing Link OAM - 1 and Master - External Remote Clock synchronization support.
<b>BASE SUPERNODE ENH MSGING</b> FG.BAS00003 FGN.BAS Generic	This software consists of a group of features that increases the robustness capacity and adds additional performance enhancements to the messaging component of the Integrated Link Maintenance (ILM) within the LPP. Also there are features that add support for the Frame Transport System (FTS), which provides messaging and routing functionalities to a wide range of devices in various Meridian SL-100 products.
<b>BASE SYNCBITS COMPOSITMSTR</b> FG.BAS00003 FGN.BAS Generic	The Meridian SL-100 clock can be synchronized to work as a slave to an internal building timing system master clock. Previously, this connection was made by means of a 24-voice-channel, DS-1 span line. This functionality provides a dedicated link that connects the clock directly to the DMS Bus, thus freeing the DS-1 link and allowing the 24 channels to be used for voice transmission.
<b>BASE SYNC CESIUMLORAN CMSTR</b> FG.BAS00003 FGN.BAS Generic	The Meridian SL-100 clock can be synchronized to work as a slave to a master external Stratum I clock. Previously, this connection was made by means of a 24-voice-channel, DS-1 span line. This functionality provides a dedicated link that connects the clock directly to the DMS Bus, thus freeing the DS-1 link and allowing the 24 channels to be used for voice transmission.

Name, group code/name	Description
<b>BASE SYS LOAD MODULE II</b> FG.BAS00003 FGN.BAS Generic	This functionality doubles the size of the tape drive and quadruples the capacity of the disk drive provided by System Load Module I.
<b>BASE TELCO DEF LOGINBANER</b> FG.BAS00003 FGN.BAS Generic	This functionality provides a customer banner to be displayed to users following a successful login. The purpose of this software is to increase the security precautions available to a Meridian SL-100 customer.
<b>Call Forwarding Restriction</b> FG.RES00002 FGN.Advd Cstm Calling	This feature enables the switch to restrict the types of phone numbers that can be programmed by users as call forward destinations. These restrictions can be overridden on a per-line basis to allow truly universal call forwarding for users requesting it.
<b>Call Park Recall Notification Enhancement</b> FG.ACD00001 FGN.ACD ACD BASE	This feature enables the Call Park feature to send notification to any ACD agent that receives a "recalled" parked or transferred call, regardless of which agent originated the Call Transfer or Call Park feature. With this capability, all ACD agents can be better prepared to treat these special calls with appropriate courtesy.
<b>DN Auto Display Enhancements</b> FG.MSL00003 FGN.MSL IVD	The DN Auto Display Feature allows for the automatic display of incoming call information without having to use the "INSPECT" key. Prior to MSL12, the functionality of this capability was restricted to Keys 1 through 9. This new enhancement expands this capability to all keys. The DN Auto Display Feature can be used on the following telephone series: M3900, M2000, M5000.
<b>EQA C7ISUPrlta CntnEAE0</b> FG.EQA00001 [OPT] FGN.EQA Local H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality enables the Equal Access End Office (EAE0) to establish InterLATA connection for signaling, which contains carrier information to the Access Tandem (AT) by means of CCS7 signaling. This feature also enables the EAE0 to establish InterLATA connection for CCS7 trunk groups that connect directly from the EAE0 to the Inter Exchange Carrier (IEC).
<b>EQA EA Alt Sw Point</b> FG.EQA00001 [OPT] FGN.EQA Local	In a Large Business Remote (LBR)/Host environment it is necessary to tandem operator control signals through the Host switch to the LBR. The software currently employed to handle SuperCAMA (SC) to Operator traffic in a toll environment can also be used to tandem operator signals through the Host switch.
<b>EQA EAE0 Enhancements</b> FG.EQA00001 [OPT] FGN.EQA Local	This functionality allows multiparty lines in an equal access environment to be routed to a Centralized Automatic Message Accounting (CAMA) position for identification, before being outpulsed to an Inter Exchange carrier. The carrier then receives the Directory Number of the subscriber for AMA billing and the user knows the originating number for access charge verification.
<b>EQA En.WATS Opratn (POTS)</b> FG.EQA00001 [OPT] FGN.EQA Local	This functionality extends the Equal Access services already provided in normal toll service.

Name, group code/name	Description
<b>EQA Equal Acc End Office</b> FG.EQA00001 [OPT] FGN.EQA Local	Feature Group B and D signaling on access to carrier trunks is supported by this software. This functionality provides the Access to Carrier (ATC) trunk groups for direct trunk connections to Inter Exchange Carriers (IEC). In addition, this software makes FGD Carrier Identification Code Expansion available.
<b>EQA Equal Access for ACT</b> FG.EQA00002 FGN.EQA Toll	EQA Equal Access for ACT provides the expansion of the FNPACONT Table for access tandem environments to accommodate the expansion of NPAs from the current 160 as part of the FCC/Bellcore North American Numbering Plan enhancements.
<b>EQA Equal Access OSS</b> FG.EQA00001 [OPT] FGN.EQA Local	This functionality provides an Operational Support System with all information necessary to process calls arriving on a single combined trunk group that contains various types of traffic.
<b>EQA IBN IraLATA PIC EAEO</b> FG.EQA00001 [OPT] FGN.EQA Local	This software provides IntraLATA carrier pre-subscription, screening and routing capabilities for MDC stations and PX trunks of an Equal Access End Office (EAEO) that wish to choose a primary carrier for their IntraLATA services, which includes ISDN subscribers.
<b>EQA POTS IraLATA PICeao</b> FG.EQA00001 [OPT] FGN.EQA Local	This functionality allows the Equal Access End Office (EAEO) to choose a carrier to provide their IntraLATA service.
<b>Equal Access Intermediate Tandem</b> FG.EQA00002 FGN.EQA Toll	This functionality allows the users to extend Equal Access (EA) capabilities for long distance carrier service to subscribers served off non-conforming end offices by means of an Equal Access Intermediate Tandem (EAIT).
<b>ISDN BASE [DMS-250]</b> FG.ISDN0001 FGN.ISDN Base Platform Suppt	This functionality enables trunk group types to use ISUP trunk signaling.
<b>ISP7 2W Emulation</b> FG.ISP70001 [OPT] FGN.ISP7 Base ISUP H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality eases the capping or replacing of an analog switch by enabling continuity tests to be performed on trunks between the Meridian SL-100 and other vendor's two-wire switches. The Meridian SL-100 - a four-wire switch - performs the test by emulating a two wire switch and initiating and transmitting the appropriate high/low tones.
<b>ISP7 Mass Trnk Conversion</b> FG.ISP70001 [OPT] FGN.ISP7 Base ISUP H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality simplifies the procedures required to cut over Per Trunk Signaling (PTS) trunks to CCS7 trunks. PTS trunks are mapped to CCS7 trunks using the pre datafill operations provided by this package.

Name, group code/name	Description
<b>ISP7 CCS7 Trnk Signlg</b> FG.ISP70001 [OPT] FGN.ISP + Base ISUP H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality provides many features including ISUP Release Cause to Treatment Mapping, which enables the customer to decide if either local treatment or an ISDN user part (release-with-cause) message should be sent from the far-end switch when a call encounters treatment and Circuit Group Blocking, which enhances the ISDN user part trunk maintenance system by generating circuit group blocking and circuit group unblocking messages to a far-end switch.
<b>ISP7 SS7 ISUP Option Controls</b> FG.ISP70001 [OPT] FGN.ISP7 Base ISUP H/W: NT9X76AA, NT9X77AA, NTEX22BB	This software provides the ISDN ISUP trunk options for the interaction of switches, the ISUP timer control and the optional redirecting number parameter.
<b>LEA Interchg NPAS LEAS</b> FG.LEA00001 FGN.LEAS Toll	LEA Interchg NPAS LEAS provides for FCC/Bellcore North American Numbering Plan enhancements for LATA Equal Access to Non-Conforming End Switches through the Access Tandem.
<b>Line Music on Hold</b> FG.MDC00001 FGN.MDC MDC Minimum	With this functionality, a single line or group of lines can be given a private music-on-hold audio source. A new line option, LMOH, is provisionable on IBN, KSET, and ISDN lines and is a set option for IBN, MBS and ISDN sets. Being in one customer group enables an organization to reap the benefits of a common dial plan and feature transparency within the organization. However, each business unit in a large organization may want to provide different music-on-hold sources to suit the preferences of different customers within the organization.
<b>LOC 15 Dgt Intl Dial</b> FG.LOC00004 FGN.Intl 15-Dgt Dial	CCITT recommendations E.164 and E.165 require all public network switches to handle international telephone numbers up to 15 digits in length effective December 31, 1996. The 15-digit international number consists of a Country Code of 1 to 3 digits and a National (Significant) Number of up to 14 digits.
<b>M3900 Desktop Enhancements (Phase 2)</b> FG.MSL00003 FGN. MSL IVD	This feature provides Icon Based Display Indication and Autodisplay Enhancements. With Icon-based Display Indication, M3904, M3905, Key-based Expansion Module, and Display-based Expansion Module display icons on the LCD displays located next to the DN (Directory Number) or feature keys: <ul style="list-style-type: none"> <li>• I-Ringing - This icon is displayed when the terminating Directory Number on an M3900 telephone set is being called.</li> <li>• I-Active - This icon is displayed after a call is established on an M3900 telephone set.</li> <li>• U-Active is displayed on secondary MADN M3900 series telephone sets when the Primary Directory Number has a call established on the MADN DN.</li> </ul>

Name, group code/name	Description
	<ul style="list-style-type: none"> <li>I-Hold is displayed when an M3900 user places a call on hold.</li> <li>U-Hold is displayed on secondary MADN M3900 series telephones when the Primary Directory Number has answered and placed a call on hold.</li> </ul> <p>With Autodisplay Enhancements, the number of keys on multi-line telephones and expansion modules that can be datafilled as DN's and provide the automatic display of Calling Line Identification is extended to include all keys. This capability is provided for the M3900, the M2000, and the M5000 series telephone sets.</p>
<b>M3900 Icon Based Display Indication</b> FG.MSL00003 FGN.MSL IVD	Icon-based Display Indication on the M3900 Series display terminals and the Display-based Access Expansion Module is available with MSL12. The functions displayed are I-Ringing, I-Active, U-Active, I-Hold and U-Hold as described above.
<b>MDC Access Feature Grouping (AFG) and AFG Add Option</b> FG.MDC00014 FGN.MDC MDC Tailored MDC 3	<p>This functionality is included in the Service Order Simplification Feature Group and provides the capability of packaging both residential and business line features into logical groups, which can be assigned to lines using a single Service Order prompt. It also provides the capability of defining feature key templates for business sets, eliminating the need to assign each key individually. In addition, it offers the following:</p> <ul style="list-style-type: none"> <li>Greater flexibility in formatting the calling party number for display on business sets.</li> <li>Partitioning of various applications within the Power Features (PF) option, such as name programming and feature key definition.</li> <li>Access to feature group definition tables for Customer Data Change using the Partitioned Table Editor.</li> <li>Allows the administrator to add or delete features from a specific line by using simple SERVORD commands.</li> </ul> <p>This feature supports MBS and IVD sets, except for Power Feature Options on IVD terminals.</p>

Name, group code/name	Description
<b>MDC Access Feature Group (AFG) Enhancement</b> FG.MDC00012 FGN.MDC Tailored MDC 1	<p>This functionality provides enhancements to the Access Feature Group (AFG) feature. The new capabilities include the following: (1) additional line options supported by feature groups, (2) feature group support for business set options requiring assignment of dedicated key is provided, partitioning of various applications with Power Features (PF) option is provided, and access to feature group definition tables provided for CDC users using Partitioned Table Editor.</p> <p>This feature supports both MBS and IVD sets, except for Power Feature options on IVD terminals.</p>
<b>MDC BNM Stn Admin</b> FG.MDC00009 FGN.MDC MDC PRO	<p>Business Network Management (BNM) allows a customer to monitor, control and administer their Meridian Digital Centrex and ISDN networks. BNM is currently implemented through appropriate software packages resident on the Meridian SL-100.</p>
<b>MDC Line Capacity Increase</b> FG.MDC00001 FGN.MDC MDC Minimum	<p>This feature increases the maximum number of MDC lines to 100,000. The actual configuration can vary from switch to switch, subject to engineered capacities and feature limitations.</p>
<b>MDC MBS Busy Indicator</b> FG.MDC00007 FGN.MDC MBS Minimum	<p>This functionality allows an Electronic Business Set (EBS) to monitor the busy/idle status of defined group of users, imitating a Busy Lamp Field.</p>
<b>MDC MBS-Call Name Disp</b> FG.MDC00008 [OPT] FGN.MDC MBS Std.	<p>This functionality enables the name of the calling or called party to be displayed on incoming and outgoing calls respectively. The customer can also assign names to MADN groups and to each secondary member of a MADN group. This allows every MADN member to be identified by a group name and a unique member name.</p>
<b>MDC Copy Feature Set</b> FG.MDC00014 FGN.MDC Copy Feature Set	<p>Copy Feature Set is a Tailored Call Management feature that simplifies Service Orders. It provides the ability for the administrator to copy information from one LEN to another, such as line options, line class codes, Network Class of Service, customer group configurations, key assignments, and so on. Copy Feature Set is available for MBS Terminals; however, it is not supported on IVD Terminals at this time.</p>
<b>MDC MBS Inspect Key</b> FG.MDC00012 FGN.MDC Tailored MDC 1	<p>This software provides the capability for incoming call information, such as calling name and number, to be automatically displayed on Meridian Business Sets before the call is answered. It also provides the ability to display information about the feature keys and Directory Number (DN) keys on the set using the Inspect key.</p> <p>This feature supports both MBS and IVD sets; however, Power Feature interaction is not supported on the IVD sets. The features can be datafilled through SERVORD for IVD sets.</p>
<b>MDC MBS-PIC Via SO</b> FG.MDC00003 FGN.MDC-MDC Standard	<p>Using SERVORD, allows PIC to be assigned on a per-line basis.</p>

Name, group code/name	Description
<b>MDC Call Hunting</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality automatically redirects a call from a busy Directory Number (DN) to another specified DN served by the same Meridian SL-100. This datafilled line option enables virtually any hunting-type pattern to be configured (compared with hunt-group options, which permit only sequential or circular patterns). Multiple lines can perform a series completion on the same DN.
<b>MDC CFB/D Split</b> FG.MDC00003 FGN.MDC-MDC Standard	This software provides the capability for a user with Call Forward Busy Don't Answer to have calls forwarded to an independent forward Directory Number based on whether the incoming calls are in the same or different customer group.
<b>MDC CFD of CWT Calls</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality gives users with Call Waiting and Call Forward Don't Answer assigned to their lines the added benefit of having calls that are enqueued against their busy station for a set period of time automatically overflow to a predetermined destination.
<b>MDC C Fwd Fraud Prevent</b> FG.MDC00003 FGN.MDC Standard	This feature allows the Meridian SL-100 customer to define calling dial plans that cannot be assigned as forwarded-to DNs. The ability to override the restricted calling dial plans on a per-line basis is provided. Also, the Meridian SL-100 customer has the capability to set a limit to the number of times a forwarded-to DN in the list of overridden dial plans can be programmed (MDC00061).
<b>MDC CFX Enh Make Busy</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality enhances the existing Call Forward Don't Answer station feature by providing new call treatment options when the forward-to destination is busy. In addition, this package modifies the operation of the Line-hunting Overflow to a Directory Number (LOD) option for hunt groups to interact with the Make Busy Key (MBK), Inhibit Line Busy (ILB) and Inhibit Make Busy (IMB) options. Thus, for hunt group members, the LOD option replaces the CFB and CFBL options, which are used for lines that are not in hunt groups.
<b>MDC CLASS Name-MADN</b> FG.MDC00004 [OPT] FGN.MDC CLASS on MDC H/W: NT6X78AB	This software allows for the delivery of the calling party's name and the current time and date to the Customer Premises Equipment (CPE) of members of a Multiple Appearance Directory Number (MADN) Single Call Arrangement (SCA) group using 500/2500 telephone sets. As is the case with Calling Name Delivery for residential users, the information is delivered between the first and second rings. This package assumes that name information is available and that the appropriate CLASS and Name Display software is present in the switch.

Name, group code/name	Description
<b>MDC CLASS on MBS</b> FG.MDC00004 [OPT] FGN.MDC CLASS on MDC H/W: NT6X78AB	This functionality enables CLASS Phase 1 and 2 features to be assigned to MBS users and to members of MADN Single Call Arrangement groups using either 2500 sets or MBS sets. CLASS 1 and 2 features include the following items: <ul style="list-style-type: none"> <li>• Automatic Recall (AR)</li> <li>• Distinctive Ringing/Call Waiting (DRCW)</li> <li>• Automatic Callback (ACB)</li> <li>• Selective Call Forwarding (SCF)</li> <li>• Calling Number Delivery (CND)</li> <li>• Selective Call Rejection (SCR)</li> <li>• Calling Number Delivery Blocking (CNDB)</li> <li>• Selective Call Acceptance (SCA)</li> <li>• Customer-Originated Trace (COT)</li> </ul>
<b>MDC CLASS on MDC</b> FG.MDC00004 [OPT] FGN.MDC CLASS on MDC H/W: NT6X78AB	This functionality enables a wide range of CLASS features to be offered to MDC users with 2500 sets, including: <ul style="list-style-type: none"> <li>• Automatic Callback (ACB)</li> <li>• Automatic Recall (AR)</li> <li>• Calling Number Delivery (CND)</li> <li>• Calling Number Delivery Blocking (CNDB)</li> <li>• Dialable Number Delivery</li> <li>• Customer Originated Trace (COT)</li> <li>• Calling Name Delivery</li> <li>• Visual Message Waiting Indication</li> </ul>
<b>MDC CLASS on MVP</b> FG.MDC00004 [OPT] FGN.FGN. MDC CLASS on MDC H/W: NT6X78AB	This functionality enables CLASS features to be assigned to lines with an "IBN" Line CLASS Code. An MVP group consists of a set of business lines configured to use a public network dial plan and a subset of Meridian Digital Centrex features.
<b>MDC Cons Alarm Call Stat</b> FG.MDC00002 FGN.MDC-MDC MSAC	This software modifies the Attendant Call Waiting feature by enabling two external signal distribution points to be activated on external alarm units or lamp panels.

Name, group code/name	Description
<b>MDC Call Transfer Enh</b> FG.MDC00003 FGN.MDC-MDC Standard	With this option programmed, an additional measure of security is added to the Call Transfer feature. This software prevents a situation where the controlling party can monitor a conversation without the knowledge of the other two parties. When a three-way call is established, if this functionality is properly assigned, a ring burst is given to the non-controlling parties to indicate that the controller is still connected to the call. From this point, the call is monitored for the controller's disconnect. When this occurs, a dial tone burst is given to the non-controlling parties to notify them of the controller's exit.
<b>MDC COT Feature Key Access (MBS Key)</b> FG.MDC00004 FGN.MDC CLASS on MDC	This feature allows a subscriber to activate the CLASS feature COT by pressing a key even while the call is in talking state. It also allows an ACD agent the ability to activate COT by pressing a key while the agent is in talking state. The CLASS OPT (MSL00107) is a requirement of this feature (MDC00063).
<b>MDC Cut Thru-dial</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality allows the switch to process calls in a cut through mode for the 500/2500 type sets, ACs, trunks, MBSs and DDU served by new peripherals. It also decreases the work load of attendants in customer groups where access to certain routes is restricted to the attendant.
<b>MDC Dir CallPrk2500/MBS</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality allows 2500 and Electronic Business Sets the capability to park a call to any dialed Directory Number.
<b>MDC DISA 3rd Dial Tone</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality allows the option of providing dial tone to DISA users after they dial an access code. Because directly connected stations receive dial tone at this point, this software provides a consistent dialing sequence for end users.
<b>MDC Display Features</b> FG.MDC00007 FGN.MDC MBS Minimum	This functionality provides the display capabilities for the Electronic Business Sets. Although no tables are generated by this package, it is required to datafill display capabilities in the IBN tables.
<b>MDC Dist CWT Ringback</b> FG.MDC00003 FGN.MDC-MDC Standard	This software provides a distinctive call waiting ringback tone when programmed on the terminating line.
<b>MDC Dist CWT Ringback</b> FG.MDC00008 [OPT] FGN.MDC MBS Std. H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality provides Multiple Appearance Directory Number (MADN) Single Call Arrangement (SCA) groups with two ringing options: Abbreviated, where the line appearance rings from call termination until the timer expires; and Delayed, where the line appearance rings after the timer expires. These ringing options enable MADN group members to ensure that if a member (with abbreviated option) whose set rings, but does not answer the call, that the ring is forwarded to another member (with delayed option) after a datafillable amount of time. As a result, users are assured of thorough telephone-answering coverage.

Name, group code/name	Description
<b>MDC Direct Station Select (DSS) / Busy Lamp Field (BLF) per line</b> FG.MDC00013 FGN.MDC Tailored MDC 2	<p>This functionality provides new Attendant Console style functions to the Meridian Business Set (MBS) and Integrated Voice Data (IVD) terminals by providing direct station selection and a busy lamp field.</p> <p>It provides an optional key feature to provide the Busy Lamp Field/ Direct Station Select capabilities for MBS and IVD Terminals. The following is a summary of the functionalities supported by the feature:</p> <ul style="list-style-type: none"> <li>• Busy Lamp Field - To allow users to monitor station status of a Directory Number through the use of MBS or IVD lamp states.</li> <li>• Direct Station Select - To provide direct dialing to a monitored DN by means of the feature key.</li> </ul> <p>This feature supports both MBS and IVD sets.</p>
<b>MDC DSS/BLF-Set Based</b> FG.MDC00015 FGN.MDC Tailored MDC 4	<p>This software provides the set-based Busy Lamp Field/Direct Station Select (SBLF/DSS) capabilities for Meridian Business Sets (MBS) and Integrated Voice/Data (IVD) terminals. The following is a summary of the functionalities supported by the feature:</p> <ul style="list-style-type: none"> <li>• Set Busy Lamp Field - To allow users to monitor the busy/idle state of a monitored set through the use of MBS or IVD lamp states.</li> <li>• Direct Station Select - To provide direct dialing to one of the monitored DN's (which is referred to as the DSS DN) by means of the feature key.</li> </ul> <p>This line feature is datafilled as SBLF in Service Order, and it can only be assigned to a key that has an associated lamp. It can also be assigned through Power Features on MBS sets. This feature supports both MBS and IVD sets only; however, Power Feature interaction is not supported on the IVD sets.</p>
<b>MDC Dyn Attendant Console OMs</b> FG.MDC00002 FGN.MDC-MDC MSAC	<p>This functionality provides a monitor level to the MAP to allow display of information about an individual Attendant Console. It also measures the Attendant Console activities and provides the capability to display the current measurements at a MAP.</p>
<b>MDC EBO Enh-EBO on MADN</b> FGN.MDC00009 FGN.MDC MDC PRO	<p>This functionality enables a caller with the Executive Busy Override (EBO) feature to interrupt a busy MADN party.</p>
<b>MDC EBS - Music On Hold</b> FG.MDC00008 [OPT] FGN.MDC MBS Std.	<p>MDC EBS - Music on Hold extends the music on hold capability to calls that terminate on MBSs. When a call is put on hold, the caller hears music, announcement, silence, or a combination of the three treatments.</p>

Name, group code/name	Description
<b>MDC End User Trunk Test</b> FG.MDC0009 FGN.MDC MDC PRO	This functionality is for use by customers whose business networks use private trunks and are not available to customers using Virtual Facility Groups.
<b>MDC Eng CFX</b> FG.MDC00003 FGN.MDC-MDC-Standard	This software allows a Meridian SL-100 user to activate Call Forwarding to their last "Forwarded To" Directory Number.
<b>MDC Enhanced Electronic Business Set (EBS) Svc</b> FG.MDC00008 [OPT] FGN.MDC MBS Std.	This functionality enables a Multiple Appearance Directory Number (MADN) Single Call Arrangement (SCA) with bridging options to establish a three-way call during a bridged state. Previously, a MADN SCA with bridging options could not activate three-way calling during a bridged state.
<b>MDC Enhanced UCD</b> FG.MDC00009 FGN.MDC MDC PRO	This software enhances the existing Uniform Call Distribution (UCD) feature to provide UCD for 2500 sets, Login Key for EBS sets, a distinctive ring for UCD calls and a monitoring key for sets.
<b>MDC Enhanced WATS</b> FG.MDC00034 FGN.Enhanced WATS	This functionality provides expanded capabilities to outward Wide Area Telecommunications Service (WATS) in the Meridian Digital Centrex environment. The enhancements introduced by this package are designed to allow the central office to provide better service to WATS subscribers and to the carriers that offer WATS.
<b>MDC Enh Auto RTE Sel</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality allows users to access IDDD by ARS through the Meridian SL-100 user's private network. Enhanced ARS also provides enhanced routing capabilities and allows the Meridian SL-100 user to regulate access to IDDD calls at any point within the private network.
<b>MDC Enh Bus Svcs</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality enhances the station, Attendant Console and Electronic Business Set features available on the Meridian SL-100.
<b>MDC Enh Call Waiting</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality provides call waiting for conference calls and the ability to disallow call waiting during a telephone call.
<b>MDC Enh Dial Plan</b> FG.MDC00001 FGN.MDC-MDC Minimum	This software permits intercom dialing between 500/2500 stations.
<b>MDC Enh Service Order</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality allows a group speed-call controller to be changed without removing and then reentering all the speed-call members. This feature also automates the process of deleting all feature data associated with the old Line Equipment Number (LEN) of an Electronic Telephone Set, M2000/M3000 Digital Telephone, or Data Unit and adding the data to the new LEN. Additional Service Order enhancements are also included.
<b>MDC ESN Detail Record</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality provides Bellcore AMA enhanced translations, CCSA line option, CCSA VFG option, customer dialed account recording and other features.

Name, group code/name	Description
<b>MDC ESN/MSN</b> FG.MDC00009 FGN.MDC MDC PRO	ESN Network Class of Service Feature, ESN Network Information Signals Feature and ESN Network Wide Automatic Route Feature are provided by this functionality. They enable an effective use of available network resources through the use of routing strategies. They provide proprietary signaling for compatibility between the Meridian SL-100 and a switch that functions as an ESN node, a Meridian 1 that functions as an ESN main, a Meridian 1 that functions as an ESN node, and a conventional PBX.
<b>MDC Exec Conference Meet Me Enhancement</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality expands the Meet Me Conference from 30 to 150 conferees.
<b>MDC IBN Basic</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality supports basic Attendant Console and station features. It also offers an NSS Propagate Answer Back feature.
<b>MDC IBN CDC</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality makes it even more convenient for end users to control and configure their stations by permitting multiple end users to schedule Service Orders, in the BNM expert mode, for future activation dates.
<b>MDC IBN - Hospital</b> FG.MDC00002 FGN.MDC MDC MSAC	This software contains the Do Not Disturb feature.
<b>MDC IBN ISUP Netinfo</b> FG.MDC00005 [OPT] FGN.MDC MBG Min H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality allows IBN ISUP signaling between a DMS-250 switch and a Meridian SL-100 PBX or between two Meridian SL-100 PBXs.
<b>MDC IBN Preset Conference</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality allows a station, a trunk, or an Attendant Console to establish a preset conference with up to 25 conferees by dialing a specific preset conference Directory Number.
<b>MDC Individual Console OMs</b> FG.MDC00002 FGN.MDC-MDC MSAC	This functionality enhances the OM system by collecting and displaying OM data on individual ACs and gives the ACs separate peg counts for each Listed DN assigned in a console customer group.
<b>MDC HUNTGRP SERVORD SIMPLIFICATION</b> FG.MDC00003 FGN.MDC-MDC Standard	This software simplifies Service Order procedures for hunt groups by allowing the changing and mixing of the Line Class Code (LCC) of a hunt group member.  This functionality also allows the automatic assignment of hunt group numbers from a range designated and reserved by the user to Directory Number hunt groups, even though the group numbering feature control is activated on a switch-wide basis.

Name, group code/name	Description
<b>MDC Large Meet-Me (30) Conference</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality provides the capability to datafill a station with the capability to support conferences larger than three ports.
<b>MDC Loudspkr Page Answer</b> FG.MDC00003 FGN.MDC-MDC Standard	This feature enhances and simplifies Loudspeaker Paging by allowing the paging party to confer with the paged party before connecting them to the calling party and by allowing the paged party to answer a call by entering only an answerback access code and one-digit index.
<b>MDC Multilocation Business Group (MBG)-GAP</b> FG.MDC00005 [OPT] FGN.MDC MBG Min	This software allows a Multilocation Business Group to include stations that are not allowed to receive Direct Inward Dial (DID) calls.
<b>MDC MBS</b> FG.MDC00007 FGN.MDC MBS Minimum	This functionality provides basic Business Set features for the Electronic Business Set and the M2000 and M3000 series of digital sets. Features provided include the following items: <ul style="list-style-type: none"> <li>• Auto Answer Back</li> <li>• Automatic Dial</li> <li>• Automatic Line</li> <li>• Automatic Line and Multiple Appearance Directory Number</li> <li>• Busy Override</li> <li>• Call-Back Queuing</li> <li>• Call Forward</li> <li>• Call Park</li> <li>• Call Pickup</li> <li>• Call Waiting</li> <li>• Call Waiting-Originating for Business Sets</li> <li>• End-to-End Signaling</li> <li>• Feature Code Access</li> <li>• Group Intercom</li> <li>• Intercom</li> <li>• Make Set Busy</li> <li>• Malicious-Call Hold</li> <li>• Multiple Appearance Directory Number</li> <li>• Ring Again</li> <li>• Six-Port Conference</li> <li>• Speed Calling</li> </ul>

Name, group code/name	Description
	<ul style="list-style-type: none"> <li>• Three-Way Calling/Call Transfer</li> </ul>
<b>MDC 2500/MBS Security Code</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality allows a variable length code to be assigned to a valid Integrated Business Network (IBN) station Directory Number. This code can then be used to restrict feature activation associated with this DN.
<b>MDC MBS Camp-on</b> FG.MDC00012 FGN.MDC Tailored MDC 1	<p>This functionality improves the call handling functionality of the MBS by enabling a user, when transferring a call, to place the calling party on hold, until the called party is free. If the called party does not answer the waiting call, then the MBS that extended the call is automatically recalled by the calling party. Auto Display for MBS (and IVD) sets provides the capability for incoming call information to be automatically presented on the display of MBS sets as calls are presented to the set. If the set is active with a call when a new call arrives, the new incoming call information overwrites the active call's display information.</p> <p>This functionality also provides the capability for incoming call information to be automatically presented on the display of MBS sets as calls are presented to the set. If the set is active with a call when a new call arrives, the new incoming call information overwrites the active call's display information.</p> <p>Station Camp-on from a Meridian Business Set (MBS) or an Integrated Voice Data set (IVD) allows a small business customer to use an MBS as an Attendant Console, with the ability to camp-on busy lines in the customer group. Camp-on from an MBS or IVD allows a line with the feature to extend a call to a busy line. If the party called does not answer the waiting call, a time out occurs and the call is returned to the phone.</p> <p>This feature supports both MBS and IVD sets; however, Power Feature interaction is not supported on the IVD sets. The features can be datafilled through SERVORD for IVD sets.</p>
<b>MDC MBS Call Forward Universal (CFU) Per Key</b> FG.MDC00008 [OPT] FGN.MDC MBS Std.	This functionality allows each DN on MBS or IVD sets to be forwarded to a different DN. Power Feature integration is not supported on the IVD set. The feature can be datafilled for IVD sets through SERVORD.
<b>MDC MBS/Emergency Service Bureau (ESB) Compat.</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality provides the Emergency Service Bureau (ESB) with Automatic Number Identification (ANI) when a Meridian SL-100 user dials 911, 9911, or another number to report an emergency.

Name, group code/name	Description
<b>MDC MBS Fast Transfer</b> FG.MDC00013 FGN.MDC Tailored MDC2	This software provides a "fast transfer" enhancement for the MBS. Fast transfer reduces the number of key strokes required for a user to transfer a call, and provides a capability for the Meridian Business Set to transfer a call without conferencing the parties. This requires fewer keystrokes than a call transfer performed using the Three-Way Calling feature. This feature is an enhancement to Transfer on Release, which decreases the time to transfer a call. This feature supports MBS sets. With Feature AD7658, this feature also supports IVD terminals.
<b>MDC MBS Installer Tools</b> FG.MDC00013 FGN.MDC Tailored MDC 2	This feature extends the Query LEN software to installers and users of MBS sets. It allows the verification of the LEN and through Power Features the assignment of feature keys from the MBS. Installers can complete many station-based feature changes without having the administrator make the change. An identification and password must be entered in order to perform the following: (1) add, delete, modify any station feature available from the Power Features unrestricted menu, (2) perform on-site semi-automated MBS installation and testing, and (3) invoke the Inspect LENS function. Power Features require a display set, such as the M5000 terminals, or the MFT sets with softkeys. ISDN functional sets are excluded. This feature currently supports MBS sets with display only.
<b>MDC MBS Interactive Display</b> FG.MDC00013 FGN.MDC Tailored MDC-2	With this functionality, users of Meridian Business Sets with display can program their own sets so that their names are directly associated with their individual Directory Numbers. This capability was previously administrated only through the SERVORD system. This feature manages the various applications that can be accessed from an MBS Set. It provides the following enhancements to Power Features: <ul style="list-style-type: none"> <li>• Partitioning of the various PF applications within PF so they are optionally accessible depending on the packaging information obtained from Feature Group Data.</li> <li>• MMI Enhancements as follows:               <ul style="list-style-type: none"> <li>— Defining French.</li> <li>— Creation of a single feature/application list.</li> <li>— Extending the number of list elements available in a list.</li> <li>— Supplying better feedback when exiting PF through a DN key depression.</li> <li>— Extending the Dial-By-Feature-Name set. Feature group data packages feature data together for terminals that have similar feature sets. This allows for several phones to share the same common data, rather than each of them having their own characteristics defined.</li> </ul> </li> </ul>

Name, group code/name	Description
	<p>This feature supports MBS sets only.</p> <p>The Terminal Management Environment (TME) key can be added to a business with display. Access to the TME can be through a key or code access. Terminal Management provides the end-user with an environment that integrates applications, providing new functionality in the areas of Set Operation and Set Control of available services. TME supports the Meridian Feature Transparency (MFT) terminal (M5317T).&gt;</p> <p>This new display environment is accessed using a single key on a Meridian Business Set, equipped with a 2x24 character display. This is a minimum requirement. The key has been labeled as the TME Key for the Terminal Management Environment. When the TME key has been pressed, the user is provided with the first line of a MENU. At this point the user can choose to traverse the displayed menus using softkeys to a specific application of his choice.</p> <p>This feature supports MBS sets only.</p>
<b>MDC MBS Msg Center</b> FG.MDC00007 FGN.MDC MBS Minimum	<p>This functionality permits an EBS to operate as a message center.</p>
<b>MDC MBS Power Feature Name Programming</b> FG.MDC00013 FGN.MDC Tailored MDC 2	<p>This functionality provides name programming capability for Power Features (PF). A user can change the network specific name associated with their DN from their set or a designated administrator set. It also provides code access for PF and a global command for enabling/disabling PF. Although PF has been developed for M5000 display sets, administrators can enter DNs not on their set; therefore, a user is allowed to enter DNs for sets other than the M5000 display set.</p> <p>This functionality supports MBS or M5000 sets only.</p>
<b>MDC MDC Class</b> FG.MDC00004 [OPT] FGN.MDC CLASS on MDC H/W: NT6X78AB	<p>This software offers the following CLASS Phase 1 services to Meridian SL-100 customers with 2500 sets: Automatic Call Back (ACB), Automatic Recall (AR), Calling Number Delivery (CND), Calling Number Delivery Blocking (CNDB), Customer Originated Trace (COT) and Dialable Directory Number (DDN). End users can use these CLASS services in a CCS7 network while preserving their private Meridian SL-100 characteristics, such as a private dialing plan (n digits), private trunking between two locations and customer group features. This functionality also offers enhancements to both incoming and outgoing call memory. Call memory is used to retain data about the last incoming and last outgoing call from a particular subscriber's line.</p>

Name, group code/name	Description
<b>MDC Meridian Disp Com.</b> FG.MDC00007 FGN.MDC MBS Minimum	This functionality modifies the existing MWT and CRR features by enabling a Meridian SL-100 user with an EBS display to examine and manipulate call requests that are queued at the user's set. It also enables queued messages on a user station to be maintained after a cold restart and enables queued messages on a user station to be maintained after a software upgrade.
<b>MDC MSAC Enhancements</b> FG.MDC00002 FGN.MDC-MDC MSAC	This functionality speeds up the processing of incoming calls to Attendant Consoles (ACs). It allows calls to be answered without depressing a loop key when an AC has all loops idle and there are calls waiting in the queue. This package also allows Meridian SL-100 AC operators to log into and log out from a Meridian SL-100.
<b>MDC Msg Service Basic</b> FG.MDC00003 FGN.MDC-MDC Standard	This software provides 500/2500, Electronic Business Sets, Digital Sets and Attendant Consoles the capability of message waiting services. The Message Center feature in this package allows an incoming trunk call, or an internal call, or both, to automatically route to a Message Center if the call is not answered at the original destination. The called station can be provided with an audible or visual indication that a message is waiting and can retrieve messages by directly accessing the Message Center. Another feature in this package provides a message indicator on Electronic Telephone Sets (ETSs) in the form of a Message Waiting Lamp to indicate that a message is waiting at the Message Center. The Message Waiting ETS (Electronic Telephone Set) feature in this package allows users to dial a Message Center Directory Number (MCDN) to retrieve messages. Distinct message waiting light and call request retrieval/call forwarding interaction are other features also available in this package.
<b>MDC Multi-Bilingual Console</b> FG.MDC00002 FGN.MDC-MDC MSAC	With this functionality the Attendant Console can be supplied with a display in a flexible format so that languages other than English can be provided.
<b>MDC Name/Number Blocking</b> FG.MDC00033 [OPT] FGN.MDC Name/DN Blkng. H/W: NT6X78AB	This functionality allows users to control the display of their DN or their name and number at a terminating station on a per-call basis. CNNB is activated by dialing an access code and it is available to users whether their telephone has Calling Name Delivery or Calling Number Delivery assigned. This software supports name and number delivery blocking for MBS and IVD sets.
<b>MDC Network Access Registers</b> FG.MDC00016 FGN.MDC Tailored NARS	This feature provides the ability for a peg count to be used to set the maximum volume of traffic between the Meridian SL-100 and an MDC group. It provides additional data fields within the common block translations tables with additional flagging and routing capabilities based on required and provisioned overflows. It offers reduction in translations efforts to provide NARS. This feature supports both MBS and IVD sets.

Name, group code/name	Description
<b>MDC Network Attendant Svc</b> FG.MDC00006 [OPT] FGN.MDC MBG Std. H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality enhances the Attendant Console position by extending the attendant's ability to verify busy lines on any node within the attendant's network. It also enables the Attendant Console position to display the Directory Number and Network Class of Service of an incoming call from any node within the attendant's network. This feature does not include Release Line Trunk functionality.
<b>MDC Network Msg Svc</b> FG.MDC00006 [OPT] FGN.MDC MBG Std. H/W: NT6X50AB, NTB01AB	This functionality permits the calling party number information from both ISDN User Part (ISUP) and Primary Rate Interface to interwork with the SMDI interface. This capability allows users with extensive ISUP and/or Primary Rate Interface deployment to supply enhanced service providers with a network-wide reach for calling and called party identity for use in delivering a range of Intelligent Network services.
<b>MDC Network Name Display</b> FG.MDC00006 [OPT] FGN.MDC MBG Std.	Network Name Display is an enhanced service that displays on a Meridian Business Set (MBS) with display the calling and called names sent between multiple nodes. This functionality requires that the originating and terminating parties be connected through CCS7 trunk circuits. In addition, MDC Net Name Disp enables the Attendant Console to display the name of a calling party served by any node within the attendant's network that is: equipped with the Network Attendant Services software package (MDC Net Number Disp), provisioned with the appropriate CCS7 hardware and software and connected to the CCS7 network.
<b>MDC Network Number Display</b> FG.MDC00006 [OPT] FGN.MDC MBG Std. H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality enhances the existing display capabilities to provide identical services across a CCS7 network as in single node call continuation. The Meridian Business Sets with Display feature is enhanced by providing the capability to format a calling party's number to be consistent with the customer's dial plan. It also enables the user to show the Directory Number of calling and called parties, even through redirection.
<b>MDC Network Speed Call</b> FG.MDC00003 FGN.MDC MDC PRO	This functionality allows a customer to define a Network Speed Calling list by using the switch Table Editor through a MAP. The NSC list can be changed only from the MAP.
<b>MDC Non-data Link Console</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality distributes calls evenly to a customer that employs multiple non-data link Attendant Consoles. Calls are presented to attendant positions in the same sequence in which they arrive at the Meridian SL-100 switch. Calls that are not completed immediately upon arrival at the switch are queued by the Meridian SL-100 up to a customer-specified maximum.
<b>MDC Network Ring Again (NRAG)</b> FG.MDC00006 [OPT] FGN.MDC MBG Std. H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality provides CCS7 services, which allow a customer who encounters a busy station anywhere in his customer group to automatically call that station again. Upon receiving busy tone, the caller can invoke the feature and hang up. Call setup is renewed when both stations become available.

Name, group code/name	Description
<b>MDC Outgoing Restriction Ctrl</b> FG.MDC00009 FGN.MDC MDC PRO	This software provides designated Attendant Consoles and stations with the ability to place origination restrictions on stations within their customer group.
<b>MDC Power Audit Trails</b> FG.MDC00013 FGN.MDC Tailored MDC 2	This activity provides the ability to generate Journal File entries and log reports when an end-user uses the Power Feature to change the features or attributes associated with their set. It enables the Meridian SL-100 user to selectively record all ICO changes. The Journal File and Log File records identify ICO as the change originator, as well as the Directory Number effecting the changes. This provides a record for security or billing purposes. Features supported by Power Features and enhanced Call Forward options include: Call Pickup, Message Waiting, Power Feature Key Assignment and Security Lock. This feature supports MBS sets only.
<b>MDC Preset Conference Maximum</b> FG.MDC00009 FGN.MDC MDC PRO	This software modifies the Preset Conference feature by enabling up to 30 conferees to be included in an IBN preset conference.
<b>MDC Priority Attendant Console Alert</b> FG.MDC00002 FGN.MDC-MDC MSAC	This functionality allows an attendant to be alerted to an enqueued emergency call while the console is either idle, active on a call, set to position busy, or forwarded to Night Service.
<b>MDC Secondary MADN CFW</b> FG.MDC00008 [OPT] FGN.MDC MBS Std.	This functionality provides the capability for secondary MADN members to activate and deactivate call forwarding from their sets, regardless of whether the secondary MADN member is served by an EBS or 500/2500 set.
<b>MDC Service Analysis</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality provides a service analysis observation system that is designed to appraise the quality of service provided by the Meridian SL-100 and its personnel. By random monitoring Meridian SL-100 user dialed, operator dialed and operator assisted calls to evaluate the service being provided by a particular switch and the surrounding switching network, service analysis can detect such problems as the mis-routing of a call due to internal problems, or poor quality of the talking connection due to problems in transmission facilities.
<b>MDC Service Order Simplification</b> FG.MDC00012 FGN.MDC Tailored MDC-1	This software enables a customer to package individual business features into a logical group and then, with a single Service Order command, to assign that group of features to a line. Removing the need to assign each feature to each line not only simplifies the Service Order process, but also ensures uniform feature assignment over a group of lines.

Name, group code/name	Description
<b>MDC Single Line Queue for Mini-Console</b> FG.MDC00015 FGN.MDC Tailored MDC 4	<p>The Single Line Queuing (SLQ) feature provides the users of the Meridian Business Set (MBS) and the Integrated Voice Data (IVD) set the ability to queue calls against a single Directory Number (DN). The intention is to provide a simple queue capability for the single Directory Number. Upon calling a line with SLQ active, the caller hears audible ringing, audible announcement, or busy treatment if there are no available queue slots and there is no overflow route available. This feature also provides functionality to allow camp-on, park and transfer interactions from the SLQ agent position. This feature supports both MBS and IVD sets.</p>
<b>MDC SMDR</b> FG.MDC00003 FGN.MDC-MDC Standard	<p>An Electronic Switched Network (ESN) answer supervision generation feature is made available with this software. This allows a customer to use the Meridian SL-100 Audio Tone Detector (ATD) to detect a voice answer on trunks that do not return answer supervision. True answer (that is, detected answer) is then reflected in the SMDR. This feature provides a SMDR formatted record of chargeable calls for each customer group. Many call types and other message detail information can be specified for recording at the customer group level. In addition, this package allows the Meridian SL-100 customer group to record the incoming and outgoing trunk identifiers along with the usual billing information provided by the SMDR.</p>
<b>MDC SMDR Data Access</b> FG.MDC00009 FGN.MDC MDC PRO	<p>This functionality provides a one-way data transfer of Station Message Detail Recording (SMDR) information from the Meridian SL-100 to any Downstream Processor which can support the necessary protocol. This package offers a more versatile way of obtaining call records information than on tape files of disks. The result is immediate and the process is unrestricted by any start or stop events that are currently applied to tapes and disks.</p>
<b>MDC SMDR - Enhanced</b> FG.MDC00003 FGN.MDC-MDC Standard	<p>This functionality, in conjunction with SMDR, provides the basic requirements for SMDR. A recent enhancement made to this package is NC0301, SMDR Console Transfer Billing. This feature provides a separate record for each party involved on an incoming toll call from a trunk group, assuming that the Meridian SL-100 is an SMDR switch.</p>
<b>MDC SMDR From BCR AMA</b> FG.MDC00009 FGN.MDC MDC PRO	<p>This functionality allows the Bellcore (BCR) Automatic Message Accounting (AMA) records that are applicable for groups to be derived when processing the AMA data.</p>
<b>MDC SSP PVN</b> FG.MDC00011 FGN.MDC PVN	<p>In the current implementation of Private Virtual Network (PVN), the number of dialed digits included in the Transaction Capabilities Application Part (TCAP) query launched from an SSP is fixed to seven or ten digits in length. This functionality streamlines deployment by allowing the number of digits in the query to match the number of subscriber dialed digits.</p>

Name, group code/name	Description
<b>MDC Station Specific Authorization Codes</b> FG.MDC00003 FGN.MDC-MDC Standard	This software provides the capability to limit an authorization code to specific stations. While the standard authorization code feature is considered a "system" feature, this entry is datafilled into the station feature tables.
<b>MDC Superset</b> FG.MDC00001 FGN.MDC MDC Minimum	The IBN Superset features allows IBN lines and 2500 sets dial access to features.
<b>MDC Teen Service</b> FG.MDC00035 FGN.Teen Service	This functionality provides Teen Service capability on lines equipped with the IBN line class code. Teen Service permits multiple Directory Numbers to be assigned to a single line without additional line equipment. Distinctive ringing patterns enable Meridian SL-100 users to screen calls terminating to the Primary Directory Number (PDN) and to the Secondary Directory Number(s) (SDN) on the same line.
<b>MDC Term Billing Option</b> FG.MDC00009 FGN.MDC MDC PRO	The Terminating Billing Option feature (TBO) allows the user to make an Automatic Message Accounting (AMA) record when a call terminates to a line or through a Virtual Facility Group (VFG). Thus, the user can assess access charges per termination for these calls.
<b>MDC Time of Day (TOD) NCOS</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality allows normal Class of Service (COS) values to be mapped onto new values that are based on the time of day, the day of the week, or the day of the year.
<b>MDC Time of Day (TOD) Routing</b> FG.MDC00009 FGN.MDC MDC PRO	This functionality enables cost-effective use of facilities by allowing or denying route choices based on the time of day.
<b>MDC TRK Verif Desig STN</b> FG.MDC00009 FGN.MDC MDC PRO	This software allows a technician the capability to perform trunk testing from a 2500 set or Electronic Business Set with the proper NCOS.
<b>MDC Trunk Queuing</b> FG.MDC00003 FGN.MDC-MDC Standard	With this functionality, trunk route lists are automatically searched for an idle outgoing trunk. The trunk route lists consists of one through eight elements (linked together) with each element usually containing the identity of a trunk group from which an idle outgoing trunk is selected. When an idle outgoing trunk is available, the call is processed in the normal manner. In addition, this software provides: a station user encountering an all trunks busy condition the option of being notified when a trunk becomes idle and being automatically connected to the called number, enhancements to Call Back Queuing (CBQ), an optional warning tone to indicate the selection of an expensive route, off-hook queuing enhancements and a new capability so when a call that cannot be completed because an idle outgoing trunk is

Name, group code/name	Description
	not available among the least - cost route set can wait off-hook for an idle trunk and then when an outgoing trunk becomes available progresses the call in the normal manner.
<b>MDC VAPN (FGD)</b> FG.MDC00006 [OPT] FGN.MDC MBG Std.	With this functionality, a Meridian SL-100 switch becomes a LATA-wide concentrator and single access point for network services. From any customer location with any type of telephone service (Centrex, POTS, or PBX), private network traffic routes to the Meridian SL-100 over public trunking.
<b>MDC Variable Speed Call Access</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality allows the user of a MBS or Unity 500/2500 type set to dial Speed Call access codes and Speed Call abbreviation codes without using the asterisk (*) prefix. It also allows the user of a dial pulse set to dial Speed Call access codes and Speed Call abbreviation codes without dialing "Y", the dial pulse equivalent of the asterisk.
<b>MDC Virtual Facility Group (VFG) Look Ahead</b> FG.MDC00003 FGN.MDC-MDC Standard	To save users from unnecessary dialing, this functionality enables the switching system to check and see if a Virtual Facility Group (VFG) member is available when the user dials the VFG access code. If a member is available, that member is reserved and only then is a second dial tone returned to the user (if so datafilled). The user is assured of VFG access.
<b>MDC Virtual Facility Group (VFG)</b> FG.MDC00003 FGN.MDC-MDC Standard	This functionality makes it possible to emulate trunk groups in software without requiring physical resources. These trunk groups are called Virtual Facility Groups (VFGs). They can be datafilled as one-way or two-way facilities.
<b>MDC Voice Msg Interface</b> FG.MDC00009 FGN.MDC MDC PRO	This software provides an interface between the Meridian SL-100 and the Voice Message Exchange (VMX), which is physically connected to the Meridian SL-100 using four-wire E&M analog trunks with wink start signaling.
<b>MDC 3-Way Chaining</b> FG.MDC00001 FGN.MDC-MDC Minimum	This functionality permits chaining of three-way calls.
<b>MDC 2500 Security Code</b> FG.MDC00001 FGN.MDC-MDC Minimum	This software allows a variable length code to be assigned to a valid IBN station Directory Number. This code can then be used to restrict feature activation associated with this DN.
<b>MSL AAB Enhancement</b> FG.MSL00007 FGN.MSL STATION FEATURES	This feature enhances the existing Auto Answerback (AAB) feature by allowing the assignment of the function to keys other than the primary Directory Number (DN). This includes secondary DN's and Group Intercom Keys (GIC). In addition, an alert tone is provided to both parties whenever a connection is established.
<b>MSL Att Con End/End Sig</b> FG.MSL00007 FGN.MSL STATION FEATURES	This software provides the attendant with the ability to access, through RI facility applications that use DTMF signally (that is, multi-zone voice paging, voice mail, and so on), to control feature activation.

Name, group code/name	Description
<b>MSL Authcode Enhancements</b> FG.MSL00007 FGN.MSL STATION FEATURES	Authcode Enhancement provides an enforcement option to the existing Authorization Code (Authcode) functionality. Authcode Enhancement does not allow call completion without a valid authorization code. This feature is intended for users that must use an Authcode for certain calls, coupled with NCOS privileges. Authcode Enhancement is assigned as an option in SERVORD.
<b>MSL AutoRecovery of DLM on IPE</b> FG.MSL00003 FGN.MSL IVD	This feature implements the conversion of the DLM/IPE peripherals to the use of the System Recovery Controller (SRC) for coordinating recovery activities. The SRC is a software entity that acts as a high-level intelligence to coordinate the work and optimize the system resources needed for automatic recovery following system restarts and degradations. The system degradations over which the SRC manages recovery range from partial outages (for example, power loss to a single peripheral/unit) to total outages (for example, power loss to the entire system). The resulting increase in efficiency aids in the reduction of outage time and decreases the amount of manual intervention necessary. The most visible new functionality gained by this feature is the ability to automatically broadcast-load groups of DLM/IPE peripherals. Broadcast-loading was previously only possible by use of manual commands (AD7674).
<b>MSL Buzz Tone Length</b> FG. MSL00001 FGN. BASEMSL	Buzz Tone Length allows the use of a preferred tone duration when the feature is invoked during an active call. One might wish to invoke the feature for such occurrences as incoming calls on a secondary Directory Number (DN) or repeated alerts (RPA). Prior to development of this feature, the standard buzz tone duration was 2 seconds. With this feature enabled, four buzz tone duration values are available to the administrator: 500ms, 750ms, 1 second, and the standard 2 seconds. Activation of the feature is controlled by the Software Optionality Control (SOC) utility. When the SOC is enabled, the administrator can choose among the durations stated above by using the new SETBUZZ command. At SOC activation, the default is 500ms; if the SOC is inactive, the buzz tone is 2 seconds. The buzz tone duration selected serves the entire network. This feature allows the customer to choose the length of tone preferred. Following is a list of special requirements: <ul style="list-style-type: none"> <li>• Buzz Tone Duration can be implemented only for Integrated Voice and Data (IVD) sets</li> <li>• Buzz Tone Duration must be implemented switch wide, not by customer group</li> </ul>

Name, group code/name	Description
<b>MSL Call Forward Enhancements</b> FG.MSL00001 FGN.MSL Base	<p>This feature includes a series of Call Forward Enhancements for Meridian SL-100: CFX Query, CFD/CFB per key change, and Forwarding Reset Maintenance Tool. These maintenance tools reduce the time and level of expertise required of the switch technician in identifying and resolving call forwarding issues. These Command Line Interface enhancements are available for use in the following:</p> <ul style="list-style-type: none"> <li>• Deactivating unsolicited/unwanted call forwarding to the end user's line.</li> <li>• Activating, deactivating, and/or changing CFB/CFD per key designations, as well as any option of call forwarding.</li> </ul> <p>Feature enhancement descriptions            CFX Query Command - This command enables customers to deactivate unsolicited/unwanted call forwarding to an end user's line on a real time basis. With the CFX Query Command, technicians can find all lines that forward to a given DN. In short, this command is structured to deliver all information located in Table CFX without using SERVORD. This command can be executed from the CI prompt.            CFB/CFD Per Key Destination - This command allows technicians to use the products of the CFX Query Command (described above) to activate, deactivate, or change any CFB/CFD per key destinations. Again, this task can be executed from the CI prompt.            Call Forwarding Maintenance Tool - The two enhancements above provide a call forwarding maintenance tool that changes both the target of any call forwarding option and the status of the forwarding from active to inactive or from inactive to active.</p>
<b>MSL Call Forward TOD</b> FG.MSL00007 FGN.MSL Station Features	<p>This functionality extends the current call forward functionality to allow forwarding of calls based upon a particular day of the week and time of day.</p>
<b>MSL Call FWD Indication</b> FG.MSL00007 FGN.MSL Station Features	<p>This functionality provides for 500/2500 set types, when manually call forwarded, an audible notification or announcement that informs the user that their set is still forwarded. When the announcement or tone notification has completed, the user hears dialtone.</p>
<b>MSL Call Join</b> FG.MSL00007 FGN.MSL Station Features	<p>This feature provides the capability to add a previously held party on an IVD or MBS telephone to an existing call by using the CNF or 3WC key.</p>
<b>MSL Calling Name Delivery</b> FG.MSL00105 FGN.MSL ISDN PRI OPT	<p>This functionality provides user-side trunk support for the NI-2 Calling Name Delivery feature. Specifically, this functionality enables the Meridian SL-100 to accept calling name information from a network-side trunk and present that information to a subtending PBX over NI-2 PRI.</p>

Name, group code/name	Description
<b>MSL Callpark Auto DN</b> FG.MSL00007 FGN.MSL STATION FEATURES	<p>Call Park is used when the location of a called party is unknown. Currently, calls can be parked against a number that is defined by a customer who then pages the called party to have them retrieve the parked call. When the paged party gets to the telephone, that person dials the call park retrieval code, as well as the address of the parking lot space where the calling party is parked. The SYSPARK feature automatically provides the System Park DN for the customer when the location of the called party is unknown. Directed Call Park must be assigned to a specific key on a set. When this key is activated and the # key is depressed, the caller is parked against a specific SYSPARK DN that is displayed. If the # key is not depressed first and the DN is entered on the keypad, normal Directed Call Park activity resumes.</p>
<b>MSL Carrier ID Log</b> FG.MSL00001 FGN.MSL BASE	<p>This feature provides the ability to append the DS-1 Carrier Circuit ID information to the associated carrier system log message(s), enabling the user to quickly identify failing circuit ID's affected when a carrier system fails and/or alarms occur. Datafillable carrier circuit ID information can be input into a table that is accessible at the maintenance Administration Position (MAP) level by the switch technician.</p>
<b>MSL CLASS on IPE</b> FG.MSL00107 [OPT] FGN.MSL MSL CLASS OPT H/W: NT6X78AB	<p>This feature includes the capability for the Intelligent Peripheral Equipment (IPE) to display on CLASS, ADSI, and 2500 type sets with adjunct displays the incoming Calling Line Identification and calling party's name, if the information is available to the Meridian SL-100. It provides specific development to support Calling Name Delivery (CNAMD) and Calling Number Delivery (CND) for CLASS, ADSI, and 2500-type terminals with adjunct displays on the IPE. Additionally, it provides support for CLASS Message Waiting Indication (CMWI) on the IPE using either the NT8D09 or NT8D03 line cards and enables Spontaneous Call Waiting ID Display (SCWID), and Calling Number Delivery Blocking (CNDB), to operate normally on the IPE.</p> <p>With the introduction of this feature, the Meridian SL-100 can now offer customers the following CLASS features for CLASS, ADSI, and 2500-type terminals with adjunct displays that reside on the IPE:</p> <ul style="list-style-type: none"> <li>• Anonymous Caller Rejection (ACRJ)</li> <li>• Automatic Recall (AR)</li> <li>• Auto Recall Blocking of Private Calls (CABOP)</li> <li>• Automatic Call Back (ACB)</li> <li>• Calling Name Delivery (CNAMD)</li> <li>• Calling Name/Number Delivery Blocking (CNNB)</li> <li>• Calling Number Delivery (CND)</li> </ul>

Name, group code/name	Description
	<ul style="list-style-type: none"> <li>• Calling Number Delivery Blocking (CNDB)</li> <li>• Callog</li> <li>• CLASS Message Waiting Indication (CMWI)</li> <li>• Customer Originated Trace (COT)</li> <li>• Dialable Number Delivery (DDN)</li> <li>• Selective Call Acceptance (SCA)</li> <li>• Selective Call Forwarding (SCF)</li> <li>• Selective Call Rejection (SCRJ)</li> <li>• Spontaneous Call Waiting Identification (SCWID)</li> <li>• Spontaneous Call Waiting Identification with Disposition (DSCWID)</li> </ul> <p><b>Note:</b> Distinctive Ringing/Call Waiting (DRCW) is not supported on the IPE.</p>
<p><b>MSL COT and SCF on IVD Sets</b>  FG.MSL00107 [OPT]  FGN. MSL CLASS  OPT  H/W Required:  NT6X78AB</p>	<p>This feature allows the existing CLASS features, Customer Originated Trace (COT) and Selective Call Forwarding (SCF) to be activated on the M2000 Integrated Voice and Data (IVD) sets. COT allows users who have been receiving harassing or prank calls to activate an immediate trace of the last incoming call, without requiring prior approval and/or intervention by switch administration personnel. After receiving a harassing or prank call, the user goes off hook, receives dial tone, and dials the COT activation code. A log is dumped with information about the originating call.</p> <p>SCF allows users to forward up to 31 DNs to another location. This feature allows users to ensure that selected incoming calls can reach them when they are away from their telephone. Calls from DNs that are not on the SCF list receive whatever treatment the user has arranged, such as voice mail. Should the SCF forwarded destination be busy, the originator of the incoming call receives busy tone.</p>
<p><b>MSL CND Pub DISB</b>  FG. MSL00137  FGN. MSL Base</p>	<p>Calling Number Delivery for Public Network (CND) controls delivery functionality on Meridian SL-100 loads using public network calls that have fewer than 10 digits. (This feature already worked for public network calls having ten digits.) Software Optionality Control (SOC) is required to activate this feature; however, there is no additional cost to the customer.</p> <ul style="list-style-type: none"> <li>• When the SOC is enabled, calls with fewer than 10 digits are displayed.</li> <li>• When the SOC is not enabled, the telephone display reads, "UNKNOWN NUMBER"</li> </ul>

Name, group code/name	Description
	<ul style="list-style-type: none"> <li>• When the CND Public Network Enhancement is enabled</li> <li>• the subscriber can choose whether or not to answer the call.</li> <li>• number recognition allows the subscriber to answer the call with a personalized greeting.</li> <li>• the date and time of the incoming call are also displayed.</li> <li>• the subscriber can see digits displayed from other phone switches.</li> <li>• The Software Optionality Control (SOC) utility controls the use of this feature.</li> <li>• When the STATE of SOC #MSL00137 is set to ON, CND displays the calling party's directory number (DN) on incoming public network calls from DNs that have fewer than 10 digits.</li> <li>• When the STATE of SOC #MSL00137 is set to IDLE, CND displays UNKNOWN NUMBER on incoming public network calls from DNs that have fewer than 10 digits.</li> </ul> <p><b>Note 1:</b> Calling Number Delivery for Public Network only affects public network calls. If CND functionality is wanted on private calls that have fewer than 10 digits, refer to office parameter CND_PRIV_LESS_THAN_10_DIGITS (<i>NA DMS-100 Office Parameters Reference Manual</i>, 297-8001-855).</p> <p><b>Note 2:</b> This feature is only applicable for CLASS sets with displays.</p>
<b>MSL CWT Enhance</b> FG.MSL00003 FGN.MSL IVD	This activity gives the ability to assign the option, CWTACT to any IBN line class code 500/2500 set. It also allows a switch administrator to assign feature access codes for activating or deactivating CWTACT in Table IBNXLA. A line with CWTACT activated can use the Call Waiting feature if its line is busy. If the user chooses to deactivate CWTACT, the user is not interrupted by Call Waiting tone initiated by any other feature like Call Waiting Origination or Dial Call Waiting.
<b>MSL Digital Phones M2000-Basic</b> FG.MSL00003 FGN.MSL IVD	This functionality provides the features necessary to support the administration, maintenance and diagnostics to the M2xxx series of digital telephones, including Meridian Modular. Integrated Voice and Data (IVD) is a service that provides simultaneous voice and data communications at speeds up to 19.2 kb/s over a single, twisted-pair subscriber loop.
<b>MSL Digital Phones M2000-Display</b> FG.MSL00003 FGN.MSL IVD	This functionality provides the capability for the M2317 display set to provide basic call processing and features, including the Terminal Diagnostics Test.

Name, group code/name	Description
<b>MSL Digital Phones M3000</b> FG.MSL00003 FGN.MSL IVD	The Meridian M3000 Touchtone is supported by this digital phone set package. The M3000 Touchtone offers a private directory of over 200 names and Directory Numbers. The directory can be searched by scrolling up or down, until the desired name is found.
<b>MSL Dig 64 kb/s Synch</b> FG.MSL00003 FGN.MSL IVD	This functionality provides 48K, 56K, and 64K Synchronous data support on the IPE to enable simultaneous voice, data and video communications on the same telephone outlet through the Meridian Communications Adapter (MCA) in the Meridian Digital Terminal to support Visual Interactive Technology (VISIT) and other advanced applications. It also defines the MCA as a valid Line Class Code, station, and IVD set type (AD7655).
<b>MSL Enhanced Tandem Services</b> FG.MSL00004 FGN.MSL NSS	This functionality provides the following functions for the Meridian SL-100: a) private speed calling and hot-line dialing, b) the capability to collect Personal Identification Number (PIN) digits based on the authcode parameter, c) billing capability for PIN digits to be recorded in Station Message Detail Recording (SMDR), d) the capability to validate two- and three-digit account codes for calls originated over Network Services Software (NSS), e) Feature Group B (FGB), FG-C and direct access trunks. In addition, this feature also allows for mapping of Automatic Number Identification (ANI) information to various Network Services Software agencies and mapping of ANI information located on Feature Group D (FGD) trunks to terminating agents with calling party identification capabilities.
<b>MSL Extended Peripheral Equipment</b> FG.MSL00003 FGN.MSL IVD	This functionality provides modules that feature distributed processing capabilities, high density line cards and self-diagnostics for maintenance. A key feature of the IPE modules is the high-density Integrated Voice and Data (IVD) digital line card supporting up to 16 voice and 16 data ports. With these cards, the new peripheral equipment shelf provides a capacity of up to 512 IVD lines. In addition, a new high-density analog line card is available that supports up to 16 ports.
<b>MSL Fast Transfer - Digital Sets</b> FG.MSL00007 FGN.MSL STATION FEATURES	This feature reduces the number of key strokes required to transfer a call and provides the capability for a user to transfer a call without having to conference all the agents beforehand (AD7658).
<b>MSL FCC DID Answer Supervision</b> FG.MSL00001 FGN.MSL BASE	This software provides the FCC DID Answer Supervision compliance capabilities, in accordance with FCC Rules and Regulations 68.314.

Name, group code/name	Description
<b>MSL Flex LEN on IPE</b> FG.MSL00003 FGN.MSL IVD	The Flex LEN feature provides extended usage of the digital port. This feature allows the datafill of IVD sets on the odd LEN and data products on the even LEN. This feature supports the Communicator interface card to provide modem/fax (voice products) on the odd LEN. This feature also provides in SERVORD the DTMK (Data Mode Key) for use with video conferencing applications.
<b>MSL IP 802.11</b> FG.MSL00130 [OPT] FGN.MSL IP 802.11	This functionality provides Voice over IP on the Wireless LAN capability for the Meridian SL-100 through the IPE utilizing the Integrated Telephony Gateway Pentium dual-slot 24-port card with Symbol FH and DS handsets and access points. This development also includes introduction of an Integrated Gateway web tool for card configuration.
<b>MSL IP Client</b> FG.MSL00126 [OPT] FGN.MSL IP Client	Meridian SL-100 IGW integrates seamlessly with existing corporate networks to unify the delivery of voice and data over IP connections. It allows voice and data traffic to travel over a variety of carrier grade, cost-efficient packet networks. With Meridian SL-100 IGW, the same feature-rich capabilities of the Meridian SL-100 can be deployed over an IP network, and still have the quality, security, and reliability of the Public Switched Telephone Network.
<b>MSL IP Line</b> FG.MSL00127 [OPT] FGN.MSL IP Line	The Nortel Meridian SL-100 IGW system enables Internet Protocol (IP)-based terminals to access Meridian SL-100 services using an IGW Card. The Meridian SL-100 IGW IP Server platform is a Compaq 19-inch, rack-mountable, high-availability personal computer (PC). The Meridian SL-100 IGW IP Server consists of a Nortel-specified server PC workstation configuration loaded with a set of Nortel-developed and other commercial networking/operating software to support Meridian SL-100 IGW service.
<b>MSL ISUP Broadcast Fan Out</b> FG.MSL00005 FGN.MSL WBAND	This functionality provides the table control modifications required to classmark a trunk group for potential use for secondary fan-out in a broadcast call and to create a new switch parameter to define requirements for internal resource allocation. Internal resource allocation is required, based on the maximum number of output ports actively involved in a broadcast call.
<b>MSL ISUP NAS RLT</b> FG.MSL00007 FGN.MSL STATION FEATURES	This functionality provides Release Link Trunk (RLT) capability between Meridian SL-100 system in a Network Attendant Service (NAS) network. NAS RLT allows decreasing the number of required trunk facilities when the customer consolidates attendant services at one or more nodes in the network.

Name, group code/name	Description
<b>MSL Large Scale MWI</b> FG. MSL00001 FGN. MSL Base	<p>Large Scale MWI (Message Waiting Indicator) Reset provides a means for the technician to manipulate message-waiting lights and queues for more than one Directory Number (DN) at a time. It features a new CI tool, MWRESET, for large-scale resetting, de-queuing, and sanity checking of waiting messages. This need arises when a message queue gets corrupted. By using the DN as input to the tool, the tool does the following:</p> <ul style="list-style-type: none"> <li>• Find the message-waiting queue attached to the DN</li> <li>• De-allocate the attached message-waiting queue</li> <li>• Reset the lamp status for message requestor DN's accordingly</li> <li>• Here are some applications of this feature enhancement:               <ul style="list-style-type: none"> <li>• RESET: Random, Range, and All.</li> <li>• DEQUE: Nodal, Network, Random, Range, and All.</li> <li>• SANITY: Random, Range, and All.</li> </ul> </li> </ul>
<b>MSL LDAP Synching for Meridian SL-100</b> FG.MSL00001 FGN.MSL BASE	<p>LDAP Synching for Meridian SL-100 provides the capability to automatically update a corporate LDAP version 3 database with telephone number changes from the Meridian SL-100. In addition, it provides the ability to update the name associated with a Directory Number on the Meridian SL-100 from changes made in the corporate LDAP version 3 database. The Meridian SL-100 can synchronize with an LDAP version 3 authoritative database on three attributes: Directory Number, name, and unique identifier.</p>
<b>MSL Line Side T1 IPE Interface</b> FG.MSL00003 FGN.MSL IVD	<p>This feature performs two tasks as follows:</p> <ul style="list-style-type: none"> <li>• It allows the LTI circuit card (NT5D11AA) to be datafilled on an IPE.</li> <li>• Accommodates updated Product Engineering Codes (PECs) for IPE Digital Line Cards (NT8D02EA/NT8D02CC).</li> </ul> <p>The LTI emulates existing analog line cards (AD7656).</p>
<b>MSL Mark Non-IVD LENS</b> FG. MSL00001 FGN. MSL BASE	<p>Marking Non IVD (Integrated Voice Data) LENS allows non-IVD LENS to be identified, marked, and placed in table, LENTRBL. This capability enables the craftsman to identify faulty non-IVD LENS and avoid trying to use them to build phones, just as they can do with digital LENS. By providing the ability to comprehensively identify all "bad" non-IVD LENS and all "bad" digital LENS, the craftsman avoids failures and duplication of work. This increases the productivity associated with assigning phones.</p>

Name, group code/name	Description
	<p><b>Note:</b> This feature offers a stop-gap measure to help crafts persons save time and increase productivity. Bad LENs must be fixed as soon as the crafts person finishes his/her urgent task at hand.</p>
<p><b>MSL Meridian Digital Desktop Directory Number Download</b> FG.MSL00003 FGN.MSL IVD</p>	<p>The M3900 Series terminals have a display area next to each of the keys. This feature provides the capability to display the Directory Number (DN) associated with the Directory Number or feature assigned to a key, eliminating the need for paper labels. The Directory Number download occurs as new DNs and/or features are provisioned on the terminal.</p>
<p><b>MSL Meridian Digital Desktop Display-Based Access Expansion Module</b> FG.MSL00003 FGN.MSL IVD</p>	<p>This feature introduces the Display-Based Access Expansion Module for the M3904 and M3905 terminals. This module increases the number programmable feature keys on the terminal by 24 - providing for up to a total of 56 keys. The display shows eight self-labeled line/feature labels. Each label is next to a key. There are three pages - providing a total of 24 additional keys.</p>
<p><b>MSL Meridian Digital Desktop Flash Download</b> FG.MSL00003 FGN.MSL IVD</p>	<p>Flash Download provides the capability to download a new firmware version to the M3900 Series terminals in the following events:</p> <ul style="list-style-type: none"> <li>• To support a new language</li> <li>• To add new text prompts and self-labels for features and softkeys</li> <li>• To add new firmware-based applications</li> <li>• To support new signaling messages for server-based applications</li> <li>• To fix customer report problems</li> </ul> <p>Flash Download commands are initiated by the Optivity Telephony Manager for Meridian SL-100 product.</p>
<p><b>MSL Meridian Digital Desktop Group Listening and Password Protection</b> FG.MSL00003 FGN.MSL IVD</p>	<p>Group Listening allows users to turn on the terminal's loudspeaker while the handset is in use. A group of people can then listen to the audio. The handset must be used to transmit the audio. Group Listening is supported on the M3902, M3903, and 3904 terminals.</p> <p>Password Reset provides the capability to reset the password for directories and applications on the M3903, M3904, and M3905 terminals.</p>
<p><b>MSL Meridian Digital Desktop Key-Based Access Expansion Module</b> FG.MSL00003 FGN.MSL IVD</p>	<p>This feature introduces the Key-Based Access Expansion Module for the M3904 and M3905 terminals. This module increases the number of line and feature keys on the terminal by 22. Up to two Key-Based Access Expansion Modules can be used with a M3904 or a M3905.</p>

Name, group code/name	Description
<b>MSL Meridian Digital Desktop Terminal Provisioning and Softkey Configuration</b> FG.MSL00003 FGN.MSL IVD	This feature introduces the M3900 Series terminals and accessories to the Meridian SL-100. It provides datafill and key map download for the new terminals, allows the same feature functionalities that the M2000 terminals have, and provides context-sensitive keys.
<b>MSL Mon.-MAP Terminal Activity</b> FG.MSL00001 FGN.MSL BASE	This functionality implements a new CI command called "MONITOR". It allows a Privileged User at an isolated MAP to conduct surveillance on the MAP session of an selected General User or Device.
<b>MSL M2008 Handsfree</b> FG.MSL00003 FGN.MSL IVD	This functionality allows for the software activation of the M2008HF (Handsfree) Meridian Digital Modular Terminals. With this software, customers can enable or disable the handsfree feature through SERVORD on physical key 7 of the M2008HF set. If the feature is set to N other features can be programmed on key 7.
<b>MSL M3900 Desktop Enhancements</b> FG.MSL00003 FGN.MSL IVD	This feature provides the following enhancements for the M3900 series terminals: <ul style="list-style-type: none"> <li>• Icon-based Display Indication on the M3900 Series display terminals, the Key-based Expansion Module, and the Display-based Access Expansion Module. The functions that are displayed include the following and appear on the displays located next to Directory Number or feature keys:               <ul style="list-style-type: none"> <li>— I-Ringing is displayed when the terminating Directory Number on a M3900 telephone set is being called.</li> <li>— I-Active is displayed after a call is established on an M3900 telephone set.</li> <li>— U-Active is displayed on secondary MADN M3900 Series telephones when the Primary Directory Number has a call established on the MADN DN.</li> <li>— I-Hold is displayed when an M3900 user places a call on hold.</li> <li>— U-Hold is displayed on secondary MADN M3900 Series telephones when the Primary Directory Number has answered and placed a call on hold</li> </ul> </li> <li>• Digit Suppression for Redial List allows users the flexibility to prevent passwords and authorization codes from being stored in their Redial List on their M3900 telephone. This feature allows the user to suppress any key presses so they are not displayed or stored in the Redial List.</li> <li>• DN Auto Display of CLID Enhanced extends the number of keys on multi-line terminals and add-on modules that can be datafilled as Directory Numbers and provides the automatic</li> </ul>

Name, group code/name	Description
	display of Calling Line Identification. This capability available for the M3900 Series, M2000 Series, and M5000 series terminals.
<b>MSL M3900 Release 3 Enhancements</b> FG.MSL00003 FGN.MSL IVD	This feature provides software enhancements to support one-button access to the Call Log and Redial Lists on the M3903, M3904, and M3905 Release 3 telephone sets. It allows Call Log and Redial to be datafilled as either a Context-sensitive softkey or a Programmable Line/Feature key.
<b>MSL MSMWI for 2500 Sets</b> FG.MSL00003 FGN.MSL IVD	This feature is an enhancement to the Multiple Station Message Waiting Indication (MSLMWI). The MSMWI feature allows for a secondary terminal to provide an indication that messages are waiting on another terminal that is considered the primary. This enhancement extends the support of MSMWI to single-line analog IBN terminals that support CLASS messaging.
<b>MSL Mult Sta Msg. Indica</b> FG.MSL00007 FGN.MSL STATION FEATURES	This functionality provides a visual indication of a message waiting for a primary terminal on one or more secondary terminals. A primary terminal must have either the Message Waiting (MWT) or Executive Message Waiting (EMW) feature assigned to it. The visual indication on the secondary terminals consists of lighting the LCD lamp associated with the MSMWI key. When Message Waiting Indication is turned on for the primary terminal, the LCD lamp associated with the corresponding MSMWI key on the secondary terminal is turned on in a steady state. When Message Waiting Indication is turned off for the primary terminal the LCD lamp associated with the corresponding MSMWI key on the secondary terminal is turned off. This feature is supported on the MBS and IVD terminals, except for the M3000.
<b>MSL Music on Transfer</b> FG.MSL00007 FGN.MSL STATION FEATURES	Music on Transfer (MOT) provides audio to the held party of a Three-way call (3WC) or Call Transfer (CXR), as soon as the conference or transfer is initiated. This feature provides the caller with confidence that the transfer was successful by the immediate provision of an audio source. Music on Transfer is applicable for IBN, MBS and IVD sets.
<b>MSL MW LCD Activation</b> FG.MSL00007 FGN.MSL STATION FEATURES	This feature activates the Message Waiting LCD in addition to the red Message Waiting Lamp for any waiting messages on M2000 series phones. This feature allows both the red LED, and the LCD associated with Message Waiting (MWT) to be activated on appropriate sets when a message is left against a phone.
<b>MSL Name Display Extension</b> FG.MSL00007 FGN.MSL STATION FEATURES	Currently Name Display is limited to 16 characters. This feature extends the Name Display to 24 characters for intra-PBX calls. This feature is supported on both M5000 and M2000 terminals.

Name, group code/name	Description
<b>MSL Network Modem Pooling</b> FG.MSL00003 FGN.MSL IVD	This functionality provides the ability for a customer with multiple Meridian SL-100s to establish a "centralized modem pool" on one of the Meridian SL-100s such that data on any of the other switches can route to the serving switch over a digital trunk and invoke outbound modem pooling in order to terminate to a far-end modem facility.
<b>MSL NPA Freecall Expl NSS</b> FG.MSL00001 FGN.MSL BASE	Network Services Software (NSS) has been enhanced to provide a datafillable table to identify which NPAs are to be treated as called party billed calls. Additionally, new North American dialing plan requirements for NPA, including the ability to datafill any digit in the second digit of the NPA number, are supported.
<b>MSL NSS Billing Platform</b> FG.MSL00004 FGN.MSL NSS	Supports the functionality of AIN Release 0. Because of the complexity of the evolving AIN architecture and to ensure that future added functionality is available on the initial AIN SSPs, this package is only supported on the DMS SuperNode processors.
<b>MSL NSS Database Ctrl Point</b> FG.MSL00004 FGN.MSL NSS	This functionality provides the Network Services Software (NSS) the basic capability to route and tandem database query messages over Signaling System Number 7 (SS7) links.
<b>MSL NSS NOO DBCP Process</b> FG.MSL00004 FGN.MSL NSS	This software provides for the Network Services System Replacement of Dialed Digits to allow a call to be routed to a number other than the actual dialed digits.
<b>MSL NSS Travel Card # Verification</b> FG.MSL00004 FGN.MSL NSS	This functionality allows the user to choose the Travel Card Number (TCN) validation method. The TCN can be validated using either the table TCNDATA, or the Network Service Switch Database Control Point (NSS-DBCP), or both.
<b>MSL N*64 Wideband Flex Bandwidth</b> FG.MSL00005 FGN.MSL WBAND	This software provides optionality for a group of features implementing Wideband calls on the Meridian SL-100. Following is a list of features implementing Wideband calls: <ul style="list-style-type: none"> <li>• Wideband Call Processing</li> <li>• Wideband Trunk Selection</li> <li>• Wideband Trunk Datafill and Maintenance</li> <li>• Wideband Call Machine</li> <li>• Wideband Connection Management</li> <li>• Wideband Integrity Management</li> <li>• Wideband ISUP and Maintenance in DTC7</li> <li>• Wideband SWACT in DTC7</li> </ul>
<b>MSL Pad Provisioning</b> FG.MSL00001 FGN.MSL BASE	This functionality provides separate PAD group names and values for the Meridian SL-100.

Name, group code/name	Description
<b>MSL PRI on RSC-S</b> FG.MSL00105 FGN.MSL ISDN PRI OPT	This capability provides support for NTNA and NI-2 PRI on the RSC-S platform.
<b>MSL QHASU Enhancements</b> FG. MSL00001 FGN. MSL BASE	Query Busy Lamp Field (QBLF) and Query Directory Number (QDN) is commonly called "Query Busy Lamp Field" or "Query BLF." This feature provides a group query command that produces a list of all LENS (Line Equipment Numbers) that are BLF (Busy Lamp Field) or SBLF (Set-based Lamp Field), which are monitoring a particular Directory Number (DN). This new command takes a Directory Number as input and provides a list of LENS monitoring the DN. The output consists of the (LEN), the corresponding Key, and the type of monitoring (set monitor or group monitor). Query BLF provides added flexibility and improved productivity in maintaining lines with the Busy Lamp Field or Set-based Lamp Field options. Previously, this information could only be obtained by checking in table KSERFEAT.
<b>MSL Query BLF</b> FG. MSL00001 FGN. MSL BASE	The Query Hardware Assigned Software Unassigned (QHASU) enhancement adds options to query commands. It speeds the process required when searching for HASU cards of one type when there are many two letter suffixes on the associated line card PECs (Product Engineering Codes). This provides the crafts person a simplified, yet comprehensive, way to find all HASU cards of one type. It allows the crafts person to query each card type and suffix to find all options of a given card type; yet, it retains all previous capabilities.
<b>MSL Redundant ICM Link</b> FG.MSL00119 FGN.MSL ICM OPT	This functionality provides the capability of supporting an active/active call center server architecture by allowing two TCP/IP connections exist in one SCAI session. The second link mirrors the first by broadcasting all switch to host messages to both of the TCP links.
<b>MSL Remote DLM with ESA</b> FG.MSL00003 FGN.MSL IVD	This functionality provides the Emergency Stand-Alone (ESA) capability for the Remote Digital Line Module (RDLM).
<b>MSL Secure Set Support</b> FG.MSL00007 FGN.MSL STATION FEATURES	The Secure Set Feature capability provides users of a "secure" electronic set (MBS or IVD) with an audible tone for feature notification and audible ring notification on a secondary Directory Number. In an environment requiring secure communications, the internal buzzer is removed; consequently, feature that cause a "buzz" tone cannot produce that tone on a secure set. In instances where audible notification cannot be given, lamp notification is provided.
<b>MSL Sim Ring PRI</b> FG.MSL00105 FGN.MSL ISDN PRI OPT	This feature provides support of Simultaneous Ring over outgoing PRI trunks.

Name, group code/name	Description
<b>MSL SL-100 Cabinetized Software</b> FG.MSL00001 FGN.MSL BASE	The MMI Software Interface for the Cabinetized Meridian SL-100 feature is made available with this functionality.
<b>MSL SMDI ID Override</b> FG.MSL00108 [OPT] FGN.MSL SMDI	SMDI ID Override (IDOVR) when assigned to a line through SERVORD, acts as default solution that allows the user to designate what DN ID is carried over an SMDI link in a calling sequence.
<b>MSL SMDR Per Use</b> FG.MSL00107 [OPT] FGN.MSL CLASS OPT	This feature allows the user the capability of delivering billing on a per-user basis for CLASS functionalities. It also enables MSL-CLASS service providers the ability to charge their end users a fee based on usage as opposed to a flat monthly rate.
<b>MSL Travel Card Services</b> FG.MSL00004 FGN.MSL NSS	This functionality allows Meridian SL-100 users to charge calls to a 14-digit travel card number. The travel card number can be collected on FGA, FGB, FGD EAP and Interim Cut-through, 800 Universal Access Calls, Dedicated Access Trunk Cut-through calls. After accessing the MSN switch, the Meridian SL-100 user can enter 0 for domestic call or 01 for International call, plus the destination number then the travel card number. If the travel card number is valid, the call is routed.
<b>MSL Trunk Mem Display</b> FG.MSL00001 FGN.MSL BASE	This functionality allows a user of an MBS or IVD set (with a display) involved on a trunk call to depress a predefined feature key and see on the display, the trunk group name and circuit number to which they are connected.
<b>MSL WB PRI IBN DWB</b> FG.MSL00005 FGN.MSL Wideband	Origination on an IBN ISUP agent and termination on an IBN PRI agent is not currently available; a Cross Matrix Index (CMI) must be created to provide for the new call type, IBN ISUP-to-IBN PRI. By the creation of this CMI and addition of the correct processors, a wideband call between an IBN ISUP trunk and a IBN PRI trunk is permitted (AD7654).
<b>MSL WB Stability Robust</b> FG.MSL00005 FGN.MSL Wideband	This feature enhances error handling capabilities. This includes stopping TRAPS from occurring when a call attempt is out of the fixed range of a "fixed" wide band trunk group. The recovery also stops non-contiguous calls from the TRAPing when an error condition occurs. This feature allow erroneous (or invalid) wideband calls to be blocked and treated accordingly (AD7664 & AD7663).
<b>MSL YR2000 Support</b> FG.MSL00001 FGN.MSL BASE	This feature prevents calendar ambiguity for all internal clocks after midnight, December 31, 1999.

Name, group code/name	Description
<b>MSL 700/800/900 Services</b> FG.MSL00004 FGN.MSL NSS	This functionality supports N00 dialing on a Meridian SL-100. N00 numbers include 800 Incoming Wide Area Telephone Service (INWATS), 800 Universal Access (UA) service and 700 and 900 services. The Meridian SL-100 accepts an N00 number originated on-net that was routed to the Local Exchange Carrier (LEC) and back to the MSN or an N00 number originated off-net and routed by the Equal Access End Office (EAEO) or Access Tandem (AT) to the MSN. The call is received over a Feature Group D (FGD) interface, routed through the MSN network and terminated to an on-net or off-net destination.
<b>MSLD MLPP ESA on MG9K</b> FG.MSL00139 FGN.MSL Succession Enterprise	This feature enhances Emergency Stand Alone capability to allow Multi-Level Precedence and Preemption (MLPP) on the MG9K.
<b>MSLD MLPP on MADN</b> FG.MSLD1000 FGN.MSLD Base	This feature enhances Multi-Line (MCA) and Single-Line (SCA) Multiple Appearance Directory Numbers (MADN) to support Multi-Level Precedence and Preemption (MLPP).
<b>Network ACD/FIAUDIO Interworking</b> FG.ACD00004 FGN.ACD Networking	This software interworks the ACD Forced Incoming Audio (FIAUDIO) feature with Network ACD (NACD) so incoming calls to a Network ACD group can receive announcements, before being placed into an ACD queue. This feature enhances Network ACD operations where there needs to be a guarantee that callers receive special announcement (for example, that conversations may be recorded), before being placed into an ACD queue. The announcement can also enhance an organization's perceived quality of customer service.
<b>NIO ACB&amp;AR</b> FG.NI000051 [OPT] FGN.NIO NI-2/3 BRI Svc Ph II	Automatic Call Back allows the last DN an ISDN BRI subscriber called to be automatically redialed. Automatic Recall allows the DN of the last incoming call to an ISDN BRI subscriber to be automatically dialed.
<b>NIO Aub Msg Wtg Ind</b> FG.NI000060 [OPT] FGN.NIO NI 98 Enhmts Ph 1	Audible Message Waiting Indicator provides an audible indication to the user, upon call originations, whenever a message is waiting. The feature also enhances the current visual message-waiting indication.
<b>NIO Automatic SPID</b> FG.NI000060 [OPT] FGN.NIO NI 98 Enhmts Ph 1	This feature automates the terminal initialization procedures by having the switch send the SPID to the terminal, rather than have it entered by the user.
<b>NIO 2 Simult nVoice Calls</b> <b>FG.NI000050 [OPT]</b> FGN.NIO NI 2/3 BRI Svcs Ph 1	Allows the ISDN User to establish and control two or more concurrent calls using one B-channel.
<b>NIO 2B Ch Trfr NI-2 PRI</b> FG. NI000043 [OPT] FGN. NIO PRI NI-2 Base	In a network of PBXs, when a forwarded or transferred call is set-up using two channels in a PRI trunk coming from a Meridian SL-100 to another PBX, the PRI trunk channels that were used to make the connections can be dropped and made available for future calls.

Name, group code/name	Description
<b>NI0 4ESS Interworking</b> FG.NI000033 [OPT] FGN.NI0 PRI NI-1 Base H/W: NT6X50AB, NTB01AB	This functionality makes all the necessary changes to the signaling manager (SIGMAN), the connection manager (CONMAN) and the maintenance software to enable the Meridian SL-100 to interwork with the AT&T #4ESS switch over Primary Rate Interface (PRI) trunks.
<b>NI0 5ESS Interworking</b> FG.NI000033 [OPT] FGN.NI0 PRI NI-1 Base H/W: NT6X50AB, NTB01AB	This functionality enhances the signaling management (SIGMAN) functions to provide basic interworking between a Meridian SL-100 using Primary Rate Interface (PRI) and an AT&T #5ESS switch using PRI.
<b>NI0 Back-up D-Channel</b> FG.NI000033 [OPT] FGN.NI0 NI-1 PRI H/W: NT6X50AB, NTB01AB	This functionality enhances the survivability of PRI links by providing a backup D-channel that automatically takes over for a failed primary D-channel.
<b>NI0 B Ch rest On TSP</b> FG.NI000060 [OPT] FGN.NI0 NI 98 Enhmts Ph I	B-channel restrictions on a Terminal Service Profile (TSP) basis provides the ability to restrict a group of one or more TSPs to share a single B-channel, rather than allowing the TSP or group of TSPs to use both B-channels in a shared BRI environment. This prevents one user from using both B-channels simultaneously, which would prevent other users from making or receiving a call.
<b>NI0 BRIV OE</b> FG.NI000060 [OPT] FGN.NI0 NI 98 Enhmts Ph I	BRI Verification-Office Equipment (BRIV-OE) enables normal call control procedures for retrieving the office equipment identifier of the line card associated with an ISDN BRI line. BRIV-OE can be used to verify that the access line is connected to the correct switch port. This feature applies to voice and circuit-mode-data type calls and supports access line installation and maintenance with line-side verification and testing.
<b>NI0 Call by Call NI-2</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base	This service allows a PBX to use channels more efficiently by expanding or contracting the number of channels available to each of the different call types (for example INWATS, OUTWATS, Foreign Exchange and TIE lines).
<b>NI0 Calling Name</b> FG. NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Offers name delivery to the called party from the ISDN set.
<b>NI0 Calling Name Delivery</b> FG. NI000030 [OPT] FGN. NI0 Calling Name Delivery	This feature supports network-side Calling Name over NI-2. In addition, Calling Name is built into the setup message of the Meridian SL-100, and sent to the next PBX in the customer network.
<b>NI0 Call Tpe Prov DN Bas</b> FG. NI000050 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph 1	Enables an integrated terminal (a terminal that supports both speech and circuit switched data call types) to have one Directory Number. The same number can be used for all circuit-switched call types.

Name, group code/name	Description
<b>NIO CFW Uniformity</b> FG.NI000051 [OPT] FGN.NIO NI-2/3 BRI Svcs Ph II	Call Forwarding Uniformity supports a variety of call forwarding types for incoming calls to an ISDN set. Additional enhancements include the following: <ul style="list-style-type: none"> <li>• Call Forward Keylist per Directory Number/call type - Universal</li> <li>• Feature Key Activation/Deactivation per DN/CT - Universal</li> <li>• Call Forward Activation/Deactivation Outside Call Context - Universal</li> <li>• Single or Double Feature Key Invocation per DN/CT - Universal</li> <li>• Call Forward Reminder Notification</li> <li>• Call Forward Courtesy Call</li> <li>• Remote DN Validation during Programming</li> <li>• Call Forward Dial Activation/Deactivation per DN/CT</li> <li>• Prevention of Redirection Information to Originating Party</li> </ul>
<b>NIO D Ch Backup NI-2</b> FG. NI000043 [OPT] FGN. NIO NI-2 PRI Base	This feature supports a spare signaling channel on a second DS-1 for survivability purposes for the NI-2 variant.
<b>NIO CLASS on NIO8</b> FG.NI000008 [OPT] FGN.NIO NI-1 BRI	This software provides selected CLASS features on ISDN BRI terminals. From a National ISDN-1 Line: Customer Originated Trace (COT), Selective Call Acceptance (SCA), Selective Call Rejection (SCR), Selective Call Forwarding (SCF) and Selective List Editing (SLE), per Bellcore TR-220.
<b>NIO Default TSP LTID on Lp</b> FG. NI000050 [OPT] FGN. NIO NI 2/3 BRI Svcs Ph1	Provides for assignment of Feature keys to a Default Terminal Service Profile (TSP) for Non-Initializing Terminals.
<b>NIO DCH Supt 2 term+</b> FG. NIO000051 [OPT] FGN. NIO NI 2/3 BRI Svcs PhII	Allows eight non-initializing terminals (NITs) or seven NITs and one fully initializing terminal (FIT) to be supported, with one B-channel used for each type of terminal.
<b>NIO DWS Base</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	This functionality provides the basic software used by higher level ISDN Primary Rate Interface (PRI) software and CCS7 trunking software for call processing and trunk selection.
<b>NIO DWS Flexible Acc</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	This functionality allows flexible channel assignment on the DWS PRI access loop.

Name, group code/name	Description
<b>NIO DWS PRI Base</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	This functionality offers user-controllable access to bandwidths ranging from 128 kb/s through 1.536 Mb/s - on demand in 64 kb/s increments - over an ISDN PRI loop. Called parties are identified to the network by the North American Numbering Plan. Dialable Wideband Service can be used for video conferencing and other wideband data communications applications, such as order transaction, image transfer and private-line backup and augmentation.
<b>NIO DWS PRI End Office</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	NIO DWS PRI End Office provides PRI access to Dialable Wideband Services and allows PRI/Feature Group D interworking for wideband calls.
<b>NIO DWS PRI Test Tool</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	This test tool software creates and sends PRI messages and allows for the display of certain call processing data areas. The functionality helps resolve protocol violations between the switch and Customer Premises Equipment.
<b>NIO EDCH Ptchr CC Pa</b> FG.NI000007 [OPT] FGN.NIO ISDN BASE	This software reduces time to repair by providing Source Code Patching for the Enhanced D-channel Handler (EDCH) circuit card. Feature AL2572 integrates the EDCH into the ISDN LGC/LTC in BCS35/36. Requires functionality BAS00003 and the EDCH.
<b>NIO EKTS CACH</b> FG. NI000051 [OPT] FGN. NIO NI 2/3 BRI Svcs Ph II	This functionality provides call handling flexibility for multiple appearances of the same Directory Number using Call Appearance Call Handling (CACH) so that calls can originate from and terminate to any combination of call appearances. In addition, the end-user can provision the call offering sequence.
<b>NIO Enh Time SW</b> FG.NI000073 [OPT] FGN. NIO PRI DWS Base H/W: NTAX78AA	This functionality provides OAM&P for the Enhanced Time Switch (ETS) and serves as the software package for all future ETS-dependent features. The ETS provides constant delay, thus ensuring channel order, for the peripherals involved in a wideband call.
<b>NIO 8 FITS On A Loop</b> FG.NI000052 [OPT] FGN. NIO NI-2 BRI Services	This feature supports up to eight terminals in any combination of fully initializing or non-initializing types. Each terminal can access both B-channels by using any combination of circuit-mode call types that simultaneously use a single Terminating Endpoint Identifier (TEI).
<b>NIO Flex Clg De conf fac</b> FG.NI000060 [OPT] FGN. NIO NI 98 Enhmts Ph 1	Flexible Calling: Deactivate Conference Facility When Only Two Parties Remain enables the deactivation of a conference resource when: <ul style="list-style-type: none"> <li>• Only two parties remain on an established conference call.</li> <li>• A connection to the third conference party is unsuccessful, because of a no answer or busy condition.</li> </ul>

Name, group code/name	Description
<b>NI0 Flex Expl Xfer N Con</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	This feature is similar to the existing Flexible Calling transfer option XFER that supports transfers involving conference calls, but introduces the additional functionality to transfer non-conference calls as well.
<b>NI0 Flex 1 Call Transfer UCD</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Parties who use Flexible Calls (three to 30 ways) to transfer or conference a call to a UCD group are able to transfer or conference the call in the UCD queue if all agents are busy. The call, once transferred or conferenced, advances through the queue until connected to an agent, or until otherwise released.
<b>NI0 Flex 3 Interworking Attendant</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Specifically, an ISDN set (initializing or non-initializing) using a Flexible Call (FC) conferencing feature should be able to bridge an attendant into a conference call, and/or transfer conferees to an attendant.
<b>NI0 Flex 5 Simultaneous assign 3/6</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Allows the ISDN user to select the size of a given ISDN conference call (simultaneous three- and six-way calling).
<b>NI0 Flow Thru Prov Enhancements</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	This functionality simplifies particular add, change, and delete Service Order procedures for NI-2/3 BRI services by adjusting the parameter naming discrepancy between Service Order, table control, query commands, and the NI-1 data dictionary.
<b>NI0 Fre Frmt SPID Prov</b> FG.NI000052 [OPT] FGN. NI0 NI-2 BRI Services	Free Format Service Profile Identification (SPID) provisioning alleviates the requirement for a SPID to be associated to the Primary DN.
<b>NI0 FR LEC Billing</b> FG.NI000002 [OPT] FGN. NI0 DataSPAN H/W: NTEX22BB, NTEX30AA, NTEX31AA	This functionality provides the ability to record and convert usage-based billing information in Bellcore AMA format.
<b>NI0 INFO+Enh Num Del</b> FG.NI000008 [OPT] FGN. NI0 NI-1 BRI	This software enables interworking between MF Feature Group D (FGD) and CAMA signaling to provide connections to enhanced service providers. It also provides the terminating billing for enhanced service providers and supports subscription parameters on BRI lines.
<b>NI0 Integrated Tst Base</b> FG.NI000009 [OPT] FGN. NI0 NI-1 BRI Enhanced Mtc	This functionality is part of the ISDN-TL1 system used by Integrated Test System (ITS) Operations System (OS) to perform ISDN line testing in the switch. The Integrated Test System (ITS) uses Transaction Language 1 (TL1) to communicate with the ISDN-TL1 software.  This feature implements a process whose main function is to handle low level communication in the ISDN-TL1 system.
<b>NI0 Interface Config Ph II</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	This feature supports B-channel negotiation.

Name, group code/name	Description
<b>NI0 Intrm Interface Config Enhancement</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	<ul style="list-style-type: none"> <li>This feature allows up to two NI-2 LTIDs to be provisioned on an interface provided each LTID is throttled to use only one B-channel using the Associated Group capability.</li> </ul>
<b>NI0 Intertol ISUP &amp; SS7</b> FG.NI000073 [OPT] FGN. NI0 PRI DWS Base H/W: NTAX78AA	This functionality provides the basic CCS7 call control and messaging used by a variety of CCS7 trunk types. With dialable wideband access from a PRI loop, the package enables wideband calls ranging from 128 kb/s through 1.536 Mb/s to be transported over CCS7 trunks. This software also provides the CCS7 trunk type for wideband trunking between switches, enabling interoffice/intraLATA wideband connectivity.
<b>NI0 ISDN Adv Signaling</b> FG.NI000007 [OPT] FGN. NI0 ISDN Base	This functionality introduces functional signaling features for BRI sets.
<b>NI0 ISDN Base Robustness</b> FG.NI000007 [OPT] FGN. NI0 ISDN BASE H/W.: NTSX05AA, NTB01AB, NTB02BA	The Enhanced D-channel Handler (EDCH) integrates the EDCH into the ISDN Line Group Controllers and Line Trunk Controllers (LGC/LTC). The EDCH provides a 300% increase in memory. The additional memory, along with the 25% improvement in real-time provided by the EDCH, is essential for the continued rollout of ISDN features and enhancements. EDCH patching, introduced in MSL05, reduces time to repair by providing Source Code Patching for the EDCH circuit card.
<b>NI0 ISDN Display Svcs</b> FG.NI000008 [OPT] FGN. NI0 NI-1 BRI	This functionality enhances the existing Name and Reason Display feature by using standard ANSI and Bellcore defined protocol for transmission of display information.
<b>NI0 ISDN EKTS</b> FG.NI000008 [OPT] FGN. NI0 NI-1 BRI	This software permits shared DN service for ISDN functional signaling BRI sets.
<b>NI0 ISDN1 Inworking Std Ann</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Allows NI-1 and NI-2 terminals that send digits in band to work with features that typically expect out-of-band digits.
<b>NI0 ISDN/ISUP Interwkg</b> FG.NI000008 [OPT] FGN. NI0 NI-1 BRI	This functionality provides compliance to Bellcore TR-444, which allows for the extension of ISDN beyond a single node for network-wide service by mapping ISDN loop signaling onto ISUP signaling. This feature also provides compliance to the TR-268 specified Information Elements that communicate calling and called party sub address information.
<b>NI0 Interworking NI-1 Services</b> FG.NI000050 [OPT] FGN.NI0 NI 2/3 BRI Svcs Ph 1	Supports interworking to NI-1 Services.

Name, group code/name	Description
<b>N10 ISDN Basic Access</b> FG.NI000007 [OPT] FGN. N10 ISDN Base	This functionality provides the basic maintenance, administration and diagnostic features to support ISDN Basic Rate Access system features.
<b>N10 ISDN/ISUP i/w</b> FG.NI000014 [OPT] FGN. NI-0 NI-1 Tandem H/W: NT6X50AB, NTB01AB	This functionality provides compliance to Bellcore TR-444, which allows for the extension of ISDN beyond a single node for network-wide service by mapping ISDN Q.931 loop signaling onto Integrated Services User Part (ISUP) signaling. One of the inherent advantages of ISDN over POTS is ISDN's ability to transport call-related information between ISDN terminals out-of-band over the D-channel. TR-444 provides for the end-to-end communication of this information such as Bearer Capability, High Layer Capability, Low Layer Capability, Call Progress Information, Cause and Signal Information and Calling Number over the CCS7 network between compliant central switches as if they were served by the same central switch.
<b>N10 ISDN OAM Base; DPN</b> FG.NI000007 [OPT] FGN. N10 ISDN BASE H/W: NTZZ30NA	This functionality provides integrated service provisioning for ISDN circuit- and packet-switched devices. Integrated service provisioning means that adds, deletes and changes can be performed through SERVORD for B- and D-channel packet devices, just as for B-channel circuit-switched voice and data terminals.
<b>N10 ISDN OAM Proc</b> FG.NI000007 [OPT] FGN. N10 ISDN BASE H/W: NTZZ30NA	This functionality provides integrated service provisioning for ISDN circuit- and packet-switched devices. Integrated service provisioning means that adds, deletes and changes can be performed through SERVORD for B- and D-channel packet devices, just as for B-channel circuit-switched voice and data terminals.
<b>N10 ISDN Provisioning</b> FG.NI000007 [OPT] FGN. N10 ISDN BASE H/W: NTZZ30NA	This software provides integrated service provisioning for ISDN circuit- and packet-switched devices. Integrated service provisioning means that adds, deletes and changes can be performed through SERVORD for B- and D-channel packet devices, just as for B-channel circuit-switched voice and data terminals.
<b>N10 ISDN Routing</b> FG.NI000008 [OPT] FGN. N10 NI-1 BRI	This functionality provides the capability to translate and route calls not only on the called digits, but also on the various characteristics retrieved from the information elements.
<b>N10 ISDN Routing Tandem</b> FG.NI000014 [OPT] FGN. NI-0 NI-1 Tandem	This functionality completes TR-448 compliance by allowing a Bearer Capability to be datafilled against an incoming trunk group. For example, incoming switched 56 trunks can be designated as data trunks, allowing the interworking of switched 5 service with ISDN.
<b>N10 ISDN Suppl Svcs</b> FG.NI000008 [OPT] FGN. N10 NI-1 BRI	This functionality enhances the ISDN Electronic Key Telephone Service features, mainly for processing of conference and held calls. This software adds the benefit of TR-860 Terminal Portability.

Name, group code/name	Description
<b>NI0 ISDN Test Access</b> FG.NI000007 [OPT] FGN. NI0 ISDN BASE H/W: NTZZ30NA	This functionality allows ISDN Basic Rate B- and D-channels to be monitored with a commercially available protocol analyzer. The digital connections between the line to be monitored and the protocol analyzer are set up through the MAP. The protocol analyzer can be located with the switch or remote access vehicle, or remotely over DS-1 facilities.
<b>NI0 IVDT Sim Acc 2 B Chs</b> FG. NI000050 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph 1	This feature allows for access to both B-channels simultaneously from a single Directory Number.
<b>NI0 IVDT/NIT ISDN Platform</b> FG.NI000050 [OPT] FGN.NI0 NI 2/3 BRI Svcs Ph 1	Provides support of non-initializing terminals for NI-2. Non-initializing terminals do not require a service provider identification for initialization.
<b>NI0 MTCE Mult Terms</b> FG.NI000052 [OPT] FGN. NI0 NI-2 BRI Services	This feature provides valuable diagnostic information that streamlines BRI remote maintenance. This software displays the physical terminal on a Logical Terminal Identifier (LTID) and indicates if the physical terminal is up or down. This feature also provides a single command to display the following: <ul style="list-style-type: none"> <li>• The status of each terminal sharing the same DN and LTID.</li> <li>• The call types provisioned on each terminal.</li> </ul>
<b>NI0 Music on Hold</b> FG.NI000051 [OPT] FGN. NI0 NI-2/3 BRI Svc Ph II	Music on Hold provides access to a music source when incoming calls to the ISDN group subscribing to this feature have been placed on hold.
<b>NI0 Net Prvd Cng Pty No</b> FG.NI000052 [OPT] FGN. NI0 NI-2 BRI Services	The Network Provided Calling Party Number feature enhances current Calling Party Number Screening to provide NI-2 compliance.
<b>NI0 NI-2 TR1268 D channel Back-up</b> FG.NI000043 [OPT] FGN. NI0 NI-2 PRI Base	Provides D-channel back-up capabilities for NI-2 in accordance with TR1268.
<b>NI0 PRI CCS7 Interwk</b> FG.NI000033 [OPT] FGN. NI0 PRI NI-1 Base H/W: NT6X50AB, NTB01AB	This functionality allows PRI to interwork with the CCS7 network to provide: call completion between PRI and CCS7, Calling Number Delivery between PRI and CCS7 transport to the Traveling Class Mark (which contains the caller's Network Class of Service information).
<b>NI0 PRI Enh Num Del</b> FG.NI000033 [OPT] FGN. NI0 PRI NI-1 Base H/W Required: NT6X50AB, NTB01AB	This functionality enables interworking between MF Feature Group D (FGD) and CAMA signaling to provide connections to enhanced service providers. It also provides the terminating billing for ESPs and supports subscription parameters on PRI trunks.
<b>NI0 Non-Initial terms</b> FG. NI000050 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph 1	Provides support for a non-initializing terminal on a BRI line after the interface is provisioned. A Non-initializing terminal is a class of ISDN terminal that does not require a Service Provider Identification (SPID) for initialization.

Name, group code/name	Description
<b>NI0 arameter Downloading V1</b> FG.NI000051 [OPT] FGN. NI0 NI 2/3 BRI Svcs Ph II	Enables the customer's ISDN terminal to read certain parameters directly into memory, synchronizing terminal and switch databases. The downloading capability can only be invoked from an initializing terminal. This feature minimizes the number of parameters a customer is required to manually enter into an ISDN terminal.
<b>NI0 PRI Base</b> FG.NI000022 [OPT] FGN. NI0 ISDN PRI Base H/W: NT6X50AB, NTB01AB	This software provides the necessary table control to support the subscription parameters, DS-1 and DS-0 maintenance for ISDN, PRI static data downloading, table control for ISDN BRI calls, all direct PRI processing capability (layer 3 call control) for IBN Attendant Console and IVD sets on the Meridian SL-100, PRI interworking with Meridian SL-100 agencies II, basic ISDN PRI maintenance, signaling terminal control module 0 usage, B/D-channel correlation and maintenance tests. Includes several PRI enhancements such as: Per Link Pricing, Translation and Routing Using Called Party Number Information Element (IE) and Per Call Transit Network Selection For Public Calls.
<b>NI0 PRI ISA</b> FG.NI000033 [OPT] FGN. NI0 PRI NI-1 Base H/W: NT6X50AB, NTB01AB	This functionality activates Integrated Services Access (ISA) for the network specific facilities information element, allowing call-by-call service selection for DID and DOD, Tie Trunks, Foreign Exchange Lines and WATS lines. It also provides table control necessary to allow PRI ISA. BCS 34 added the Service Identifier (SID) Routing For Incoming PRI ISA Calls feature.
<b>NI0 NI-2 PRI MTC Basic</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base Vrt	This functionality provides maintenance capabilities such as the support of multiple (up to five) DS-1s controlled by one D-channel, Calling Line Identification services and B-channel availability procedures. Availability procedures allow the CPE and the network to inform each other about the availability and status of B-channels for call processing.
<b>NI0 NI-2 PRI CC</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base	This functionality provides the ISDN Primary Rate Interface code to support National ISDN-2.
<b>NI0 NI-2 PRI Scrng</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base	Enables the Meridian SL-100 to verify the calling number before sending the number into the network.
<b>NI0 NI-2 PRI Variant</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base	This feature provides the Basic Call capability for the NI-2 variant of ISDN.
<b>NI0 NI-2 PRI B&amp;D Ch Mtc</b> FG. NI0000434 [OPT] FGN. NI0 NI-2 PRI Base	Supports B-channel availability procedures for NI-2. This capability allows the Meridian SL-100 to mark a channel as "out-of-service" and skip that channel in call processing operations.

Name, group code/name	Description
<b>NIO PRI MWI</b> FG.NI000033 [OPT] FGN.NI0 NI-1 PRI H/W: NT6X50AB, NTB01AB	This functionality allows signals activating and canceling MWI to be passed over PRI links between a DMS switch and a Meridian 1 or a Meridian SL-100 switch. The passing of MWI messages in either direction is supported. The feature allows a hybrid network of MDC and Meridian 1 business locations over an entire city or LATA to be served by a central switch message service from a central DMS, or by a Meridian 1 Meridian Mail message service from a central Meridian 1. The associated Meridian 1 PBX requires a similar software package, introduced with Meridian 1 Release 19. When serving customers with hybrid MDC and Meridian 1 networks from a central message service, some network configuration restrictions may apply.
<b>NIO PRI Network Disp</b> FG.NI000033 [OPT] FGN. NI0 NI-1 PRI H/W: NT6X50AB, NTB01AB	This software provides name information about the calling party, the originally called party and the connected party across the ISDN PRI network and supports interworking with CCS7 ISDN ISUP network.
<b>NIO PRI Networking</b> FG.NI000033 [OPT] FGN. NI0 NI-1 PRI H/W: NT6X50AB, NTB01AB	This functionality provides name information about the calling party, the originally called party (if redirection occurs) and the connected party across the Integrated Services Digital Network Primary Rate Interface and supports interworking with a Common Channel Signaling 7 ISDN User Part (ISUP) network.
<b>NIO PRI NI-2 toISUP</b> FG. NI000043 [OPT] FGN. NI0 NI-2 PRI Base	Provides CCS7 interworking with NI-2 PRI in accordance with TR-444.
<b>NIO RLT on NTNAPRI</b> FG.NI000024 [OPT] FGN. NI0 RLT on NI-1 PRI	This feature provides Release Link Trunk (RLT) on PRI variant trunks for Meridian SL-100 (North American loads only). RLT optimizes the usage of PRI trunks when it is in effect. When a caller from one switch calls through to another switch over a NTNA PRI trunk and the call is routed back to the original switch over the same PRI network and D-channel path, the PRI ISDN trunk is then released and the call becomes internally connected in the origin switch. When the Meridian SL-100 initiates a call to the Meridian 1 and the call is returned to the Meridian SL-100 over PRI trunks, the "tromboned" trunks are released by RLT. This feature is applicable only to calls originating from the Meridian SL-100. Calls originating from the Meridian 1 are not supported.

Name, group code/name	Description
<b>NI0 TL1 Parsing I/F Base</b> FG.NI000009 [OPT] FGN. NI0 NI-1 BRI Enhanced Mtc	<p>This functionality is part of the Operating Support System (OSS) that provides the Integrated Digital Cross Connect (IDCC) interface to OSS that communicate through the following:</p> <ul style="list-style-type: none"> <li>• Transaction Language 1 (TL-1).</li> <li>• Program Documentation Standard (PDS).</li> </ul> <p>The IDCC is a software application that resides on the SONET/ SuperNode and provides two basic capabilities:</p> <ul style="list-style-type: none"> <li>• The ability to provision cross-connected circuits.</li> <li>• The ability to perform digital test access on those same circuits.</li> </ul>
<b>NI0 TL-1 Tsting I/F Base</b> FG.NI000009 [OPT] FGN. NI0 NI-1 BRI Enhanced Mtc	<p>This functionality is part of the ISDN TL1 project that implements an I/O handler for communication between an ISDN TL1 Operation System and a OMS switch. ISDN TL1 is the first phase that offers ISDN line testing to the remote ISDN TL1 OS. The high-level protocol employed by ISDN TL1 is Transaction Language 1.</p> <p>The purpose of an OS is to allow testing to be more generic to the users by providing a common interface for all switch manufacturers.</p>
<b>NI0 TR303 NI-2 Compl</b> FG.NI000051 [OPT] FGN. NI0 NI-2/3 BRI Svs Ph II	<p>This feature supports the capabilities of NI000051 on the AccessNode including the following features:</p> <ul style="list-style-type: none"> <li>• Use of a single Directory Number across multiple terminals, and more than two B-channel terminals interface configurations.</li> <li>• Parameter downloading.</li> <li>• Flexible Calling and Calling Name Delivery enhancements.</li> </ul>
<b>NI0 Tsting NI0N Services</b> FG.NI000009 [OPT] FGN. NI0 NI-1 BRI Enhanced Mtc	<p>This software helps facilitate deployment of ISDN Basic Rate Interface (BRI) lines and services by delivering new testing capabilities. It adds a standalone NT1 test capability to the existing Meridian SL-100 testing system and provides table control to define the location of the test NT1. The feature also supplies utilities to establish a metallic connection between the test NT1 and a specific ISDN line card. This software allows local ISDN line card and loop testing. From a Maintenance and Administration Position (MAP), the technician can perform presubscription testing, service verification and trouble segregation on ISDN lines. The feature provides a link to the Integrated Test System Controller (TSC) from the MAP, enabling access to multimeter measurements, NT1 signature detection, sealing current measurement, cold start test results, 2B1Q loop level measurement, load coil detection and wideband and impulse noise measurements.</p>

Name, group code/name	Description
<b>NIO XPM+ for DTCI</b> FG.NI000007 [OPT] FGN.NIO ISDN Base	This functionality upgrades the ISDN Digital Trunk Controller (DTCI) to XPM Plus.
<b>Nortel Meridian SL-100 Corporate Directory Application</b> FG.MSL0124 FGN.CORPDIRAP	<p>With Nortel Meridian SL-100 Corporate Directory Application, M3903, M3904, and M3905 users have the ability to access and query corporate directory entries from their own terminal. When the user finds the desired entry, the entry's name, department number (or other identifier), and DN is displayed. If the user so chooses, the entry can be dialed by pressing the "Dial" softkey that is displayed when an entry is found.</p> <p>The Corporate Directory system architecture includes a centralized platform (Windows NT based system), a Meridian SL-100, a LDAP version 3 compliant corporate directory server, an Enhanced Intelligent Peripheral Equipment controller connected to a LAN, and finally, the M3903, M3904, or M3905 terminals.</p>
<b>PF Robustness</b> FG.MDC00014 FGN.MDC Tailored MDC 3	<p>Power Features give users the ability to add, delete and change certain MDC features on their own telephone set and the sets of other users from a MBS display terminal. Power Feature Robustness adds four Power Feature Key capabilities that enable MBS users to make the following changes in their service configurations:</p> <ul style="list-style-type: none"> <li>• Separate public and private name programming.</li> <li>• Ability to enforce passwords.</li> <li>• Compatibility with Call Forward separate key lists.</li> <li>• Compatibility with Call Pickup separate keys.</li> </ul> <p>This feature provides the Power Feature user the capability of programming only the Public Name or only the Private Name in a Name Programming session. The previous version of Name Programming allowed for changing the Public Name Only or both the Public and Private Name.</p> <p>PF Robustness provides the capability of password protecting access to Power Features. A password can be assigned, changed, or deleted by the administrator using SERVORD or direct table editing. Prior to this feature, the password requirement was optional. With this change, it is a requirement for all Power Features users (both General and Admin level) to establish and maintain a password.</p> <p>A change to this features supports Call Forward per Key (CFK) option and Call Pickup Separate Keylist in a Power Features environment. CFK allows each DN key on a business set to be programmed to its own remote locations. Call Pickup Separate Keylist allows end users to add their station to an existing pickup group or create a new pickup group.</p> <p>This feature supports MBS sets with display only.</p>

Name, group code/name	Description
<b>PUMA Upgrade Fmwk</b> FG.PUMA0001 FGN.PUMA Product Upgrade Mgr	The Product Upgrade Manager provides automation of PM loading for all Series II and Series III peripherals. This enhancement ensures that PMs load in the correct order.
<b>Redundant Feature</b> FG.SERV0001 FGN.SERV SERVORD Enhancements	This feature saves time and operating costs by reducing manual intervention in Service Order operation. With this feature, SERVORD accepts and commits changes under the following conditions: <ul style="list-style-type: none"> <li>• The addition of line options even when they already exist.</li> <li>• The deletion of line options even when they do not presently exist.</li> </ul> In both cases, an informative response from SERVORD indicates whether the command sequence was successful or not. This enhancement eliminates two major causes of SERVORD rejects at the provisioning system. The costly, time-consuming manual provisioning rework formerly needed to respond to "Feature Does Exist" and "Feature Does Not Exist" responses is eliminated.
<b>RES Anonymous Caller Rejection (ACRJ)</b> FG.RES00003 [OPT] FGN.RES Disp Funct & prvcy H/W: NT6X78AB	This package allows subscribers with or without CLASS Calling Number Display and/or Calling Name Display to reject calls for which Calling Name/Number Display information has been intentionally blocked. Only calls for which the information has been blocked are rejected.
<b>RES Automatic Callback (ACB)</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB (Additional Drams)	This functionality enables a user to enter a feature code that automatically sets up a call to the last Directory Number that was dialed, regardless of whether the call was answered, unanswered or busy.
<b>RES Automatic Recall (AR)</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB	This functionality enables a user to enter a feature code that automatically sets up a call to the Directory Number of the last incoming call. If the DN called is busy, the user is notified and instructed by an announcement. Automatic processing of the call continues, until both lines are idle.
<b>RES Auto Recall Blocking of Private Calls</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: DRAM or EDRAM	Auto Recall Blocking of Private Calls allows users to prevent the disclosure of their "private" Directory Number when Automatic Recall is activated. A private call is a call originated from a station that disallows or blocks sending the calling number to another party. Automatic Recall enables users to enter a feature code that will automatically set up a call to the Directory Number of the last incoming call. Without Auto Recall Blocking of private Calls, when AR is activated to a long distance number that is a private number, the telephone number can appear on the billing record.

Name, group code/name	Description
<b>RES Call FWD Remote Act.</b> FG.RES00002 FGN.RES Advncd Cstm Calling	This feature allows Call Forward Remote Access (CFRA) Personal Identification Numbers (PINs) to be Non-Unique. The method of PIN storage, although transparent to the customer, is changed with this package. This simplifies Service Order methods, because the technician does not have to ensure uniqueness when assigning initial PIN values.
<b>RES Call Hold</b> FG.RES00002 FGN.RES Advncd Cstm Calling H/W: NT6X78AB	This functionality provides the capability for the residential subscriber to place a call on hold and resume the conversation either from the same set or from another extension.
<b>RES Calling Name Delivery (CNAMD)</b> FG.RES00023 FGN.RES Disp Funct & prvcy H/W: NT6X78AB	This functionality displays the name associated with an incoming DN between the first and second ringing cycle. It requires a telephone set or a CLID adjunct that is capable of displaying an alphanumeric set of characters.
<b>RES Call Waiting and 3-Way Calling</b> FG.RES00005 FGN.RES Non Display Services	This enhancement enables subscribers that have initiated a current three-way call the ability to still receive a Call Waiting call. This enhancement operates the same way a standard Call Waiting (CWT) operates: the called party receives the CWT tone (the other parties in the three-way call do not hear the tone), and the called party can flash the switchhook to alternate between the three-party conference and the new calling party. This feature is applicable for POTS and IBN/RES lines only.
<b>RES Call Waiting Conference</b> FG.RES00005 FGN.RES Non Display Services	The Call Waiting Conference (CWTC) feature provides conference functionality to enable a CWT subscriber to easily add a new calling party to an existing two-party call by simply flashing the switchhook and pressing a predefined digit within a service provider-defined time frame. This feature brings together two high-demand features to enhance the Call Waiting feature.
<b>RES CLASS Name Display - TCAP</b> FG.RES00003 [OPT] FGN.RES Disp Funct & prvcy H/W: NT6X78AB & CCS7 Hardware	This functionality allows the SSP to query an SCP database for the name of the calling party and allows users to view the caller's name before answering. The name associated with the incoming DN party appears after the first ringing cycle. The date and time of an incoming call are also displayed. It requires a telephone set or an adjunct to the phone capable of displaying an alphanumeric set of characters. This is a CLASS CCS7 internode feature.
<b>RES CLASS Name/Number Delivery Blocking (CNNB)</b> FG.RES00022 FGN.RES Disp Funct & Prvcy H/W: NT6X78AB	This functionality allows users to control the display of their DN at the terminating station on a per-call basis in three different ways: <ol style="list-style-type: none"> <li>1. Control suppression of their DN on a per-call basis,</li> <li>2. Prevent display of their number at the terminating end on a per-call basis, and</li> <li>3. Prevent display of their name and number at the terminating station on a per-call basis.</li> </ol>

Name, group code/name	Description
<b>RES Calling Number Delivery Blocking (CNDB)</b> FG.RES00003 [OPT] FGN.RES Disp Funct & Prvcy H/W: NT6X78AB	This functionality allows users to prevent Calling Number Delivery on a per-call basis by dialing an access code. Individual lines can be set up either to send or suppress calling number information. When the line is set up to send calling number information, dialing the access code suppresses the calling number information for that call. If the line is set up to suppress calling number information, dialing the access code sends the calling number information for that call. Switch parameter CNDB_ON_POTS is provided by this functionality to allow switch-wide activation of Calling Number Delivery Blocking Administration for Residential Lines only.
<b>RES Calling Number Delivery (CND)</b> FG.RES00003 [OPT] FGN.RES Disp Funct & Prvcy H/W: NT6X78AB (Additional Dram)	This software identifies the 10-digit DN of the calling party. The calling number is displayed on a telephone set or adjunct that is capable of displaying the incoming DN, after the first ringing cycle. Date and time of the incoming call are also displayed.
<b>RES Call Waiting Deluxe (DSCWID)</b> FG.RES00040 FGN.RES Disp Func & Prvcy	This feature provides DSCWID as defined by Bellcore Technical Requirement TR-NWT-0416 and the Call Waiting Deluxe feature. This feature enhances Call Waiting display by allowing the user options on how to handle an incoming second call. The calling party is provided audible ringing, and the DSCWID called party is alerted that a call is "waiting". The called party can choose one of the following options for the incoming call: <ul style="list-style-type: none"> <li>• Answer the new call and put the existing call on hold.</li> <li>• Disconnect the existing call and answer the new call.</li> <li>• Forward the new call.</li> <li>• Connect the new call to a busy announcement.</li> <li>• Put the new call on hold after connecting to a hold announcement.</li> <li>• Conference the new call with the existing call.</li> </ul> DSCWID is available to customers with CLASS features. An ADSI-compatible telephone set simplifies the selection of a treatment; however, 2500 telephone sets with DTMF can be able to use a subset of the options available. Feature scripts for PowerTouch Terminals are accessed from an ACMS Server (RES00003 - Included in CLASS Option).
<b>RES Call Waiting Display (SCWID)</b> FG.RES00003 [OPT] FGN.Res Disp Funct & Prvcy H/W: NT6X92BC, NT6X69AD, XPM+, NT6X78AB	The name and/or number of a waiting call appears immediately upon the call's arrival at the called party's line, thus allowing the called party to decide whether to continue their call in progress or to answer the incoming call. Display capability is required to receive and display the incoming call information. This SCWID feature complies with Bellcore TR-575.

Name, group code/name	Description
<b>RES Call Wake Up Svc</b> FG.RES000014 FGN.RES Advncd Cstm Calling	This functionality provides wake-up call service for RES and MDC subscribers.
<b>RES Customer Originated Tracing (COT)</b> FG.RES000005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB (Additional Dram)	This functionality allows users to activate an immediate trace of the last incoming call, without requiring prior approval and manual intervention by switch personnel. COT is activated on a per-call basis and the service is deactivated when the user goes on-hook. Two-level feature activation is available that provides recorded announcements that inform the subscriber of the state of the COT. The Meridian SL-100 prompts the user for a decision to proceed or not to proceed with the trace.
<b>RES CLASS NPA Split</b> FG.RES000007 [OPT] FGN.RES Signing, Routing, OAM. H/W: NT6X78AB	This software creates the NPA Split Management Table (NPASPLIT) to allow CLASS features to operate successfully during the permissive dialing period of an NPA split.
<b>RES CNAMD Interwork (TCAPNM) Local Lookup</b> FG.RES000003 FGN.RES Disp Func & Prvcy	Through the use of the new TCAPNM sub option, LOCAL, the Meridian SL-100 customer is given the flexibility of datafilling names locally on the Meridian SL-100 in order to avoid performing TCAP name queries. The customer can use this feature to avoid the time-consuming process of building and sending a TCAP name query through a Service Transfer Point to the TCAP name database located at a Service Control Point (RES000080).
<b>RES Customer Tracing Enhancement</b> FG.RES000005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB	This functionality allows CLASS stations to direct the printing of a selected call record at a central switch maintenance location. This record can be used to trace obscene call originators.
<b>RES Dialable Number Delivery (DDN)</b> FG.RES000003 [OPT] FGN.RES Disp Funct & Prvcy H/W: NT6X78AB	This functionality delivers the DN of the calling party after the first ringing cycle. The difference between Calling Number Delivery and Dialable Number Delivery is that CND delivers the 10-digit DN of the calling party; however DDN only delivers the digits required for the called party to return the call. For example, if the incoming call is local, a seven-digit DN is displayed; if it is an intra-LATA toll, 1+ seven-digit number is displayed.
<b>RES Dist Ringing/Call Waiting (DRCW)</b> FG.RES000005 [OPT] FGN.RES Non-Display Services H/W: NT3X68AB, NT6X78AB	With this software, incoming calls for up to 31 DNs can be automatically identified by distinctive ringing. If the user is engaged in conversation and a call from one of the designated DNs arrives, a distinctive call waiting tone accompanies the incoming call. Calls from other DNs ring normally.

Name, group code/name	Description
<b>RES DLCM</b> FG.RES00002 FGN.RES Advd Cstm Calling	This feature allows two different lines the ability to answer a call on either other line. For example, if a call is placed to line B, the call can be retrieved by line A with this feature assigned (RES00087).
<b>RES Enablers-CLASS LIOD</b> FG.RES00006 [OPT] FGN.RES Service Enablers H/W: NT6X78AB	This functionality is an interdependency for CLASS services and provides a number of features and capabilities needed to implement CLASS applications.
<b>RES Enablers-Enhanced Residential Services</b> FG.RES00006 [OPT] FGN.RES Service Enablers H/W: NT6X78AB	This feature provides basic RES Operations, Administration and Maintenance (OA&M) functions. Additionally, it is the base platform for CLASS ADSI and Screen List editing features.
<b>RES Enablers - ADSI Services Protocol TR Compliance</b> FG.RES00006 [OPT] FGN.RES Service Enablers H/W: NT6X92BC, NT6X69AD, XPM+, NT6X78AB	This functionality serves as base software for ADSI signaling to allow the Meridian SL-100 to deliver display-based services to users.
<b>RES Enablers-RES Base</b> FG.RES00006 [OPT] FGN.RES Service Enablers H/W: NT6X78AB	This functionality is an interdependency for CLASS services and provides a number of features and capabilities needed to implement CLASS applications.
<b>RES Enablr-Screen List Editing</b> FG.RES00006 [OPT] FGN.RES Service Enablers H/W: NT6X78AB (Additional Drams)	This software allows users to program a list of DN's for one or more programmable screening services, such as Selective Call Acceptance, Selective Call Rejection, Selective Call Forwarding and Distinctive Ringing/Call Waiting, and to activate or deactivate the service.
<b>RES Expansion Svcs</b> FG.RES00002 FGN.RES Advncd Cstm Calling H/W: NT6X78AB	This functionality adds Call Transfer, Call Pickup, Make Set Busy and Group Intercom to the already available CLASS base features on residential lines only.
<b>RES Extension Bridged Svcs</b> FG.RES00002 FGN.RES Advncd Cstm Calling	This functionality is a new variation of the Multiple Appearance Directory Number (MADN) feature. Extension Bridging is identical to the MADN Single-Bridged Arrangement that permits one Directory Number (DN) in multiple locations, except for the implementation of Call Forwarding and Speed Calling.

Name, group code/name	Description
<b>RES Fraud Prevention Blocking</b> FG.RES00002 FGN.RES Advncd Cstm Calling	Fraud Prevention Blocking (FPB) provides the network provider the ability to enhance customer service and lifeline protection by a offering a means to block all calls originated from a line by persons not knowing the subscriber's authorization code (PIN code). The network provider can select a small set of numbers for that particular office that can be called without the authorization code. This set of callable numbers can include 911, 611 (that is, repair) or any other number decided by the network provider.
<b>RES High Speed SMDI</b> FG.RES00004 [OPT] FGN.RES I/F Functionality H/W: NT1X89BB (MSM & GP)	This functionality enhances the SMDI application to use MPC hardware and software for data communications with Voice Messaging systems.
<b>RES &amp; MDC Warm Line</b> FG.RES00002 FGN.RES Advncd Cstm Calling H/W: NT6X78AB	This functionality provides the Warm Line feature. An additional line entry is made in the corresponding table to support a time delayed automatic hot line. The Warm Line feature may be provided to lines with the Residential Enhanced Services (RES) and Meridian Digital Centrex feature capabilities.
<b>RES QCUST Command Enhancements</b> FG.RES00006 FGN.RES Service Enablers	This software uses the Screening List Editing function to store up to 31 DNs from which a user wishes to receive calls. An incoming call from a DN that is not on the SCA list is routed to an announcement stating that the called party does not wish to receive the call. SCA is accessed by dialing an access code and modifications to the list are made with the telephone keypad.
<b>RES Selective Call Acceptance (SCA)</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB	This software uses the Screening List Editing function to store up to 31 DNs from which a user wishes to receive calls. An incoming call from a DN that is not on the SCA list is routed to an announcement stating that the called party does not wish to receive the call. SCA is accessed by dialing an access code and modifications to the list are made with the telephone keypad.
<b>RES Selective Call Forwarding (SCF)</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB	This functionality allows users to ensure that selected calls reach them when they are away from their telephone. Incoming calls for up to 31 DNs can be forwarded to another telephone. Calls from DNs that are not on the Selected Call Forward (SCF) list receive whatever treatment the user has arranged (that is, Voice Mail). SCF is accessed by dialing an access code and entries may be changed using the keypad.
<b>RES Selective Call Rejection (SCRJ)</b> FG.RES00005 [OPT] FGN.RES Non-Display Services H/W: NT6X78AB	This functionality allows the user to selectively program a list of up to 31 DNs from which calls are rejected or blocked. Incoming calls that are on the SCR list are routed to an announcement informing the caller that the called party does not wish to receive the call. It is accessed by dialing an access code and modifications to the list are made using the keypad.

Name, group code/name	Description
<b>RES Simplified Message Desk Interface</b> FG.RES00004 [OPT] FGN.RES I/F Functionality H/W: NT1X89BB (MSM & GP)	This functionality provides a datalink between message desk terminal equipment and the Meridian SL-100, integrating three call features: Call Forwarding, Message Waiting and Uniform Call Distribution.
<b>RES Simultaneous Ring</b> FG.RES00002 FGN.RES Advncd Cstm Calling	This feature allows the user to be alerted of a call at any of five locations identified through the pilot and member DNs by simultaneously ringing all five DNs. A busy tone is received only if all five DNs are busy. The four non-pilot member DNs can be any valid DN, except a member of a Multiple Appearance Directory Number (MADN) group off of the same Meridian SL-100 as the pilot DN. The non-pilot member DNs can be modified either locally or remotely using the SLE interface. The pilot DN must be on the Meridian SL-100. The out-going trunk from the Meridian SL-100 must be SS7.
<b>RES Single Line Variety</b> FG.RES00002 FGN.RES Advncd Cstm Calling H/W: NT6X78AB	Single Line Variety offers customers served by a single line advanced features such as Intercom, Hold and Distinctive Ringing.
<b>RES Single USOC for DSCWID and CFDA</b> FG.RES00003 FGN.RES Disp Func & Prvcy	Previously, Meridian SL-100 software utilized a dual USOC provisioning method to add DSCWID to lines with and without CFDA. This functionality allows for the use of a single Universal Service Order Code (USOC) to provision DSCWID both with and without CFDA. This functionality simplifies the Service Order processing for DSCWID.
<b>RES SLE/ACBAR NO TCAP</b> FG.RES00002 FGN.RES Advd Cstm Calling	This feature disables the TCAP query functionality for Screen List Editing (SLE) and Automatic Call Back/Automatic Recall (ACB/AR) features on an optional, host-controlled basis. This allows for limited feature functionality to areas of the network that are non-TCAP compliant. Certain aspects of feature functionality are compromised in a non-TCAP environment, for example: <ul style="list-style-type: none"> <li>• Delayed processing feature of ACB/AR.</li> <li>• SLE number programming cannot discern if the user-programmed number is valid.</li> </ul>
<b>RES SMDI CLID Suppression</b> FG.RES00004 [OPT] FGN.RES I/F Functionality H/W: NT6X78AB	This software allows the network provider to override Simplified Message Desk Interface (SMDI) restrictions on Calling Line Identification Display (CLID) among members of a Uniform Call Distribution (UCD) group. Using this functionality, the network provider can offer message services to business clients, regardless of state CLID regulatory requirements. The feature also allows for the blocking of group members' CLID for any calls made outside the group.

Name, group code/name	Description
<b>RES Teen Service</b> FG.RES00002 FGN.RES Advncd Cstm Calling	Teen Service allows multiple Directory Numbers (DN) to be assigned to one line without the need for additional line equipment. It is a terminating line option for single party lines that allows one Primary DN (PDN) and up to three Secondary DNs (SDN) to be defined. A call to an idle line having Teen Service results in the line being rung with a ringing cadence associated with one of the defined DNs. A call to a busy line having both Teen Service and Call Waiting causes that line to receive a distinctive tone associated with the called DN, if the Enhanced Call Waiting package (BAS Call Waiting [POTS]) is present on the switch. Otherwise, the normal Call Waiting tone is provided. This functionality allows simultaneous call forwarding of the Primary and the Secondary Directory Numbers to different locations.
<b>RES Universal Access to CLASS</b> FG.RES00001 [OPT] FGN.RES Access Management H/W: NT6X78AB	This software allows a customer to make one or more non-display CLASS features available to all RES lines on a switch-wide basis.
<b>RES Visual Message Waiting</b> FG.RES00003 [OPT] FGN.RES Disp Funct & prvcy H/W: NT6X78AB, NT6X69AB and Additional Drams	This functionality provides a visual message indication at the user's station that messages are waiting. Compatible with existing voice messaging systems, this package provides the user the following message waiting options: <ul style="list-style-type: none"> <li>• With display sets (or adjuncts) - message waiting indicator on the display with date and time that the messages were left (if voice messaging system provides this).</li> <li>• Lights a visual indicator lamp.</li> <li>• Audible indication (intermittent dial tone).</li> <li>• Combination of audible and visual.</li> </ul>
<b>SAID Basics</b> FG.BAS00008 FGN.BAS SAID	This software enhances the functionality of the Network Facility Access (NFA) feature that was implemented in BCS34 by activity NC0418. The scope of this feature involves adding three new capabilities to NFA: the ability to access an NFA trunk from locations other than the subscriber's base telephone line; the ability to place a connection to an NFA trunk on hold whenever the subscriber flashes from their line; and the capability to extend DP to DTMF conversion to the entire life of a call dialed by an Intelligent Processor (IP).
<b>SERV CFDA Provisioning Enhancement</b> FG.SERV0001 FGN.SERV SERVORD	With this feature a technician changing the variable timer associated with the Call Forwarding Don't Answer (CFDA) feature no longer needs to identify the "Forward to Directory Number" information.

Name, group code/name	Description
<b>SL-100 Optivity Telephony Manager for Meridian SL-100</b> FG.MSL00001 FGN.MSL BASE	This feature provides the base development required to use the graphical system administration tool, Optivity Telephony Manager for Meridian SL-100.
<b>SMDR Per Use Billing for Features</b> FG.MSL00107 [OPT] FGN.MSL CLASS OPT	This feature provides the capability to generate a SMDR Billing extension record based on usage as opposed to a flat monthly rate, thus providing billing services similar to those offered by some of the local telephone companies. With this feature, the ability to generate a usage based SMDR extension record is available for the following features: <ul style="list-style-type: none"> <li>• Automatic Call Back (ACB)</li> <li>• Automatic Recall (AR)</li> <li>• Bulk Calling Line Identification (BCLID)</li> <li>• Calling Name Delivery (CNAMD)</li> <li>• Calling Number Delivery (CND)</li> <li>• Calling Number Delivery Blocking (CNDB)</li> <li>• Customer Originated Trace (COT)</li> <li>• Deluxe Spontaneous Call Waiting Display (DSCWID)</li> <li>• Dialable Number Delivery (DDN)</li> <li>• Distinctive Ringing/Call Waiting (DRCW)</li> <li>• Selective Call Acceptance (SCA)</li> <li>• Selective Call Forwarding (SCF)</li> <li>• Selective Call Rejection (SCRJ)</li> </ul>
<b>Table XLANAME Expansion</b> FG.MDC00001 FGN.MDC MDC Minimum	This functionality increases Table XLANAME from 4095 to 8173 tuples increasing datafill capacity.
<b>TEL C7 Chan-lized Access</b> FG.TEL00001 FGN.TEL Telecom Layer H/W: NT9X76AA, NT9X77AA, NTEX22BB	Link Peripheral Processor (LPP) access, formerly available over dedicated links to each Link Interface Unit (LIU7), is now enhanced to include an interface through the Dual Shelf Network (also known as the Junctored Network, or JNET) with future provisions for an Enhanced Network (ENET) interface. This access is accomplished by a parallel, 512-channel Time Division Multiplexed Channel Bus (CBUS), driven by a Channel Bus Controller (CBC) to the Application Specific Units (ASUs). The CBC performs network plane selection and supports the DS-30 protocol to allow access to the JNET. This may be evolved to include support for the DS-512 protocol for ENET access. Both the CBUS and CBC are duplicated for reliability. A Channel Bus Interface (CBI) is associated with each ASU to select the appropriate CBUS and channel.

Name, group code/name	Description
<b>TEL C7 Link Felt. Locator</b> FG.TEL00001 FGN.TEL Telecom Layer	Link fault sectionalization is a maintenance procedure that allows the technician to rapidly identify faulty segments of a CCS7 signaling link transmission path. This test procedure helps to reduce link downtime, and because faults at remote nodes can be isolated without dispatching a maintenance technician to the site, network provider maintenance costs are reduced.
<b>TEL C7 Link Prot. Tester</b> FG.TEL00001 FGN.TEL Telecom Layer	This functionality enables the technician to build up to: eight CCS7 messages from the MAP, display a built CCS7 message, alter individual bytes in a built CCS7 message, intercept incoming CCS7 messages on the screen, send up to two CCS7 messages to adjacent SP and to realize the benefits of password protection. These functionalities are provided by enabling the Meridian SL-100 MAP to monitor CCS7 protocol test capabilities without the need for external traffic simulation or monitoring equipment.
<b>TEL CCS7 Base</b> FG.TEL00001 FGN.TEL Telecom Layer	This software provides the Transactions Capabilities Application Part (TCAP) feature. CCS7 supports transaction capabilities required for services such as database access. Signaling Connection Control Part (SCCP) provides one part of this support, while TCAP provides the other. This software (through TCAP) allows a set of procedures to be used to support a variety of services. This avoids the inefficiency of creating tailor-made procedures for each new application.  This functionality also provides support for V.35 (56 kb/s) lines as Signaling links between Service Switching Point (SSP) and/or Signaling Transfer Point (STP) network nodes in an SS7 signaling environment.  Additionally, with this software equipped in a Meridian SL-100 Service Switching Point (SSP), a technician at the Maintenance and Administration Position (MAP) can monitor the Bit Error Rate Testing (BERT) of a CCS7 signaling link on the Link Peripheral Processor (LPP).
<b>TEL CCS7 Base</b> FG.TEL00001 FGN.TEL Telecom Layer H/W: NT9X76AA, NT9X77AA, NTEX22BB	This functionality streamlines DMS-STP and Meridian SL-100 INODE CCS7 link maintenance and reduces overhead operating costs by enabling the STP MAP position to monitor and test key protocol areas of CCS7 messages without the need for external traffic simulation and monitoring equipment.  This functionality also enables the use of Link Peripheral Processors (LPPs) to terminate CCS7 signaling links on Meridian SL-100 switches. The LPP is an enhanced Meridian SL-100 Family peripheral that functions as a message switch and buffer (MSB7) for CCS7 messages. Because of its distributed processing power, the LPP offers expanded CCS7 messaging capacity and is therefore an alternative to introducing multiple MSB7 configurations.  CCS7 links running at 64 kb/s require interfaces that can accommodate this rate. The 64 Kbit CCS7 Link Interface software contained in this functionality provides a 64-kb/s access

Name, group code/name	Description
	<p>rate for LIU7s in an LPP. This allows the network provider selectively to run individual LIU7s at either 56-kb/s or 64-kb/s access rates.</p> <p>Additionally, this software provides a base CCS7 protocol capability for handling the Message Transfer Part (MTP) and Signaling Connection Control Part (SCCP) by the LPP and LIS platforms.</p>
<p><b>TEL Gateway Screening</b> FG.TEL00001 FGN.TEL Telecom Layer</p>	<p>Gateway Screening paves the way for the end-to-end delivery of CCS7-based advanced network services by allowing users to control access to their CCS7 databases and to protect against unauthorized use of other CCS7 facilities and services. This capability enables the secure interaction of CCS7 equipment owned by multiple users throughout the nation, permitting advanced features to be extended across local or regional boundaries.</p> <p>This functionality streamlines the implementation of DMS-STP Gateway Screening by providing an integrated means of verifying screening and/or translation rules, before activation on a live network. Both the validity of all individual screening parameters and the progression or combination of individual test provide the ability to anticipate the consequences of a planned modification or deletion.</p>
<p><b>TEL Telecom Layer func</b> FG.TEL00001 FGN.TEL Telecom Layer H/W: NT9X76AA, NT9X77AA, NTEX22BB</p>	<p>This functionality contains features that modify Linkset management and allows for national and international variations of Point Codes.</p> <p>This functionality also implements the local node maintenance system of the Network Interface Unit (NIU) and provides diagnostics to isolate hardware faults down to the single-board level. In addition, this package implements all aspects of central maintenance for the NIU. This includes: table control for NIU inventory, MAP commands interface, OMs, LOGs and alarms.</p> <p>This software also provides a series of capabilities directly related to the LIU7 Application Interface Unit working on the LPP. This packaged is identified as it is used by other packages. The LIU7 is an Application Interface Unit provisioned in the LPP that is used to interface into a CCS7 PSTN network.</p>
<p><b>Walkaway Code Enhancement</b> FG.ACD00001 FGN.ACD ACD BASE</p>	<p>This functionality enables ACD agents to add or change walkaway codes without leaving the "not ready" state. Currently, if an agent has entered the walkaway code and then needs go to a meeting, the agent must log back in to enter a second walkaway code. If there are calls in queue, the agent is presented with a new call, before they can leave for the meeting. This feature provides agents with multiple walkaway codes for ACD agents and enables an agent to change walkaway codes without having to take a call. By making it more convenient to enter these codes, agents can make more productive use of their time, while providing more detailed walkaway tracking for reports.</p>

Name, group code/name	Description
<b>WLC Over Voltage Report</b> FG.WLC00001 FGN.WLC Enhanced	This functionality provides identification of hazardous voltage on subscriber lines for types A and B World Line Cards (WLC). When a hazardous voltage is detected on a WLC, the card immediately operates its cutoff relay and alerts the system.
<b>WLC Tmplate-900+2-type B</b> FG.WLC00001 FGN.WLC Enhanced	This functionality provides the software template WL902B for use in conjunction with the NT6X18 World Line Card (WLC) in North American Applications.
<b>WLC 900 +2</b> FG.WLC00001 FGN.WLC Enhanced	This feature provides a software template WL9002 (900 hims + 2uF) for use in conjunction with the NT6X17 World Line Card (WLC) for North American applications. After power up, the WLC can be programmed using software “templates”. A template is a set of WLC parameters contained in an optional CC module. Each template has a unique name that can be datafilled against any WLC line in LNINV.

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## List of Terms

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<b>3WC</b>	Three Way Call
<b>AC</b>	Attendant Consoles
<b>AC</b>	Automatic Callback
<b>ACB</b>	Automatic Call Back
<b>ACD</b>	Automatic Call Distribution
<b>ACDMIS</b>	Automatic Call Distribution Management Information System
<b>ACMS</b>	Advanced Call Management Server
<b>ACRJ</b>	Anonymous Caller Rejection
<b>ADSI</b>	Analog Display Services Interface
<b>AEMK</b>	Answer Emergency Key
<b>AILC</b>	Asynchronous Interface Line Card
<b>AIU</b>	Application Interface Unit

<b>ALI</b>	Automatic Location Identification
<b>AMA</b>	Automatic Message Accounting
<b>AMIS</b>	Audio Messaging Interface Standard
<b>ANI</b>	Automatic Number Identification
<b>ANSI</b>	American National Standards Institute
<b>AOSS</b>	Auxiliary Operator Services System
<b>AR</b>	Action Request
<b>AR</b>	Automatic Recall
<b>ARS</b>	Automatic Route Selection
<b>ASR</b>	Automatic Set Relocation
<b>AT</b>	Access Tandem
<b>ATC</b>	Access To Carrier
<b>ATCP</b>	Automatic Traffic Control Plan
<b>ATT</b>	Automatic Trunk Testing
<b>AUI</b>	Administration User Interface

<b>AUI</b>	Application Unit Interface
<b>AUL</b>	Automatic Line
<b>AUTOVON</b>	Automatic Voice Network
<b>BABT</b>	British Approvals Board for Telecommunications
<b>BCD</b>	Binary Coded Decimal
<b>BCS</b>	Batch Change Supplement
<b>Bellcore</b>	Bell Communications Research
<b>BERT</b>	Bit Error Rate Testing
<b>BLF</b>	Busy Lamp Field
<b>BNM</b>	Business Network Management
<b>BRI</b>	Basic Rate Interface
<b>BUI</b>	Browser User Interface
<b>CACH</b>	Call Appearance Call Handling
<b>CAMA</b>	Centralized Automatic Message Accounting
<b>CAS</b>	Channel Associated Signaling

<b>CC</b>	Central Controller
<b>CC MIS</b>	Call Center Management Information System
<b>CCC</b>	Clear Coded Channel
<b>CCF</b>	Custom Calling Features
<b>CCITT</b>	Consultative Committee on International Telegraphy and Telephony
<b>CCR</b>	Call Control Routing
<b>CCS</b>	Common Channel Signaling
<b>CCS7</b>	Common Channel Signaling System 7
<b>CDN</b>	Controlled Directory Number
<b>CED</b>	Customer Entered Data
<b>CFB</b>	Call Forward Busy
<b>CFBL</b>	Call Forward Busy Line
<b>CFCW</b>	Call Forwarding of Call Waiting
<b>CFD</b>	Call Forward Don't Answer
<b>CFK</b>	Call Forward Per Key

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<b>CFRA</b>	Call Forward Remote Access
<b>CFU</b>	Call Forward Universal
<b>CGU</b>	Circuit Group Blocking
<b>CI</b>	Command Interpreter
<b>CLAN</b>	Customer Local Area Network
<b>CLASS</b>	Custom Local Area Signaling Services
<b>CLID</b>	Calling Line Identification
<b>CLLI</b>	Common Language Location Identifier
<b>CM</b>	Computing Module
<b>CMI</b>	Cross Matrix Index
<b>CMS</b>	Call Management Service
<b>CMVI</b>	Cabinetized Multi Vendor Interface
<b>CNAMD</b>	Calling Name Delivery
<b>CND</b>	Calling Number Delivery
<b>CNDB</b>	Calling Number Delivery Blocking

**CNNB**  
Calling Name/Number Delivery Blocking

**CONMAN**  
Connection Manager

**CONUS**  
Continental United States

**COT**  
Customer Originated Trace

**CP**  
Call Processing

**CPC**  
Common Peripheral Controller

**CPE**  
Customer Premises Equipment

**CPM**  
Common Peripheral Module

**CPR**  
Call Path Restoration

**CPU**  
Central Processing Unit

**CRR**  
Call Request Retrieve

**CS 2100**  
Communication Server 2100

**CSDDS**  
Circuit Switched Digital Data Service

**CTI**  
Computer Telephony Integration

**CTM**  
Conference Trunk Module

<b>CUG</b>	Closed User Group
<b>CUIF</b>	Control Unit Interface
<b>CVD</b>	Coordinated Voice and Data
<b>CWT</b>	Call Waiting
<b>DBM</b>	Display-based Marketing
<b>DCM-R</b>	Digital Carrier Module-Remote
<b>DDU</b>	Disk Drive Unit
<b>DFS</b>	Dual Function Switch
<b>DHCP</b>	Dynamic Host Control Protocol
<b>DIN</b>	Denied Incoming
<b>DIRP</b>	Device Independent Recording Package
<b>DISA</b>	Direct Inward System Access
<b>DLC</b>	Digital Line Card
<b>DLM</b>	Digital Line Module
<b>DMS</b>	Digital Multiplex System

<b>DMSF</b>	DMS Family
<b>DN</b>	Directory Number
<b>DND</b>	Dialable Number Delivery
<b>DNIS</b>	Dialed Number Identification Service
<b>DOC</b>	Dynamic Overload Control
<b>DPCC</b>	Dual Plane Combined Core
<b>DPLL</b>	Digital Phase Lock Loop
<b>DRAM</b>	Digital Recording Announcement Machine
<b>DRCW</b>	Distinctive Ringing/Call Waiting
<b>DRU</b>	Design Release Unit
<b>DS</b>	Data Store
<b>DSCWID</b>	Deluxe Spontaneous Call Waiting Identification
<b>DSL</b>	Digital Subscriber Loop
<b>DSN</b>	Defense Switched Network
<b>DSO</b>	Development Support Overhead

<b>DSPC</b>	Key and Lamp Display
<b>DTC</b>	Digital Trunk Controller
<b>DTC7</b>	Digital Trunk Controller #7
<b>DTC-I</b>	Digital Trunk Controller - ISDN
<b>DTH</b>	Dynamic Transaction Handler
<b>DTMF</b>	Dual-tone Multifrequency
<b>DTSR</b>	Dial Tone Speed Recording
<b>DU</b>	Data Units
<b>DWS</b>	Dialable Wideband Services
<b>E800</b>	Enhanced 800 Service
<b>E911</b>	Emergency 911 (North American Emergency Services number)
<b>EA</b>	Equal Access
<b>EABS</b>	Exchange Alternate Billing Service
<b>EAEO</b>	Equal Access End Office
<b>EAIT</b>	Equal Access Intermediate Tandem

<b>EBS</b>	Electronic Business Set
<b>EDC</b>	Extended Distance Capability
<b>EDCH</b>	Enhanced D-Channel Handler
<b>EDRAM</b>	Enhanced Digital Recording Announcement Machine
<b>EIPE</b>	Enhanced Intelligent Peripheral Equipment
<b>EIU</b>	Ethernet Interface Unit
<b>EKTS</b>	Electronic Key Telephone System
<b>ELAN</b>	Embedded Local Area Network
<b>ELCM</b>	Enhanced Line Concentrating Module
<b>ELN</b>	Essential Lines
<b>EMAP</b>	Enhanced Maintenance and Administration Position
<b>EMK</b>	Emergency Key
<b>ENET</b>	Enhanced Network
<b>ESA</b>	Emergency Stand Alone
<b>ESB</b>	Emergency Service Bureau

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<b>ESMA</b>	Expanded Subscriber Module Access
<b>ESN</b>	Electronic Switched Network
<b>ETAS</b>	Emergency Technical Assistance Service
<b>ETX</b>	Enhanced Time Switch
<b>FAA</b>	Forced Agent Availability
<b>FCC</b>	Federal Communications Commission
<b>FGD</b>	Feature Group D
<b>FLIS</b>	FiberLink Interface Shelf
<b>FP</b>	File Processor
<b>FRAD</b>	Frame Relay Access Devices
<b>FS</b>	Functional Signaling
<b>FSM</b>	Finite State Machines
<b>FSP</b>	Frame Supervisory Panel
<b>FTFS</b>	Fault Tolerance File System
<b>FTS</b>	Frame Transport System

<b>FXR</b>	Fast Transfer
<b>GA</b>	Generally Available
<b>GIC</b>	Group Intercom
<b>GSCR</b>	Generic Switching Center Requirements
<b>GTT</b>	Global Title Translation
<b>GUI</b>	Graphical User Interface
<b>HDLC</b>	High-Level Data Link Controller
<b>HDX</b>	Host Data Exchange
<b>HIE</b>	Host Equipment Interface
<b>HMI</b>	Human-Machine Interface (See MMI)
<b>IBN</b>	Integrated Business Network
<b>IBNT2</b>	IBN Two-Way Trunk Type
<b>ICB</b>	Integrated Conference Bridge
<b>ICM</b>	Intelligent Call Management
<b>IDCC</b>	Integrated Digital Cross Connect

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<b>IDDD</b>	International Direct Digit Dialing
<b>IDF</b>	Isolation Detection Function
<b>IDLC</b>	Integrated Loop Digital Carrier
<b>IE</b>	Information Element
<b>IEC</b>	Inter Exchange Carrier
<b>IEC</b>	International Electrotechnical Commission
<b>IEMS</b>	Integrated Element Management System
<b>ILB</b>	Inhibit Line Busy
<b>ILM</b>	Integrated Link Maintenance
<b>IMB</b>	Inhibit Make Busy
<b>IOC</b>	Input/Output Controller
<b>IOD</b>	Input/Output Device
<b>IOM</b>	Input/Output Module
<b>IP</b>	Internet Protocol
<b>IPCM</b>	IP Client Manager

<b>IPE</b>	Intelligent Peripheral Equipment
<b>IPEC</b>	Intelligent Peripheral Equipment Column
<b>IRR</b>	Inhibit Ring Reminder
<b>ISA</b>	Integrated Services Access
<b>ISDN</b>	Integrated Services Digital Network
<b>ISM</b>	Integrated Services Module
<b>ISN</b>	Integrated Services Network
<b>ISTB</b>	In Service Trouble
<b>ISUP</b>	Integrated Service Digital Network User Port
<b>ITG</b>	IP Telephony Gateway
<b>ITS</b>	Integrated Test System
<b>ITU</b>	International Telecommunications Union
<b>IVD</b>	Integrated Voice and Data
<b>IVR</b>	Interactive Voice Response
<b>JNET</b>	Junctored Network

<b>JSB</b>	Java Services Bridge
<b>kb/s</b>	kilobits per second
<b>LAMA</b>	Local Automatic Message Accounting
<b>LAN</b>	Local Area Network
<b>LAPB</b>	Link Access Procedure Balanced
<b>LATA</b>	Local Access and Transport Area
<b>LBR</b>	Large Business Remote
<b>LCC</b>	Line Class Code
<b>LCD</b>	Line Concentrating Devices
<b>LCM</b>	Line Concentrating Module
<b>LCM-E</b>	Line Concentrating Module-Enhanced
<b>LCR</b>	Load Content Record
<b>LDAP</b>	Lightweight Directory Access Protocol
<b>LEN</b>	Line Equipment Number
<b>LFS</b>	Logical File System

<b>LGC</b>	Line Group Controller
<b>LGC-I</b>	Line Group Controller - ISDN
<b>LIS</b>	Link Interface Shelf
<b>LIU</b>	Link Interface Unit
<b>LIU7</b>	Link Interface Unit - SS7
<b>LLC</b>	Line Load Control
<b>LM</b>	Line Module
<b>LMS</b>	Last Number Redial
<b>LOB</b>	Line of Business
<b>LPA</b>	Loudspeaker Paging Answerback
<b>LPP</b>	Link Peripheral Processor
<b>LTC</b>	Line Trunk Controller
<b>LTC-I</b>	Line Trunk Controller - ISDN
<b>LTD</b>	Local Test Desk
<b>LTP</b>	Line Test Position

<b>MADN</b>	Multiple Appearance Directory Number
<b>MADO</b>	Meridian SL-100 Asynchronous Data Options
<b>MAP</b>	Maintenance and Administration Position
<b>MBG</b>	Multilocation Business Group
<b>Mb/s</b>	Megabits Per Second
<b>MBS</b>	Meridian SL-100 Business Set
<b>MC</b>	Machine Congestion
<b>MC7M</b>	Meridian Cabinet CCS7 Module
<b>MCA</b>	Meridian Communications Adapter
<b>MCAM</b>	Meridian Cabinet Auxiliary Module
<b>MCDM</b>	Meridian Cabinet Digital Module
<b>MCDN</b>	Message Center Directory Number
<b>MCDR</b>	Meridian Cabinet Digital Remote
<b>MCEX</b>	Meridian Cabinet Expansion Module
<b>MCGM</b>	Meridian Cabinet General Module

<b>MCGS</b>	Meridian Cabinet Global Switch
<b>MCIP</b>	Meridian Cabinet Interface Power
<b>MCLM</b>	Meridian Cabinet Line Module
<b>MCLM-E</b>	Meridian Line Concentrating Module-Enhanced
<b>MCNM</b>	Meridian Cabinet Network Module
<b>MCPM</b>	Meridian Cabinet Power Module
<b>MCRM</b>	Meridian Cabinet Remote Module
<b>MCRM-S</b>	Meridian Cabinet Remote Module - SONET
<b>MCRU</b>	Meridian Cabinet Remote Unit
<b>MCSM</b>	Meridian Cabinet Service Module
<b>MCSS</b>	Meridian Cabinet Spares Storage
<b>MCTM-I</b>	Meridian Cabinet Trunk Module - ISDN
<b>MDC</b>	Meridian Digital Centrex
<b>MDF</b>	Main Distribution Frame
<b>MEFM</b>	M3900/EXPEC Firmware Manager

<b>MER</b>	Most Economical Routing
<b>MF</b>	Multi Frequency
<b>MG 3200</b>	Media Gateway 3200
<b>MG 3500</b>	Media Gateway 3500
<b>MG 9000</b>	Media Gateway 9000
<b>MIB</b>	Management Information Base
<b>MICB</b>	Meridian Integrated Conference Bridge
<b>MIS</b>	Management Information System
<b>MLC</b>	Message Waiting Line Card (analog)
<b>MMI</b>	Man-Machine Interface (See HMI)
<b>MMT</b>	Meridian SL-100 Modular Terminal
<b>MPC</b>	Multi-Protocol Controller
<b>MPDA</b>	Meridian SL-100 Programmable Data Adapters
<b>MPDC</b>	Meridian Power Distribution Center
<b>MPS</b>	Media Processing Server

<b>MSL</b>	Meridian Stored Logic
<b>MSM</b>	Message Services Module
<b>MTC</b>	Master Tracking Code
<b>MTE</b>	Metallic Test Equipment
<b>MTP</b>	Message Transfer Part
<b>MVIE</b>	Multi-Vendor Interface Equipment
<b>MVP</b>	Multi-Line Variety Package
<b>MWI</b>	Message Waiting Indication
<b>NACD</b>	Network Automatic Call Distribution
<b>NAP</b>	Network Access Partition
<b>NAS</b>	Network Attendant Service
<b>NCOS</b>	Network Class of Service
<b>NI-1</b>	National ISDN 1
<b>NI-2</b>	National ISDN 2
<b>NIT</b>	Non-Initiating Terminals

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<b>NIV</b>	Network Interface Unit
<b>NM</b>	Network Module
<b>NMC</b>	Network Message Controller
<b>NMS</b>	Network Management System
<b>NMS</b>	Network Message Service
<b>NSS</b>	Network and Switching Sub-system (wireless)
<b>NSS</b>	Network Services Software
<b>NWN</b>	Network Management
<b>OAM</b>	Operations, Administration and Maintenance
<b>OAMP</b>	Operations, Administration, Maintenance and Provisioning
<b>ODBC</b>	Open Database Connectivity
<b>ODM</b>	Optional Disk Module
<b>OM</b>	Operational Measurements
<b>ONP</b>	One Night Process
<b>OOS</b>	Out Of Service

<b>OPM</b>	Outside Plant Module
<b>OSI</b>	Open Systems Interconnection
<b>OSS</b>	Operation Support System
<b>OTM</b>	Optivity Telephony Manager
<b>PAD</b>	Packet Assembler/Disassembler
<b>PBX</b>	Private Branch Exchange
<b>PC</b>	personal computer
<b>PCL</b>	Product Computing-module Load
<b>PCM</b>	Pulse Code Module
<b>PCR</b>	Preventative Cyclical Retransmission
<b>PDAB</b>	Partial Dial Abandon
<b>PDN</b>	Primary Directory Number
<b>PDR</b>	Precedence Deflection Route
<b>PDTO</b>	Partial Dial Time-Out
<b>PEC</b>	Product Engineering Code

<b>PEPS</b>	Peripheral Equipment Power Supply
<b>PH</b>	Packet Handler
<b>PIN</b>	Personal Identification Number
<b>PLA</b>	Physical Link Adapter
<b>PM</b>	Peripheral Module
<b>PMT7</b>	CCS7 Protocol Monitor Tool
<b>PNID</b>	Precedence Network Inward Dialing
<b>PNNO</b>	Prefix Network NRS Outbound
<b>PNOD</b>	Precedence Network Outward Dialing
<b>POTS</b>	Plain Old Telephone Service
<b>PP</b>	Peripheral Processor
<b>PPSN</b>	Public Packet-Switched Network
<b>PRI</b>	Primary Rate Interface
<b>PS</b>	Program Store
<b>PSA</b>	Product Specification Agreement

<b>PSAP</b>	Public Service Access Point
<b>PSM</b>	Power Supply Module
<b>PSTN</b>	Public Service Telephone/Telecommunications Network
<b>PTM</b>	Packaged Trunk Module
<b>PTS</b>	Public Telecommunications Systems
<b>PVI</b>	Platform Vendor Independence
<b>PVN</b>	Private Virtual Network
<b>QCIF</b>	Quarter Common Intermediate Format
<b>QCK</b>	Quick Conference Key
<b>QHASU</b>	Query Hardware Available Software Unavailable
<b>QoS</b>	Quality of Service
<b>RAID</b>	Redundant Array of Independent Disks
<b>RCC</b>	Remote Cluster Controller
<b>RCF</b>	Remote Call Forward
<b>RDLM</b>	Remote Digital Line Module

<b>RLC</b>	Reach Line Card
<b>RLCM</b>	Remote Line Concentrating Module
<b>RLM</b>	Remote Line Module
<b>RLT</b>	Release Link Trunk
<b>RMM</b>	Remote Maintenance Module
<b>RN</b>	Remote Notification
<b>ROH</b>	Receiver Off Hook
<b>ROM</b>	Read Only Memory
<b>ROTL</b>	Remote Office Test Line
<b>RSC</b>	Remote Switching Center
<b>RSM</b>	Real-time Statistics Multicast
<b>RSP</b>	Remote Server Provider
<b>RTS</b>	Return To Service
<b>RTU</b>	Right-to-use
<b>SAS</b>	Status Assembly System

<b>SBR</b>	Skills-based Routing
<b>SBT</b>	Software Based Telephony
<b>SC</b>	Speed Calling
<b>SCA</b>	Single Call Arrangement
<b>SCA</b>	Selective Call Acceptance
<b>SCAI</b>	Switch-Computer Application Interface
<b>SCC</b>	SuperNode Combined Core
<b>SCCP</b>	Signaling Connection Control Part
<b>SCCS</b>	Symposium Call Center Server
<b>SCF</b>	Selective Call Forwarding
<b>SCM</b>	Subscriber Carrier Module
<b>SCP</b>	Service Control Point
<b>SCRJ</b>	Selective Call Rejection
<b>SCWID</b>	Spontaneous Call Waiting Identification
<b>SDN</b>	Secondary Directory Number

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<b>SDPAL</b>	SCOPEDIAL PBX Access Lines
<b>SE</b>	Size Enhanced (SuperNode)
<b>SIGMAN</b>	Signaling Manager
<b>SIP</b>	Session Initiation Protocol
<b>SIP-T</b>	Session Initiation Protocol for Telephony
<b>SL-100</b>	Stored Logic - 100
<b>SLE</b>	Screening List Editing
<b>SLM</b>	System Load Module
<b>SMDI</b>	Simplified Message Desk Interface
<b>SMDR</b>	Station Message Detail Recording
<b>SMU</b>	Subscriber Module Urban
<b>SNMP</b>	Simple Network Management Protocol
<b>SNSE</b>	SuperNode Space Enhanced
<b>SOC</b>	System Overload Control
<b>SOC</b>	Software Optionality Control

<b>SP</b>	Service Provider
<b>SPC</b>	Service Profile Configuration
<b>SPID</b>	Service Profile Identification
<b>SQL</b>	Structured Query Language
<b>SRC</b>	Software Recovery Controller
<b>SRDB</b>	Selective Routing Database
<b>SSERVORD</b>	Standard Service Order
<b>SSL</b>	Secure Socket Layer
<b>SSP</b>	Station Programmable PIN
<b>SSP</b>	Service Switching Point
<b>SST</b>	Signaling System 7
<b>STM</b>	Service Trunk Module
<b>STP</b>	Signaling Transfer Point
<b>TAPI</b>	Telephony Application Programming Interface
<b>TBO</b>	Terminal Billing Option

<b>TCAP</b>	Transaction Capabilities Application Part
<b>TCM</b>	Time Compression Multiplexing
<b>TCP/IP</b>	Transmission Control Protocol / Internet Protocol
<b>TDM</b>	Time Division Multiplexing
<b>TEI</b>	Terminating Endpoint Identifier
<b>TL1</b>	Transaction Language 1
<b>TME</b>	Terminal Management Environment
<b>TMTOPT</b>	Treatment Option
<b>TPT</b>	Transaction Processing Task
<b>TR</b>	Technical Recommendation
<b>TRID</b>	Transaction ID
<b>TSMS</b>	Traffic Separation Measurement System
<b>TSP</b>	Terminal Service Profile
<b>TTP</b>	Trunk Test Position
<b>TTS</b>	Text-to-Speech

<b>TUI</b>	Telephone User Interface
<b>UAS</b>	Universal Audio Server
<b>UC</b>	Unified Communications
<b>UCD</b>	Uniform Call Distribution
<b>UDP</b>	User Datagram Protocol
<b>UEM</b>	Universal Equipment Module
<b>UG</b>	Upgrade (suffix change to product number)
<b>UI</b>	Up Issue (no suffix change to product number)
<b>USOC</b>	Universal Service Order Code
<b>UTAM</b>	Unlicensed PCS Ad hoc Committee for 2.0 Ghz Microwave Transition and Management
<b>VAPN</b>	Virtual Access to Private Networks
<b>VCAC</b>	Virtual Call Admissions Control
<b>VFG</b>	Virtual Facility Group
<b>VISIT</b>	Visual Interactive Technology
<b>VMX</b>	Voice Message Exchange

<b>VoIP</b>	Voice over Internet Protocol
<b>VPIM</b>	Voice Profile for Internet Messaging
<b>VPN</b>	Virtual Private Network
<b>WAN</b>	Wide Area Network
<b>XA-Core</b>	Extended Architecture - Core
<b>XALC</b>	Extended Analog Line Card
<b>XDLC</b>	Extended Digital Line Card
<b>XML</b>	Extensible Markup Language
<b>XMLC</b>	Extended Message Waiting Line Card
<b>XMS</b>	Experimental Multiprocessor System
<b>XPM</b>	Extended Peripheral Module
<b>XSM</b>	Extended System Monitor





Communication Server 2100

## Application Planning Guide

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