Meridian SL-100

Commercial Systems

Feature Change Reference Guide

**NORTEL
NETWORKS**

Meridian SL-100

Commercial Systems
Feature Change Reference Guide

Publication number: 555-4031-802
Product release: MSL17
Document release: Standard 09.01
Date: July 2002

Publication history

July 2002

Standard, Version 09.01 provides a new color template.

March 2002

Draft, Version 09.01 documents the feature functionality added and revised in support of the Meridian SL-100 MSL17 Commercial Systems base load and optional groupings.

About this document

Purpose and audience

This document contains feature description information for the Meridian SuperNode (MSL-100) Commercial Systems features in the MSL17 base load and optional groupings.

Structure

The following sections are included for each feature:

- **Feature name**
- **Description**
- **Hardware requirements**
- **Restrictions and limitations**
- **Interactions**
- **Data schema**
- **Office parameters**
- **Service orders**
- **Alarms**
- **Operational measurements**
- **Logs**
- **Commmand interface**
- **AMA/Billing**

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.

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the next software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but re-released in the same software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

FOR MORE INFORMATION

To determine whether you have the latest version of this document and how documentation for your product is organized, check the release information in the *Meridian SL-100 Master Index of Publications*.

References in this document

This guide references the following documents:

- *Commercial Network Translations Guide*
- *Meridian SL-100 Alarm Clearing Procedures*
- *Meridian SL-100 Routine Maintenance Procedures*
- *Meridian SL-100 Card Replacement Procedures*
- *Meridian SL-100 Log Reference Manual*

Contents

Introduction

MSL17 Feature description
Release MSL17

This chapter contains information about following new features that are included in the MSL17 software release:

- A59025160 - RLT on PRI Enhancement
- A59028416 - Individual MADN Hold
- A59028425 - QHASU Enhancements
- A59028432 - Identifying GIC Members
- A59029642 - emobility 802.11 Wireless IP Gateway on MSL-100
- A59036861 - Table to Mark Analog LENS
- A59036875 - Query Busy Lamp Field
- A59036875 - Large Scale MWI
- A59037865 - 10 Digit Local Display
- S60352150 - Buzz Tone Duration
- S10469659 - Meridian SL Calling Number Delivery for Public Networks

The following sections provide detailed information regarding these features.

Command interface

Release MSL17

The MSL17 features which affect the Meridian SL-100 Command interface (CI) are as follows:

- 10 Digit Local Display - (A59037865) The activation of this feature is controlled by the Software Optionallity Control (SOC) utility.

- Identifying GIC Members (A59028432) - The output of the QGRP when used to query the GIC group members displays directory number and name of the member.

- Individual MADN Hold - (A59028416) - The status of the MWINK option is displayed in the output of QMADN command.

- QHASU Enhancements - (A59028425) - (Query Hardware Assigned Software Unassigned) allows you to display a summary or detailed printout of hardware assigned and software unassigned LENs.

- Query Busy Lamp Field (A59036868) - This feature introduces a group query command. The command lists of all the LENs which are BLF (Busy Lamp Field)/SBLF (Set-Based Lamp Field) monitoring a particular DN.

Data schema

Release MSL17

The MSL17 features which affect the Meridian SL-100 Data schema are as follows:

- e-mobility 802.11 Wireless IP Gateway on Meridian SL-100 - (A59029642) introduces table IPSETINV to associate new IP terminals with existing terminals. This feature results in changes to table IPECARDS and table LNINV.

- Table to Mark Analog LENS - (A59036861) introduces a new table LENTRBL to hold faulty, non-IVD LENS.

Log reports

Release MSL17

The MSL17 features which affect Meridian SL-100 Log reports are as follows:

- Large Scale MWI - (A59036875) introduces log MWR.

Office parameters

Release MSL17

This chapter contains Office parameter information of the MSL17 load.

- None

Service orders

Release MSL17

The MSL17 features which affect Meridian SL-100 Service orders are as follows:

- e-mobility 802.11 Wireless IP Gateway on Meridian SL-100 - (feature A59029643) introduces a new Line Class Code (LCC) IPTELSET for the new IP terminals.

- Individual MADN Hold - (A59028416), introduces a new option, MWINK, which affects the SERVORD Commands ADO, DEO, and NEW.

- Table to Mark Analog LENS - (A59036861) introduces new functionality. All relevant SERVORD commands which require one or more HASU or ISDN LENs as input check whether the LEN (or LENs) are faulty. If the LEN is determined to be faulty, the SERVORD command fails gracefully and displays the correct error message

RLT on PRI Enhancement

This module describes the RLT on PRI Enhancement feature in the MSL17 release.

Feature name

A59025160 - Release Link Trunk (RLT) on Primary Rate Interface (PRI) Enhancement

Description

The RLT functionality was developed in MSL07 for Meridian SL-100 switches to release redundant PRI trunks when a call starts from an Meridian SL-100 switch, goes to a Meridian 1 switch, and returns to the Meridian SL-100 that starts the call.

The enhancement in MSL17 provides the ability to release redundant PRI trunks when a call starts from a Meridian 1, goes to an Meridian SL-100, and returns to the Meridian 1 that starts the call.

The enhancement also provides the ability to release redundant PRI trunks when a call starts from an Meridian SL-100, goes to an Meridian SL-100, and returns to the Meridian SL-100 that starts the call.

The following figure shows the RLT functionality available in MSL07 release.

Figure 1: RLT available in MSL07
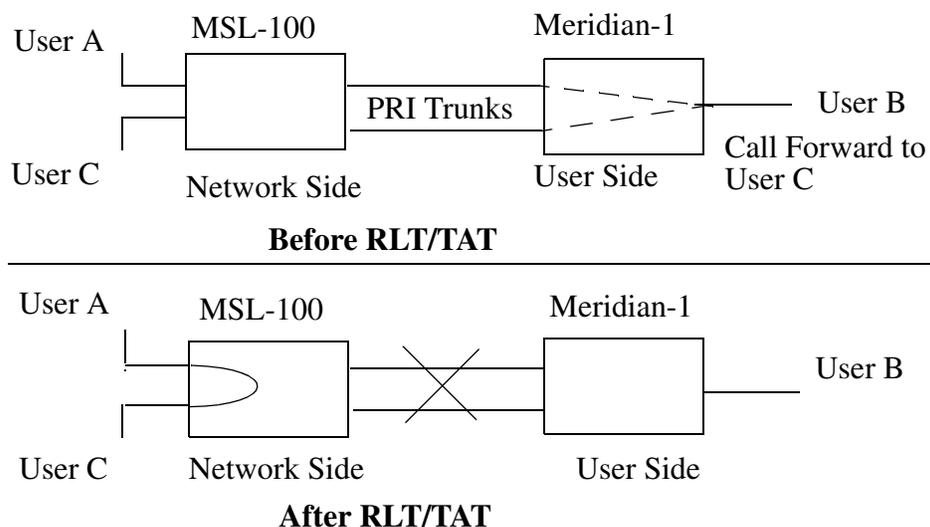
RLT on PRI Enhancement   (continued)

The following figure shows the RLT functionality between two Meridian SL-100 switches.

Figure 2: RLT for two Meridian SL-100s with call dropping on Network Side
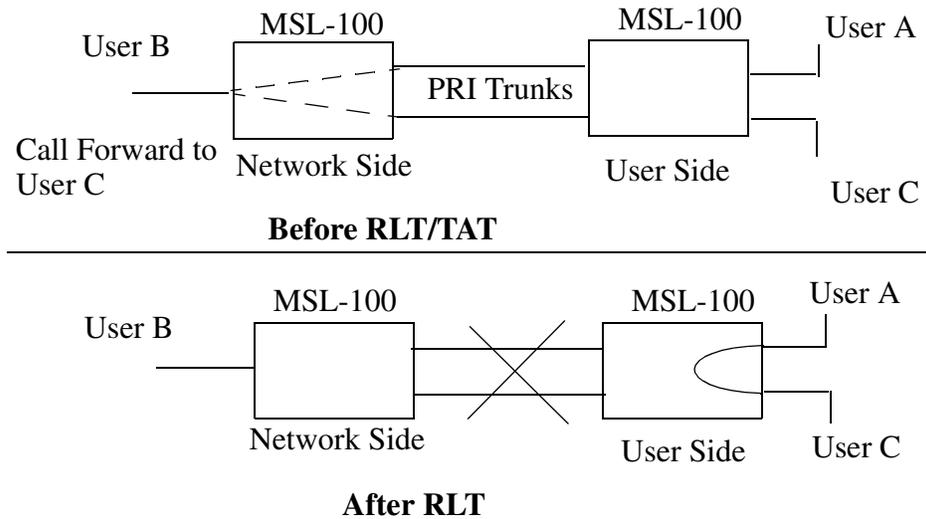
The following figure shows the RLT functionality between a Meridian 1 and an Meridian SL-100 switch.

Figure 3: RLT for Meridian 1 with call dropping to Meridian SL-100
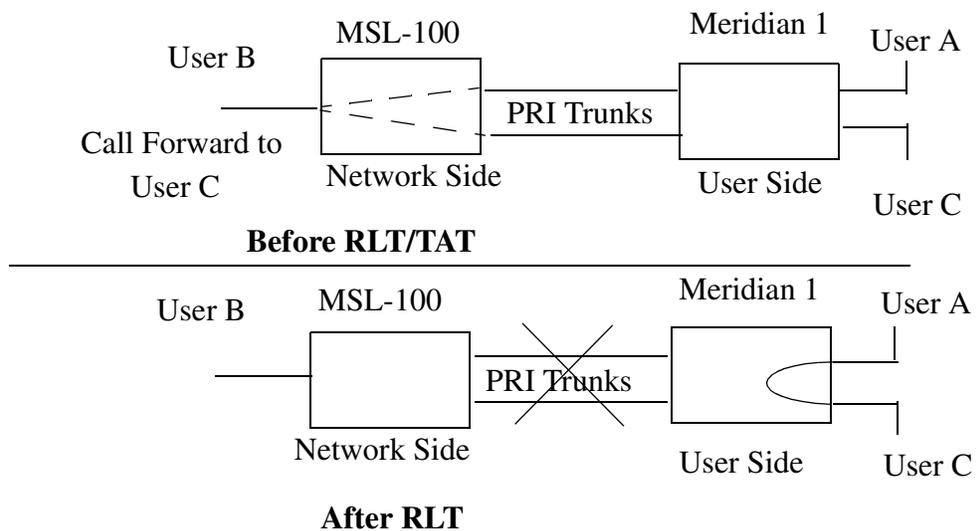
Hardware requirements

None

Limitations and restrictions

The Trunk Anti-Tromboning (TAT) package must be enabled on the Meridian 1 switch.

Interactions

The RLT functionality is compatible with both NTNA and NI-2 protocol variants.

Data schema

None.

Office parameters

Office parameters are not affected by this feature.

Service orders

Service orders are not affected by this feature.

Alarms

Alarms are not affected by this feature.

Operational measurements

Operational measurements are not affected by this feature.

Logs

Logs are not affected by this feature.

Associated Operational measurement registers

None

Command interface

Command interface is not affected by this feature

AMA/Billing

This feature does not affect billing or AMA logs.

Individual MADN Hold

Feature name

A59028416 - Individual MADN (Multiple Appearance Directory) Hold

Description

Individual MADN Hold is introduced (to Meridian SL-100 customers) in MSL17 software release. This feature provides a different wink to a MADN member of SCA and CACH MADN groups that has placed a call with an external party on HOLD.

The phone sets of all members of an SCA or CACH MADN group wink when any member of that group places a call with an external party on hold. The wink is identical for all the MADN members including the member that placed the call on hold (the MADN HOLD controller). It is not possible, therefore, to distinguish the MADN HOLD controller from other members of the MADN group.

The MWINK option provides a slower, distinctive wink for the MADN HOLD controller to more easily distinguish the MADN HOLD controller from other members of the MADN group.

Functionality

The MWINK option is assigned to a MADN group as a MADN group option, that is, any MADN member may assign the option to the MADN group. Similarly, any MADN member may remove the MWINK option from the MADN group.

The MWINK option may only be assigned to MADN lines of SCA and CACH group types. It should not be assigned to MADN lines of MCA and EXB group types. Once the MWINK option is assigned to the MADN group, the MADN group type cannot be changed to MCA and EXB group types unless MWINK option is removed from the MADN group.

A MADN member on an EBS or IVD set can invoke MADN HOLD by pressing the HOLD key or by pressing some another DN key thus invoking auto HOLD.

For a CACH MADN group, MWINK option when assigned to the group will function for all the Call Appearances the group.

Individual MADN Hold   (continued)

The following scenarios occur with MADN HOLD:

- MADN HOLD (including EKTS HOLD) applies only when a single member of the MADN group is active in a call with an external party.

- MADN HOLD (including EKTS HOLD) does not apply when more than one member of the group is engaged in a MADN bridged conference with an external party and any one of the active MADN members invokes MADN HOLD. Only the MADN member who invokes MADN HOLD winks, and the MWINK option does not provide a slower, distinctive wink to the MADN HOLD controller.

The following scenarios occur for MADN groups with EKTS HOLD:

- If the MADN group does not have the bridging option and the active member (also called as MADN HOLD controller) places a call with external party on HOLD, only the MADN HOLD controller winks, other members of the MADN group do not wink in this case. The MWINK option, in such a case will not provide a slower, distinctive wink to the MADN HOLD controller.

- The following non-bridged scenarios occur for MADN groups with EKTS MADN HOLD and the bridging option:

  — When the active MADN member of a MADN group places a call with an external party on HOLD, the other members of the MADN group wink only if the call is of non-private status. The MWINK option in this case would provide a different, slower wink to the MADN HOLD controller.

  — Only the active MADN member that places a private call to an external party and places that call on HOLD, winks. Other MADN members do not wink in this situation. The MWINK option in this case does not provide a different, slower wink to the MADN HOLD controller.

Hardware requirements

None

Limitations and restrictions

The limitations and restrictions that follow apply to MSL Individual MADN Hold:

Feature 59028416 (Individual MADN HOLD) does not support ISDN sets. The MWINK functionality, for a MADN group comprised of EBS, IVD, IBN, and ISDN sets, works only when activated from EBS or IVD sets. The MWINK functionality does not apply when MADN HOLD is

activated from an ISDN set member of a MADN group with the MWINK option.

Interactions

The MWINK option does not introduce any new interaction with other MADN and non-MADN features. MWINK does not change any existing interaction between MADN and non-MADN features.

Data schema

Individual MADN HOLD introduces a new option, MWINK, to table MDNGRP.

Table MDNGRP is a change-only table. Tuples cannot be added to or deleted from this table, they can only be modified.

A new entry is automatically added to the table MDNGRP whenever a new MADN group is created using SERVORD, or when an entry in table IBNLINES or KSETLINES with a format of MADN is added. Entries in table MDNGRP may not be added to or deleted from the table.

The tuple associated with the MADN group must be changed in order to add an option in table MDNGRP. The changed tuple is then edited. This allows the option MWINK to be assigned to or removed from the MADN group.

MWINK may only be assigned to the MADN group through table MDNGRP or through SERVORD.

Refer to table in the "MDNGRP" Data Schema section of this Nortel Networks technical publication (NTP) for further information regarding the Data Schema changes.

A59028416 Data Schema changes:

New or modified tables

Table Name	NEW, CHANGED or DELETED	Table Control (NEW/OLD/UNCHANGED)
MDNGRP	CHANGED	UNCHANGED

Office parameters

No Office parameters are added or changed by this feature.

Individual MADN Hold   (end)

Service orders

Option MWINK of feature Individual MADN Hold is assigned and removed through SERVORD.

MWINK may be added to any member of a MADN SCA or MADN CACH group. It may not be assigned to non-MADN lines as well as to members of MCA and EXB MADN groups.

MWINK is added as a MADN group option, that is, it can be assigned through any member of the MADN group. MWINK may also be removed from the MADN group through any member of the MADN group.

MWINK restricts the change of MADN SCA and CACH group types to MCA and EXB group types.

Refer to the Service Orders section of this Nortel Networks technical publication (NTP) for further information and examples regarding QMADN.

Alarms

Individual MADN Hold does not affect alarms.

Operational measurements

Individual MADN Hold does not change Operational measurements (OMs).

Logs

None

Associated Operational measurement registers

None

Command interface

The status of the MWINK option (assigned or unassigned) is displayed in the output of the QMADN command.

The Individual MADN Hold feature modifies only the output of QMADN. The status of the MWINK option is displayed in the output of QMADN command. Refer to the Commands interface section of this Nortel Networks technical publication (NTP) for an example of the QMADN display.

AMA/Billing

This feature does not affect billing or AMA logs.

QHASU Enhancements

Feature name

A59028425 - QHASU Enhancements

Description

This feature provides Meridian SL-100 the flexibility of querying all variants of a card type.

The QHASU (Query Hardware Assigned Software Unassigned) Command displays a summary or detailed printout of hardware assigned and software unassigned LENs (Line Equipment Number).

The existing QHASU Command requires the input of the full card code.

The following shows an example of the QHASU Command before the modification.

Example of the QHASU Command before modification

```
>qhasu
LINE_MODULE_RANGE: ALL
>r
FROM_LM:
>00 0
TO_LM:
>00 0
LINE_DRAWER_RANGE: ALL
>r
LINE_DRAWER_NUMBER:
>4
LINE_DRAWER_NUMBER:
>5
LINE_DRWAER_NUMBER:
>6
LINE_DRAWER_NUMBER:
>$
CARD CODE: NIL_CC
>6X17AC
GDN:N
>y
SUMMARY OR DETAIL: S
COMMAND AS ENTERED
QHASU R HOST 00 0 HOST 00 0
R (4) (5) (6) $ 6X17AC Y S
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>y
```

QHASU Enhancements (continued)

The following shows an example of the QHASU Command output before the modification.

Example of the QHASU output before modification

```
SUMMARY OF HARDWARE ASSIGNED SOFTWARE UNASSIGNED LEN --
HASU

FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AC OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0
```

The enhancement allows all the HASU LENs with 6X17** card code to be displayed. For example, 6X17AA, 6X17AC.

The following shows an example of the QHASU Command after the modification.

Example of the QHASU Command after modification

```
>qhasu
LINE_MODULE_RANGE: ALL
>r
FROM_LM:
>00 0
TO_LM:
>00 0
LINE_DRAWER_RANGE: ALL
>r
LINE_DRAWER_NUMBER:
>4
LINE_DRAWER_NUMBER:
>5
LINE_DRWAER_NUMBER:
>6
LINE_DRAWER_NUMBER:
>$
CARD CODE: NIL_CC
>6X17
GDN:N
>y
SUMMARY OR DETAIL: S
COMMAND AS ENTERED
QHASU R HOST 00 0 HOST 00 0
R (4) (5) (6) $ 6X17AC Y S
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>y
```

The following shows an example of the QHASU Command output before the modification.

Example of the QHASU output after modification

```
SUMMARY OF HARDWARE ASSIGNED SOFTWARE UNASSIGNED LEN --
HASU

CARD 6X17AC
------------
FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AC OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0

CARD 6X17AA
------------
FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AA OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0
```

Hardware requirements
None

Limitations and restrictions
None.

Interactions
None.

Data schema
None.

Office parameters
Office parameters are not affected by this feature.

Service orders
Service orders are not affected by this feature.

QHASU Enhancements   (end)

Alarms

Alarms are not affected by this feature.

Operational measurements

Operational measurements are not affected by this feature.

Logs

Logs are not affected by this feature.

Associated Operational measurement registers

None

Command interface

Command interface is not affected by this feature

AMA/Billing

This feature does not affect billing or AMA logs.

Identifying Group Intercom (GIC) Members

Feature name

A59028432 - Identifying Group Intercom (GIC) Members

Description

This feature enhances the QGRP Command in querying Group Intercom (GIC) members. The enhanced command provides output that contains more information about the members of a specific GIC group, including directory numbers (DN) and names.

Feature 59028432 modifies only the output of QGRP. In addition to displaying the Line Equipment Number (LEN), number of member in the group, and the key number, the new output displays the DNs and names of the members of a particular GIC group.

The following shows an example of the QGRP Command syntax and output before the modification.

Example of the QGRP Command and output before modification

```
>qgrp
GRP_TYPE:
>gic
LEN_OR_LTID:
>0 0 9 5
KEY
>10
GIC GROUP
-----------

HOST 00 0 09 05 KEY 10 MEMBER 20

The number of members in the GIC GROUP "ABCD" is 1
```

The following is an example of the modified QGRP Command output:

Identifying Group Intercom (GIC) Members   (continued)

Example of the modified QGRP Command output

```
>qgrp
GRP_TYPE:
>gic
LEN_OR_LTID:
>0 0 9 5
KEY:
>10
SORT_BY_LEN_OR_MEM: LEN
>LEN

GIC GROUP
---------

HOST 00 0 09 05 KEY 10 MEMBER 20

DN 9192465011 NAME JAMES BOND
DN 9192315666 NAME JENNY CHU

HOST 00 01 09 05 KEY 8 MEMBER 21

DN 6132311111 NAME SALLY BENN
DN 6132314242 NAME CHARLIE TRUT

The number of members in the GIC GROUP "ABDC" is 2

If the output is sorted based on member, the output
should be:

GIC GROUP
=========

MEMBER 20 HOST 00 0 09 05 KEY 10
DN 9192465011 NAME JAMES BOND
DN 9192315666 NAME JENNY CHU

MEMBER 21 HOST 00 01 09 05 KEY 8
DN 6132311111 NAME SALLY BENN
DN 6133214242 NAME CHALIE TRUT

The number of members in the GIC GROUP "ABCD" is 2
```

Hardware requirements
None

Limitations and restrictions
None

Interactions

None

Data schema

None

Office parameters

Office parameters are not affected by this feature.

Service orders

Service orders are not affected by this feature.

Alarms

Alarms are not affected by this feature.

Operational measurements

Operational measurements are not affected by this feature.

Logs

Logs are not affected by this feature.

Command interface

The output of the QGRP when used to query the GIC group members displays directory number and name of the member.

AMA/Billing

This feature does not affect billing or AMA logs.

ITG for Meridian SL-100

Feature name

A59029642 - Internet Telephony Gateway (ITG) for Meridian SL-100.

Description

This feature introduces the new ITG terminals to the Meridan SL-100 market for the 802.11 Wireless IP Gateway for Meridian SL-100. There are two parts to the development:

- Implement the ITG terminals by configuring a generic IP (Internet Protocol) terminal to function with the Merdian SL-100 switch.

- Develop the Meridian SL-100 ITG line card that contains the Terminal Proxy Server (TPS) and the firmware that contains the cardlan messaging set.

802.11 Wireless IP Gateway system architecture

The 802.11 Wireless IP Gateway for Meridian SL-100 contains the PBX environment and the IP LAN environment. The Meridian SL-100 ITG line card is the gateway interface between these two environments. The PBX environment contains the Meridian SL-100 switch, and the intelligent peripheral equipment (IPE) that contains the Meridian SL-100 ITG line card. The IP LAN environment contains Ethernet wiring, third-party Access Points (APs), and third-party wireless handsets.

Each Meridian SL-100 ITG line card represents an 802.11 Wireless IP gateway H.323+ zone, supporting a maximum of 24 wireless handsets. Each Meridian SL-100 system can have multiple H.323+ zones, but each wireless handset is dedicated to one specific Meridian SL-100 ITG line card or zone. Calls are routed through the Meridian SL-100 whether the call is within the same H.323+ zones, across different zones within the same Meridian SL-100, or across different zones in different Meridian SL-100 zones.

The following codecs are supported on the 802.11 Wireless IP Gateway: G.711, A-law/M-law and G.729A/AB. The default codec is G.729AB.

IP terminals

The IP terminals are third-party 802.11 11Mbps DS wireless handsets. The wireless handsets use the H.323 protocol with Nortel Networks extensions (referred to as H.323+), to communicate through the LAN to the ITG line card and Meridian SL-100. The wireless handsets provide wireless voice over Internet Protocol (WVoIP) capability for the 802.11

ITG for Meridian SL-100   (continued)

Wireless IP Gateway for Meridian SL-100. The handsets support simultaneous voice and messaging and deliver Meridian SL-100 features over a LAN.

Supported Meridian SL-100 Features
The 11 Mbps 802.11 wireless handsets will support the following Meridian SL-100 features:

• M0200, CXR, CNF, MSB, CPU, CFU, CFB, CFD, PRK, RAG, SCU, PRL, MWT, MDN (SCA), MSMWI

For information on how these Meridian SL-100 features work with the wireless handsets, refer to NTP 555-3001-851.

Access Points
The Access Points (APs) are third-party 802.11 11Mbps DS APs. The APs connect the LAN and the third-party wireless handsets. The APs convert the wireless Radio Frequency (RF) protocols from the handsets to IP LAN protocols. Each third-party AP has antenna(s), power adaptor, Ethernet and serial ports.

Meridian SL-100 ITG line card
The Meridian SL-100 ITG line card (NTDE52AA) is a 24 port line card that requires two card slots in an IPE shelf. The ITG line card contains the software and firmware for the 802.11 Wireless IP Gateway for Meridian SL-100. The ITG line card acts as the H.323 gateway between the Meridian SL-100 switch and the H.323 wireless handsets providing gatekeeper functionality. To the Meridian SL-100 switch, the ITG line card emulates an Extended Digital Line Card (XDLC). To the wireless handsets, the ITG line card is an H.323 Gateway. Each Meridian SL-100 ITG line card can support a maximum of 24 wireless handsets (one handset for each port on the ITG line card). The ITG line card allows wireless handsets to deliver Meridian SL-100 features over a LAN.

Meridian SL-100 ITG line card provisioning
You can provision an Meridian SL-100 ITG line card using the Meridian SL-100 ITG Configuration Tool or the Command Line interface. Both these methods allow you to log into and configure an Meridian SL-100 ITG line card:

• Merdian SL-100 ITG Configuration Tool - a GUI software tool that you use from your Web browser to access and configure Meridian SL-100 ITG line cards. When installed, access the Meridian SL-100 ITG Configuration Tool, with a Web browser from the server that

contains the tool, or use a Web browser from a client workstation (PC only) that can access the server that contains the tool.

• Command Line interface (CLI) - the CLI provides a text interface that allows you to access and configure Meridian SL-100 ITG line cards. To access the CLI, connect the COM port of a PC running a TTY or VT-100 terminal emulation program to the maintenance port on the Meridian SL-100 ITG line card.

For more information on provisioning a Meridian SL-100 ITG line card, refer to the following customer information:

• NTP 555-3001-206 - 802.11 Wireless IP Gateway for Meridian SL-100

• Meridian SL-100 ITG Configuration Tool online help system - accessed from the ITG Configuration Tool user interface.

 For steps on activating the Meridian SL-100 ITG line card, refer to the "Installation" section of NTP 555-3001-206.

Requirements

You need the following hardware requirements for the 802.11 Wireless IP Gateway for Meridian SL-100:

• 802.11 Wireless IP Gateway for Meridian SL-100 package (NTDE50AA) - includes 24-port ITG line card, PC maintenance cable, E-LAN/T-LAN RS232 port cables, 50-Pin I/O filter connector

• Enhanced controller card - EXPEC (NT7D07BA)

• Maintenance/administration PC (with NIC)

• Intelligent Peripheral Equipment (IPE)

• Third-party 802.11 11 Mbps DS access point (AP)

• Third-party 802.11 11 Mbps DS wireless handsets

• A Windows NT server, or Windows 2000 server with CD-ROM drive

• FTP server (software)

You need the following software requirements for the 802.11 Wireless IP Gateway for Meridian SL-100:

• MSL12 release or higher.

• Merdian SL-100 ITG line card application software - contained on the 802.11 Wireless IP Gateway Meridian SL-100 CD-ROM.

• Merdian SL-100 ITG Configuration Tool software - contained on the 802.11 Wireless IP Gateway Meridian SL-100 CD-ROM.

- Windows NT, or Windows 2000 (loaded on a Server).

- To use the Meridian SL-100 ITG Configuration Tool, you need Microsoft Internet Explorer (version 5.0 or higher) or Netscape Navigator (version 6.2 or higher).

- For Windows NT, you need Microsoft Internet Information server software IIS4.0.

- For Windows 2000, you need IIS5.0 (IIS5.0 comes bundled with Windows 2000).

- Java Runtime Environment software (JRE version 1.2.2 +).

- Third-party configuration software that you use to configure and download the Nortel Networks firmware to the third-party wireless handsets.

- Adobe Acrobat Reader (version 5.0 or higher) for viewing the customer documentation for the 802.11 Wireless IP Gateway for Meridian SL-100.

- FTP server (software)

Limitations and restrictions

The following limitations and restrictions apply to this feature:

- Every Meridian SL-100 ITG line card can support a maximum of 24 handsets.

- There can be an impact on Quality of service when transitions from one codec to another causes compression and decompression. For example, some loss of information occurs when there is a transition from G.711 to G.729, and then back again to G.711.

- Take the Meridian SL-100 ITG line card out of service before you change codecs on the DSPs.

- All APs must be on the same subnet to prevent calls from dropping when the handset user roams from one subnet to the next.

- Line and card diagnostics are supported, but extended diagnostics are not supported. However, you can perform extended diagnostics from the Meridian SL-100 switch.

Interactions

The following interactions apply to this feature:

- You cannot use the # key as a terminating character on the wireless handsets when dialing or activating a Meridian SL-100 feature.

- To enable a user to monitor their desk set using the MSMWI feature, datafill the MSMWI feature on the Meridian SL-100 against key 11.

If you datafill the MSMWI feature against any other key, the feature will not allow a user to monitor their desk set, but instead .

- When you set a line state for the wireless handset to BSY, the message "Set Test" will appear on the display of the wireless handset.

- When you set an ITG line card state to BSY, the message "Disabled Set" appears on the display of the wireless handsets attached to that line card.

Data schema

A59029642 Data Schema

Use table IPSETINV to associate new IP terminals with existing terminals. Use table IPECARDS to assign the ITG line card type supported by the IPE. Use table IVDINV to datafill information about new IP terminals. Use table LNINV to assign LENs against the installed ITG line card type from table IPECARDS.

New or modified tables

Table Name	New, Changed or Deleted	Table Control (New/Old/Unchanged)
IPSETINV	New	New
IPECARDS	Changed	Unchanged
IVDINV	Changed	Unchanged
LNINV	Changed	Unchanged

For more information on table IPECARDS and table IPSETINV, refer to NTP 555-4031-851.

For more information on table IVDINV and table LNINV, refer to NTP 297-8001-351.

Office parameters

None

Service orders

This feature introduces a new Line Class Code (LCC) for the new IP terminals. The new LCC is IPTELSET.

There are no new SERVORD options.

Refer to SERVORD section in NTP 555-4031-802 for more information on LCC IPTELSET.

Alarms

None

Operational measurements

None

Logs

None

Associated Operational measurement registers

None

Command interface

None

AMA/Billing

None

Card Replacement Procedures

None

Mark Non-IVD LENS

Feature name

A59036861 - Mark Non-IVD LENS

Description

The MSL17 software release includes Meridian SL-100 feature, "Mark Non-IVD LENS" (A59036861). This feature creates table LENTRBL. Table LENTRBL stores faulty non-IVD (integrated voice and data) LENs (line equipment numbers). Switch operators manually enter the non-IVD LENs and which they identify and mark as faulty in table LENTRBL. A check in this table will verify that LENs are not faulty SERVORD assigns phones to them.

Functionality

Switch operators place non-IVD LENs that they identify as faulty in the new table, LENTRBL. Table LENTRBL supports all the non-IVD LENs which exist in table LNINV, with its status field as HASU (Hardware Assigned Software Unassigned). ISDN LENs that have no LTIDs associated with them may be entered in table LENTRBL. Table LENTRBL, and the corresponding check mechanism, are provided only on the MSL layer.

All relevant SERVORD commands which require one or more HASU or ISDN LENs as input, check whether the LEN (or LENs) are faulty. If the LEN is determined to be faulty, the SERVORD command fails and displays an error message.

Refer to the Service Orders section of this document for:

- a list of the relevant SERVORD commands
- an example of a scenario where a user attempts to assign a faulty non-IVD LEN through SERVORD

Hardware requirements

None.

Limitations and restrictions

None.

Interactions

None.

Mark Non-IVD LENS   (continued)

Data schema

Feature "Mark Non-IVD LENs" (A59036861) introduces a new table, LENTRBL, to hold faulty non-IVD LENs identified through this activity.

Refer to table LENTRBL in the *Meridian SL-100 Data Schema Reference Manual* for further information regarding the Data Schema changes.

A59036861 Data Schema changes:

New or modified tables

Table Name	NEW, CHANGED or DELETED	Table Control (NEW/OLD/UNCHANGED)
LENTRBL	NEW	NEW

Office Parameters

None.

Service orders

All relevant SERVORD commands which require one or more HASU or ISDN LENs as input check whether the LEN (or LENs) are faulty. If the LEN is determined to be faulty, the SERVORD command fails gracefully and displays the correct error message.

SERVORD commands which will check for faulty Non-IVD LENs (Sheet 1 of 2)

COMMAND	DESCRIPTION
ADD	Prevention with an error display message if LEN exists in LENTRBL.
CLN	Same as above.
CKLN	Same as above.
COPYSET	Same as above.

SERVORD commands which will check for faulty Non-IVD LENs (Sheet 2 of 2)

COMMAND	DESCRIPTION
EST	Same as above, if either the Hunt Pilot or the member LEN is marked bad in LENTRBL.
EXBADD	Same behavior as for ADD if the secondary LENs is marked.
SLT-ATT	Prevention of an attachment of an LTID to a LEN.
NEW	Refer to example below:

Example:

In a scenario where the LEN HOST 00 0 00 04 is added to the new table, LENTRBL, the following is a sample behavior when the user attempts to assign the bad non-IVD LEN HOST 00 0 00 04 through SERVORD.

LEN HOST 00 0 00 4 exists in table LNINV with status HASU.

```
> table lninv
MACHINES  NOT  IN  SYNC  -  DMOS  NOT  ALLOWED
JOURNAL  FILE  UNAVAILABLE  -  DMOS  NOT  ALLOWED
TABLE :    LNINV
> pos   HOST   00  0  00  04
HOST 00  0  00  04    6X21AC     STDLN      HASU    N
NL    Y              NIL
```

Mark Non-IVD LENS   (continued)

LEN HOST 00 0 00 4 is entered into the new table LENTRBL.

```
> table lentrbl
MACHINES  NOT  IN  SYNC  -  DMOS  NOT  ALLOWED
JOURNAL  FILE  UNAVAILABLE  -  DMOS  NOT  ALLOWED
TABLE :    LENTRBL
> add
MACHINES  NOT  IN  SYNC  -  DMOS  NOT  ALLOWED
JOURNAL  FILE  UNAVAILABLE  -  DMOS  NOT  ALLOWED
ENTER  Y  TO  CONTINUE  PROCESSING  OR  N  TO  QUIT
> y
LEN :
> 00  0  00  04
TUPLE  TO  BE  ADDED :
HOST  00  0  00  04
ENTER  Y  TO  CONFIRM,  N  TO  REJECT  OR  E  TO
EDIT
> y
TUPLE  ADDED
```

Attempting to assign the LEN HOST 00 0 00 4 from SERVORD using the NEW command.

```
> servord
SO :
> new
SONUMBER :      NOW   1   7   19   PM
>
DN :
> 9192464567
LCC_ACC :
> pset
GROUP :
> bnr
SUBGRP :
> 0
NCOS :
> 0
KEY :
> 1
RINGING :
. y
LATANAME :
> nillata
LTG :        0
>
LEN_OR_LTID :
> 0   0   0   4
OPTKEY :
> $
COMMAND  AS  ENTERED :
NEW NOW 1  7   19 PM  9192464567   PSET   BNR  0  0  1  Y
NILLATA  0    HOST  0 0    0    0 0    0 4 $
ENTER  Y  TO  CONFIRM, N  TO  REJECT  OR  E  TO  EDIT
> y
LEN : HOST     0 0    0    0 0    0 4   IS  IN TABLE   LEN-
TRBL  AND  MAY  NOT  BE  USED
* * *    ERROR  -  INCONSISTENT  DATA   ***
COMMAND  AS  ENTERED :
NEW NOW 1  7   19 PM  9192464567   PSET   BNR  0  0  1  Y
NILLATA  0    HOST 0 0    0    0 0    0 4 $
ENTER  Y  TO  CONFIRM,  N  TO  REJECT  OR  E  TO  EDIT
```

Alarms

None.

Mark Non-IVD LENS   (end)

Operational measurements

None.

Logs

None.

Associated OM registers

None.

Command interface

None.

AMA/Billing

None.

Query Busy Lamp Field

This module describes the new field that as been added to the Query Group Command Interface (QGRP CI) tool in the CCM17 layer.

Feature name

A59036868 - Query Busy Lamp Field.

Description

As a part of the Query Busy Lamp Field activity, a new command QGRP has been added to the CI system as QGRP Busy Lamp Field (BLF).

Command type

Non-Menu

Command target

SUPERNODE and BRISC processors

Command availability

RES

This is a Query Group Command. The input to this command is a DN (Directory Number). The command provides a list of Line Equipment Numbers (LENS) which are BLF/SBLF (Set-Based Lamp Field) monitoring the input DN. The command also displays the corresponding key and type of monitoring, for example if the monitoring is set_based or group_based.

Command syntax

Command	Parameters and variables
QGRP BLF	<INPUT_DN>

Parameters and variables	Description
BLFDN	Is is the Directory Number for which all the LENS monitoring this DN via BLF/SBLF needs to be listed.

Query Busy Lamp Field   (continued)

Error Messages, description and when occurs

Error message	Description	When occurs
No LEN is BLF monitoring the input DN	This means that the when the search was conducted, there was no result	When there is no LEN which is BLF/SLF monitoring the input DN
KSETFEAT Table is empty	This means that there is no entry present in the table	This is a rare message, only occurs when no keyset exists in the office

Response description and system or user action

Response	Description	System or user actions
No LEN is BLF monitoring the input DN	Search results are empty. This will happen when there is no LEN which is BLF/SFLF monitoring the input DN	None
KSETFEAT table is empty	There is no entry in the table. This is a rare message, and it means that they is no key set present in the office.	None

Usage examples for <QGRP BLF> command

Description of task	To List all the LENS which are BLF/SFLF MOnitoring the INPUT_DN

Usage examples for <QGRP BLF> command

Command	QGRP BLF
Map response:	BLFDN: >9097502531 --- The LENS monitoring the input DN are: LEN KEY TYPE .... HOST 01 1 19 25 5 SET_BASED HOST 01 1 19 31 6 GROUP_BASED --

Hardware requirements

None

Limitations and restrictions

None

Interactions

None

Data schema

None.

Office parameters

None

Service orders

None

Alarms

None

Operational measurements

None

Logs

None

Associated Operational measurement registers

None

Command interface

See previous description.

AMA/Billing

None

Large Scale Message Waiting Indication Reset

Functionality name

A59036875 – Large Scale Message Waiting Indication Reset.

Description

Feature operation

The Large Scale Message Waiting Indication Reset feature enables switch administrators to reset or dequeue message indications at multiple directory numbers (DNs) simultaneously. The feature introduces a Command interface (CI) tool, "MWRESET", for this task. Administrators can save time by using this feature to reset, or dequeue, multiple messages from message waiting queues across a large number of DNs (for example, when the message waiting queue of a DN gets corrupted).

The feature also provides the ability to perform sanity checks on messages in multiple message waiting queues. This functionality deletes and removes corrupt messages.

In this document, the person who leaves a message for another person is called the "requestor"; the person for whom the message is left is the "requestee". When a voice mail subscriber to a message service has their calls forwarded to the service, the voice mail subscriber is the "requestee" of the message. In this case, the message service DN is the "requestor" of the message. The message service DN can include the following:

- Uniform Call Distribution (UCD) group or Hunt group with Simplified Message Desk Interface (SMDI) option

- Intelligent Call Manager (ICM) Automatic Call Distribution (ACD) group or agent

- Primary Rate Interface (PRI) Message Storage and Retrieval (MSR)

The Figure on page 50 shows an example of an SMDI message service DN.

Large Scale Message Waiting Indication Reset   (continued)

SMDI as message service DN

G100269
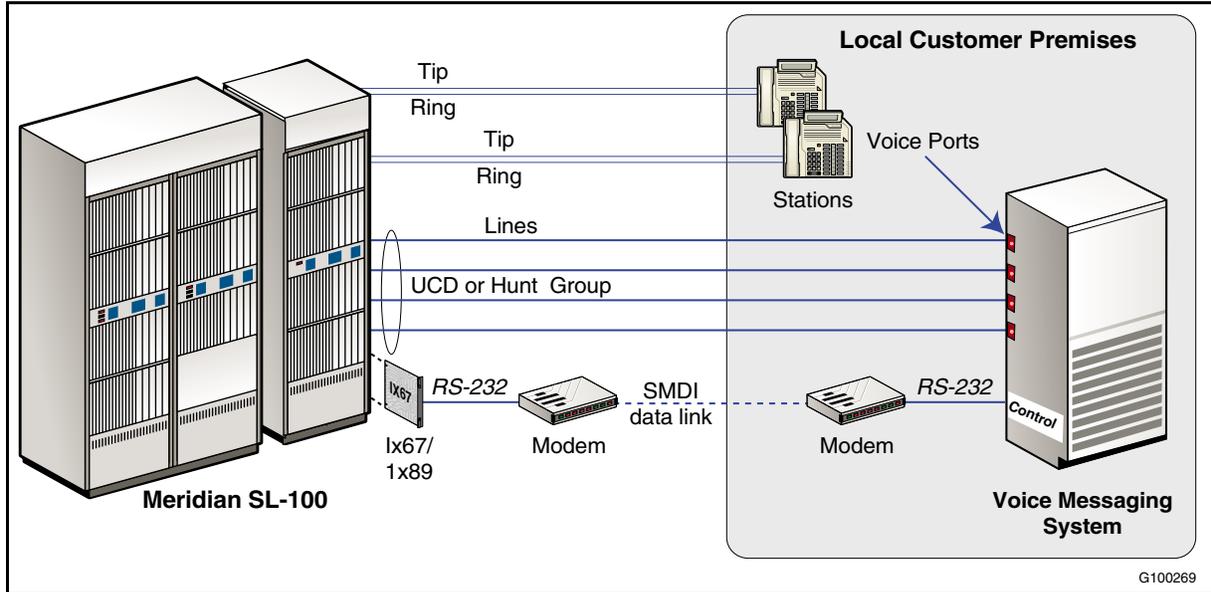
The Meridian SL-100 stores the message that a requestor leaves for a requestee in a queue. This queue is called a "message waiting queue" which belongs to the requestee DN. Each message in the message waiting queue of the requestee DN contains information that identifies the requestor DN of that particular message.

Currently, an administrator can reset or dequeue messages only from the message waiting queue of a single requestee DN. This feature introduces a MWRESET CI tool with sub commands that provide the following enhancements:

- RESET – the ability to reset (that is, remove all messages from) the message waiting queues of multiple requestee DNs.

- DEQUE – the ability to dequeue (that is, remove a specific message from) the message waiting queues of multiple requestee DNs.

- SANITY – the capability to detect and remove corrupt messages from the message waiting queues of requestee DNs.

In each case, the system updates the message waiting indicator for each of the requestee DN to reflect the current state of its message waiting queue.

Large Scale Message Waiting Indication Reset   (continued)

CI MWRESET command summary

RESET

After an administrator executes the RESET command they must identify the requestee DNs to be reset. There are three options available to the administrator (see Table: "MWRESET > RESET > options" on page 51).

MWRESET > RESET > options

Option	Description
RANDOM	If an administrator inputs RANDOM, they can then enter a list of requestee DNs, up to a maximum of 30 DNs. The RESET command removes all the waiting messages from all the requestee DNs entered.
RANGE	If an administrator inputs RANGE, the CI prompts them for a START DN and A STOP DN. The START and STOP DNs must be in the same Numbering Plan Area (NPA) and should have the same office code. The station code of the START DN must not be greater than the station code of the STOP DN. The RESET command then removes the DNs within the range. The range is per order of the DNs in table DNINV in the office. For example, if an administrator enters: **RESET RANGE 9097500000 9097509999** The system removes all the messages from the message waiting queue of all DNs between 9097500000 and 9097509999.
ALL	If an administrator enters ALL, the RESET command removes all the messages waiting from all the requestee DNs in the office (that is, removes all waiting messages in the office). Warning ⚠️ **WARNING:** Use this command with care, as it removes each and every message in the office.

Large Scale Message Waiting Indication Reset   (continued)

DEQUE

After an administrator executes the DEQUE command, the system prompts them to enter a parameter that identifies whether the requestor DN is a nodal DN or network DN. The Table "MWRESET >DEQUE > options" on page 52 shows the options available to the administrator.

MWRESET >DEQUE > options

Option	Description
NODAL	If an administrator inputs NODAL, this indicates that the requestor DN is in the same office as its requestee DN or the office in which the command is executed. The system prompts the administrator for the type of the requestor DN. Valid responses are as follows: • L – the requestor DN is a line • M – the requestor DN is an SMDI message desk • C – the requestor DN is a console group (that is, a customer group and a subgroup) • I – the requestor DN is an ICM agent (that is, a line with Extended Call Management (ECM) line option or an ACD group with the ECM customer group option) • P – the requestor DN is a PRI MSR The administrator must enter one of these single letters, followed by the requestor DN.
NETWORK	If an administrator inputs NETWORK, this indicates that the requestor DN is a different office than its requestee DN or the office in which the command is executed. The system then prompts the administrator to enter the requestor DN.

After an administrator enters either NODAL or NETWORK, the CI asks if the DEQUE command applies to random DNS, a range of DNs, or all DNs in the office. From here on operation is similar to the RESET sub command, except that the DEQUE command removes a specific message from the message waiting queues, instead of all the messages.

For example, an administrator enters the following to remove a message queued by a DN from a range of numbers in a different office than the requestee DN:

DEQUE NETWORK 103481111 RANGE 9097500000 9097509999

The system removes the message enqueued by DN 103481111 from all DNs between 9097500000 and 9097509999.

SANITY

After an administrator executes the SANITY command, the system prompts them to enter a parameter that identifies the requestee DNs that the system should check the message waiting queues for sanity. This parameter provides the administrator with the same three choices as the RESET prompt. However, instead of removing messages from the message waiting queues, the system checks the messages for sanity. Subsequently if the system finds a corrupted message, it dequeues it from the DN's message waiting queue.

Large Scale Message Waiting Indication Reset   (continued)

Hardware requirements

Large Scale Message Waiting Indication Reset has no hardware requirements.

Limitations and restrictions

None.

Interactions

None.

Data schema

MSL17 and XPM17 software.

Office parameters

The following office parameters apply to Large Scale Message Waiting Indication Reset:

- When entering DNs against the RANDOM option, the administrator must take care that the command does not exceed 80 characters on a line. If the command exceeds 80 characters, the administrator must continue the command on another line by entering a "+" sign on the current command line that exceeds 80 characters. The CI will ignore DNs that exceed 80 characters on any line.

- When entering DNs against the RANDOM option, the administrator must use quotation marks (" ") for any DN less than 32767. If not, the system only operates on DNs entered before this DN. It ignores all subsequent DNs.

  For example, an administrator enters:

  ```
  MWRESET:
  >reset random 7502531 7502532 3276 6321216
  EITHER incorrect optional parameter(s) OR too many parameters.
  ```

  In this example, the system will operate only DNs 7502531 and 7502532; it ignores DNs 3276 and 6321216.

- There is no guarantee that the SANITY command will detect every type of corruption.

- The RESET, DEQUE, SANITY commands will operate on lines with CALLOG line option and thus CALLOG message queues.

- The DEQUE command ignores Executive Message Waiting (EMW) messages in a SAVED or DELETED state.

Large Scale Message Waiting Indication Reset   (continued)

- The RESET, DEQUE and SANITY commands are not applicable to lines with the Advanced Intelligent Network Message Waiting (AINMWT) line option.

- As MWRESET commands scan a large number of lines in the office, they take time to complete. The delay depends on the number of lines to be scanned.

Service orders

Large Scale Message Waiting Indication Reset does not affect SERVORD.

Alarms

None.

Operational measurements

None.

Logs

shows the logs that the Large Scale Message Waiting Indication Reset feature introduces. The log title for Large Scale Message Waiting Indication Reset logs is "MWR".

MWR logs

MWR101	
Description	The system generates this log whenever it executes a RESET, DEQUE or SANITY command of MWRESET. This log shows the command was executed and the parameter type of the command (that is, RANDOM, RANGE or ALL).
Event type	Whenever an administrator executes a RESET, DEQUE or SANITY command of MWRESET.
Format	**MWR101**<mmmdd hh:mmm:ss ssdd> INFO MWRESET COMMAND EXECUTED. COMMAND : <com_type> PARAMETER: <parm_type>

Examples	`MWR101 JUN27 20:25:46 6400 INFO MWRESET Command Executed.`
	`COMMAND : RESET PARAMETER: RANDOM`
	
	`MWR101 JUN27 20:25:47 6489 INFO MWRESET Command Executed.`
	`COMMAND : DEQUE PARAMETER: RANDOM`
	
	`MWR101 JUN27 20:25:48 6402 INFO MWRESET Command Executed.`
	`COMMAND : SANITY PARAMETER: RANDOM`

MWR102	

Large Scale Message Waiting Indication Reset   (continued)

MWR logs

Description	The system generates this log whenever the SANITY command of MWRESET finds a message waiting Feature Queue (FTRQ) enqueued against a requestee DN to be corrupt. This log indicates that the FTRQ has been dequeued.
Event type	Whenever an administrator executes the SANITY command and the system finds a FTRQ to be corrupt and dequeues the FTRQ.
MWR102 (Continued)	
Format	**MWR102** <mmmdd hh:mmm:ss ssdd> INFO FTRQ DEQUEUED <Requestee DN> Reason : <Dequeue Reason>

Examples	`MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09`
	`DN 9097502531     KEY  1`
	`Reason : Requestor Corrupted`
	
	`MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09`
	`DN 9097502531     KEY  1`
	`Reason : Data Corrupted`
	
	`MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09`
	`DN 9097502531     KEY  1`
	`Reason : MCOS Corrupted`

Command interface

The Large Scale Message Waiting Indication Reset feature introduces a new CI resident directory: MWRESET.

Directory: MWRESET

This directory provides commands for large scale resetting, dequeuing and sanity checking of messages from message waiting queues of multiple requestee DNs.

The MWREST directory provides the following sub commands:

- RESET
- DEQUE
- SANITY
- HELP
- QUIT

Procedures

This section provides procedures for using the RESET, DEQUE, SANITY and HELP sub commands.

Large Scale Message Waiting Indication Reset   (continued)

Using RESET
Follow the steps in "Procedure: Reset multiple message waiting queues" on page 57 to reset the message waiting queues of multiple requestee DNs.

Large Scale Message Waiting Indication Reset   (continued)

Procedure: Reset multiple message waiting queues

From the MAP CI:

1   Enter:

    `MWRESET`

    The MSRESET directory opens.

2   Enter:

    `RESET`

    The CI prompts you to enter one of RANDOM, RANGE, or ALL.

If	Do
you want to reset a message in random message waiting queues	Go to **Step 3**.
you want to reset a message in a range of message waiting queues	Go to **Step 4**.
you want to reset a message in all message waiting queues	Go to **Step 5**.

3   Perform the following step to reset random multiple message waiting queues. Enter:

    `RESET RANDOM + the DN of the message waiting queue you want to reset`

    Note: You can enter multiple DNs.

Example:

`RESET RANDOM 7502531 7502532 7502539 7502537`

4   Perform the following step to reset a range of multiple message waiting queues.

    a   Enter:

        `RESET RANGE`

    b   The CI responds:

        Enter: <START DN>

    c   Enter the first DN in the range. For example:

        `6321201`

    d   The CI responds:

        Enter: <STOP DN>

    e   Enter the second DN in the range. For example:

        `6321209`

        Note: You can enter multiple ranges.

    Example:

    `RESET RANGE 6321201 6321209`

Large Scale Message Waiting Indication Reset   (continued)

f   The CI responds:

```
------------------------------------------------------
START DN:
NPA: 103  OFC:    632   STN:    1201

STOP DN:
NPA: 103  OFC:    632   STN:    1209
------------------------------------------------------
```

All the DNs, within the above Range will be operated upon
DO YOU AGREE ?
Please confirm (“YES”, “Y”, “NO”, or “N”):

Enter:

Y or YES

if the range is correct.

Or enter:

N or No

if the range is incorrect.

5   Perform the following step to reset all message waiting queues.

a   Enter:

RESET ALL

b   The CI responds:

This command will remove each message waiting request in the office.
ARE YOU SURE ?
Please confirm (“YES”, “Y”, “NO”, or “N”)

Enter:

Y or YES

if you want to reset all.

Or enter:

N or No

if you do not want to reset all.

6   To return to CI environment from MWRESET directory, enter:

QUIT

This procedure is now complete

Large Scale Message Waiting Indication Reset   (continued)

RESET error messages –The table, "RESET error messages" on page 59 shows the error messages that the CI prints if an invalid entry is made when using the RESET command.

RESET error messages

The DN XXXXXXX is invalid for this office.	
Meaning	The DN entered as a part of RANGE or RANDOM option is not present in the office.
Action	For the RANGE option, you must to enter a correct DN (that is, a DN that exists in the office). For the RANDOM option, this error message is for information purposes and this DN is excluded from the list of DNs you enter.
The DN XXXXXXX is ambiguous. **Please Use the Full National DN (NPA+DN)**.	
Meaning	The START or STOP DN entered as a part of RANGE option is ambiguous (that is, more than one NPA has DN XXXXXXX).
Action	Re enter the DN including its NPA, office code and station code.
The DN XXXXXXX is ambiguous.	
Meaning	The DN entered as a part of RANDOM option is ambiguous (that is, more than one NPA has DN XXXXXXX).
Action	This error message is for information purpose, the RANDOM option ignores this particular DN.
The START and STOP DNs must be in the same NPA.	
Meaning	The START and STOP DNs entered as a part of RANGE option are not in the same NPA.
Action	Enter START and STOP DNs that have the same NPA.
The START and STOP DNs must have the same office code.	
Meaning	The START and STOP DNs entered as a part of RANGE option do not have the same office code.
Action	Enter START and STOP DNs that have same office code. The NPAs should also be the same as described in the previous message.
The Station Code of START DN should not be greater than the Station Code of STOP DN.	
Meaning	The station code of the START DN has to be less than or equal to the station code of the STOP DN when you select the RANGE option.
Action	Select START and STOP DNs so that START DN comes before STOP DN in table DNINV.

Large Scale Message Waiting Indication Reset   (continued)

RESET error messages

Please enter the DN with its NPA.	
Meaning	You entered a local DN that was determined to have a nil office code.
Action	Enter the local DN along with its NPA.

Using DEQUE
Follow the steps in "Procedure: Dequeue messages in multiple message waiting queues" on page 60 to dequeue the message waiting queues of multiple requestee DNs.

Procedure: Dequeue messages in multiple message waiting queues

From the MAP CI:

1   Enter:

   MWRESET

   The MSRESET directory opens.

2   Enter:

   DEQUE

   The CI prompts you to select whether the requestor DN is nodal or network.

If	Do
the requestor DN is in the same office as its requestee DN or the office in which the command is executed	Go to **Step 3**.
the requestor DN is in a different office as its requestee DN or the office in which the command is executed	Go to **Step 4**.

3   The requestor DN is nodal.

   a   Enter:

      NODAL

      The CI prompts you to select the type of requestor DN.

   b   Enter one of the following options:

      L – if the requestor DN is a line.

      M – if the requestor DN is an SMDI message desk.

      C – if the requestor DN is a console group.

      I – if the requestor DN is an ICM agent.

Large Scale Message Waiting Indication Reset   (continued)

P – if the requestor DN is a PRI MSR.

c   Proceed to **Step 5**.

4   The requestor DN is network.

    a   Enter:

        `Network`

    b   Proceed to **Step 5**.

5   The system prompts you to enter the Requestor DN.

Enter:

XXXXXX

where:

xxxxxx is the Requestor DN.

6   *The CI prompts you to enter one of RANDOM, RANGE, or ALL.*

If	Do
you want to dequeue a message in random message waiting queues	Go to **Step 7**.
you want to dequeue a message in a range of message waiting queues	Go to **Step 8**.
you want to dequeue a message in all message waiting queues	Go to **Step 9**.

7   Perform the following step to dequeue random multiple message waiting queues.

Enter:

    `DEQUE RANDOM + the DNs of the message waiting queue you want to dequeue`

    Note: You can enter multiple DNs.

Nodal example (requestor DN is a line):

    `DEQUE NODAL L 10348111 RANDOM 7502531 7502532 7502537`

Network example:

    `DEQUE NETWORK 10348111 RANDOM 7502531 7502532 7502537`

8   Perform the following step to dequeue a range of multiple message waiting queues.

    a   Enter:

        `DEQUE RANGE`

    b   The CI responds:

        Enter: <START DN>

    c   Enter the first DN in the range. For example:

        `6321201`

Large Scale Message Waiting Indication Reset   (continued)

d   The CI responds:

Enter: <STOP DN>

e   Enter the second DN in the range. For example:

`6321209`

Nodal example (requestor DN is a line):

`DEQUE NODAL L 10348111 RANGE 6321201 6321209`

Network example:

`DEQUE NETWORK 10348111 RANGE 6321201 6321209`

f   The CI responds:

--
START DN:
NPA: 103   OFC: 632   STN: 1201

STOP DN:
NPA: 103   OFC: 632   STN: 1209
--

All the DNs, within the above Range will be operated upon
DO YOU AGREE ?
Please confirm ("YES", "Y", "NO", or "N"):

Enter:

`Y or YES`

if the range is correct.

Or enter:

`N or No`

if the range is incorrect.

9   Perform the following step to dequeue all message waiting queues.

a   Enter:

`DEQUE ALL`

Nodal example (requestor DN is a line):

`DEQUE NODAL 10348111 L ALL`

Network example:

`DEQUE NETWORK 10348111 ALL`

b   The CI responds:

This command will remove the Requestor from each Requestee's queue.
ARE YOU SURE ?
Please confirm ("YES", "Y", "NO", or "N")

Enter:

`Y or YES`

if you want to dequeue all.

Large Scale Message Waiting Indication Reset   (continued)

Or enter:

N or No

if you do not want to dequeue all.

10   To return to CI environment from MWRESET directory, enter:

QUIT

This procedure is now complete

DEQUE error messages – Several DEQUE error messages that the CI prints if an invalid entry is made are similar to those that appear when using the RESET command (see Table: "RESET error messages" on page 59). In addition, Table: "DEQUE error messages" on page 63 shows the error messages that are unique to DEQUE.

DEQUE error messages

REQUESTOR DN is not a Line.	
Meaning	The requestor DN entered after specifying the DEQUE command to operate on a NODAL requestor of LINE type is not a line.
Action	Enter a valid line DN.

REQUESTOR DN is not a Message Desk.	
Meaning	The requestor DN entered after specifying the DEQUE command to operate on a NODAL requestor of SMDI message DESK type is not an SMDI message Desk DN (that is, a UCD or Hunt Group with the SMDI option).
Action	Enter a valid SMDI Message Desk DN (that is, a UCD or Hunt Group with SMDI option).

The ACD Group does not have ECM Customer Group option.	
Meaning	The requestor DN entered after specifying the DEQUE command to operate on a NODAL requestor of ICM type is an ACD Group DN, but it does not has ECM customer group option in CUSTNTWK table.
Action	Enter a valid ICM ACD Group DN (that is, an ACD Group DN with ECM customer group option in CUSTNTWK table).

The line does not have ECM option.	
Meaning	The requestor DN entered after specifying the DEQUE command to operate on a NODAL requestor of ICM type does not have ECM line option assigned to it.
Action	Enter a valid ICM agent DN (that is, a DN with ECM line option assigned to it).

Large Scale Message Waiting Indication Reset   (continued)

DEQUE error messages

REQUESTOR DN is not a line or ACD Group DN.	
Meaning	The requestor DN after specifying the DEQUE command to operate on a NODAL requestor of ICM agent type is not an line with ECM line option or an ACD Group with ECM customer group option.
Action	Enter a line with ECM line option or an ACD Group with ECM customer group option.
Invalid Customer Group parameter.	
Meaning	The customer group entered after specifying the DEQUE command to operate on a NODAL requestor of a console group type is not a valid customer group.
Action	Enter a valid customer group.
Invalid sub group parameter.	
Meaning	The sub group of a customer group entered after specifying the DEQUE command to operate on a NODAL requestor of a console group type is not a valid sub group.
Action	Enter a valid subgroup of the previously entered customer group.
Consoles not supported by Customer Group.	
Meaning	The console group (customer group and sub group) entered after specifying the DEQUE command to operate on a NODAL requestor of a console group type does not have a console.
Action	Enter a console group (customer group and its sub group) that has got consoles.
PRI MSR DN has a non-numeric digit.	
Meaning	The PRI MSR DN entered after specifying the DEQUE command to operate on a NODAL requestor of a PRI MSR DN contains a non numeric character.
Action	Enter a valid PRI MSR DN.
Invalid PRI MSR DN.	
Meaning	The PRI MSR DN entered after specifying the DEQUE command to operate on a NODAL requestor of a PRI MSR DN type is not a PRI MSR DN.
Action	Enter a valid PRI MSR DN.
The Network Requestor DN can have a maximum of 10 digits.	
Meaning	The Network DN entered after specifying the DEQUE command to operate on a Network type of requestor contains more than 10 digits.
Action	Enter a Network Requestor DN with maximum 10 digits.

Large Scale Message Waiting Indication Reset   (continued)

DEQUE error messages

Invalid Network Requestor DN.	
Meaning	The Network DN entered after specifying the DEQUE command to operate on a Network type of requestor contains an invalid character.
Action	Enter a Network Requestor DN that only consists of digits.

Large Scale Message Waiting Indication Reset   (continued)

Using SANITY
Follow the steps in "Procedure: Use the SANITY sub command" on page 66 to perform SANITY checks on the message waiting queues of multiple requestee DNs.

Procedure: Use the SANITY sub command

From the MAP CI:

1   Enter:

   MWRESET

   The MSRESET directory opens.

2   Enter:

   SANITY

   The CI prompts you to enter one of RANDOM, RANGE, or ALL.

If	Do
you want to perform a sanity check on random message waiting queues	Go to **Step 3**.
you want to perform a sanity check on a message in a range of message waiting queues	Go to **Step 4**.
you want to perform a sanity check on a message in all message waiting queues	Go to **Step 5**.

3   Use the following step to perform a sanity check on random multiple message waiting queues.
   Enter:

   SANITY RANDOM + the DN of the message waiting queue you want to check

   Note: You can enter multiple DNs.

   Example:

   SANITY RANDOM 7502531 7502532 7502539 7502537

4   Perform the following step to perform a sanity check on a range of multiple message waiting queues.

   a   Enter:

      SANITY RANGE

   b   The CI responds:

      Enter: <START DN>

   c   Enter the first DN in the range. For example:

      6321201

   d   The CI responds:

Enter: <STOP DN>

e   Enter the second DN in the range. For example:

   6321209

Example:

   SANITY RANGE 6321201 6321209

f   The CI responds:

   ```
   ------------------------------------------------------
   START DN:
   NPA: 103   OFC:    632   STN:    1201

   STOP DN:
   NPA: 103   OFC:    632   STN:    1209
   ------------------------------------------------------
   ```

   All the DNs, within the above Range will be operated upon
   DO YOU AGREE ?
   Please confirm ("YES", "Y", "NO", or "N"):

   Enter:

   Y or YES

   if the range is correct.

   Or enter:

   N or No

   if the range is incorrect.

5   Perform the following step to perform a sanity check on all message waiting queues.

a   Enter:

   SANITY ALL

b   The CI responds:

   This command will perform a sanity check on each message waiting request in the office.
   ARE YOU SURE ?
   Please confirm ("YES", "Y", "NO", or "N")

   Enter:

   Y or YES

   if you want to perform a sanity check on all.

   Or enter:

   N or No

   if you do not want to perform a sanity check on all.

6   To return to CI environment from MWRESET directory, enter:

   QUIT

────────────────   *This procedure is now complete*   ────────────────

SANITY error messages – SANITY error messages that the CI prints if an invalid entry is made are similar to those that appear when using the RESET command (see Table on page 59).

Using HELP

Follow the steps in Procedure on page 68 to access help when using the MWRESET commands.

Procedure: Access the CI MWRESET Help

From the MAP CI:

1 Enter:

MWRESET

The MSRESET directory opens.

2 Enter:

HELP

The CI displays a brief description of all the MWRESET commands.

This procedure is now complete

AMA/Billing

Large Scale Message Waiting Indication Reset does not affect billing.

Local Ten-Digit Display

Feature name

A59037865 - Local Ten-Digit Display

Description

Meridian SL-100 feature, "Local Ten-Digit Display" (A59037865), is included in the MSL17 software release. This feature allows a called party's display phone to display the area code (three-digit number) along with the DN (seven-digit number) of the calling party when:

• the call is a non-intragroup call from a PRI or CCS7 trunk

• both calling and called parties are in the same SNPA

• both calling and called parties are utitilizing calling line identification (CLID)

This feature removes the current restriction that only the DN (seven digit number) of the calling party is displayed on the called party's phone where:

• the call is a non-intragroup incoming call from a PRI or CCS7 trunk

• both the called and calling parties are in the same local area code

Functionality

The activation of this feature is controlled by the Software Optionallity Control (SOC) utility. This utility controls the secure activation or use of options in a Product Computing Module Load (PCL). Features (which comprise the option in the PCL) register their SOC information (feature name, state of usage support procedures) with the SOC utility at initial program load (IPL). When a user requests an option state change, the SOC utility activates or deactivates the optional software. The new SOC ID is MSL00132. The SOC name is "10 Digit Local Disp".

Note: When SOC MSL00132 is enabled, ten digits are displayed. When SOC MSL00132 is not enabled, seven digits are displayed. This feature allows users to display seven or ten digits on a switch-wide basis. This feature does not, however, allow some customer groups to display seven digits while others display ten digits on the same switch.

Local Ten-Digit Display   (continued)

The following table provides Software Optionality information for the Local Ten-Digit Display feature.

Software Optionality Control

SOC option name:	FTRLCL10
SOC option title:	10 Digit Local Disp
SOC option control type:	STATE
New SOC option?	YES
SOC option order code	MSL00132
Option defined in DRU:	MSL
Affected products:	MSL17

For more information on the SOC interface and how to activate a feature, refer to the *Software Optionality Control User Manual*.

Hardware requirements
None.

Limitations and restrictions
Applies only to PRI and CCS7 non intragroup calls.

Interactions
None.

Data schema
None.

Office Parameters
None.

Service orders
None.

Local Ten-Digit Display   (continued)

Alarms

None.

Operational measurements

None.

Logs

None.

Associated OM registers

None.

Command interface

None.

AMA/Billing

None.

Buzz Tone Duration

Functionality name

S60352150 – Buzz Tone Duration.

Description

The Buzz Done Duration feature provides an administrator with the flexibility to configure buzz tones with varying durations. Prior to this MSL17 feature, buzz tones, used for things such as incoming calls to a telephone's secondary DN or for repeated alerts, had a set duration of two seconds.

Switch administrators can now select between the following four buzz tone durations that users hear during an active call:

- 500 milliseconds
- 750 milliseconds
- one second
- two seconds

Feature operation

Switch administrators use the Software Optionality Control (SOC) utility to activate the Buzz Tone Duration feature. The SOC utility controls the activation, or use of options, in a Product Computing Module Load (PCL). During initial program load (IPL), the features, which comprise the option in the PCL, register their SOC information with the SOC utility. This information includes the feature name and the state of usage support procedures.

When the SOC Right to Use (RTU) is set to yes and the SOC status is "ON", the administrator can select one of the four buzz tone durations. To select a Buzz tone duration, the administrator uses the Command Interface (CI) command "SETBUZZ".

Table "SOC summary" on page 73 shows how this feature impacts Software Optionality Control.

SOC summary

Item	Description
SOC option name	NMSLBUZZ
SOC option title	Buzz Tone Length

SOC summary

Item	Description
SOC option control type	STATE
New SOC option?	YES
SOC option order code	MSL00133
Option defined in DRU	MSL
Affected products	MSL17

Hardware requirements

The Buzz Tone Duration feature has no hardware requirements.

Operating parameters

The following operating parameters apply to the Buzz Tone Duration feature:

• This feature only applies to Integrated Voice and Data (IVD) sets. The IVD sets that are impacted by this feature are the M2009, M2112, M2018, M3000, M2317, M2008, M2616, M2016S, M2216A, M2216B, M2616CT, M3903, M3904 and M3905.

• The new SOC is implemented switch-wide, as opposed to by customer group.

• Prior to the upgrade to MSL17, sites requesting this functionality require an XPM patch to implement the correct buzz tone durations. Between the time that these sites install XPM17 and MSL17, this patch must be in effect. After the upgrade to MSL17 software, the Buzz Tone Duration feature implements the necessary functions to accommodate all sites.

• Once implemented, future upgrades that include MSL17 or later default to a Buzz Tone Duration of 500 milliseconds for an active SOC or two seconds for an inactive SOC.

Interactions

None.

Buzz Tone Duration   (continued)

Datafill

MSL17 and XPM17 software.

Service Orders

The Buzz Tone Duration feature does not affect SERVORD.

Operational measurements

None.

Logs

None.

User interface

The Buzz Tone Duration feature introduces the new CI command "SETBUZZ" that creates a new resident directory: BUZZTONEDIR.

Directory: BUZZTONEDIR/SETBUZZ>

Follow the steps in procedure: "Configure the buzz tone duration" on page 75 to enter and exit the BUZZTONEDIR directory, and change the buzz tone duration.

Configure the buzz tone duration

1   At the CI: prompt enter:

   `CI:> SETBUZZ`

   The BUZZTONE prompt appears.

2   To modify the buzz tone duration, at the BUZZTONE prompt enter:

   `BUZZTONE:>duration xxxx`

   where: XXXX = 500ms; 750ms; 1sec; 2sec. The duration parameter is mandatory; you must enter one of these character strings.

   Note: You cannot use the DURATION command, unless you turn on SOC ID MSL00133. If you do not turn on SOC ID MSL00133, the following message appears:

   Access denied: you do not have authority to use this command. SOC ID MSL00133 must be activated to gain access to this command."

   After you have SOC ID MSL00133 activated and enter a correct response to the Duration command, the following message appears (for example, you enter duration 500ms):

   "The Buzz Tone duration has been set to 500 ms."

   This applies to all of the other valid durations as follows:

   "The Buzz Tone duration has been set to 750 ms."

   "The Buzz Tone duration has been set to 1 second."

"The Buzz Tone duration has been set to 2 seconds."

> **Note:** If you have SOC ID MSL00133 activated, but do not enter one of the four correct responses to the duration prompt, the CI shows the following message:
>
> *"Invalid Option, please choose:*
>
> *500ms, 750ms, 1sec or 2sec"*

3   To return to the CI environment, at the BUZZTONE prompt enter:

`BUZZTONE:>quit`

or

`BUZZTONE:> LEAVE`

This procedure is now complete

Follow the steps in procedure: "Query the BUZZTONE command" on page 76 to query the CI command at the Command level and the Subcommand level:

Query the BUZZTONE command

1   At the CI: prompt enter:

`Q SETBUZZ`

The following message appears:

"CI BUZZ TONE Command - subcommands are:
DURATION <duration>
QUIT or LEAVE"

2   At the BUZZTONE prompt enter:

`Q DURATION`

The following message appears:

"Command to set Buzz Tone duration
Duration: 500ms | 750ms | 1sec | 2sec"

This procedure is now complete

Billing

The Buzz Tone Duration feature does not affect billing.

MSL Calling Number Delivery for Public Network

Feature name

MSL Calling Number Delivery for Public Network (S10479659)

Description

Feature S10479659 controls the Calling Number Delivery (CND) functionality on MSL loads using Public network calls that have a maximum of nine digits.

Functionality

The Software Optionality Control (SOC) utility controls the use of this feature.

- When the STATE of SOC #MSL00137 is set to "ON", CND will display the calling party's directory number (DN) on incoming calls from DN's that have a maximum of nine digits on public network calls.

- When the STATE of SOC #MSL00137 is set to "IDLE" CND will display "UNKNOWN NUMBER" on incoming calls from DN's that have a maximum of nine digits on public network calls.

For more information on the SOC interface and how to activate a feature, refer to the *Software Optionality Control User Manual*.

Hardware requirements

None.

Limitations and restrictions

MSL Calling Number Delivery for Public Network only affects public network calls. For information about CND functionality on private calls that have a maximum of nine digits, please refer to office parameter CND_PRIV_LESS_THAN_10_DIGITS *(NA DMS-100 Office Parameters Reference Manual)*.

This feature is only applicable to CLASS sets with displays.

Interactions

None.

Data schema

None.

Office Parameters

None.

Service orders

None.

Alarms

None.

Operational measurements

None.

Logs

None.

Associated OM registers

None.

Command interface

None.

AMA/Billing

None.

Commands

MSL17 Commands

Release MSL17

The MSL17 features which affect the Meridian SL-100 Command Interface (CI) are as follows:

- 10 Digit Local Display - (A59037865) The activation of this feature is controlled by the Software Optionallity Control (SOC) utility.

- Identifying GIC Members (A59028432) - The output of the QGRP when used to query the GIC group members displays directory number and name of the member.

- Individual MADN Hold - (A59028416) - The status of the MWINK option is displayed in the output of QMADN command.

- QHASU Enhancements (A59028425) - (Query Hardware Assigned Software Unassigned) allows you to display a summary or detailed printout of hardware assigned and software unassigned LENs.

- Query Busy Lamp Field (A59036868) - This feature introduces a group query command. The command lists of all the LENs which are BLF (Busy Lamp Field)/SBLF (Set-Based Lamp Field) monitoring a particular DN.

The following sections provide detailed information regarding these Commands.

Command QGRP

This module describes changes to CI Command QGRP in the MSL17 release.

CI COMMAND: QGRP

The QGRP Command displays information on the members of a specific group identified by group type.

Description

The QGRP Command is a query command that are often used in conjunction with Service order (SO) commands to determine status.

The MSL17 release enhances the QGRP Command in querying Group Intercom (GIC) members in a group. The enhanced command provides output that contains more information about the members of a specific GIC group, including directory numbers (DN) and names.

Feature impact

Feature 59028432 does not modify the input or responses of the QGRP Command.

Feature 59028432 modifies only the output of QGRP. In addition to displaying the Line Equipment Number (LEN), number of member in the group, and the key number, the new output displays directory numbers (DN) and names of the members of a particular GIC group.

The following shows an example of the QGRP Command, and its output before the modification.

Command QGRP   (continued)

Example of the QGRP Command and output before modification

```
>qgrp
GRP_TYPE:
>gic
LEN_OR_LTID:
>0 0 9 5
KEY
>10


GIC GROUP
-----------

HOST 00 0 09 05 KEY 10 MEMBER 20

The number of members in the GIC GROUP "ABCD" is 1
```

The modified QGRP Command has a new prompt that allows the user to decide whether to sort by LEN or Member Number in the output (SORT_BY_LEN_OR_MEM:).

The following is an example of the new QGRP Command prompt:

Example of the new QGRP Command prompt.

```
>qgrp
GRP_TYPE:
>gic
LEN_OR_LTID:
>0 0 9 5
KEY:
>10
SORT_BY_LEN_OR_MEM: LEN
>LEN
```

The following is an example of the modified QGRP Command output sorted by LEN:

Example of the modified QGRP Command output sorted by LEN

```
GIC GROUP
---------

HOST 00 0 09 05 KEY 10 MEMBER 20

DN 9192465011 NAME JAMES BOND
DN 9192315666 NAME JENNY CHU

HOST 00 01 09 05 KEY 8 MEMBER 21

DN 6132311111 NAME SALLY BENN
DN 6132314242 NAME CHARLIE TRUT

The number of members in the GIC GROUP "ABDC" is 2
```

The following is an example of the modified QGRP Command output
sorted by Member Number:

**Example of the modified QGRP Command output sorted by
Member Number**

```
GIC GROUP
---------

MEMBER 20 HOST 00 0 09 05 KEY 10
DN 9192465011 NAME JAMES BOND
DN 9192315666 NAME JENNY CHU

MEMBER 21 HOST 00 01 09 05 KEY 8
DN 6132311111 NAME SALLY BENN
DN 6133214242 NAME CHALIE TRUT

The number of members in the GIC GROUP "ABCD" is 2
```

Release history

MSL17

Feature 59028432 (Identifying Group Intercom (GIC) Members)
modifies the output of QGR.

Limitations and restrictions

None.

Syntax

The QGRP Command is unchanged.

This module describes changes to QMADN Command in the MSL17
release.

CI COMMAND: Query Multiple Appearance Directory Number (QMADN)

Description

The QMADN Command provides information on multiple appearance
directory numbers.

Note: The following documentation discusses only the changes in
the output of QMADN that occur because of Individual MADN hold
(feature 59028416). For information on the QMADN Command
please refer to the North American DMS-100 SERVORD Reference
Manual

The QMADN Command is a command interpreter (CI) command which
displays data regarding MADN groups and MADN members. The
QMADN Command is invoked at a CI prompt using the command
'qmadn' followed by 1 to 9 operations:

```
QMADN    DISPLAY <dn>
          DISPGRP <group#>
          DISPALL
          DISQUICK
          LCMCNT [<site>] <frame><unit>
          OFCCNT
          GRPNUM <dn>
          VERIFY <dn>
          VERIFY ALL
```

Feature impact

Feature 59028416 does not modify the input or responses of the
QMADN Command.

Feature 59028416 modifies only the output of QMADN. The status of
the MWINK option is displayed in the output of QMADN Command.

Command QMADN   (continued)

The following notes apply to the MWINK option:

- the MWINK option, when assigned to a MADN group, is displayed with the QDN and QGRP Commands for ISDN, EBS and 500/2500 sets.

- MWINK will appear with a QLEN on a 500/2500 set.

- The following applies with a QLEN on an EBS set and QLT on an ISDN set:

  — MWINK will appear only for the MADN DN that is assigned to Key 1 of the set

  — when a MADN DN is assigned to any key other than key 1 on an EBS or an ISDN set, the QLEN and QLT Command will not show the MWINK option. This occurs because several MADN groups could have appearances on the set and each could have a separate MADN group information.

The following example shows both a screen dump of the QMADN display with MWINK information.

Example of QMADN output with MWINK

```
>QMADN DISPLAY 4811520

================================================
Group:-32768    Type:SCA    Size:2
State:IDLE -> Act :1
PRV :Off -> Ctlr:1
MDN_3WC: OFF
MRF:N
BRG:Y -> Tone:Y -> Size:30
DNL:Y   CFW :N  SSC :N
EHLD:Y   MREL:N  MLAMP:N  MWINK:Y  MDN_CSA:0
================================================
<Member#1>
HOST 00 0 08  10  DN 9194811520 KEY 1
TID - NN:43  TN:267
Prim:y  XPM :y Type :EBS   Map :Y.
Ring:RNG Name:n CFMDN:N
Chnl:N  RNOC:N  WORT :N  Asso:Y  Mtc :N
SDB: Y  Idx: -32768  IBNOPB: SCA= Y MCA= N EXB= N CACH= N
................................................
<Member#2>
HOST 00 1 01 05  DN 9194811520 KEY 2
TID - NN: 44   TN: 38
Prim:N XPM :Y  Type :EBS   Map :Y
Ring:RNG Name:N CFMDN:N
Chnl:N  RNOC:N  WORT :N  Asso:Y  Mtc :N
SDB: Y  Idx: -32768  IBNOPB: SCA= Y MCA= N EXB= N CACH= N
................................................
```

Release history

MSL17

Feature 59028416 (Individual MADN Hold) modifies the output of QMADN.

Limitations and restrictions

None.

Syntax

The QMADN Command is unchanged.

This module describes changes to the QHASU Command in the MSL17 release.

CI COMMAND: QHASU

The QHASU (Query Hardware Assigned Software Unassigned) Command displays a summary or detailed printout of hardware assigned and software unassigned LENs (Line Equipment Number).

Description

The MSL17 release enhances the QHASU Command to provide Meridian SL-100 the flexibility of querying all variants of a card type.

Feature impact

Feature 59028425 modifies the input and output of the QHASU Command in querying a card type. The enhancement allows wild-card input with partial card names. The output can display all the cards with the same partial names.

The following shows an example of the QHASU Command before the modification.

Command QHASU   (continued)

Example of the QHASU Command before modification

```
>qhasu
LINE_MODULE_RANGE: ALL
>r
FROM_LM:
>00 0
TO_LM:
>00 0
LINE_DRAWER_RANGE: ALL
>r
LINE_DRAWER_NUMBER:
>4
LINE_DRAWER_NUMBER:
>5
LINE_DRWAER_NUMBER:
>6
LINE_DRAWER_NUMBER:
>$
CARD CODE: NIL_CC
>6X17AC
GDN:N
>y
SUMMARY OR DETAIL: S
COMMAND AS ENTERED
QHASU R HOST 00 0 HOST 00 0
R (4) (5) (6) $ 6X17AC Y S
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>y
```

The following shows an example of the QHASU Command output before the modification.

Example of the QHASU output before modification

```
SUMMARY OF HARDWARE ASSIGNED SOFTWARE UNASSIGNED LEN --
HASU

FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AC OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0
```

The enhancement allows all the HASU LENs with 6X17** card code to be displayed. For example, 6X17AA, 6X17AC.

The following shows an example of the QHASU Command after the modification.

Example of the QHASU Command after modification

```
>qhasu
LINE_MODULE_RANGE: ALL
>r
FROM_LM:
>00 0
TO_LM:
>00 0
LINE_DRAWER_RANGE: ALL
>r
LINE_DRAWER_NUMBER:
>4
LINE_DRAWER_NUMBER:
>5
LINE_DRWAER_NUMBER:
>6
LINE_DRAWER_NUMBER:
>$
CARD CODE: NIL_CC
>6X17
GDN:N
>y
SUMMARY OR DETAIL: S
COMMAND AS ENTERED
QHASU R HOST 00 0 HOST 00 0
R (4) (5) (6) $ 6X17AC Y S
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>y
```

The following shows an example of the QHASU Command output before the modification.

Command QHASU   (end)

Example of the QHASU output after modification

```
SUMMARY OF HARDWARE ASSIGNED SOFTWARE UNASSIGNED LEN --
HASU

CARD 6X17AC
------------
FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AC OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0

CARD 6X17AA
------------
FROM HOST 00 0 TO HOST 00 0 4 5 6
CARTYPE 6X17AA OPT GND
COUNT BY LINE DRWAERS
4 5 6
LM : HOST 00 0 COUNT: 0
0 0 0

TOTAL: 0
```

Release history

MSL17

Feature 59028425 (QHASU Enhancements) modifies the input and output of the QHASU Command in querying of LENs (Line Equipment Numbers).

Limitations and restrictions

None.

Syntax

The QHASU Command syntax is not changed.

Command QGRP BLF

This module describes the Query Group Busy Lamp Field (QGRP BLF) Command in the MSL17 release.

CI COMMAND: Query Busy Lamp Field

As a part of the Query Busy Lamp Field activity, a new command QGRP has been added to the CI system as QGRP Busy Lamp Field (BLF).

Description

This is a Query Group Command. The input to this command is a DN (Directory Number). The command provides a list of Line Equipment Numbers (LENS) which are BLF/SBLF (Set-Based Lamp Field) monitoring the input DN. The command also displays the corresponding key and type of monitoring, for example if the monitoring is set_based or group_based.

Feature impact

Feature 59036868

Release history

MSL17

Feature 59036868 (Query Busy Lamp Field)

Limitations and restrictions

None

Syntax

See the example below for command input and response.

Usage examples for <QGRP BLF> command

Command	QGRP BLF
Map response:	BLFDN: >9097502531 --- The LENS monitoring the input DN are: LEN KEY TYPE .... HOST 01 1 19 25 5 SET_BASED HOST 01 1 19 31 6 GROUP_BASED ---

Data schema

MSL17 Data schema Tables
Release MSL17

The MSL17 features which affect Meridian SL-100 Data schema tables are as follows:

- e-mobility 802.11 Wireless IP Gateway on Meridian SL-100 - (A59029642) introduces table IPSETINV to associate new IP terminals with existing terminals. This feature results in changes to table IPECARDS and table LNINV. Refer to the Nortel Networks Technical Publications (NTP) - Data Schema Reference Manual for further information.

- Table to Mark Analog LENS - (A59036861) introduces a new table LENTRBL to hold faulty, non-IVD LENS. Refer to the Nortel Networks Technical Publications (NTP) - Data Schema Reference Manual for further information.

The following sections provide detailed information regarding thr Data schema tables.

Logs

MSL17 Logs

Release MSL17

The MSL17 features which affect Meridian SL-100 Log reports are as follows:

- MWR Log report introduced by - A59036875 Large Scale MWI.

The following sections provide detailed information regarding these Log reports.

MWR101

Explanation

The system generates this log whenever it executes a RESET, DEQUE or SANITY command of MWRESET. This log shows the command was executed and the parameter type of the command (that is, RANDOM, RANGE or ALL).

Format

The format for log report MWR101 is as follows:

MWR101<mmmdd hh:mmm:ss ssdd> INFO MWRESET COMMAND EXECUTED. COMMAND : <com_type> PARAMETER: <parm_type>

Examples

Examples of log report MWR101 are as follows:

MWR101 JUN27 20:25:46 6400 INFO MWRESET Command Executed.
COMMAND : RESET PARAMETER: RANDOM

MWR101 JUN27 20:25:47 6489 INFO MWRESET Command Executed.
COMMAND : DEQUE PARAMETER: RANDOM

MWR101 JUN27 20:25:48 6402 INFO MWRESET Command Executed.
COMMAND : SANITY PARAMETER: RANDOM

Field descriptions

The following table describes each of the fields in the log report:

Field	Value	Description
MWRESET COMMAND EXECUTED	Constant	Indicates that a command of MWRESET has been executed.

Field	Value	Description
Command	RESET, DEQUE, SANITY	This field indicates the executed command of the MWRESET increment. The command can be either RESET, DEQUE, or SANITY
Parameter	RANDOM, RANGE, ALL	This field indicates the type of parameter on which the RESET, DEQUE or SANITY command of MWRESET command is executed. The parameter type can be RANDOM, RANGE, or ALL.

Actions

None.

Associated OM registers

None.

MWR102

Explanation

The system generates this log whenever the SANITY command of MWRESET finds a message waiting Feature Queue (FTRQ) queued against a requestee DN to be corrupt. This log indicates that the FTRQ has been dequeued.

Format

The format for log report MWR102 is as follows:

MWR102 <mmmdd hh:mmm:ss ssdd> INFO FTRQ DEQUEUED <Requestee DN> Reason : <Dequeue Reason>

Examples

Examples of log report MWR102 are as follows:

MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09   DN 9097502531   KEY 1
Reason : Requestor Corrupted

MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09   DN 9097502531   KEY 1
Reason : Data Corrupted

MWR102 JUN28 20:25:46 6308 INFO FTRQ DEQUEUED HOST 01 0 19 09   DN 9097502531   KEY 1
Reason : MCOS Corrupted

Field descriptions

The following table describes each of the fields in the log report:

Field	Value	Description
FTRQ DEQUEUED	Constant	This field indicates that a corrupted message waiting FTRQ has been dequeued by the SANITY command of MWRESET increment.

Field	Value	Description
Requestee DN	The LEN, DN, and KEY of the requestee DN.	This field indicates the DN against which the corrupted message waiting FTRQ was enqueued, before it was dequeued by the SANITY command of MWRESET increment.
Reason	Requestor corrupted, Data corrupted, or MCOS corrupted	This field indicates the corruption reason for which the FTRQ was dequeued. The value Requestor corrupted indicates that the identity of the Requestor DN stored in the FTRQ was corrupted. The value Data corrupted indicates that the requestee type stored in the FTRQ was corrupted and the value MCOS corrupted indicates that the MCOS of the message in the FTRQ was corrupted.

Actions

None.

Associated OM registers

None.

Office parameters

MSL17 Office parameters
Release MSL17

This chapter contains Office parameters (OPARMS) additions and changes for the MSL17 release. The MSL17 features which affect Meridian SL-100 OPARMS are as follows:

- There are no new or changed Office parameters.

The following sections provide detailed information regarding this OPARM.

Service orders

MSL17 Service orders

Release MSL17

This chapter contains Service Order (SO) information for MSL17.

The new feature, Internet Telephony Gateway (ITG) for Meridian SL-100 (A59029642), introduces the new CCM Line Class Code (LCC) IPTELSET, which affects the SERVORD command NEW.

The following section provides information on the new LCC IPTELSET and how to use it with the SO command NEW.

Command MADN WINK

Description

This feature provides a different wink to a MADN member of SCA and CACH MADN groups that has placed a call with an external party on HOLD.

The MWINK option provides a slower, distinctive wink for the MADN hold controller (the person who has placed a call with an external party on hold). The slower wink will easily distinguish the MADN HOLD controller from other members of the MADN group.

MDN option must be assigned to a line before MWINK option is assigned. MWINK option can only be assigned to MADN SCA and CACH groups. If the MADN group type is changed, an error message is prompted and the change is rejected. The MWINK option is assigned to the MADN group by assigning it to any member of the MADN group. Similarly, the MWINK option can be removed from the MADN group by deassigning it from any member of the MADN group.

This feature can be provisioned on the following telephone sets:

- Meridian Business Set (KSET)

- Integrated Business Network (IBN)

- Integrated Services Digital Network (ISDN)

- Residential Enhanced Services (RES)

The MWINK option, when assigned to a MADN group, causes the MADN group member who has placed a call with an external party on HOLD (the MADN HOLD controller) to wink at a slower rate than other members of the MADN group. Without MWINK option assigned to the MADN group, all the members of the MADN group including the MADN HOLD controller wink in an identical manner.

MWINK affects the SERVORD commands ADO, DEO, and NEW. The examples that appear on the following pages illustrate the way MWINK option is assigned to and removed from a MADN group through SERVORD commands. Any member of the MADN group can be used to assign and remove MWINK option from a MADN group.

Command MADN WINK   (continued)

Service order command ADO for assigning MWINK along with MDN option

```
>:SO
>ADO
SONUMBER:  NOW  76  213PM
>
DN OR LEN
>2461170
OPTKEY
>2
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>Y
DIR_NUMBER:      9192461170
>
DENIAL_TRMT:
>TONE
BRIDGING
>Y
CONF_SIZE:
>30
BRIDGE_TONE:
>Y
INIT STAT:
>PRIVATE
PRL MODE:
>AUTO
OPTKEY:
>2
OPTION:
>MWINK
OPTKEY:
>$
COMMAND AS ENTERED:
ADO NOW 76 2 13 PM 2461170 (2 MDN SCA Y 9192461170 TONE Y 30
Y PRIVATE AUTO) (2 MWINK) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED
SHOULD ORDER BE DONE ANYWAY? (Y OR N)
>Y
```

SO Command ADO for assigning MWINK option to existing MADN group

```
>ADO
SONUMBER:  NOW  76  213PM
>
DN OR LEN
>4811520
LEN:
>0 0 8 10
OPTKEY:
>1
OPTION:
>MWINK
OPTKEY:
>$
COMMAND AS ENTERED:
ADO NOW 76 2 13 PM 4811520 HOST OO O O8 10( 1 MWINK ) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED
SHOULD ORDER BE DONE ANYWAY? (Y OR N)
>Y
```

Example of the option in no-prompt mode (SO command ADO)

```
>ADO $ 4811520 0 0 8 101 MWINK $ YY
COMMAND AS ENTERED:
ADO NOW 76 2 13 PM 4811520 HOST 00 0 8 10 ( 1 MWINK ) $
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED
```

Service order Command DEO to remove MWINK from an existing MADN group

```
>DEO
SONUMBER: NOW 76 2 13 PM
>
DN_OR_LEN:
>4811580
>LEN
>0 0 8 10
>OPTKEY:
>1
>OPTION:
>MWINK
>OPTKEY:
>$
COMMAND AS ENTERED:
DEO NOW 76 2 13 PM 4811520 HOST 00 0 08 10 ( 1 MWINK ) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLLOWED
SHOULD ORDER BE DONE ANYWAY? (Y OR N)
>Y
```

Example of the option in no-prompt mode (SO command DEO)

```
>SO
>DEO $ 4811520 0 0 8 10 1 MWINK $ YY
>COMMAND AS ENTERED:
DEO NOW 76 2 13 PM 4811520 HOST 00 0 08 10 1 ( 1 MWINK ) $
MACHINES ARE OUT OF SYNC, SERVICE ORDERS NOT ALLOWED
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED
```

Service order Command NEW for provisioning a new MADN group an assigning MWINK option

```
SO:
>NEW
SONUMBER:   NOW 1 1 11  AM
>
DN:
>4811520
LCC_ACC:
>M5312
GROUP:
>LONS634
SUBGRP:
>0
SNPA:
>103
KEY:
>1
RINGING:
>Y
LTG:   0
>
LEN_OR_LTID:
>00 0 02 03
OPTKEY:
>1
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>Y
DENIAL_TRMT:
>TONE
BRIDGING:
>Y
CONF_SIZE:
>25
>Y
(CONTINUED ON NEXT PAGE)
```

Service order Command NEW (continued)

```
(CONTINUED FROM PREVIOUS PAGE)

BRIDGE_TONE:
>Y
INIT_STAT:
>PRI_MODE
>MANUAL
OPTKEY:
>1

OPTION:
>MWINK
OPTKEY:
>$
COMMAND AS ENTERED
NEW NOW 1 1 11 AM6340203 M5312 LONS634 O O 103 1 Y O HOST 00
```

Prompts

Table 1: Input prompts for use only in Translation, Card, Servord, Oparms, Alarm and Recover modules

Prompt	Correct input	Explanation	Areas affected by prompts
OPTION	MWINK	Assign MWINK to MADN group	MADN options for SCA and CACH MADN groups

Table 2: Class code compatibility for use only in Translation, Card, Servord, Oparms, Alarm and Recovery modules

Line class code	Compatibility?
MDC:	Yes
RES:	Yes
IBN:	Yes
ISDN:	Yes

Assignability

The functionalities that follow apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

The following prerequisite applies to the option:

- MDN option must be assigned to the line before: MWINK option is assigned to the line or MDN and MWINK options are assigned to the line in the same command

Notes

The following notes apply to the option:

- the MWINK option, when assigned to a MADN group, is displayed with the QDN and QGRP Commands for ISDN, EBS and 500/2500 sets.
- MWINK will appear with a QLEN on a 500/2500 set.
- The following applies with a QLEN on an EBS set and QLT on an ISDN set:

  — MWINK will appear only for the MADN DN that is assigned to Key 1 of the set

  — when a MADN DN is assigned to any key other than key 1 on an EBS or an ISDN set, the QLEN and QLT command will not show the MWINK option. This occurs because several MADN groups could have appearances on the set and each could have a separate MADN group information.

Feature identification

The feature number for Individual MADN Hold is A59028416.

ITG -Internet Telephony Gateway

Description

The Internet Telephony Gateway (ITG) for Meridian SL-100 introduces the new CCM Line Class Code (LCC) IPTELSET for MSL17.

Use LCC IPTELSET to designate the type of IP terminal when you create a new IP terminal using the SERVORD command NEW.

This feature introduces no new SERVORD options.

For more information on the SERVORD command NEW and LCC IPTELSET, refer to NTP 297-8001-808.

Example: SO command NEW with IPTELSET

"Example of SO command NEW in prompt-mode. IPTELSET designates the type of IP terminal. ds4046 indicates a wireless handset." on page 116 shows datafill for the SERVORD command NEW in no-prompt mode. The user is creating a new IP terminal. At the LCC_ACC prompt, the user enters IPTELSET to designate the type of new IP terminal. At the IP_TERM prompt, the user enters ds4046 to indicate a wireless handset.

ITG -Internet Telephony Gateway   (continued)

Example of SO command NEW in prompt-mode. IPTELSET designates the type of IP terminal. ds4046 indicates a wireless handset.

```
>:SO:
>NEW
SONUMBER:   NOW  2  2 20 PM
>
DN:
>8058674137
LCC_ACC:
>IPTELSET
IP_TERM:
>ds4046
RINGTYPE:
>fh
HANDS_FREE:
>N
GROUP:
>ntirich
SUBGRP:
>0
NCOS:
>64
SNPA:
>972
KEY:
>1
RINGING:
>Y
LATANAME:
>nillata
LEN_OR_LTID:
>prf4 3 0 0 20
OPTKEY:
>1
OPTION:
>m0200
OPTKEY:
>$
COMMAND AS ENTERED:
NEW NOW  2 2 20 PM 8058674137 IPTELSET DS4046 FH N NTIRICH
0 64 972 1 Y NILLATA PRF4 03 0 0 20 (1 M0200) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
2002/02/20 15: 19: 37.671 WED.   JOURNAL FILE RECORD ID 25522
```

ITG -Internet Telephony Gateway   (continued)

The Figure on page 117 shows datafill for the SERVORD command NEW in no-prompt mode. The user creates a new IP terminal by entering IPTELSET to designate the type of new IP terminal and ds4046 to indicate a wireless handset.

Example of the SO command NEW in no-prompt mode. IPTELSET designates the type of IP terminal.

> >**NEW** NOW 2 2 20 PM 8058674137 **IPTELSET DS4046** FH N NTIRICH
> 0 64 972 1 Y NILLATA PRF4 3 0 0 20 1 M0200 $
> COMMAND AS ENTERED:
> NEW NOW 2 2 20 PM 8058674137 IPTELSET DS4046 FH N NTIRICH
> 0 64 972 1 Y NILLATA PRF4 3 0 0 20 1 M0200 $

Prompts

The table: "New input for the LCC_ACC prompt and the IP_TERM prompt using the SO command NEW" on page 117 gives the new input for the LCC_ACC prompt and the IP_TERM prompt using the SO command NEW.

New input for the LCC_ACC prompt and the IP_TERM prompt using the SO command NEW

Prompt	Correct input	Explanation	Areas affected by prompts
LCC_ACC:	IPTELSET	Use IPTELSET to designate the type of new IP terminal.	
IP_TERM:	DS4046	DS4046 indicates a wireless terminal	

Feature identification

The feature number for Internet Telephony Gateway (ITG) is A59029642.

Meridian SL-100

Commercial Systems

Reference Guide

NORTEL NETWORKS™