



Nortel Communication Server 1000

Element Manager System Reference - Administration

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May 2007

Standard 01.01. This document is up-issued to support Communication Server 1000 Release 5.0. This document contains information previously contained in the following legacy document, now retired: *Element Manager System Administration (553-3001-332)*.

August 2005

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September 2004

Standard 2.00. This document is up-issued for Communication Server 1000 Release 4.0.

October 2003

Standard 1.00. This document is a new NTP for Succession 3.0. It was created to support a restructuring of the Documentation Library. This document contains information previously contained in the following legacy document, now retired: *Element Management (553-3023-222)*. Some content from *Element Management (553-3023-222)* also appears in *Succession 1000 Element Manager: Installation and Configuration (553-3001-232)*.

4 Revision history

Contents

New in This Release	11
Introduction	13
Contents	13
Element Manager overview	13
Element Manager Launched from Enterprise Common Manager	15
Key features	15
Signaling Server	16
Call Server and Media Gateway	17
IP Line 5.0/Voice Gateway	17
How to get help	19
Contents	19
Getting help from the Nortel Web site	19
Getting help over the telephone from a Nortel Solutions Center	19
Getting help from a specialist by using an Express Routing Code	19
Getting help through a Nortel distributor or reseller	20
How to use Element Manager	21
Contents	21
Launching Element Manager	21
Navigation	23
Configuring data	26
Logging out	26
Links	27
Contents	27
Introduction	27
Virtual Terminals	27
Bookmarks	30
System	35
Contents	35
Introduction	36
Events	36
SNMP	39
Maintenance	41

- Centralized Software Upgrade 51
- Emergency Services Diagnostics 74
- Loops (Common Equipment) 114
- Superloops 115
- Tone Senders and Detectors 116
 - Digitone Receivers 117
 - Multi Frequency Receivers 119
 - Class Modem Units 121
 - Extended Dial Tone Detectors 123

IP Network **125**

- Contents 125
- Introduction 125
- IP Network 125
 - Node Configuration 125
- Zones 143
- Network Address Translation (NAT) 150
- Quality of Service Thresholds (QoS) 151
- Personal Directories 152
- Interfaces 152
 - Value Added Server 152
 - Property Management System 155
- Engineered Values 155
- Emergency Services 161
 - Service Parameters 161
 - Access Numbers and Routing 162
 - Response Locations 167
 - Subnet Information 170
 - Dynamic Identification 173
 - Virtual Office Phone 175
- Software 178
 - Software 183

Customers, Routes and Trunks **187**

- Contents 187
- Introduction 187
- Customers 187
 - Application Module Link 189
 - Call Detail Recording 190
 - Call Party Name Display 191
 - Call Redirection 192
 - Centralized Attendant Service 194
 - Controlled Class of Service 196
 - Flexible Feature Codes 197
 - Feature Options 198

Listed Directory Numbers	199
ISDN and ESN Networking	200
Night Service	203
Feature Packages	204
Intercept Treatments	206
Multi Party Operations	208
Recorded Overflow Announcement	208
Timers	209
Route and Trunk Configuration	210
Dialing and Numbering Plans	229
Contents	229
Introduction	229
Electronic Switched Network	229
Network Routing Service and NRS Manager	232
Flexible Code Restriction	237
Incoming Digit Translation	240
Phones	245
Contents	245
Introduction	245
Database Update	246
Station Fast Sync feature	246
Search Phones	247
Add Phones	248
Move Phones	253
Retrieve Phones	254
Delete Phones	255
Swap Phones	256
Designation Strips	257
Reports	259
Tools	261
Contents	261
Introduction	261
Backup and Restore	261
Date and Time	270
Network Time Synchronization	272
Logs and Reports	273
Operational Measurements	278
Security	285
Certificate Management	287
Contents	287
Overview	287

Creating a new certificate request	288
Processing a pending certificate response	289
Deleting a pending certificate request	290
Creating a self-signed certificate	290
Assigning an existing certificate	291
Importing a certificate and its private key	292
Creating a certificate renew request for the current certificate	292
Removing the current certificate	293
Replacing the current certificate	293
Exporting the current self-signed certificate	294
Exporting the current certificate and its private key	295
SSL/TSL security configuration	295

Support **297**

Contents	297
Introduction	297
Help	297
Release Notes	298

Appendix A **299**

Index **301**

Procedures

Procedure 1	Launching Element Manager on VxWorks	21
Procedure 2	Adding a Virtual Terminal session	28
Procedure 3	Editing an existing Virtual Terminal session	30
Procedure 4	Creating a new Bookmark	31
Procedure 5	Editing the properties of an existing Bookmark	32
Procedure 6	Performing AML commands	45
Procedure 7	Disabling AML	46
Procedure 8	Enabling AML	46
Procedure 9	Performing the TEST command	48
Procedure 10	Performing TRAC commands	49
Procedure 11	Performing TRAD commands	50
Procedure 12	Performing TRAT commands	50
Procedure 13	Performing TRIP commands	51
Procedure 14	Performing Upgrade commands	52
Procedure 15	Performing Enabling and Disabling commands	53
Procedure 16	Performing Status commands	53
Procedure 17	Performing Clock Controller maintenance activities	55
Procedure 18	Performing Core Common Equipment Status commands	56
Procedure 19	Performing Core Common Equipment CNI commands	57
Procedure 20	Performing Core Common Equipment test commands	57
Procedure 21	Performing Core Common Equipment miscellaneous commands	58
Procedure 22	Performing Core Common Equipment status health commands	58

Procedure 23	Performing Core Common Equipment Geographic Redundancy commands	59
Procedure 24	Performing Core Input/Output diagnostic commands	60
Procedure 25	Performing D-channel status commands	62
Procedure 26	Performing D-channel disable commands	63
Procedure 27	Performing D-channel enable commands	63
Procedure 28	Performing D-channel test commands	64
Procedure 29	Performing D-channel commands	64
Procedure 30	Performing D-channel Expansion MSDL commands	66
Procedure 31	Performing D-channel Expansion disable commands	66
Procedure 32	Performing D-channel Expansion enable commands	67
Procedure 33	Performing maintenance activities on a Digital Trunk Card	68
Procedure 34	Performing maintenance activities on a Channel	69
Procedure 35	Performing maintenance activities on a Digital Trunk Route	70
Procedure 36	Performing maintenance activities on a card	70
Procedure 37	Performing status commands on a digital trunk	72
Procedure 38	Performing disable commands on a digital trunk	72
Procedure 39	Performing enable commands on a digital trunk	73
Procedure 40	Performing miscellaneous commands on a digital trunk	74
Procedure 41	Performing Emergency Response Location commands	75
Procedure 42	Performing Subnet Information commands	76
Procedure 43	Performing Dynamic Location Identification commands	76
Procedure 44	Performing Link status commands	78
Procedure 45	Performing server status commands	78
Procedure 46	Performing IP status commands	79
Procedure 47	Performing print commands	79
Procedure 48	Performing Etherset Count commands	80
Procedure 49	Performing Reset IP Phone commands	80
Procedure 50	Performing IPMG commands	81
Procedure 51	Performing RFC2833 commands	81
Procedure 52	Performing maintenance activities for Zone Attributes	83
Procedure 53	Performing maintenance activities for Zone Levels	83
Procedure 54	Performing Input/Output TTY commands	84
Procedure 55	Performing Input/Output Printer commands	85
Procedure 56	Performing Input/Output MDSL commands	85
Procedure 57	Performing Intergroup status commands	87
Procedure 58	Performing Intergroup disable commands	88
Procedure 59	Performing Intergroup enable commands	88
Procedure 60	Performing Intergroup test commands	89
Procedure 61	Performing Intergroup miscellaneous commands	90
Procedure 62	Performing MSDL diagnostic activities	92
Procedure 63	Performing Multifrequency Sender loop commands	93
Procedure 64	Performing Multifrequency Sender card commands	94
Procedure 65	Performing Multifrequency Sender alarm commands	94
Procedure 66	Performing Multifrequency Signaling card commands	96
Procedure 67	Performing Multifrequency Signaling unit commands	96
Procedure 68	Performing Multifrequency Signaling miscellaneous commands	97
Procedure 69	Performing Network and Peripheral maintenance activities	102

Procedure 70	Performing Network and Signaling diagnostic activities	105
Procedure 71	Performing TMDI diagnostic activities	106
Procedure 72	Performing Tone and Digit diagnostic activities	108
Procedure 73	Performing Trunk card commands	110
Procedure 74	Performing Trunk unit commands	110
Procedure 75	Performing Trunk customer route commands	111
Procedure 76	Performing Trunk miscellaneous commands	111
Procedure 77	Performing Zone maintenance activities	113
Procedure 78	Importing node files	127
Procedure 79	Patching of the MG 1000S	181
Procedure 80	Loading and Activating PEP Settings to the Call Server	184
Procedure 81	Adding or editing a Threshold Set Index	227
Procedure 82	Add Single Phone	248
Procedure 83	Add Multiple Phones	251
Procedure 84	Move Phones	254
Procedure 85	Retrieve Phones	254
Procedure 86	Delete Phones	256
Procedure 87	Swap Phones	257
Procedure 88	Creating Designation Strips	257
Procedure 89	Creating a new certificate request	288
Procedure 90	Processing a pending certificate response	289
Procedure 91	Deleting a pending certificate request	290
Procedure 92	Creating a self-signed certificate	290
Procedure 93	Assigning an existing certificate	291
Procedure 94	Importing a certificate and its private key	292
Procedure 95	Creating a certificate renew request	292
Procedure 96	Removing the current certificate	293
Procedure 97	Replacing the current certificate	294
Procedure 98	Exporting the current self-signed certificate	294
Procedure 99	Exporting the current certificate	295

New in This Release

**WARNING**

Do *not* contact Red Hat for technical support on your Nortel version of the Linux base operating system. If technical support is required for the Nortel version of the Linux base operating system, contact Nortel technical support through your regular channels

In Communication Server 1000 Release 5.0., Element Manager can be deployed above the Enterprise Common Manager (ECM) framework. This deployment of Element Manager runs on a Linux-based operating system.

Element Manager supports the Emergency Services Client Mobility feature, which allows users to manage the location of phones, and to process emergency calls according to the caller's current data.

Element Manager enables users to configure telephones for the Call Server. The following Phones functions can be performed using Element Manager:

- Search Phones
- Add Phones
- Retrieve Phones
- Delete Phones
- Swap Phones
- Move Phones
- Edit Phones
- Designation Strip
- Reports

In Release 5.0, Element Manager supports additional features used for the configuration of Customer data. These include:

- Application Module Link
- Call Detail Recording
- Call Party Name Display

12 New in This Release

- Call Redirection
- Centralized Attendant Service
- Controlled Class of Service
- Recorded Overflow Announcement
- Timers

Introduction

**WARNING**

Do *not* contact Red Hat for technical support on your Nortel version of the Linux base operating system. If technical support is required for the Nortel version of the Linux base operating system, contact Nortel technical support through your regular channels

Contents

This section contains information on the following topics:

["Element Manager overview" \(page 13\)](#)

["Element Manager Launched from Enterprise Common Manager" \(page 15\)](#)

["Key features" \(page 15\)](#)

["Signaling Server" \(page 16\)](#)

["Call Server and Media Gateway" \(page 17\)](#)

["IP Line 4.5/Voice Gateway" \(page 17\)](#)

Element Manager overview

Element Manager is a Web-based user interface used to configure and maintain CS 1000 components.

There are five scenarios by which Element Manager can be deployed:

- Element Manager on ISP1100 server, coresident with Network Routing Service (NRS)
- Element Manager on COTS IBM server that resides on Signaling Server
- Element Manager on COTS HP server that resides on Signaling Server
- Element Manager on COTS IBM server on Enterprise Common Manager Framework

- Element Manager on COTS HP server on Enterprise Common Manager Framework

Table 1 "Element Manager deployment scenarios" (page 14) further illustrates the deployment scenarios for Element Manager.

Table 1
Element Manager deployment scenarios

Hardware Platform	Operating Environment	Scope
ISP1100 CPPM HP DL320 IBM 360	VxWorks OS	Configuration of one IP system, generally the system that is associated with the signaling server software that runs on the same platform. Note: NRS supports co-residency in some situations depending on the engineering of the network.
HP IBM	ECM framework Linux OS	Management of: <ul style="list-style-type: none"> • Features: <ul style="list-style-type: none"> — Single Sign On through ECM security domain — Configuration of telephones Note: In this deployment, Element Manager does not co-reside with the NRS application

Element Manager can also be launched from Telephony Manager.

When Element Manager is deployed on Linux operating systems, it is launched from the Enterprise Common Manager framework. For more information, see *Enterprise Common Manager Fundamentals (NN43001-116)*.

For further information on installing the Linux operating system, see *Linux Platform Base and Applications Installation and Commissioning (NN43001-315)*.

Element Manager can also be accessed through Telephony Manager (TM). The TM navigator includes integrated links to each network system and their respective instances of Element Manager.

Element Manager is a simple and user-friendly Web-based interface that supports a broad range of system management tasks, including:

- configuration and maintenance of IP Peer and IP Telephony features
- configuration and maintenance of traditional routes and trunks
- configuration and maintenance of numbering plans
- configuration of Call Server data blocks
- maintenance commands, system status inquiries, backup and restore functions
- patch upload, patch activation, firmware download

Element Manager has many features to help administrators manage systems with greater efficiency. Examples are as follows:

- Web pages provide a single point-of-access to parameters that were traditionally available through multiple overlays.
- Parameters are presented in logical groups to increase ease-of-use and speed-of-access.
- The *hide or show information* option enables administrators to see information that relates directly to the task at hand.
- Full-text descriptions of parameters help administrators reduce configuration errors.
- To simplify response selection, Configuration screens offer preselected defaults, drop-down lists, checkboxes, and range values.

Note: All screen captures in this chapter are applicable to CS 1000E and CS 1000M systems, unless otherwise indicated. In some cases, Web pages are different, depending on whether they are presented on a Large or a Small System. Where there is no indicator, the screen and commands are available on both. When the screen or command is specific to a Large or a Small System, this is indicated.

Element Manager Launched from Enterprise Common Manager

This document focuses on the Element Manager application launched from Enterprise Common Manager.

Except where indicated, the text and Figures in this document refer to Element Manager when launched from Enterprise Common Manager.

Key features

The following functional areas can be accessed using Element Manager:

- **Links** — Provides access to Virtual Terminal sessions.

- **IP Network** — Helps the user access all functions related to managing IP Networks. These functions include data and physical structure configuration, high-profile operational activities, and administrative/maintenance functions.
- **System** — Provides access to system-wide configuration and basic hardware/software management, including supported maintenance overlays and configuration.
- **Customers** — Allows the user to view and edit customer properties.
- **Routes and Trunks** — Provides access to all functions required to create and manage trunks.
- **Dialing and Numbering Plans** — Provides a means to configure all Electronic Switched Network (ESN) data blocks for the Call Server, as well as to access configuration for the Network Routing Service (NRS). When deployed on VxWorks, this menu provides links to NRS Manager, which performs configuration of NRS services, SIP/Redirect services, and H.323 gatekeeper.
- **Phones**— Enables users to configure phones for the Call Server.
- **Tools** — Provides general administrative tools, features and functions, and allows the user to find and access task-related pages, including Reports.
- **Security** — Allows the user to perform Security functions, including IP Security.

Signaling Server

Element Manager enables administrators to perform the following activities on the Signaling Server:

- reset
- access the maintenance window
- download new IP Phone firmware
- upgrade IP Phone firmware
- view report log
- view Operational Measurements (OM) data
- Telnet
- patching
- increase Virtual Trunk capacity and perform configuration tasks on Virtual Trunks
- configure and manage the Web-based services for Personal Directory, Redial List, and Callers List

- add, delete, view, and edit Signaling Server information

Call Server and Media Gateway

For Call Server and Media Gateway, Element Manager enables administrators to configure and manage the following data:

- Configuration Record
- Customer Data Block
- Route Data Blocks
- Trunks
- ESN Data Block
- Patching

To learn more about parameters that can be configured and managed in Element Manager, see *System Management Reference (NN43001-600)*.

IP Line 5.0/Voice Gateway

Element Manager enables administrators to perform the following activities on the IP Line 5.0/Voice Gateway Media Cards:

- View and configure Simple Network Management Protocol (SNMP) parameters and add IP addresses for forwarding SNMP traps.
- View and configure Voice Gateway profile data.
- View and edit Quality of Service (QoS) parameters.
- Use Local Area Network (LAN) configuration to configure the Management LAN (ELAN) subnet, Telephony LAN (TLAN) subnet, and Routes.
- View and edit Simple Network Transfer Protocol (SNTP) Server and Client information.
- View and configure file server access for downloading firmware for IP Phones.
- View and select the Loss and Level Plan for the country. For more information about selecting the Loss and Level Plan for the country, see *Transmission Parameters Reference (NN43001-282)*.
- Add, remove, view, and edit card properties of Voice Gateway Media Cards.

To learn more about IP Line 5.0 and Voice Gateway Media Card parameters that can be configured and managed in Element Manager, see *IP Line Fundamentals (NN43100-500)*.

The following maintenance activities are supported when using Element Manager for IP Line 5.0 and Voice Gateway Media Card:

- reset Voice Gateway Media Card
- enable/disable Voice Gateway Media Card
- access the maintenance window to the Voice Gateway Media Card
- download new loadware/firmware for upgrades
- run Syslog reports
- obtain Operational Measurement (OM) data
- Telnet to the card
- patching

To learn more about the IP Line 5.0 and Voice Gateway maintenance activities that are supported by Element Manager, see "[IP Network](#)" (page 125).

How to get help

Contents

This section contains information on the following topics:

Getting help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support Web site:

www.nortel.com/support

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. From this site, you can:

- download software, documentation, and product bulletins
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

Getting help over the telephone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support Web site, and you have a Nortel support contract, you can also get help over the telephone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following Web site to obtain the telephone number for your region:

www.nortel.com/callus

Getting help from a specialist by using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

www.nortel.com/erc

Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

How to use Element Manager

Contents

This section contains information on the following topics:

- "Launching Element Manager" (page 21)
 - "Timeout after a period of inactivity" (page 23)
- "Navigation" (page 23)
- "Configuring data" (page 26)
- "Logging out" (page 26)

Launching Element Manager

Element Manager is launched from the Enterprise Common Manager framework. This framework supports Single Sign-on so that the user can access multiple systems. For information on how to log in and to configure the framework, see *Enterprise Common Manager Fundamentals (NN43001-116)*.

To log in to Element Manager on VxWorks, follow the steps in [Procedure 1 "Launching Element Manager on VxWorks" \(page 21\)](#). Element Manager supports Microsoft™ Internet Explorer 6.0.2600.

Before following this procedure, see *Signaling Server Installation and Commissioning (NN43001-312)* for information about setting up a browser for optimal performance of Element Manager.

Note: This procedure requires Service Pack 1 and Java Runtime environment.

Procedure 1

Launching Element Manager on VxWorks

Step	Action
1	Open the Web browser.
2	Enter the Signaling Server Node IP address in the Address Bar of the browser window and press Enter on the keyboard.

Note: The ELAN network interface IP address can be required, instead of the Node IP address, to access the Element Manager login Web page in secure environments.

- 3 The Element Manager **Login** Web page opens (see [Figure 1 "Element Manager–Login web page"](#) (page 22)).

Note: If a security certificate is correctly installed, and the usage rule set to *UserChoice*, the user has the option to log in using Secure mode. If the usage rule is set to *Always*, the user is redirected to the https site, and a warning message appears. For more information, see ["Certificate Management"](#) (page 287).

- a. Enter a valid **User ID** and **Password** combination.

Note: A valid User Id and Password combination is one that is defined on the Call Server.

The IP Address of the Call Server appears in the **Call Server IP Address** field.

- b. Click **Login**.

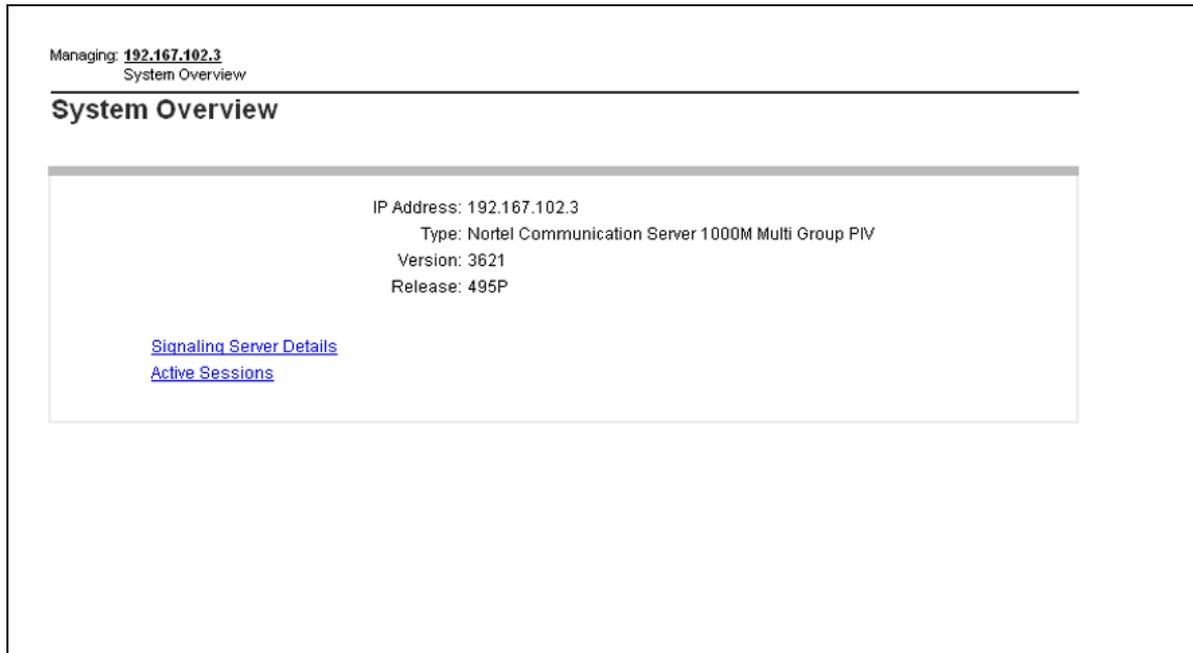
Figure 1
Element Manager Login Web page



- 4 The **System Overview** Web page appears (see [Figure 2 "Element Manager System Overview web page"](#) (page 23)).

—End—

Figure 2
Element Manager System Overview Web page



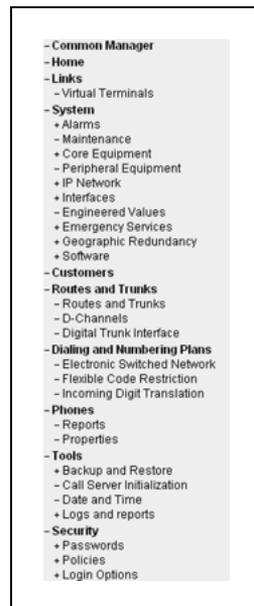
Timeout after a period of inactivity

Element Manager times out after a period of inactivity. Users are logged out without any warning in all Element Manager Web pages. The exception to this is the Node Configuration **Edit** Web pages. When a user is working in this Web page, a message appears that warns of the impending timeout action. Click **OK** (on the warning message) within the remaining timeout period (five minutes) to reset the timer. If there is no response within the five-minute warning period, the session is cancelled, and the user must log in again. Any data modifications made on screen, but not submitted to the system, are lost.

Navigation

The Element Manager navigator is located on the left side of the browser window as shown in [Figure 3 "Element Manager navigator" \(page 24\)](#).

Figure 3
Element Manager navigator



Links in the navigator are structured as follows:

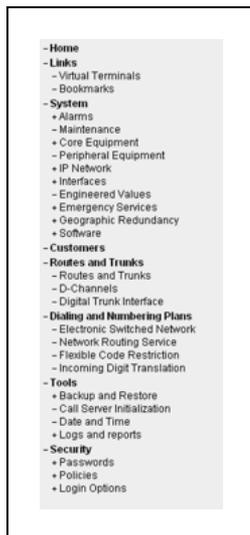
- **Home**
- **Links**
 - Virtual Terminals
- **System**
 - Alarms
 - Maintenance
 - Core Equipment
 - Peripheral Equipment
 - IP Network
 - Interfaces
 - Engineered Values
 - Emergency Services
 - Geographic Redundancy
 - Software
- **Customers**
- **Routes and Trunks**

- Routes and Trunks
- D-Channels
- Digital Trunk Interface
- **Dialing and Numbering Plans**
 - Electronic Switched Network
 - Network Routing Service
 - Flexible Code Restriction
 - Incoming Digit Conversion
- **Phones**
 - Reports
 - Properties
- **Tools**
 - Backup and Restore
 - Call Server Initialization
 - Date and Time
 - Logs and Reports
- **Security**
 - Passwords
 - Policies
 - Login Options

During periods of high call volume, Element Manager Web pages load more slowly.

When deployed on VxWorks, the Element navigator appears as shown in [Figure 4 "Element Manager navigator on VxWorks" \(page 26\)](#).

Figure 4
Element Manager navigator on VxWorks



Configuring data

In many cases, users can edit data using configuration Web pages. At the bottom of the configuration Web pages, the following four buttons appear:

- **Submit** — Transmits changes to the Call Server.
- **Refresh**— Refreshes data from the Call Server. Refresh overwrites any changes not yet submitted.
- **Delete** — Deletes the item being edited or configured.
- **Cancel** — Discards the changes and returns to the appropriate configuration page.

Logging out

To log out of Element Manager, click the **Logout** link in the top right-hand corner.



WARNING

Do not close the browser window before logging out. The session remains active and the user will be unable to log in again within 30 minutes.

In the VxWorks environment, the command *userLogout* *<username>* can be used in vxshell of the Signaling Server to logout the Element Manager user. This will release the active session for the user.

Links

Contents

This section contains information on the following topics:

["Introduction" \(page 27\)](#)

["Virtual Terminals" \(page 27\)](#)

["Bookmarks" \(page 30\)](#)

Introduction

The features available under the **Links** branch of the Element Manager navigator enable Element Manager to be the single point of management access to Web pages and character-based interfaces.

Use the Virtual Terminal feature to define and access the IP addresses of any character-based interfaces. On the Call Server, users can access context-sensitive online help, which provides detailed information on system prompts and error messages.

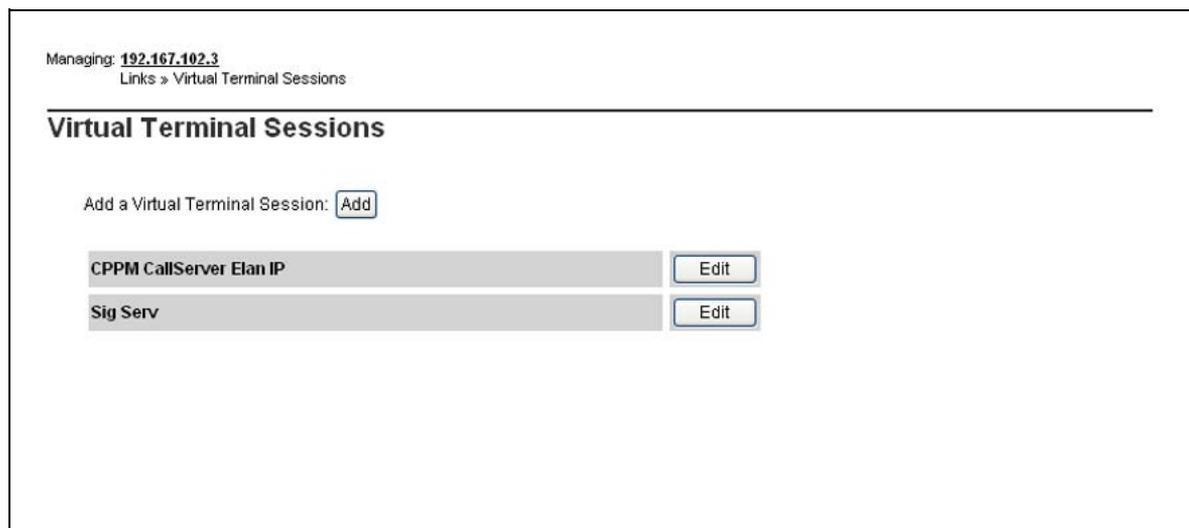
The Bookmarks feature allows access to any Web servers embedded within the components of the system. Users can also add links to any other useful Web sites.

Note: The **Bookmarks** link is available only on Element Manager on VxWorks. When using the Enterprise Common Manager framework, the user accesses the link directly from the framework.

Virtual Terminals

Click the **Virtual Terminals** link to open the **Virtual Terminal Sessions** Web page as shown in [Figure 5 "Virtual Terminal Sessions web page" \(page 28\)](#).

Figure 5
Virtual Terminal Sessions Web page



The **Virtual Terminal Sessions** Web page enables users to Telnet to any IP-based element in the system. By entering and saving the IP address to Telnet to a particular IP-based element, users can access those elements more quickly in the future.

ATTENTION

Java Runtime Environment (JRE) version 1.5 must be installed for the Virtual Terminal Emulator to run properly

Follow the steps in [Procedure 2 "Adding a Virtual Terminal session"](#) (page 28) to add a Virtual Terminal Session .

Procedure 2 Adding a Virtual Terminal session

Step	Action
------	--------

- | | |
|---|---|
| 1 | On the Virtual Terminal Sessions Web page, click Add . The Virtual Terminal Session Property Configuration Web page appears, as shown in Figure 6 "Virtual Terminal Sessions Property Configuration web page" (page 29). |
|---|---|

Figure 6
Virtual Terminal Sessions Property Configuration Web page

Managing: 207.179.153.99
 Links > Virtual Terminal Sessions > Virtual Terminal Session Property Configuration

Virtual Terminal Session Property Configuration

Input Description	Input Value
Description	<input type="text"/>
IP Address	<input type="text"/>
Call Server	<input type="checkbox"/>

Submit Delete Cancel

- 2 Enter a **Description** and **IP Address** for the session.
- 3 If creating a Virtual Terminal Session to a Call Server, select the **Call Server** check box.
- 4 Click **Submit** to save.
- 5 To cancel the session, click **Cancel**.

—End—

To access a Virtual Terminal Session that is already created, click the name of the Virtual Terminal Session on the **Virtual Terminal Sessions** Web page. A **Virtual Terminal** window opens in a separate browser window.

The Virtual Terminal window provides a menu with the following items:

- Current Overlay
- Current Prompt
- Search M1 Help Files
- About Terminal Client

When the user enters an overlay, the Current Overlay and Current Prompt menu items are enabled.

Click the **Help -> Current Overlay** link to open a Help window containing help for that particular overlay.

Click the **Help -> Current Prompt** link to open a Help window explaining the definition of the prompt, along with acceptable responses.

Follow the steps in [Procedure 3 "Editing an existing Virtual Terminal session"](#) (page 30) to edit an existing Virtual Terminal session.

Procedure 3

Editing an existing Virtual Terminal session

Step	Action
------	--------

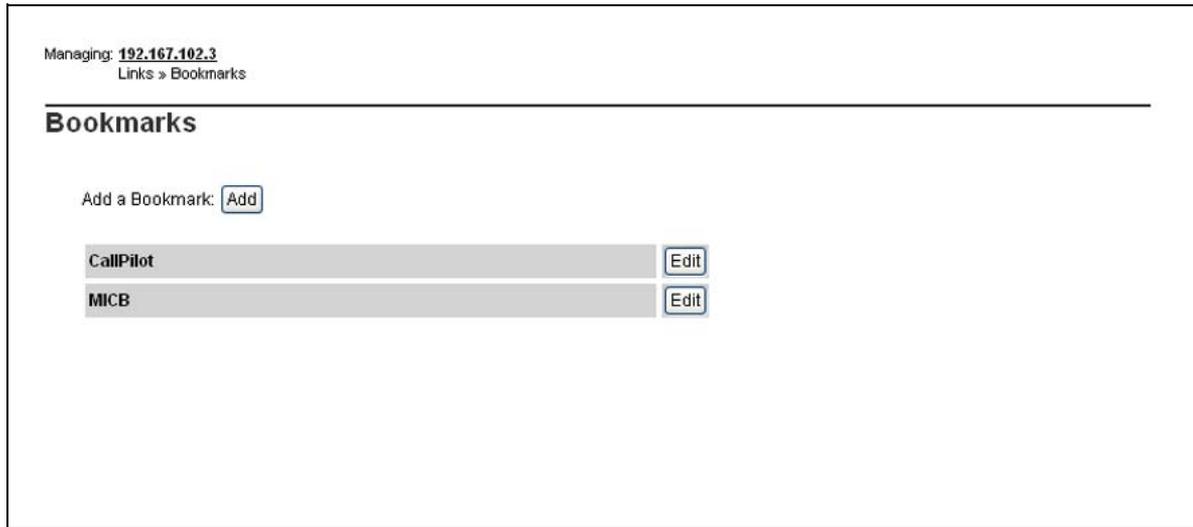
- | | |
|---|--|
| 1 | Click Edit next to the name of the Virtual Terminal Session.
The information about the Virtual Terminal Session selected is displayed in the fields. |
| 2 | Edit the Description and IP Address values. |
| 3 | To change this session so that it logs into a Call Server, select the Call Server check box. |
| 4 | Click Submit to record the changes. |
| 5 | Click Delete to remove the Virtual Terminal Session information completely. |
| 6 | Click Cancel to disregard any changes made. |

—End—

Bookmarks

Element Manager enables users to bookmark Web sites for easy access. Click the **Bookmarks** link to open the **Bookmarks** Web page, as shown in [Figure 7 "Bookmarks web page"](#) (page 31).

Figure 7
Bookmarks Web page



To create a new bookmark, follow the steps in [Procedure 4 "Creating a new Bookmark"](#) (page 31).

Procedure 4
Creating a new Bookmark

Step	Action
-------------	---------------

- | | |
|----------|--------------------|
| 1 | Click Add . |
|----------|--------------------|

The **Bookmark Property Configuration Page** appears as shown in [Figure 8 "Bookmark Property Configuration web page"](#) (page 32).

Figure 8
Bookmark Property Configuration Web page

Managing: 207.179.153.99
 Links » Bookmarks » Bookmark Property Configuration

Bookmark Property Configuration

Input Description	Input Value
Description	
Location	http://

Submit Delete Cancel

- 2 Enter a **Description** and **Location** (the URL) of the Web site to be bookmarked.
- 3 Click **Submit** to enter the bookmark.
- 4 To cancel the session, click **Cancel**.

—End—

To access a bookmark that is already created, click the name of the bookmark on the **Bookmark** Web page. The Web site opens.

To edit the properties of an existing bookmark, follow the steps in [Procedure 5 "Editing the properties of an existing Bookmark"](#) (page 32).

Procedure 5

Editing the properties of an existing Bookmark

Step	Action
------	--------

- 1 Click **Edit**

The **Bookmark Property Configuration** window appears as shown in [Figure 9 "Bookmark Property Configuration web page - Edit"](#) (page 33).

Figure 9
Bookmark Property Configuration Web page - Edit

Managing: [207.179.153.99](#)
Links > [Bookmarks](#) > Bookmark Property Configuration

Bookmark Property Configuration

Input Description	Input Value
Description	CellPilot
Location	http://207.179.153.100

- 2 Edit the **Description** and **Location** (URL) values.
- 3 Click **Submit** to record the changes.
- 4 Click **Delete** to remove the bookmark completely.
- 5 Click **Cancel** to disregard any changes made.

—End—

System

Contents

This section contains information on the following topics:

- "Introduction" (page 36)
- "Maintenance" (page 41)
 - "Application Module Link Diagnostics" (page 44)
 - "Background Signaling and Switching Diagnostics" (page 47)
 - "Call Trace Diagnostics" (page 48)
 - "Clock Controller Diagnostics" (page 54)
 - "Core Common Equipment Diagnostics" (page 55)
 - "Core Input/Output Diagnostics" (page 59)
 - "D-channel Diagnostics" (page 61)
 - "D-Channel Expansion Diagnostics" (page 65)
 - "Digital Trunk Diagnostics" (page 67)
 - "Digital Trunk Maintenance Diagnostics" (page 71)
 - "Emergency Services Diagnostics" (page 74)
 - "Ethernet Diagnostics" (page 77)
 - "Ethernet Quality of Service Diagnostics" (page 82)
 - "Input/Output Diagnostics" (page 83)
 - "Intergroup Switch and System Clock Generator Diagnostics" (page 86)
 - "MSDL Diagnostics" (page 90)
 - "Multifrequency Sender Diagnostics" (page 92)
 - "Multifrequency Signaling Diagnostics" (page 95)
 - "Network and Peripheral Equipment Diagnostics" (page 97)
 - "Network and Signaling Diagnostics" (page 103)
 - "TMDI Diagnostics" (page 105)
 - "Tone and Digit Switch Diagnostics" (page 107)

- "Trunk Diagnostics" (page 109)
- "Zone Diagnostics" (page 112)
- "Loops (Common Equipment)" (page 114)
- "Superloops" (page 115)
- "Tone Senders and Detectors" (page 116)

Introduction

The **System** branch of the Element Manager navigator provides access to diagnostic tools that enable users to issue a variety of commands to the components of the CS 1000 system.

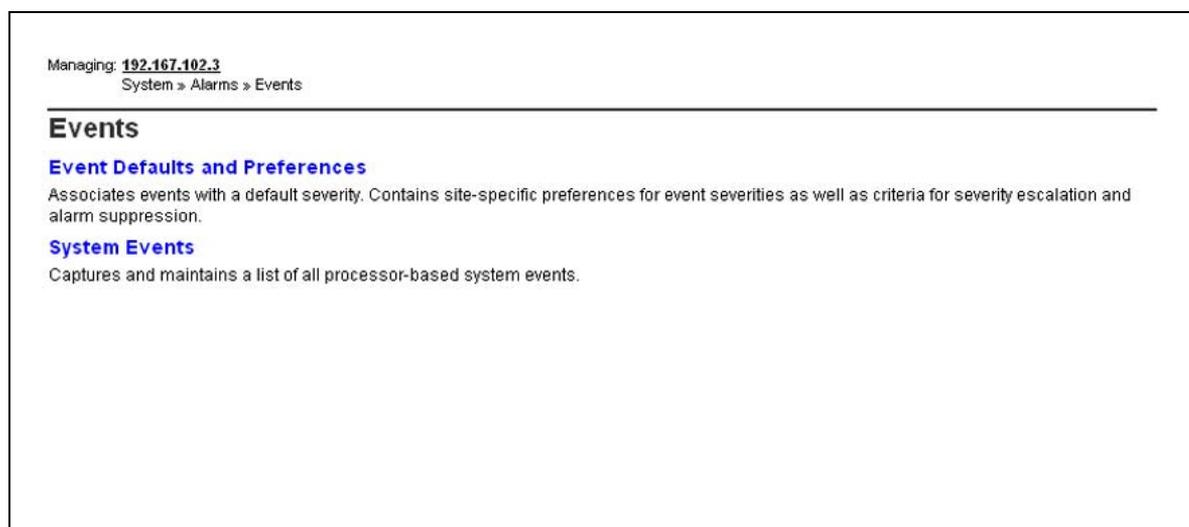
The following buttons appear on some or all of the System Web pages:

- **Submit** — Transmits changes to the Call Server.
- **Refresh** — Refreshes data from the Call Server. Refresh overwrites any changes not yet submitted.
- **Cancel** — Discards the changes and returns to the appropriate configuration Web page.

Events

To configure or edit Events information, click the **Alarms > Events** link in the **System** branch of the Element Manager navigator. The **Events** Web page appears as shown in [Figure 10 "Events Web page" \(page 36\)](#).

Figure 10
Events Web page



To display event default severity, event thresholds and site-specific event preferences, click the **Event Defaults and Preferences** link to open the **Event Defaults and Preferences** Web page as shown in [Figure 11 "Event Defaults and Preferences Web page"](#) (page 37).

Figure 11
Event Defaults and Preferences Web page

Managing: [192.167.102.3](#)
System » Alarms » [Events](#) » Event Defaults and Preferences

Event Defaults and Preferences

Thresholds

[Edit...](#)

Global Window Timer Length: 1 minute
Suppression Threshold Value: 15

Search for Event Defaults [Hide](#)

Criteria:

Severity: [Lookup](#)

Event Category: [Lookup](#)

[Search](#)

Event Defaults

[Edit...](#) [Refresh](#)

Event Preference Table

[Add...](#) [Import](#) [Export](#) [Delete All](#) [Delete](#) [Refresh](#)

Event Key ▲	Severity	Escalation Value	Hits
-------------	----------	------------------	------

To edit the Suppression Threshold Value and Global Window Timer Length that are common to all events, in the **Thresholds** section click **Edit**. The **Edit Thresholds** Web page appears as shown in [Figure 12 "Edit Thresholds Web page"](#) (page 38).

Figure 12
Edit Thresholds Web page

Managing: [192.167.102.3](#)
System » Alarms » Events » [Event Defaults and Preferences](#) » Edit Thresholds

Edit Thresholds

Global Window Timer Length: * (1 - 60 minutes)
Time used to measure both the escalation and suppression thresholds

Suppression Theshold Value: * (5 - 127)
Applies to all events and suppresses events that flood the system

Enter the desired changes and click **Save**.

Search for event defaults by clicking either the **Severity** or **Event Category** radio buttons. Enter the Search criteria and click **Search**. The results appear in the **Event Defaults** section.

To maintain a list of system events, from the **Events** Web page click the **System Events** link. The **System Events** Web page appears as shown in [Figure 13 "System Events Web page" \(page 39\)](#).

Figure 13
System Events Web page



The System Event List Size in the **Collection Limit** section is the upper limit to the number of events collected in the System Event List. To edit this limit, click **Edit**.

All events collected in the system event list are displayed in the text area at the bottom of the page.

SNMP

To configure or edit SNMP information, click the **Alarms > SNMP** link in the **System** branch of the Element Manager navigator. The **SNMP Configuration** Web page opens as shown in [Figure 14 "SNMP Configuration web page"](#) (page 40).

Figure 14
SNMP Configuration Web page

Managing: [192.167.102.3](#)
 System » Alarms » SNMP Configuration

SNMP Configuration

Trap Source

Navigation Site Name :
 Navigation System Name :

MIB-2 System Group Parameters

System Contact :
 System Location :
 System Name :

Community

System Management Read :
 System Management Write :
 Trap community :
 Administrator Group :

Trap Destination

Destination : IP address

The information entered on this Web page corresponds to the SNMP data traditionally configured using LD 117 - Ethernet and Alarm Management.

By entering information into the appropriate text boxes, the following tasks for SNMP can be performed:

- turn SNMP on and off by enabling or disabling traps
- trap destination IP addresses
- configure community name strings
- enable Call Server filtering
- enable Event Default Table (EDT), Event Preference Table (EPT), and alarm suppression thresholds

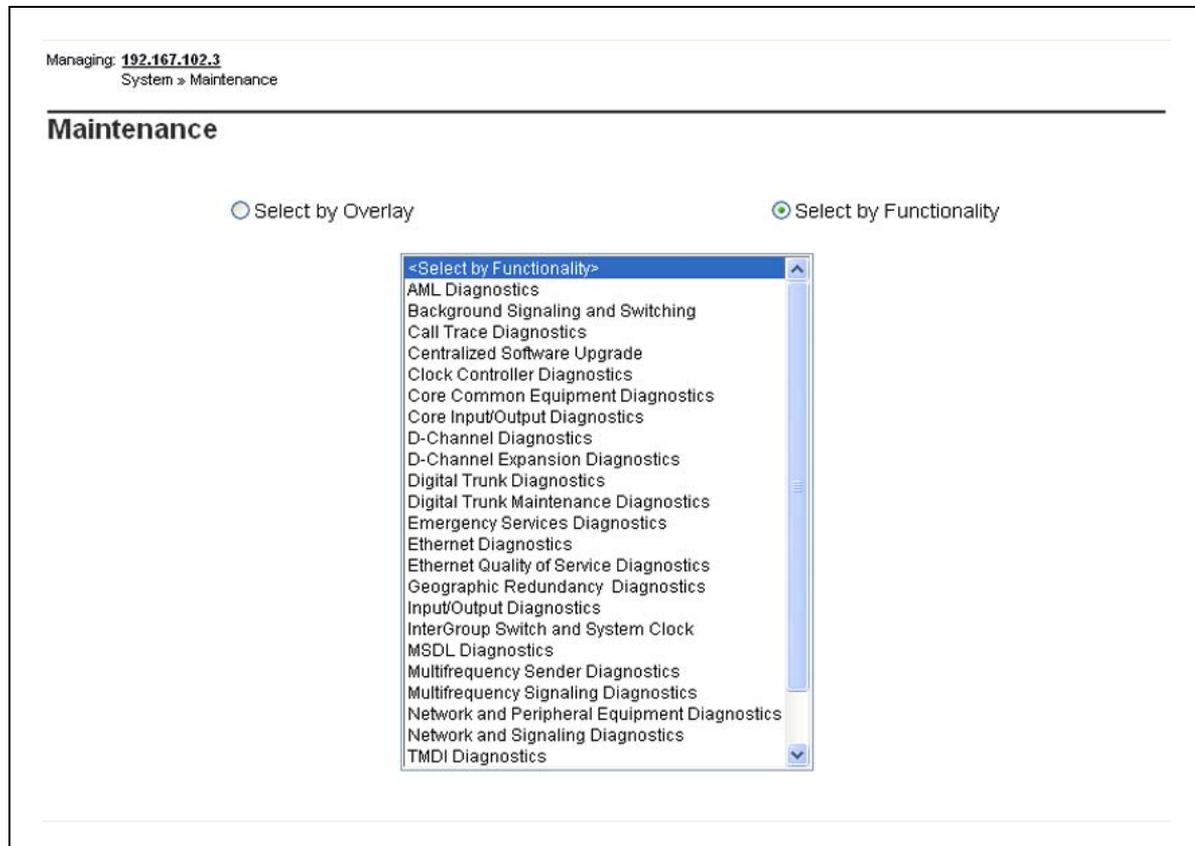
Note: Element Manager does not provide an SNMP alarm browser, so the TM alarm browser must be used when SNMP alarm collection is required.

For detailed information on SNMP, see *Communication Server 1000 Fault Management - SNMP (NN43001-719)*.

Maintenance

When the user clicks the **Maintenance** link in the **System** branch of the Element Manager navigator, the **Maintenance** Web page appears. The user can choose how the options are presented. If the user chooses **Select by Functionality**, the diagnostic tool options are presented by functionality as shown in Figure 15 "Maintenance diagnostic tools presented by functionality" (page 41).

Figure 15
Maintenance diagnostic tools presented by functionality



The following tool options are available from this Web page:

- AML Diagnostics
- Call Trace Diagnostics
- Clock Controller Diagnostics
- Core Common Equipment Diagnostics
- Core Input/Output Diagnostics
- D-Channel Diagnostics
- D-Channel Expansion Diagnostics

- Digital Trunk Diagnostics
- Digital Trunk Maintenance Diagnostics
- Emergency Services Diagnostics
- Ethernet Diagnostics
- Ethernet Quality of Service Diagnostics
- Geographic Redundancy Diagnostics
- Input/Output Diagnostics
- MSDL Diagnostics
- Multifrequency Sender Diagnostics
- Multifrequency Signaling Diagnostics
- Network and Peripheral Equipment Diagnostics
- Network and Signaling Diagnostics
- TMDI Diagnostics
- Tone and Digit Switch Diagnostics
- Trunk Diagnostics
- Zone Diagnostics

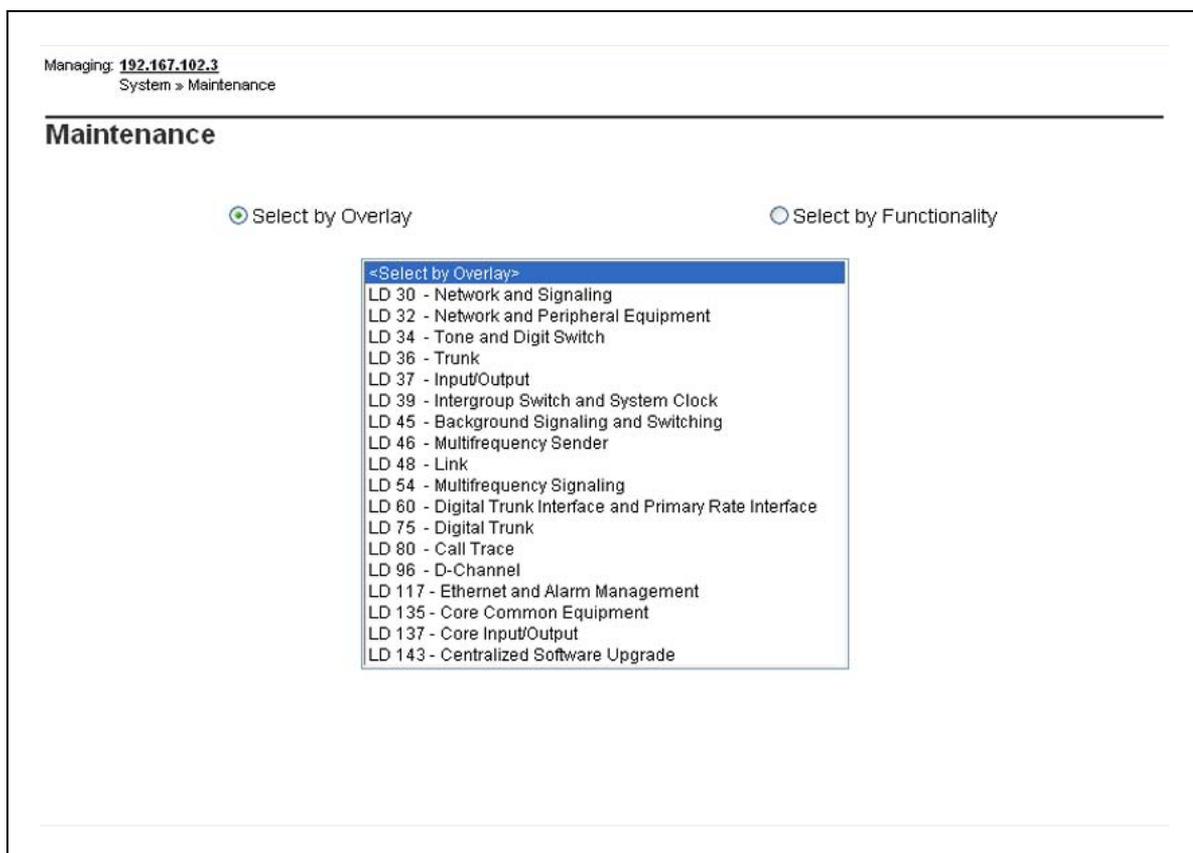
Note: Depending on the type of system being accessed, not all options may be available.

If the user chooses **Select by Overlay**, the following options are presented by LD numbers, as shown in [Figure 16 "Call Server diagnostic tools presented by overlay"](#) (page 43):

- LD 30 - Network and Signaling
- LD 32 - Network and Peripheral Equipment
- LD 34 - Tone and Digit Switch
- LD 36 - Trunk
- LD 37 - Input/Output
- LD 39 - Intergroup Switch and System Clock
- LD 45 - Background Signaling and Switching
- LD 46 - Multifrequency Sender
- LD 48 - Link
- LD 54 - Multifrequency Signaling
- LD 60 - Digital Trunk Interface and Primary Rate Interface

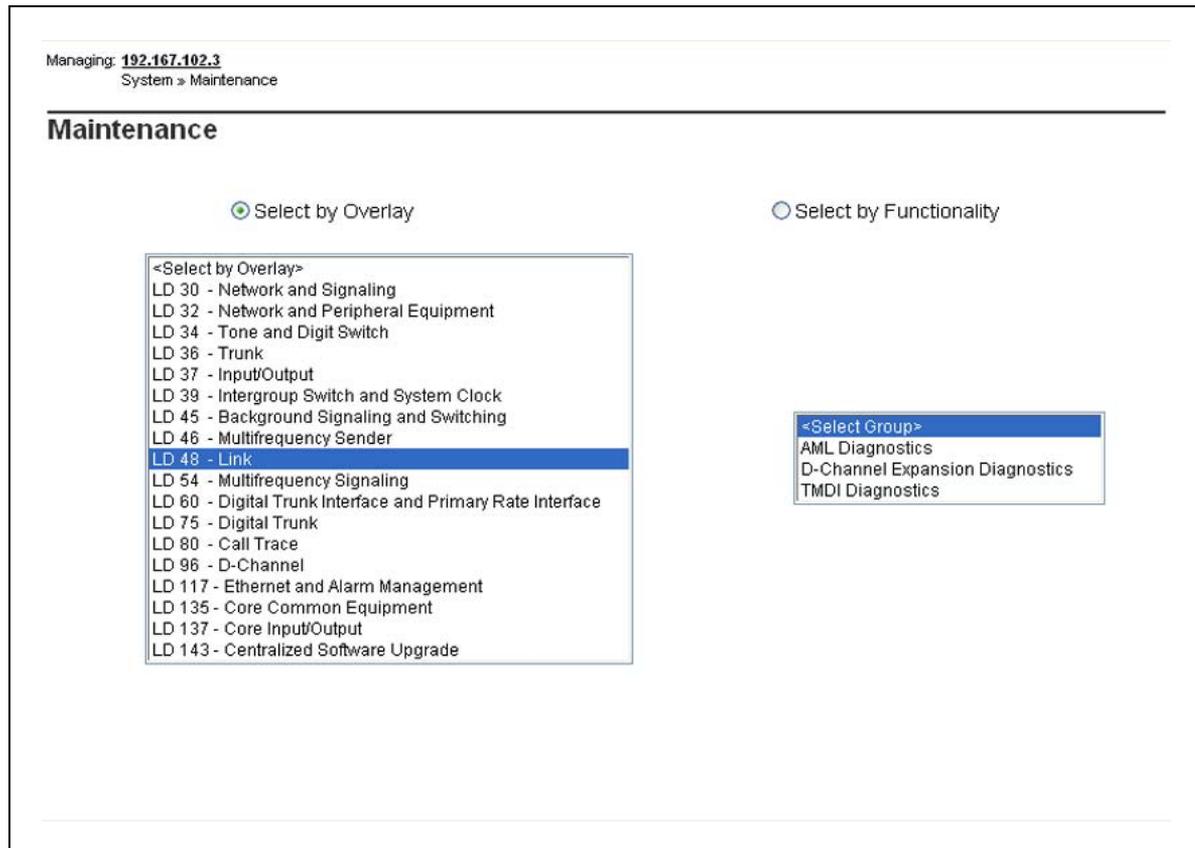
- LD 75 - Digital Trunk
- LD 80 - Call Trace
- LD 96 - D-Channel
- LD 117 - Ethernet and Alarm Management
- LD 135 - Core Common Equipment
- LD 137 - Core Input/Output
- LD 143 - Centralized Software Upgrade

Figure 16
Call Server diagnostic tools presented by overlay



If selecting an overlay that corresponds to more than one functionality, choose the desired functionality in the **Select Group** list, as shown in [Figure 17 "Select Group drop-down list"](#) (page 44).

Figure 17
Select Group drop-down list



This document presents the options by functionality, with cross-references to the appropriate overlay.

The following sections provide information on each functionality.

Application Module Link Diagnostics

Click the **AML Diagnostics** link in the list of **Maintenance** functionalities to open the **Link: AML Diagnostics** Web page as shown in [Figure 18 "AML Diagnostics web page"](#) (page 45).

Figure 18
AML Diagnostics Web page

Managing: 207.179.153.99
 System > Maintenance > Link: AML Diagnostics

Link: AML Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT AML - Get AML status	<input type="text"/> (device #)	Submit
DIS AML - Disable AML	<input type="text"/> (device #)	Submit
ENL AML - Enable AML	<input type="text"/> (device #)	Submit

Instruction: Select command, add value and click on [Submit]

Cancel

The commands available from this Web page correspond to the AML diagnostics traditionally performed by using LD 48.

To perform AML commands using this Web page, follow the steps in [Procedure 6 "Performing AML commands" \(page 45\)](#).

Procedure 6

Performing AML commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> STAT AML - Get AML status STAT ELAN - Check status of all specified/ all configured ELANs EST AML - Establish layer 2 on AML MAP AML - Get card information of one or all AMLs RLS AML - Release layer 2 on AML SLFT AML - Perform self-test on AML

- g. UPLD AML - Upload parameter table 1 to 4 from AML
- 2 Enter the device number in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To disable AML using this Web page, follow the steps in [Procedure 7 "Disabling AML "](#) (page 46).

Procedure 7
Disabling AML

Step Action

- 1 Select one of the following commands from the second **Commands** drop-down list:
 - a. DIS AML - Disable AML
 - b. DIS AML - Disable AUTO recovery on AML
 - c. DIS AML - Disable layer 2 on AML
 - d. DIS AML - Disable layer 7 on AML
 - e. DIS AML - Disable MDL error reporting on AML
 - f. DIS ELAN - Disable ELAN (server/client task)
- 2 Enter the device number in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To enable AML using this Web page, follow the steps in [Procedure 8 "Enabling AML"](#) (page 46).

Procedure 8
Enabling AML

Step Action

- 1 Select one of the following commands from the third **Commands** drop-down list:
 - a. ENL AML - Enable AML
 - b. ENL AML - Enable Automatic set-up on AML

- c. ENL AML - Enable AUTO recovery on AML
 - d. ENL AML - Enable Layer 2 on AML
 - e. ENL AML - Enable Layer 7 on AML
 - f. ENL AML - Enable MDL error reporting on AML
 - g. ENL ELAN- Enable ELAN (server task)
- 2 Enter the device number in the **Command Parameters** text box.
 - 3 Click **Submit**.

—End—

Background Signaling and Switching Diagnostics

The **Background Signaling and Switching diagnostics** Web page is applicable only to Large Systems.

Click the **Background Signaling and Switching** link in the list of **Call Server** functionalities to open the **Background Signaling and Switching Diagnostics** Web page, as shown in [Figure 19 "Background Signaling and Switching Diagnostics web page"](#) (page 47).

Figure 19
Background Signaling and Switching Diagnostics Web page

Managing: **192.167.100.3**
System » Maintenance » Background Signaling and Switching Diagnostics

Background Signaling and Switching Diagnostics

Diagnostic Commands	Command Parameters	Action
TEST - Perform continuity test for specified (all) loops	(loop/none)	Submit

Instruction: Select command, add value and click on [Submit]

Cancel

The commands available from this Web page correspond to the Background Signaling and Switching command traditionally performed using LD 45 - Background Signaling and Switching Diagnostics.

This Web page is used to perform the TEST command. This command performs a continuity test for specified loops.

Procedure 9

Performing the TEST command

Step	Action
------	--------

1	Enter the loop number in the Command Parameters box.
---	---

Note: To run the TEST command on all loops, leave the **Command Parameters** box empty.

2	Click Submit .
---	-----------------------

—End—

Call Trace Diagnostics

Click the **Call Trace Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Call Trace Diagnostics** Web page, as shown in [Figure 20 "Call Trace Diagnostics web page"](#) (page 49).

Figure 20
Call Trace Diagnostics Web page

Managing: **192.167.102.3**
 System » Maintenance » Call Trace Diagnostics

Call Trace Diagnostics

Diagnostic Commands	Command Parameters	Action
TRAC - List Route, type and status of trunks for a Customer	<input type="text"/> (cust# acod#) <input type="checkbox"/> DEV	Submit
TRAD - Trace DTIDLI calls on a channel of a loop	<input type="text"/> (loop# ch#)	Submit
TRAT - Trace calls for an attendant of a customer	<input type="text"/> (cust# atnd#) <input type="checkbox"/> DEV	Submit
TRIP - Trace Calls for IP Phone	<input type="text"/> (IP Address)	Submit

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Call Trace diagnostics traditionally performed by using LD 80 - Call Trace Diagnostics.

This Web page is used to perform the following Call Trace functions:

- TRAC commands
- TRAD commands
- TRAC commands
- TRIP commands

To perform TRAC commands, follow the steps in [Procedure 10 "Performing TRAC commands"](#) (page 49).

Procedure 10

Performing TRAC commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the first Commands drop-down list: |
|---|---|

- a. TRAC - List Route, type and status of trunks for a Customer
 - b. TRAC - Trace calls for specified customer and DN/LSC DN
 - c. TRAC - Trace calls for specified customer, route and member
 - d. TRAC - Trace calls on specified Digital Subscriber Loop (0-7)
 - e. TRAC - Trace calls associated with the specified unit
 - f. TRAC - Trace calls on specified key for specified unit
- 2 Enter the customer number and the acod number in the **Command Parameters** text box.
 - 3 Click **Submit**.

—End—

To perform TRAD commands, follow the steps in [Procedure 11 "Performing TRAD commands"](#) (page 50).

Procedure 11
Performing TRAD commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select the following command from the second Commands drop-down list: <ol style="list-style-type: none"> a. TRAD - Trace DTI/DLI calls on a channel of a loop |
| 2 | Enter the card number and channel number in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

To perform TRAT commands, follow the steps in [Procedure 12 "Performing TRAT commands"](#) (page 50).

Procedure 12
Performing TRAT commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. TRAT - Trace calls for an attendant for a customer |
|---|---|

- b. TRAT - Trace calls on a key of an attendant of a customer
 - c. TRAT - Trace attendant calls for a unit
 - d. TRAT - Trace attendant calls on specified key of a unit
- 2 Enter the card number and attendant number in the **Command Parameters** text box.
 - 3 Click **Submit**.

—End—

To perform TRIP commands, follow the steps in [Procedure 13 "Performing TRIP commands" \(page 51\)](#).

Procedure 13
Performing TRIP commands

Step	Action
1	Select the following command from the fourth Commands drop-down list: <ol style="list-style-type: none"> a. TRIP - Trace calls for IP Phone
2	Enter the required parameters in the Command Parameters text box.
3	Click Submit .

—End—

Centralized Software Upgrade

Click the **Centralized Software Upgrade** link in the list of **Maintenance** diagnostic tools to open the **Centralized Software Upgrade** Web page, as shown in [Figure 21 "Centralized Software Upgrade Web page" \(page 52\)](#).

Figure 21
Centralized Software Upgrade Web page

Managing: **192.167.102.3**
 System > Maintenance > Centralized Software Upgrade

Centralized Software Upgrade

Diagnostic Commands	Command Parameters	Action
-----Upgrade Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
-----Enabling and Disabling Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
-----Status Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

To perform Upgrade commands, follow the steps in [Procedure 14 "Performing Upgrade commands"](#) (page 52).

Procedure 14

Performing Upgrade commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. UPGMG - Upgrade IPMG b. UPGMG ALL - Upgrade ALL IPMGs c. UPGMGCOMMIT - Initial Reboot of the MGC based IPMG after upgrade d. UPGMCOMMIT ALL - Initial Reboot of all the MGC based IPMG after upgrade e. UPGMGBOOT - Upgrade the bootrom of the IPMG |
|---|---|

- 2 Enter the required parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To perform Enabling and Disabling commands, follow the steps in [Procedure 15 "Performing Enabling and Disabling commands" \(page 53\)](#).

Procedure 15
Performing Enabling and Disabling commands

Step	Action
1	Select the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. ENL AUTOUPGMG - Enable Automatic Software Upgrade b. DIS AUTOUPGMG - Disable Automatic Software Upgrade
2	Enter the required parameters in the Command Parameters text box.
3	Click Submit .

—End—

To perform Status commands, follow the steps in [Procedure 16 "Performing Status commands" \(page 53\)](#).

Procedure 16
Performing Status commands

Step	Action
1	Select the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. PRT AUTOUPGMG - Displays settings of Automatic Software Upgrade feature b. UPGMG STAT - Provides display details of the specified IPMG upgrade status c. UPGMGSETUP - Display the current CSU Setting d. UPGMGABORT - Abort and display centralized software upgrades

- e. HELP - Provides a list of all supported commands
- 2 Enter the required parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

Clock Controller Diagnostics

Click the **Clock Controller Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Digital Trunk Interface and Primary Rate Interface: Clock Controller Diagnostics** Web page as shown in [Figure 22 "Digital Trunk Interface and Primary Rate Interface: Clock Controller Diagnostics Web page"](#) (page 54).

Figure 22
Digital Trunk Interface and Primary Rate Interface: Clock Controller Diagnostics Web page

Managing: **192.167.102.3**
 System » [Maintenance](#) » Digital Trunk Interface and Primary Rate Interface :Clock Controller Diagnostics

Digital Trunk Interface and Primary Rate Interface :Clock Controller Diagnostics

Action: In Side:

SUPERLOOP TYPE

004 IPMG

008 IPMG

Card Status	Clock State	Clock Controller	Group	Side	Primary Reference	Secondary Reference	Auto Switch Clock	Cabinet Clock Source	Error/Info
IP DB Port Port Status									
Instruction: Select command, add value and click on [Submit]									

This Web page is used to maintain the digital trunk interface and the primary rate interface clock controllers.

The commands available from this Web page correspond to the Clock Controller data traditionally maintained by using LD 60- Digital Trunk Interface and Primary Rate Interface Clock Controller.

This Web page shows the status of the Clock Controller card.

To perform Clock Controller maintenance activities using this Web page follow the steps in [Procedure 17 "Performing Clock Controller maintenance activities" \(page 55\)](#).

Procedure 17
Performing Clock Controller maintenance activities

Step	Action
1	Select one of the following commands from the Action drop-down list: <ol style="list-style-type: none"> a. SSCK - Get Status of the Clock b. ENL CC - Enable the Clock c. DIS CC - Disable the Clock d. TRCK - Set the Clock Controller e. DSCK - Disable the clock for loop f. ENCK - Enable the secondary clock reference for card g. EREF - Enable auto switchover of reference clocks h. IDC - Get card ID of Clock Controller Card i. MREF - Disable switchover of system clocks j. SEFT CC - Execute self test
2	Select a Cabinet number from the In Cabinet drop-down list.
3	Click the Submit button.

—End—

Core Common Equipment Diagnostics

Click the **Core Common Equipment Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Core Common Equipment Diagnostics** Web page, as shown in [Figure 23 "Core Common Equipment Diagnostic Web page" \(page 56\)](#).

Figure 23
Core Common Equipment Diagnostic Web page

Managing: **192.167.102.3**
 System » [Maintenance](#) » Core Common Equipment Diagnostics

Core Common Equipment Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT CPU - Core status for both CPUs	(none)	<input type="button" value="Submit"/>
ENL CNI - Enable CNI card/port(c=side,s=slot,p=port)	(c# s#/c# s# p#)	<input type="button" value="Submit"/>
TEST CPU - Test the inactive core	(none)	<input type="button" value="Submit"/>
SCPU - Switch cores	(none)	<input type="button" value="Submit"/>
STAT HEALTH HELP - Help for health commands	(none)	<input type="button" value="Submit"/>
STAT GR - Status of Geographic Redundancy	(none)	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

To execute status commands using this Web page, follow the steps in [Procedure 18 "Performing Core Common Equipment Status commands"](#) (page 56).

Procedure 18

Performing Core Common Equipment Status commands

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT CPU - Core status for both CPUs b. STAT CNI - Status of configured CNI (c=side, s=slot, p=port) c. STAT MEM - Status of SIMMs on both CPs d. STAT EXT - Status of all Extender pair designations e. STAT SUTL - Status of system utility |
|---|--|

—End—

To execute CNI commands using this Web page, follow the steps in [Procedure 19 "Performing Core Common Equipment CNI commands"](#) (page 57).

Procedure 19
Performing Core Common Equipment CNI commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. ENL CNI - Enable CNI card/port (c=side, s=side, p=port) b. DIS CNI - Disable CNI all, card or port c. DSPL - Display active core contents d. DSPL ALL - Display active core contents for all e. IDC CPU - Print card ID for active core f. IDC CNI - Print card ID for CNI on active side g. ENL EXT - Enable specified Extender pair
2	Enter the required parameters in the Commands Parameters text box. The required parameters are found next to the Command Parameters text box.
3	Click Submit .

—End—

To execute test commands using this Web page, follow the steps in [Procedure 20 "Performing Core Common Equipment test commands"](#) (page 57).

Procedure 20
Performing Core Common Equipment test commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. TEST CPU - Test the inactive core b. TEST CNI - Test CNI card/port (c=card, s=slot, p=port) c. TEST IPB - Test backplane on Secondary Interprocessor Bus d. TEST LCD - Test the LCD display on the active CP card

- e. TEST LED - Test LEDs
 - f. TEST SUTL - Test system utility
- 2 Click **Submit**.

—End—

To execute miscellaneous commands using this Web page, follow the steps in [Procedure 21 "Performing Core Common Equipment miscellaneous commands"](#) (page 58).

Procedure 21
Performing Core Common Equipment miscellaneous commands

Step Action

- 1 Select one of the following commands from the fourth **Commands** drop-down list:
- a. SCPU - Switch cores
 - b. SPLIT - Put a redundant system into single mode
 - c. CDSP - Clear maintenance displays
 - d. CMAJ - Clear major alarm and reset power fail transfer
 - e. CMIN - Clear the minor lamp on a system basis
 - f. CMIN ALL - Clear minor alarm on all attendant consoles
 - g. CUTOVR - Transfer call processing from active to standby cores
 - h. JOIN - Synchronize the memory and drives
- 2 Click **Submit**.

—End—

To execute status health commands using this Web page, follow the steps in [Procedure 22 "Performing Core Common Equipment status health commands"](#) (page 58).

Procedure 22
Performing Core Common Equipment status health commands

Step Action

- 1 Select one of the following commands from the fifth **Commands** drop-down list:

- a. STAT HEALTH HELP - Help for health commands
 - b. STAT HEALTH - Overall health status
 - c. STAT HEALTH AML - AML health status
 - d. STAT HEALTH DSPDB - DSP Daughterboard health status (applicable only to systems with Media Gateway Controllers containing DSP Daughterboards)
 - e. STAT HEALTH IPL - IPL health status
 - f. STAT HEALTH ELAN - ELAN health status
 - g. STAT HEALTH HW - Hardware health status
- 2** Click **Submit**.

—End—

To execute Geographic Redundancy commands using this Web page, do the following:

Procedure 23

Performing Core Common Equipment Geographic Redundancy commands

Step	Action
------	--------

- | | |
|----------|---|
| 1 | Select one of the following commands from the sixth Commands drop-down list: <ol style="list-style-type: none"> a. STAT GR - Status of Geographic Redundancy b. TEST GR - Test Geographic Redundancy c. CLR GR - Clear operation for the secondary CS |
| 2 | Click Submit . |

—End—

Core Input/Output Diagnostics

Click the **Core Input/Output Diagnostics** link in the list of **Maintenance** tools to open the **Core Input/Output Diagnostics** Web page as shown in [Figure 24 "Core Input/Output Diagnostics Web page" \(page 60\)](#).

This Web page is used to obtain the status of PPP and Ethernet links. The commands available from this Web page correspond to the tools traditionally maintained using LD 137 - Core Input/Output Diagnostics.

Figure 24
Core Input/Output Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » Core Input/Output Diagnostics

Core Input/Output Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT - Status of both IOPs and ethernet link	(none) <input type="checkbox"/> ELNK	Submit
DATA RDUN - Sector level check on both hard disks	(none)	Submit
IDC - Print ID of active IOP	(none)	Submit

Instruction: Select command, add value and click on [Submit]

Cancel

To perform diagnostic commands using this Web page, follow the steps in [Procedure 24 "Performing Core Input/Output diagnostic commands"](#) (page 60).

Procedure 24

Performing Core Input/Output diagnostic commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Use the first Commands drop-down list to perform the following diagnostic activities: <ol style="list-style-type: none"> STAT - Status of both IOPs and CMDUs and ethernet link STAT RDUN - Status of both disks STAT FMD - Status of active Fixed Media Devices STAT RMD - Status of active Removable Media Devices |
| 2 | Click Submit . |

- 3 Use the second **Commands** drop-down list to perform the following diagnostic activities:
 - a. TEST CMDU - Test the specified CMDU
 - b. DATA RDUN - Sector level check on both hard disks
 - c. TEST RDUN - Test file level check on both hard disks
- 4 Click **Submit**.
- 5 Use the third **Commands** drop-down list to perform the following diagnostic activities:
 - a. IDC - Print IDs of both CMDUs and active IOP
 - b. IDC CMDU - Print ID for the specified CMDU
 - c. SDID - Display security device information
- 6 Click **Submit**.

—End—

D-channel Diagnostics

Click the **D-channel Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **D-Channel Diagnostics** Web page as shown in [Figure 25 "D-channel Diagnostics web page"](#) (page 62).

Figure 25
D-channel Diagnostics Web page

Managing: **192.167.102.3**
 System > Maintenance > D-Channel Diagnostics

D-Channel Diagnostics

Diagnostic Commands	Command Parameters	Action
Status for D-Channel (STAT DCH)		Submit
Disable Automatic Recovery (DIS AUTO)	<input type="checkbox"/> ALL	Submit
Enable Automatic Recovery (ENL AUTO)	<input type="checkbox"/> FDL	Submit
Test Interrupt Generation (TEST 100)		Submit
Establish D-Channel (EST DCH)		Submit

DCH	DES	APPL_STATUS	LINK_STATUS	AUTO_REC	PDCH	BDCH
010	PIV_VDCH	OPER	EST	ACTV	AUTO	

Instruction: Select command, add value and click on [Submit]

This Web page is used to test and maintain D-channel links and D-channel Interface (DCHI) cards. The commands available from this Web page correspond to the D-channel data traditionally maintained using the following overlays:

- LD 37 - Input/Output Diagnostic
- LD 48 - Link Diagnostic
- LD 96 - D-channel Diagnostic

To execute status commands using this Web page, follow the steps in [Procedure 25 "Performing D-channel status commands" \(page 62\)](#).

Procedure 25

Performing D-channel status commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> Status for D-Channel (STAT DCH) |
|---|---|

- b. Status for Service Message (STAT SERV)
- 2 Click **Submit**.

—End—

To execute disable commands using this Web page, follow the steps in [Procedure 26 "Performing D-channel disable commands" \(page 63\)](#).

Procedure 26
Performing D-channel disable commands

Step Action

- 1 Select one of the following commands from the second **Commands** drop-down list:
 - a. Disable Automatic Recovery (DIS AUTO)
 - b. Disable D-Channel (DIS DCH). Select the ALL check box to disable all D-Channels.
 - c. Disable Local Loop Back (DIS LLB)
 - d. Disable Remote Loop Back (DIS RLB)
 - e. Disable Test Mode (DIS TEST)
- 2 Click **Submit**.

—End—

To execute enable commands using this Web page, follow the steps in [Procedure 27 "Performing D-channel enable commands" \(page 63\)](#).

Procedure 27
Performing D-channel enable commands

Step Action

- 1 Select one of the following commands from the third **Commands** drop-down list:
 - a. Enable Automatic Recovery (ENL AUTO)
 - b. Enable D-Channel (ENL DCH). To force a loadware download at the same time, select the FDL check box.
 - c. Enable Local Loop Back (ENL LLB)
 - d. Enable Remote Loop Back (ENL RLB)

- e. Enable Test Mode (ENL TEST)
- 2 Click **Submit**.

—End—

To execute test commands using this Web page, follow the steps in [Procedure 28 "Performing D-channel test commands" \(page 64\)](#).

Procedure 28
Performing D-channel test commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the fourth Commands drop-down list: <ol style="list-style-type: none">a. Test interrupt Generation (TEST 100)b. Test Loop Back (Test 101)c. Test Interrupt Handler (TEST 200)d. Test Interrupt Handler-to-link (TEST 201) |
| 2 | Click Submit . |

—End—

To execute D-Channel commands using this Web page, follow the steps in [Procedure 29 "Performing D-channel commands" \(page 64\)](#).

Procedure 29
Performing D-channel commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the fifth Commands drop-down list: <ol style="list-style-type: none">a. EEstablish D-Channel (EST DCH)b. Get Physical Address and switch settings (MAP DCH)c. Reset DCH and Inhibit Signaling (RST DCH)d. Release D-Channel (RLS DCH)e. Switch to Standby D-Channel (SDCH DCH) |
| 2 | Click Submit . |

—End—

D-Channel Expansion Diagnostics

Click the **D-Channel Expansion Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Link: D-Channel Expansion Diagnostics** Web page as shown in [Figure 26 "Link: D-Channel Expansion Diagnostics web page"](#) (page 65).

Figure 26
Link: D-Channel Expansion Diagnostics Web page

Managing: [207.179.153.99](#)
System > [Maintenance](#) > Link: D-Channel Expansion Diagnostics

Link: D-Channel Expansion Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT MSDL - Status of MSDL card	(none)	<input type="button" value="Submit"/>
DIS MSDL - Disable the given MSDL card	(none)	<input type="button" value="Submit"/>
ENL MSDL - Enable the given MSDL card	(none)	<input type="button" value="Submit"/>

MSDL STATUS
No MSDL devices are configured in the system

Instruction: Select command, add value and click on [Submit]

This Web page is used to test and maintain Multipurpose Serial Data Link (MSDL) cards. The commands available from this Web page correspond to the MSDL data traditionally configured by using LD 48 - Link Diagnostic.

To perform MSDL diagnostic activities using this Web page, follow the steps in [Procedure 30 "Performing D-channel Expansion MSDL commands"](#) (page 66).

Procedure 30
Performing D-channel Expansion MSDL commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none">STAT MSDL - Status of MSDL cardSTAT MSDL full - Status MSDL card and available RAMSLFT MSDL - Self test on the given MSDL cardRST MSDL - Power-On rest the given MSDL card
2	Click Submit .

—End—

To execute disable commands using this Web page, follow the steps in [Procedure 31 "Performing D-channel Expansion disable commands"](#) (page 66).

Procedure 31
Performing D-channel Expansion disable commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none">DIS MSDL all - Disable the given MSDL cardDIS MSDL ALL - Disable all ports and then the MSDL cardDIS MSDL AUDM - Disable MSDL auditing for the MSDL cardDIS MSDL DBG - Disable debugger option for the MSDL card
2	Click Submit .

—End—

To execute enable commands using this Web page, follow the steps in [Procedure 32 "Performing D-channel Expansion enable commands"](#) (page 67).

Procedure 32**Performing D-channel Expansion enable commands**

Step Action

- 1 Select one of the following commands from the third **Commands** drop-down list:
 - a. ENL MSDL - Enable the given MSDL card
 - b. ENL MSDL all - Enable all ports and then the MSDL card
 - c. ENL MSDL AUDM - Enable MSDL auditing for the MSDL card
 - d. ENL MSDL FDL - Force download loadware to the MSDL card
- 2 Click **Submit**.

—End—

Digital Trunk Diagnostics

Click the **Digital Trunk Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Digital Trunk Interface and Primary Rate Interface: Digital Trunk Diagnostics** Web page as shown in [Figure 27 "Digital Trunk Interface and Primary Rate Interface: Digital Trunk Diagnostics web page"](#) (page 68).

Figure 27
Digital Trunk Interface and Primary Rate Interface: Digital Trunk Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » Digital Trunk Interface and Primary Rate Interface :Digital Trunk Diagnostics

Digital Trunk Interface and Primary Rate Interface :Digital Trunk Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT - Get Status of loop(s) <input type="button" value="v"/>	<input type="text"/> (loop#)	<input type="button" value="Submit"/>
STAT - Get Status of the Channel <input type="button" value="v"/>	<input type="text"/> (# ch#)	<input type="button" value="Submit"/>
LOVF - List Threshold Overflows for Route <input type="button" value="v"/>	<input type="text"/> (cust# route#)	<input type="button" value="Submit"/>
ATLP - Daily routine auto loop test <input type="button" value="v"/>	<input type="text"/> (0 or 1)	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

This Web page is used to test and maintain Digital Trunk Cards. The commands available from this Web page correspond to the DTI/PRI data traditionally maintained by using LD 60 - Digital Trunk Interface and Primary Rate Interface Diagnostics.

Use this Web page to issue maintenance commands on cards, channels, or routes by using the appropriate command drop-down list and parameter text box.

To perform maintenance activities on a Digital Trunk Card using this Web page, follow the steps in [Procedure 33 "Performing maintenance activities on a Digital Trunk Card"](#) (page 68).

Procedure 33

Performing maintenance activities on a Digital Trunk Card

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT - Get Status of loop(s) |
|---|---|

- b. DISL - Disable network and DTI/PRI cards of loop
 - c. Disable loop (when all channels are idle)
 - d. ENCH - Enable all channels on 2.0 Mb/s DTRI/PRI
 - e. ENLL - Enable network and DTI/PRI cards of loop
 - f. LCNT - List contents of alarm counters on loop(s)
 - g. RCNT - Reset alarm counters of all DTI/PRI loops
 - h. SLFT - Self Test on the loop)
 - i. DSYL - Disable yellow alarm processing for loop
 - j. ENYL - Enable yellow alarm processing for loop
 - k. DLBK - Disable remote loop back test
 - l. DLBK - Disable remote loop back tes
 - m. RLBK - Close loop at carrier interface point for testing
 - n. RMST - Perform remote loop back test on loop
- 2 Enter the Card number in the **Command Parameters** text box.
 - 3 Click **Submit**.

—End—

To perform maintenance activities on a Channel belonging to a Digital Trunk Card using this Web page, follow the steps in [Procedure 34 "Performing maintenance activities on a Channel"](#) (page 69).

Procedure 34

Performing maintenance activities on a Channel

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the second Commands drop-down list: <ul style="list-style-type: none"> a. STAT - Get Status of the channel b. DSCH - Disable the channel c. ENCH - Enable the channel d. SLFT - Self Test on the channel e. DLBK - Disable remote loop back test on channel f. RLBK - Close channel at carrier interface point g. RMST - Perform far end loop test on Channel |
|---|---|

- h. RSET - Reset thresholds for channel on loop
- 2 Enter the Card number and the Channel number, separated by a space, in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To perform maintenance activities on a Digital Trunk Route using this Web page, follow the steps in [Procedure 35 "Performing maintenance activities on a Digital Trunk Route"](#) (page 70).

Procedure 35

Performing maintenance activities on a Digital Trunk Route

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. LOVF - List Thresholds Overflows for the Route b. CMIN - Clear minor alarm indication for cust |
| 2 | Enter the Customer number and the Route number, separated by a space, in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

To perform maintenance activities on a card using this Web page, follow the steps in [Procedure 36 "Performing maintenance activities on a card"](#) (page 70).

Procedure 36

Performing maintenance activities on a card

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the fourth Commands drop-down list: <ol style="list-style-type: none"> a. ATLP - Daily routine automatic card test b. CMIN ALL - Clear minor alarm indication c. CDSP - Clear maintenance display |
|---|---|

- 2 Enter the 0 or 1 in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

Digital Trunk Maintenance Diagnostics

Click the **Digital Trunk Maintenance Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Digital Trunk Diagnostics** Web page as shown in [Figure 28 "Digital Trunk Diagnostics web page"](#) (page 71).

Figure 28
Digital Trunk Diagnostics Web page

Managing: [192.167.102.3](#)
System » [Maintenance](#) » Digital Trunk Diagnostics

Digital Trunk Diagnostics

Diagnostic Commands	Command Parameters	Action
STAT DDCS - Status for All DDCS loops or loop	<input type="text"/> ((loop))	<input type="button" value="Submit"/>
DIS DDCS - Disable DDCS number	<input type="text"/> (number)	<input type="button" value="Submit"/>
ENL DDCS - Enable DDCS number	<input type="text"/> (number)	<input type="button" value="Submit"/>
CDSP - Clear Display on active CPU	<input type="text"/> (none)	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the digital trunk diagnostics traditionally performed by using LD 75 - Digital Trunk Diagnostics.

To get status information on a digital trunk using this Web page, follow the steps in [Procedure 37 "Performing status commands on a digital trunk"](#) (page 72).

Procedure 37**Performing status commands on a digital trunk**

Step	Action
1	Select one of the following status commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT DDCS - Status for all DDCS loops or loop b. STAT DDSL - Status for all DDSLs or DDSL number c. STAT DTCS - Status for all DTCS loops or DTCS loop d. STAT DTRC - Status of RDC on loop e. STAT DTSL - Status of all DTSLs or DTSL number f. STAT DTVC - Status of VDC on loop g. STAT LSSL - Status of LSSL number for APNSS h. STAT LSRC - Status of RDC on Signaling Link number i. STAT LSVC - Status of VDC on Signaling Link number
2	Enter the Loop number in the Command Parameters text box.
3	Click Submit .

—End—

To disable an entity on a digital trunk using this Web page, follow the steps in [Procedure 38 "Performing disable commands on a digital trunk" \(page 72\)](#).

Procedure 38**Performing disable commands on a digital trunk**

Step	Action
1	Select one of the following disable commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. DIS DDSC - Disable DDSC number b. DIS DDSL - Disable DDSL number c. DIS DTCS - Disable DTCS loop d. DIS DTRC - Disable RDC on Loop e. DIS DTSL - Disable DTSL number f. DIS DTVC - Disable VDC on loop g. DIS LSSL - Disable LSSL number for APNSS

- h. DISI DDSC - Disable all Channels on Loop as idle
 - i. DISI DTCS - Disable DTCS loop
- 2 Enter the appropriate number in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To enable an entity on a digital trunk using this Web page, follow the steps in [Procedure 39 "Performing enable commands on a digital trunk" \(page 73\)](#).

Procedure 39

Performing enable commands on a digital trunk

Step	Action
------	--------

- 1 Select one of the following enable commands from the third **Commands** drop-down list:
 - a. ENL DDSC - Enable DDSC number
 - b. ENL DDSL - Enable DDSL number
 - c. ENL DTCS - Enable DTCS loop
 - d. ENL DTRC - Enable RDC on Loop
 - e. ENL DTSL - Enable DTSL number
 - f. ENL DTVC - Enable VDC on loop
 - g. ENL LSSL - Enable LSSL number for APNSS
- 2 Enter the appropriate number in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To perform miscellaneous commands on a digital trunk using this Web page, follow the steps in [Procedure 40 "Performing miscellaneous commands on a digital trunk" \(page 74\)](#).

Procedure 40

Performing miscellaneous commands on a digital trunk

Step Action

- 1 Select one of the following enable commands from the fourth **Commands** drop-down list:
 - a. CDSP - Clear display on active CPU
 - b. CMIN ALL - Reset Alarm Indication For All Customers
 - c. CMIN - Reset Alarm Indication for Customer
 - d. STRT - Start DDSL number
- 2 Click **Submit**.

—End—

Emergency Services Diagnostics

Click the **Emergency Services Diagnostics** link in the list of Maintenance diagnostic tools to open the **Emergency Services Diagnostics** Web page as shown in [Figure 29 "Emergency Services Diagnostics web page"](#) (page 75).

Figure 29
Emergency Services Diagnostics Web page

Managing: [192.167.100.3](#)
 System » [Maintenance](#) » Emergency Services Diagnostics

Emergency Services Diagnostics

Diagnostic Commands	Command Parameters	Action
----- Emergency Response Location Commands -----	<input type="text"/>	<input type="button" value="Submit"/>
----- Subnet Information Commands -----	<input type="text"/>	<input type="button" value="Submit"/>
---- Dynamic Location Identification Commands ---	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

To perform Emergency Response Location commands using this Web page, follow the steps in [Procedure 41 "Performing Emergency Response Location commands"](#) (page 75).

Procedure 41

Performing Emergency Response Location commands

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> PRT ERL - Print Emergency Response Location ENL ERL - Enable ERL DIS ERL - Disable ERL |
| 2 | Enter the required parameters in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

To perform Subnet Information commands using this Web page, follow the steps in [Procedure 42 "Performing Subnet Information commands"](#) (page 76).

Procedure 42

Performing Subnet Information commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the second Commands drop-down list: <ul style="list-style-type: none">a. PRT SUBNET - Print Subnet Locationb. PRT SUBNET NTH - Print Subnet Locations Starting from Index #c. PRT SUBNET ERL - Print All Subnet Locations for ERLd. PRT SUBNET ECL - Print All Subnet Locations for ECLe. EST SUBNETLIS - Test Subnet Location |
| 2 | Enter the required parameters in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

To perform Dynamic Location Identification commands using this Web page, follow the steps in [Procedure 43 "Performing Dynamic Location Identification commands"](#) (page 76).

Procedure 43

Performing Dynamic Location Identification commands

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the third Commands drop-down list: <ul style="list-style-type: none">a. PRT ELIN - Print Dynamic ELINb. STAT ELIN - Get Status of Dynamic ELINc. STAT ELIN ACTIVE - Get Status of active Dynamic ELIN |
|---|--|

—End—

Ethernet Diagnostics

Click the **Ethernet Diagnostics** link in the list of Maintenance diagnostic tools to open the **Ethernet Diagnostics** Web page as shown in [Figure 30](#) "Ethernet Diagnostics web page" (page 77).

Figure 30
Ethernet Diagnostics Web page

Status Commands [-- Filters]	Command Parameters
STAT LINK IP - Link status -- IP	<input type="text"/> <input type="button" value="Submit"/>
STAT SERV - Server status	<input type="text"/> <input type="button" value="Submit"/>
STIP TN - IP Status -- TN	<input type="text"/> <input type="button" value="Submit"/>
PRT IPDN - Print DNS with a given IP address	<input type="text"/> <input type="button" value="Submit"/>
ECNT FW - Etherset Count -- FWID MajorVer MinorVer Filter	<input type="text"/> <input type="button" value="Submit"/>
RST ZONE - Reset IP Phone -- Zone START/STOP HH:MM	<input type="text"/> <input type="button" value="Submit"/>
STAT IPMG - Print status of the given or all IPMGs	<input type="text"/> <input type="button" value="Submit"/>
STAT RFC2833 - RFC2833 Status -- TN	<input type="text"/> <input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

This Web page is used to maintain Ethernet elements. The commands available from this Web page correspond to the data traditionally maintained by using LD 117- Ethernet Quality of Service Diagnostics.

To execute Link status commands, follow the steps in [Procedure 44](#) "Performing Link status commands" (page 78).

Procedure 44
Performing Link status commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none">STAT LINK IP - Link Status -- IPSTAT LINK SRV - Link Status -- ServerSTAT LINK NAME - Link Status -- Host NameSTAT LINK NODE - Link Status -- Node ID
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To execute server status commands, follow the steps in [Procedure 45](#) "Performing server status commands" (page 78).

Procedure 45
Performing server status commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none">STAT SERV - Server StatusSTAT SERV IP - Server Status --IPSTAT SERV TYPE - Server Status -- TypeSTAT SERV APP - Server Status -- ApplicationSTAT SERV NAME - Server Status -- NameSTAT SERV NODE - Server Status -- Node ID
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To execute IP status commands, follow the steps in [Procedure 46 "Performing IP status commands" \(page 79\)](#).

Procedure 46
Performing IP status commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. STIP TN - IP Status -- TN b. STIP TYPE - IP Status -- Type c. STIP ZONE - IP Status -- Zone d. STIP NODE - IP Status -- Node ID e. STIP HOSTIP - IP Status -- Host IP f. STIP ACF - IP Status -- Active Call Failover g. STIP TERMIP - IP Status -- Term IP h. STIP FW - IP Status -- FWID MajorVer MinorVer Filter i. STIP MODL - IP Status -- ModelName
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To execute print commands, follow the steps in [Procedure 47 "Performing print commands" \(page 79\)](#).

Procedure 47
Performing print commands

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list: <ol style="list-style-type: none"> a. PRT IPDN - Print DNs with a given IP address b. PRT DNIP Print IP address(es) with a given DN c. PRT IPR - Print information for the given IPMG d. PRT IPMG - Print information for the given IPMG

- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To execute Etherset Count commands, follow the steps in [Procedure 48 "Performing Etherset Count commands" \(page 80\)](#).

Procedure 48
Performing Etherset Count commands

Step	Action
1	Select one of the following commands from the fifth Commands drop-down list: <ol style="list-style-type: none"> a. ECNT FW - Etherset Count -- FWID MajorVer MinorVer Filter b. ECNT MODL - Etherset Count -- Model c. ECNT PEC - Etherset Count -- PEC d. ECNT ZONE - Etherset Count -- Zone Customer # e. ECNT CARD - Etherset Count -- Loop Shelf Card Customer# f. ECNT NODE - Etherset Count -- Node ID g. ECNT SS - Etherset Count -- HostName
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To execute Reset IP Phone commands, follow the steps in [Procedure 49 "Performing Reset IP Phone commands" \(page 80\)](#).

Procedure 49
Performing Reset IP Phone commands

Step	Action
1	Select one of the following commands from the sixth Commands drop-down list: <ol style="list-style-type: none"> a. RST ZONE - Reset IP Phone -- Zone START/STOP HH:MM

- b. RST FW - Reset IP Phone -- FWID START/STOP HH:MM
- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To execute IPMG commands, follow the steps in [Procedure 50 "Performing IPMG commands"](#) (page 81).

Procedure 50
Performing IPMG commands

Step Action

- 1 Select one of the following commands from the seventh **Commands** drop-down list:
 - a. STAT IPMG - Print status of the given or all IPMGs
 - b. STAT IPMG SUMMARY - Print status of all IPMGs
- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To execute RFC2833 commands, follow the steps in [Procedure 51 "Performing RFC2833 commands"](#) (page 81).

Procedure 51
Performing RFC2833 commands

Step Action

- 1 Select one of the following commands from the eighth **Commands** drop-down list:
 - a. STAT RFC2833 - RFC2833 Status - TN
 - b. ENL RFC2833PRT - Enable the info Message Printing
 - c. DIS RFC2833PRT - Disable the info Message Printing
- 2 Enter the required command parameters in the **Command Parameters** text box.

3 Click **Submit**.

—End—

Ethernet Quality of Service Diagnostics

Click the **Ethernet Quality of Service Diagnostic** link in the list of **Maintenance** diagnostic tools to open the **Ethernet Quality of Service Diagnostics** Web page as shown in [Figure 31 "Ethernet Quality of Service Diagnostics web page"](#) (page 82).

Figure 31
Ethernet Quality of Service Diagnostics Web page

Managing: [207.179.153.99](#)
System » [Maintenance](#) » Ethernet Quality Of Service Diagnostics

Ethernet Quality Of Service Diagnostics

Action: Zone Number: Attribute:

Action: Zone Number: Level:

Instruction: Select command, add value and click on [Submit]

This Web page is used to issue commands on elements by using the appropriate **Action** drop-down list and the corresponding Zone Number and Attribute or Level text boxes.

The commands that are available from this Web page correspond to data traditionally maintained by using LD 117 - Zone Configuration and Diagnostic.

To perform maintenance activities for Zone Attributes, follow the steps in [Procedure 52 "Performing maintenance activities for Zone Attributes"](#) (page 83).

Procedure 52**Performing maintenance activities for Zone Attributes**

Step	Action
1	Select one of the following commands from the Action drop-down list: <ol style="list-style-type: none"> a. Print QoS attribute for Zone (PRT AQOS) b. Print Zone IP statistics (PRT ZQOS)
2	Enter the appropriate value in the corresponding Zone Number and Attribute text box.
3	Click Submit .

—End—

To perform maintenance activities for Zone Levels, follow the steps in [Procedure 53 "Performing maintenance activities for Zone Levels" \(page 83\)](#).

Procedure 53**Performing maintenance activities for Zone Levels**

Step	Action
1	Select one of the following commands from the Action drop-down list: <ol style="list-style-type: none"> a. Change Zone Notification Level (CHG ZQNL) b. Print Zone Notification Level (PRT ZQNL)
2	Enter the appropriate value in the corresponding Zone Number and Level text box.
3	Click Submit .

—End—

Input/Output Diagnostics

Click the **Input/Output Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Input Output Diagnostics** Web page as shown in [Figure 32 "Input/Output Diagnostics web page" \(page 84\)](#).

Figure 32
Input/Output Diagnostics Web page

Managing: 192.167.102.3
 System » Maintenance » Input Output Diagnostics

Input Output Diagnostics

Diagnostic Commands	Command Parameters	Action
- ---- TTY Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Printer Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- MSDL Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Miscellaneous Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

MSDL STATUS
 No MSDL devices are configured in the system

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Input/Output diagnostics traditionally performed using LD 37 - Input/Output.

To execute TTY commands, follow the steps in [Procedure 54 "Performing Input/Output TTY commands"](#) (page 84).

Procedure 54 **Performing Input/Output TTY commands**

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> STAT TTY - Get status of TTY device(s) ENL TTY - Enable TTY DIS TTY - Disable TTY |
| 2 | Enter the required command parameters in the Command Parameters text box. |

- 3 Click **Submit**.

—End—

To execute Printer commands, follow the steps in [Procedure 55 "Performing Input/Output Printer commands"](#) (page 85).

Procedure 55

Performing Input/Output Printer commands

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. STAT PRT - Get status of Printer(s) b. ENL PRT - Enable Printer c. DIS PRT - Disable Printer |
| 2 | Enter the required command parameters in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

To execute MDSL commands, follow the steps in [Procedure 56 "Performing Input/Output MDSL commands"](#) (page 85).

Procedure 56

Performing Input/Output MDSL commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. STAT MSDL - Get status of MSDL card(s) b. ENL MSDL - Enable MSDL device c. DIS MSDL - Disable MSDL device d. SLFT MSDL - Self test MSDL device e. RST MSDL - Reset MSDL device |
| 2 | Enter the required command parameters in the Command Parameters text box. |

- 3 Click **Submit**.

—End—

To use the miscellaneous commands, do the following:

Step	Action
-------------	---------------

- | | |
|----------|--|
| 1 | Select one of the following commands from the fourth Commands drop-down list: <ol style="list-style-type: none">a. STAT - Get status of all I/O devices in systemb. STAT XSM - Get status of the system monitorc. STAT LINK - Get status of CDR data Link(s)d. CMIN - Clear minor lamp on system basise. CMIN ALL - Clear minor alarm on all attendant consolesf. CDSP - Clear maintenance display on active CPU |
| 2 | Enter the required command parameters in the Command Parameters text box. |
| 3 | Click Submit . |

—End—

Intergroup Switch and System Clock Generator Diagnostics

Click the **Intergroup Switch and System Clock Generator Diagnostics** link in the list of **Call Server** functionalities to open the **Intergroup Switch and System Clock Generator Diagnostics** Web page as shown in [Figure 33 "Intergroup Switch and System Clock Generator Diagnostics web page"](#) (page 87).

Figure 33
Intergroup Switch and System Clock Generator Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » Intergroup Switch and System Clock Generator Diagnostics

Intergroup Switch and System Clock Generator Diagnostics

Diagnostic Commands	Command Parameters	Act
STAT FIJI - Status of FIJI in specified Grp, Side	<input type="text"/> (grp# side#)	<input type="button" value="Sub"/>
DIS ALRM - Disable specified Alarm (or all) for FIJI	<input type="text"/> (grp# side# (alarm#))	<input type="button" value="Sub"/>
ENL ALRM - Enable specified Alarm (or all) for FIJI	<input type="text"/> (grp# side# (alarm#))	<input type="button" value="Sub"/>
TEST 360 - Perform 360 test on FIJI card	<input type="text"/> (grp# side# (time#))	<input type="button" value="Sub"/>
CDSP - Clear Maintenance Display on active CPU	<input type="text"/> (none)	<input type="button" value="Sub"/>

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Intergroup Switch and System Clock Generator diagnostics traditionally performed using LD 39.

To use status commands, follow the steps in [Procedure 57 "Performing Intergroup status commands"](#) (page 87).

Procedure 57

Performing Intergroup status commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT FIJI - Status of FIJI on specified Grp, Side b. STAT PER - Status of specified PS card c. STAT SCG - Status of specified SCG card (0 or 1) d. STAT RING - Status of all FIJI cards on specified Ring

- 2 Enter the group number and side number in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To use the disable commands, follow the steps in [Procedure 58 "Performing Intergroup disable commands"](#) (page 88).

Procedure 58
Performing Intergroup disable commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. DIS ALRM - Disable specified Alarm (or all) for FIJI b. DIS FIJI - Disable FIJI in specified Group and Side c. DSPS - Disable specified PS card d. DIS SCG - Disable specified SCG card (0 or 1) e. DIS RING - Disable all FIJI cards on specified Ring f. DIS RALM - Disable all alarms for all RIJI cards in Ring
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the enable commands, follow the steps in [Procedure 59 "Performing Intergroup enable commands"](#) (page 88).

Procedure 59
Performing Intergroup enable commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. ENL ALRM - Enable specified Alarm (or all) for FIJI b. ENL FIJI - Enable FIJI in specified Group and Side

- c. ENPS - Enable specified PS card
 - d. ENL SCG - Enable specified SCG card (0 or 1)
 - e. ENL RING - Enable all FIJI cards on specified Ring
 - f. ENL RALM - Enable all alarms for all FIJI cards in Ring
- 2 Enter the required command parameters in the **Command Parameters** text box.
 - 3 Click **Submit**.

—End—

To use the test commands, follow the steps in [Procedure 60 "Performing Intergroup test commands"](#) (page 89).

Procedure 60
Performing Intergroup test commands

Step	Action
1	Select one of the following commands from the fourth Commands drop-down list: <ol style="list-style-type: none"> a. TEST 360 - Perform 360 test on FIJI card b. TEST FIJI - Self Test FIJI Card c. TEST BKPL - Test backplane d. TEST CMEM - Test connection memory e. TEST LINK - Perform Link test to identify hardware faults f. TEST ALL - Perform FIJI diagnostic test
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the miscellaneous commands, follow the steps in [Procedure 61 "Performing Intergroup miscellaneous commands"](#) (page 90).

Procedure 61**Performing Intergroup miscellaneous commands**

Step Action

- 1 Select one of the following commands from the fifth **Commands** drop-down list:
 - a. CDSP - Clear Maintenance Display on active CPU
 - b. CMIN - Clear minor alarm on attendant console
 - c. CMIN ALL - Reset minor alarm on attendant consoles
 - d. ARCV ON - Set auto-recovery operation for ring
 - e. ARCV OFF - Reset auto-recovery operation for ring
 - f. ALRD ON - Turn on alarm display for all FIJI cards
 - g. ALRD OFF - Turn off alarm display for all FIJI cards
 - h. RSET - Reset thresholds for switchover functionality
 - i. RSTR - Restore Ring(s)
 - j. SCLK - Switchover to the other SCG
 - k. SLCK FRCE - Force clock to switch to other SCG
 - l. SWRG - Switch Call Processing to specified ring
- 2 Click **Submit**.

—End—

MSDL Diagnostics

Click the **MSDL Diagnostics** link in the list of Maintenance diagnostic tools to open the **Multipurpose Serial Data Link (MSDL) Diagnostics** Web page as shown in [Figure 34 "MSDL Diagnostics web page" \(page 91\)](#).

Figure 34
MSDL Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » MSDL Diagnostics

MSDL Diagnostics

Diagnostic Commands	Command Parameters	Action
Disable MSDL Device (DIS) ▾	<input type="checkbox"/> FDL <input type="checkbox"/> FULL <input type="checkbox"/> ALL	<input type="button" value="Submit"/>

MSDL STATUS
 No MSDL devices are configured in the system

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the MSDL diagnostics traditionally performed by using LD 96 - D-channel.

This Web page is used to perform the following MSDL diagnostic functions:

- Disable MSDL Device (DIS)
- Enable MSDL Device (ENL)
- Self Test (SLFT)
- Get Status of MSDL Device (STAT)
- Causes Power-On Reset of MSDL Device (RST)

To perform diagnostic activities using this Web page, follow the steps in [Procedure 62 "Performing MSDL diagnostic activities"](#) (page 92).

Procedure 62
Performing MSDL diagnostic activities

Step	Action
1	Select the required Diagnostic Command from the Commands drop-down list.
2	To update the loadware, select the FDL (Force Download) check box when the Enable MSDL Device command is selected.
3	To check the status of all MDSL devices, select the Full check box when the Get Status of MSDL Device command is selected.
4	Enter any required Command Parameters . The required parameters for the selected command are indicated to the right of the Command Parameters box after the command is selected.
5	Click Submit .

—End—

Multifrequency Sender Diagnostics

The **Multifrequency Sender Diagnostics** Web page is available only on Large Systems.

Click the **Multifrequency Sender Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Multifrequency Sender Diagnostics** Web page as shown in [Figure 35 "Multifrequency Sender Diagnostics web page"](#) (page 93).

Figure 35
Multifrequency Sender Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » Multifrequency Sender Diagnostics

Multifrequency Sender Diagnostics

Diagnostic Commands	Command Parameters	Action
- ---- Loop Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Card Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Alarm Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Multifrequency Sender diagnostics traditionally performed by using LD 46.

To use the loop commands, follow the steps in [Procedure 63 "Performing Multifrequency Sender loop commands"](#) (page 93).

Procedure 63

Performing Multifrequency Sender loop commands

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT - GetStatus of MFS loop b. ENLL - Enable loop c. DISL - Disable loop d. MFS - Test and enable MFS loop |
|---|---|

- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To use the card commands, follow the steps in [Procedure 64 "Performing Multifrequency Sender card commands"](#) (page 94).

Procedure 64
Performing Multifrequency Sender card commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. ENLX - Enable Conf/TDS/MFS card on loop b. DISX - Disable Conf/TDS/MFS card on loop
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit button.

—End—

To use the alarm commands, follow the steps in [Procedure 65 "Performing Multifrequency Sender alarm commands"](#) (page 94).

Procedure 65
Performing Multifrequency Sender alarm commands

Step	Action
1	Select one of the following commands from the third Commands drop-down list: <ol style="list-style-type: none"> a. CMAJ - Clear major alarm and reset power fail b. CDSP - Clear Maint display on active CPU c. CMIN - Clear minor lamp on system d. CMIN ALL - Clear minor lamp on atndt consls
2	Enter the required command parameters in the Command Parameters text box.

3 Click **Submit**.

—End—

Multifrequency Signaling Diagnostics

Click the **Multifrequency Signaling Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Multifrequency Signaling Diagnostics** Web page as shown in [Figure 36 "Multifrequency Signaling Diagnostics web page"](#) (page 95).

Figure 36
Multifrequency Signaling Diagnostics Web page

Managing: [192.167.102.3](#)
System » [Maintenance](#) » Multifrequency Signaling Diagnostics

Multifrequency Signaling Diagnostics

Diagnostic Commands	Command Parameters	Action
----- Card Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Miscellaneous Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Multifrequency Signaling diagnostics traditionally performed by using LD 54 - Multifrequency Signaling.

To use the card commands, follow the steps in [Procedure 66 "Performing Multifrequency Signaling card commands"](#) (page 96).

Procedure 66
Performing Multifrequency Signaling card commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ol style="list-style-type: none"> a. STAT - Get status of MFC or MFE card b. DISC - Disable MFC/MFE card c. ENLC - Enable MFC or MFE card d. MIDN - Reset/Initialize all idle MFC or MFE cards
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the unit commands, follow the steps in [Procedure 67 "Performing Multifrequency Signaling unit commands"](#) (page 96).

Procedure 67
Performing Multifrequency Signaling unit commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ol style="list-style-type: none"> a. STAT - Get status of specified MFC or MFE unit b. DISU - Disable XMFC/XMFE channel c. ENLU - Enable MFC/MFE channel d. MTST - Invoke loop around test on unit with digit and level e. ATST - Invoke automatic loop test for unit
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the miscellaneous commands, follow the steps in [Procedure 68 "Performing Multifrequency Signaling miscellaneous commands"](#) (page 97).

Procedure 68**Performing Multifrequency Signaling miscellaneous commands**

Step Action

- 1 Select one of the following commands from the third **Commands** drop-down list:
 - a. STAT - List all disabled MFC channels in system
 - b. CMIN ALL - Clear minor alarm for all customers
 - c. CDSP - Clear the mtc display on active CPU
 - d. CMAJ - Clear major alarm and reset power fail transfer
- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

Network and Peripheral Equipment Diagnostics

Click the **Network and Peripheral Equipment Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Network & Peripheral Diagnostics** Web page as shown in [Figure 37 "Network & Peripheral Diagnostics web page"](#) (page 98).

Figure 37
Network and Peripheral Diagnostics Web page

Managing: [192.167.102.3](#)
 System » [Maintenance](#) » Network & Peripheral Diagnostics

Network & Peripheral Diagnostics

Diagnostic Commands	Command Parameters	Action
----- Loop Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Shelf Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Card Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- M39XX Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- DSL Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Application Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

This Web page is used to test and maintain network and peripheral equipment. The commands available from this Web page correspond to the data traditionally maintained by using the LD 32 - Network and Peripheral Equipment Diagnostic.

These commands are split among separate drop-down lists, grouped by equipment type.

The command lists are as follows:

- Loop Commands
 - Network Loop
 - ENLL - Enable network loop
 - DISL - Disable network loop
 - Super Loop
 - STAT - Get status of Superloop
 - SUPL - Print data for one or all Superloops

-
- IDC - Print Card ID for Superloop and associated Controller
 - XNTT - Do self-test of Network card for specified Superloop
 - ENLL - Enable specified Superloop
 - XRST - Reset the specified Superloop
 - Shelf Commands
 - DISS - Disable module (Small System) Disable the shelf (Large System)
 - ENLS - Enable module (Small System) Enable specified shelf (Large System)
 - LBSY - List TNs of all busy units
 - LDIS - List TNs of all disabled units
 - LIDL - List TNs of all idle units
 - LMNT - List TNs of all maint. busy units
 - Card Commands
 - General Card Commands
 - STAT - Get card status
 - ENLC - Enable and reset card
 - DISC - Disable card (Small System). Disable peripheral card (Large System)
 - IDC - Print card ID (Small System). Print card ID for PE card (Large System)
 - MISP Card Commands
 - STAT - Print status of MISP appl/card
 - ENLL - Enable MISL loop
 - ENLL BRIL - Enable BRIL application on MISP loop
 - ENLL BRIT - Enable BRIT application on MISP loop
 - IDC - Print MISP card ID
 - DISL - Disable MISP loop
 - DISL BRIL - Disable BRIL application on MISP loop (Large System)
 - DISL BRIT - Disable BRIT application on MISP loop
 - DISL BRIE - Disable BRIE application on MISP loop

- BRI BRSC Card Commands
 - STAT - Get status of BRI card
 - IDC - Print BRSC card and LW version
 - DISC BRI - Disable the BRSC BRI application
 - DISC - Disable specified card
 - ENLC BRI - Enable the BRSC BRI application
 - ENLC - Enable specified card
- PS Card Commands
 - STAT PER - Get status of PS card
 - ENPS - Enable PS card and associated loops
 - DSPS - Disable Peripheral Signaling card
- Network Card Commands
 - STAT NWK - Check status of N/W card with specified loop
 - ENLN - Enable network card with specified loop
 - DISN - Disable network card with specified loop
- XPEC Controller Commands
 - XPEC - Print data for all or specified Controller(s)
 - ENXP - Enable Controller and associated cards
 - ENXP XPC - Enable Controller, not the associated cards
 - DSXP - Disable Controller and all connected cards
 - XPCT - Self-test on Controller
 - IDCS - Print card ID for cards
- Unit Commands
 - General Unit Commands
 - STAT - Get unit status
 - ENLU - Enable unit
 - IDU - Print set ID
 - DISU - Disable unit
 - STAT VTRM - Display virtual trunk unit status
 - M39XX Unit Commands

- FDLG - Cancel/stop flash download for M39xx
- FDLU - Conditional download to one M39xx
- FWVU - Print firmware versions on M39xx
- FSUM - Print firmware versions on M39xx
- DSL Commands
 - STAT - Get status of SILC or UILC
 - ENL AUTO - Enable automatic link recovery
 - ENRB - Enable Remote Loop Back for DSL
 - DIS AUTO - Disable automatic link recovery
 - DISU - Disable the DSL
 - DSRB - Disable Remote Loop Back for DSL
 - IDC - Print SILC/UILC card ID
 - PERR - Print protocol log for the card
 - DISC - Disable SILC/UILC card
 - FDIS NCAL - Force disconnect the connection
 - STAT NCAL - List all current connections - DSL
 - PCON - Print configuration and LAPD parameters for specified DSL
 - DISI - Disable the card when idle
 - DSTS - Disable Disable Remote Loop Back test mode
 - ENLC - Enable SILC/UILC card
 - EISI - Enable the card when idle
 - ESRB - Enable Remote Loop Back
 - ESTS - Enable Remote Loop Back test mode
 - ESTU - Establish D Channel Link
 - PLOG - Print protocol log
 - PMES - Print Layer 3 message log
 - PTAB - Upload and Print Layer 3 message configuration
 - PTRF - Print traffic data
 - RLBT - Perform Remote Loop Back test
 - RLSU - Release D Channel Link
- Application Commands

- DISL BRIL - Disable and remove BRIL application from MISP card
- DISL BRIT - Disable and remove BRIT application from MISP card
- DISL BRIE - Disable and remove BRIE application from MISP card
- ENLL BRIL - Enable BRI application on MISP Card and force download of the loadware
- ENLL BRIT - Enable BRIT application on MISP card and force download of the loadware
- ENLL BRIE - Enable BRIE application on MISP card and force download of the loadware
- DIS BRIL - Disable BRIL application on MISP Card
- DIS BRIT - Disable BRIT application on MISP Card
- DIS BRIE - Disable BRIE application on MISP Card
- PERR BRIL - Upload error log for BRIL application on MISP Card
- PERR BRIT - Upload error log for BRIT application on MISP Card
- PERR BRIE - Upload error log for BRIE application on MISP Card
- PERR BRIL - Print protocol log for BRIL application on MISP Card
- PERR BRIT - Print protocol log for BRIT application on MISP Card
- PERR BRIE - Print protocol log for BRIE application on MISP card
- STAT BRIL - Get status of MISP card and BRIL application
- STAT BRIT - Get status of MISP card and BRIT application
- STAT BRIE - Get status of MISP card and BRIE application

Use this Web page to issue diagnostic commands on the network and peripheral equipment by using the appropriate **Diagnostic Commands** drop-down list and the corresponding **Command Parameters** text box. The required parameters for the selected command are indicated to the right of the **Command Parameters** text box after the command is selected.

To perform maintenance activities using this Web page, follow the steps in [Procedure 69 "Performing Network and Peripheral maintenance activities" \(page 102\)](#).

Procedure 69

Performing Network and Peripheral maintenance activities

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select a command from one of the Diagnostic Commands drop-down lists. |
|---|--|

- 2 Enter the appropriate value in the corresponding **Command Parameters** text box. The required parameters for the selected command are indicated to the right of the **Command Parameters** box once the command is selected.
- 3 Click the corresponding **Submit** button.

—End—

Network and Signaling Diagnostics

Click the **Network and Signaling Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Network & Signaling Diagnostics** Web page as shown in [Figure 38 "Network and Signaling Diagnostics web page"](#) (page 103).

Figure 38
Network and Signaling Diagnostics Web page

Managing: [192.167.102.3](#)
System » Maintenance » Network & Signaling Diagnostics

Network & Signaling Diagnostics

Diagnostic Commands	Command Parameters	Action
- ---- Loop Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Shelf/Card/Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- BRI Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Superloop Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
- ---- Alarm Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

The commands available from this Web page correspond to the Network and Signaling diagnostics traditionally performed by using LD 30 - Network and Signaling.

This Web page is used to perform the following Network and Signaling diagnostic functions:

- Loop Commands
 - ENLL - Enable network loop
 - DISL - Disable loop
 - LDIS - List disabled loops
 - LENL - List enabled loops
 - LOOP - Test network memory on loop(s)
 - STAT - Get status of all/specified N/W loops
 - TTSM - Test TSM of a loop

- Shelf/Card/Unit Commands
 - TEST - Continuity and signaling test on XPE (Small System)
 - UNTT - Signaling test on specified card or unit
 - SHLF - Test loop l, shelf s (Large System)
 - CPED - Clear contents of ctrlr maint display (Large System)
 - RPED - Read contents of ctrlr maint display (Large System)
 - TTWI - Test TSM of the N/W card (Large System)

- BRI Commands
 - SLFT - Selftest on ISDN BRI line card
 - SLFT - Selftest ISDN BRI line card (Large System)
 - SLFT - Selftest on MISP card
 - STEI - Query Term Edpt Identifiers and USIDs (Large System)
 - TEIT - Perform TEI check on DSL

- Superloop Commands
 - ENLL - Enable specified Superloop
 - DISL - Disable specified Superloop
 - ENLL - Enable sl, download periph s/w ver

- Alarm Commands
 - CMAJ - Clear major alarm and reset power fail
 - CDSP - Clear Maint display on active CPU
 - CMIN - Clear minor alarm on attendant consoles for customer

— CMIN ALL - Clear minor alarm on all attendant consoles

To perform diagnostic activities using this Web page, follow the steps in [Procedure 70 "Performing Network and Signaling diagnostic activities"](#) (page 105).

Procedure 70

Performing Network and Signaling diagnostic activities

Step	Action
1	Select the required Diagnostic Command from the drop-down list.
2	Enter any required Command Parameters . The required parameters for the selected command are indicated to the right of the Command Parameters text box once the command is selected.
3	Click Submit .

—End—

TMDI Diagnostics

T1 Multipurpose Digital Interface (TMDI) cards are used only in CS 1000M Small Systems. Click the **TMDI Diagnostics** link in the list of Call Server diagnostic tools to open the **TMDI Diagnostics** Web page as shown in [Figure 39 "TMDI Diagnostics web page"](#) (page 106).

Figure 39
TMDI Diagnostics Web page

Managing: 207.179.153.99
 System > Maintenance > TMDI Diagnostics

TMDI Diagnostics

Diagnostic Commands	Command Parameters	Action
Enable TMDI Card (ENL) ▼	<input type="checkbox"/> FDL <input type="checkbox"/> FULL <input type="checkbox"/> ALL	Submit

TMDI STATUS

Instruction: Select command, add value and click on [Submit]

Cancel

This Web page is used to test and maintain TMDI (DTI/PRI/DCH) cards. The commands available from this Web page correspond to the TMDI data traditionally configured by using LD 96 - D-channel.

To perform diagnostic activities using this Web page, follow the steps in [Procedure 71 "Performing TMDI diagnostic activities"](#) (page 106).

Procedure 71
Performing TMDI diagnostic activities

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select one of the following Actions from the Commands drop-down list: <ol style="list-style-type: none"> a. Enable TMDI Card (ENL) b. Disable TMDI card (DIS) c. Reset TMDI card (RST) d. Self Test on TMDI Card (SLFT) e. Get TMDI Status (STAT) |
|---|---|

- 2 Enter any required **Command Parameters**. The required parameters for the selected command are indicated to the right of the **Command Parameters** text box once the command is selected.
- 3 Click **Submit**.

—End—

Tone and Digit Switch Diagnostics

Click the **Tone and Digit Switch Diagnostics** link in the list of Maintenance diagnostic tools to open the **Tone and Digit Switch and Digitone Receiver Diagnostics** Web page as shown in [Figure 40 "Tone and Digit Switch and Digitone Receiver Diagnostics web page"](#) (page 107).

Figure 40
Tone and Digit Switch and Digitone Receiver Diagnostics Web page

Managing: [192.167.102.3](#)
System » [Maintenance](#) » Tone and Digit Switch and Digitone Receiver Diagnostics

Tone and Digit Switch and Digitone Receiver Diagnostics

Diagnostic Commands	Command Parameters	Action
----- Loop Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Card and Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Miscellaneous Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

This Web page is used to execute tone, digit switch, and digitone receiver diagnostics. The commands available from this Web page correspond to the TMDI data traditionally configured by using LD 34 - Tone and Digital Switch.

To perform diagnostic activities using this Web page, follow the steps in [Procedure 72 "Performing Tone and Digit diagnostic activities"](#) (page 108).

Procedure 72**Performing Tone and Digit diagnostic activities****Step Action**

- 1 Select one of the following commands from the **Diagnostic Commands** drop-down lists:
 - Loop Commands
 - STAT - Get status TDS loop
 - DISL - Disable tone and digit loop
 - DISX - Disable Conf/TDS/MFS card on loop I and I + 1
 - ENLX - Enable Conf/TDS/MFS card on loop I and I + 1
 - ENLL - Enable tone and digit loop
 - MFR - Test ANI Feature Group D Multifrequency receiver units
 - TDS - Test outpulsers and channels on loop
 - Card and Unit Commands
 - SDTR - Get status of DTR/MFR or XDT card/unit
 - DISR - Disable specified TDS/MFS card/unit
 - ENLR - Enable the DTR/MFR card/unit
 - DTR - Test specified Digitone receiver card/unit
 - MFR - Test all ANI Multifrequency receiver units
 - Miscellaneous Commands
 - ENLM - Enable all the TDS loops of the given IPMG
 - DISM - Disable all the TDS loops of the given IPMG
 - CMIN - Clear the minor alarm for customer
 - CMIN ALL - Clear minor alarm on all attendant consoles
 - CDSP - Clear the mtc display on active CPU
 - CMAJ - Clear major alarm and reset power fail transfer
 - MFR - Test all ANI Feature Group D MFR receiver units
- 2 Enter any required **Command Parameters**. The required parameters for the selected command are indicated to the right of the **Command Parameters** text box once the command is selected.
- 3 Click the corresponding **Submit** button.

—End—

Trunk Diagnostics

Click the **Trunk Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Trunk Diagnostics** Web page as shown in [Figure 41 "Trunk Diagnostics web page"](#) (page 109).

Figure 41
Trunk Diagnostics Web page

Managing: [192.167.102.3](#)
System » [Maintenance](#) » Trunk Diagnostics

Trunk Diagnostics

Diagnostic Commands	Command Parameters	Action
----- Card Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Unit Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Customer Route Commands ----	<input type="text"/>	<input type="button" value="Submit"/>
----- Miscellaneous Commands ----	<input type="text"/>	<input type="button" value="Submit"/>

Instruction: Select command, add value and click on [Submit]

This Web page is used to test and maintain trunk cards. The commands available from this Web page correspond to the data traditionally maintained by using LD 36 - Trunk Diagnostic.

To use the card commands, follow the steps in [Procedure 73 "Performing Trunk card commands"](#) (page 110).

Procedure 73
Performing Trunk card commands

Step	Action
1	Select one of the following commands from the first Commands drop-down list: <ul style="list-style-type: none">a. STAT - Get card statusb. ENLC - Enable and reset cardc. DISC - Disable card
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the unit commands, follow the steps in [Procedure 74 "Performing Trunk unit commands"](#) (page 110).

Procedure 74
Performing Trunk unit commands

Step	Action
1	Select one of the following commands from the second Commands drop-down list: <ul style="list-style-type: none">a. ENLU - Enable unitb. LDIC - Number of days since last inc. callc. DISU - Disable unitd. RSET - Reset thresholds for the trunke. TPPM - Test the specified PPM trunk
2	Enter the required command parameters in the Command Parameters text box.
3	Click Submit .

—End—

To use the customer route commands, follow the steps in [Procedure 75 "Performing Trunk customer route commands"](#) (page 111).

Procedure 75**Performing Trunk customer route commands**

Step Action

- 1 Select one of the following commands from the third **Commands** drop-down list:
 - a. LDIC - List days since last incoming call for customer
 - b. LMAX - List trunk with max idle days for customer
 - c. LNDS - List trunks with no disconnect sup. for customer
 - d. LOVF - List threshold overflows for customer
 - e. RAN - Test recorded announcement device
- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

To use the miscellaneous commands, follow the steps in [Procedure 76 "Performing Trunk miscellaneous commands"](#) (page 111).

Procedure 76**Performing Trunk miscellaneous commands**

Step Action

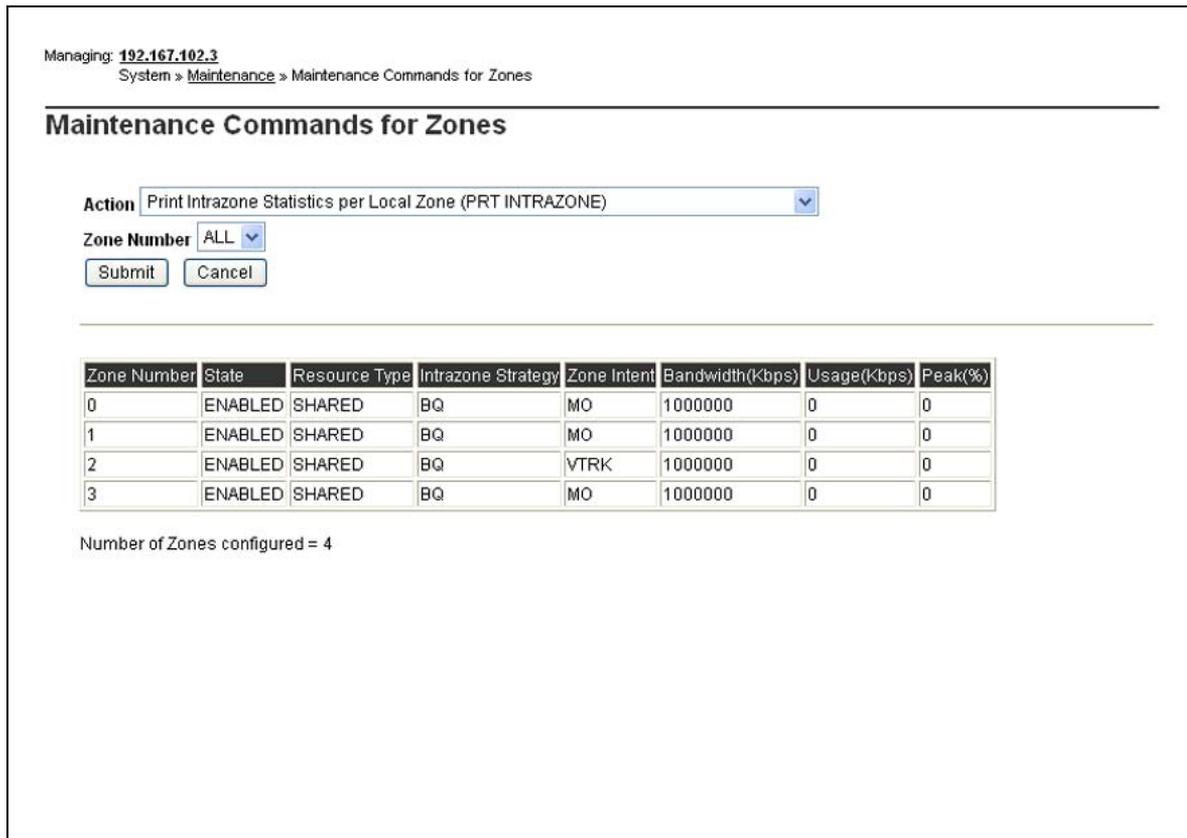
- 1 Select one of the following commands from the fourth **Commands** drop-down list:
 - a. CMIN - Clear the minor lamp on a system basis
 - b. CMIN ALL - Clear minor alarm on all attendant consoles
 - c. CDSP - Clear the mtc display on active CPU
- 2 Enter the required command parameters in the **Command Parameters** text box.
- 3 Click **Submit**.

—End—

Zone Diagnostics

Click the **Zone Diagnostics** link in the list of **Maintenance** diagnostic tools to open the **Maintenance Commands for Zones** Web page as shown in [Figure 42 "Maintenance Commands for Zones web page"](#) (page 112).

Figure 42
Maintenance Commands for Zones Web page



This Web page is used to enable and disable zones and to view various parameters, properties, and behaviors associated with the configured zones. The commands available from this Web page correspond to the data traditionally maintained by using LD 117 - Ethernet and Alarm Management.

This Web page also includes a table that shows the status and settings for the configured zones.

To perform maintenance activities using this Web page, follow the steps in [Procedure 77 "Performing Zone maintenance activities"](#) (page 113).

Procedure 77
Performing Zone maintenance activities

Step	Action
1	Select one of the following commands from the Actions drop-down list: <ol style="list-style-type: none"> a. Print Intrazone Statistics per Local Zone (PRT INTRAZONE) b. Print Bandwidth Property (PRT ZBW) c. Print Description (PRT ZDES) d. Print Dialing Plan and Access Codes (PRT ZDP) e. Print Time Change property (PRT ZTP) f. Show Branch Office Behaviour (STAT ZBR) g. Show Status (STAT ZONE) h. Enable a Zone (ENL ZONE) i. Disable a Zone (DIS ZONE) j. Enable a Zone's Branch Office Behaviour (ENL ZBR) k. Disable a Zone's Branch Office Behaviour (DIS ZBR) l. Print Adaptive Network Bandwidth Management and CAC Parameters (PRT ZCAC) m. Print Interzone Statistics (PRT INTERZONE) n. Reset CAC Statistics (CLR CACR) o. Print Zone Alternate Prefix Information (PRT ZALT) p. Show Alternate Routing Status (STAT ZALT) q. Print Alarm Suppression Time Period (PRT ZAST)
2	Enter the Zone Number assigned to a configured zone in the Zone Number text box.
3	Click Submit .

—End—

This Web page provides peripheral software application data and the corresponding version numbers for peripheral software installed on the Call Server.

Loops (Common Equipment)

To configure or edit Loops (Common Equipment) information, select the **Loops** link in the **System** branch of the Element Manager navigator. The **Common Equipment** Web page opens (see Figure 43 "Common Equipment web page" (page 114)).

Figure 43
Common Equipment Web page

Managing: 192.167.102.3
System » Core Equipment » Loops (Common Equipment)

Loops (Common Equipment)

- Basic IP Configuration

Change to Common Equipment parameters:

Extended Conference/TDS/MFS:

TDS Loop Number:

TDS Loop Number:

Conference Loop Numbers:

Digital Trunk Interface Loop Number:

- Feature Packages

+ Integrated Digital Access	Package: 122
+ 2.0 Mb/s Digital Trunk Interface	Package: 129
+ Dial Tone Detection	Package: 138
+ 2.0 Mb/s Primary Rate Interface	Package: 154

The **Common Equipment** Web page contains buttons that act as links to additional Web pages. The following functions can be performed from these pages:

- add and delete Tone and Digit Switch (TDS) numbers
- add and delete Digital Trunk Interface Loop (DLOP) numbers
- add and delete Conference loop (CONF) numbers
- configure parameters for the following Feature Packages:
 - Integrated Digital Access (Package 122)
 - 2 Mbit Digital Trunk Interface (Package 129)
 - Dial Tone Detection (Package 138)

— 2.0 Mb/s Primary Rate Interface (Package 154)

The information entered in this section corresponds to CEQU (Common Equipment) data traditionally configured using LD 17 - Configuration Record 1.

To save changes made in this section, click **Submit** at the bottom of the **Common Equipment** Web page.

Superloops

To configure or edit Superloop information, select the **Superloop** link in the **System** branch of the Element Manager navigator. The **Superloops** Web page opens as shown in Figure 44 "Superloops web page" (page 115).

Figure 44
Superloops Web page

Managing: [207.179.153.99](#)
System » Superloops

Superloops

Choose a Superloop Number: and type:

- Superloops: 0	Type: STD	<input type="button" value="Edit"/>
- Superloops: 4	Type: STD	<input type="button" value="Edit"/>
- Superloops: 8	Type: STD	<input type="button" value="Edit"/>
- Superloops: 12	Type: STD	<input type="button" value="Edit"/>
- Superloops: 16	Type: STD	<input type="button" value="Edit"/>
- Superloops: 32	Type: STD	<input type="button" value="Edit"/>
- Superloops: 36	Type: STD	<input type="button" value="Edit"/>
- Superloops: 40	Type: STD	<input type="button" value="Edit"/>
- Superloops: 44	Type: STD	<input type="button" value="Edit"/>
- Superloops: 48	Type: STD	<input type="button" value="Edit"/>
- Superloops: 64	Type: STD	<input type="button" value="Edit"/>
- Superloops: 68	Type: STD	<input type="button" value="Edit"/>
- Superloops: 72	Type: STD	<input type="button" value="Edit"/>
- Superloops: 96	Type: Virtual	<input type="button" value="Edit"/>
- Superloops: 100	Type: Phantom	<input type="button" value="Edit"/>
- Superloops: 128	Type: STD	<input type="button" value="Edit"/>
- Superloops: 132	Type: STD	<input type="button" value="Edit"/>

The information entered on this Web page corresponds to the Superloop (SUPL) command available in LD 97 - Configuration Record 2.

To add a Superloop, choose a **Superloop Number** and **type** (CARR, FIBR, IPMG, STD, Phantom, or Virtual) from the pull-down menu, then click to **Add**. The **Superloop Property Configuration** Web page displays, as shown in [Figure 45 "Superloop Property Configuration web page"](#) (page 116).

Figure 45
Superloop Property Configuration Web page

Managing: [192.167.102.3](#)
System » Core Equipment » [Superloops](#) » Superloops 0 Property Configuration

Superloops 0 Property Configuration

Input Description	Input Value
Superloop (SUPL)	<input type="text" value="0"/>
Superloop Type (SUPT)	<input type="text" value="CARR"/>
Network Card is in Left or Right slot (SLOT)	<input type="text" value="LEFT"/>
Extended Peripheral Equipment Controller (XPEC)	<input type="text"/> Range: 1 - 95

To save changes made in the Superloop properties, click **Submit** at the bottom of the Web page.

To return to the **Superloops** Web page as shown in [Figure 44 "Superloops web page"](#) (page 115), click the **Superloop** link in the navigation path at the top of the page.

To edit the properties of an existing Superloop, click the **Edit** button next to the **Superloop** entry on the Superloops Web page. The **Superloops Property Configuration** Web page for that Superloop opens.

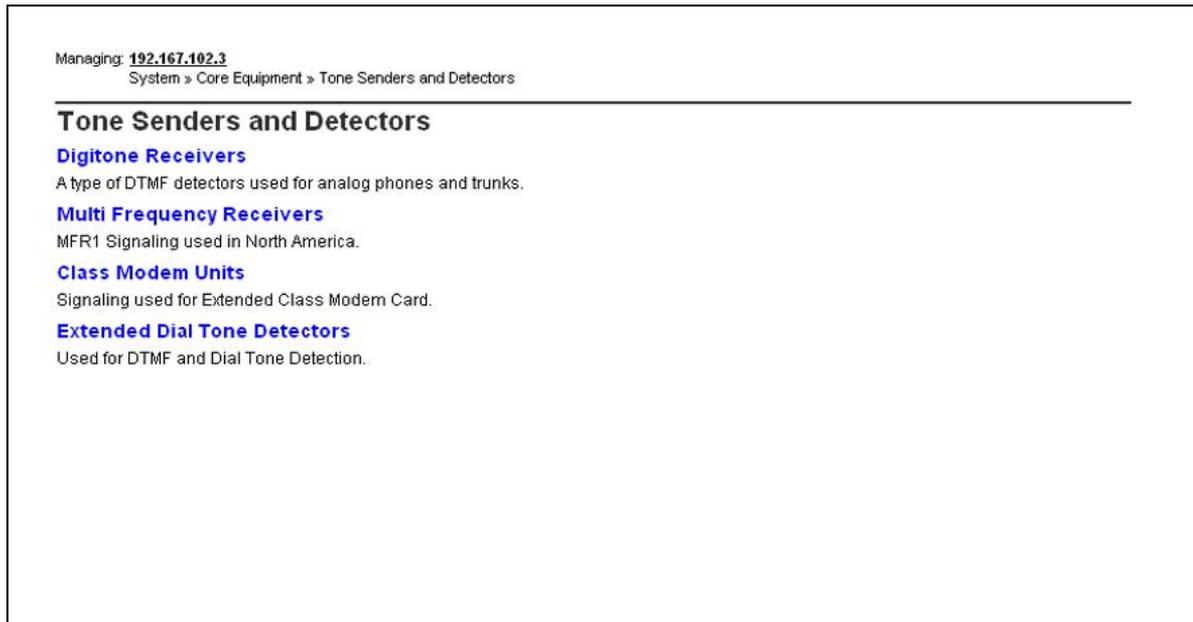
To save changes made in the Superloop properties, click **Submit** at the bottom of the Web page.

Tone Senders and Detectors

Element Manager supports the configuration of Digitone receivers, Tone Detectors, and Multi Frequency Senders and Receivers. Click the **Core Equipment > Tone Senders And Detectors** link in the **System** branch of

the Element Manager navigator. The **Tone Senders And Detectors** Web page opens, as shown in [Figure 46 "Tone Senders and Detectors Web page"](#) (page 117).

Figure 46
Tone Senders and Detectors Web page



Digitone Receivers

To display details of and to configure Digitone Receivers, from the **Tone Senders And Detectors** Web page, click the **Digitone Receivers** link. The **Digitone Receivers** Web page opens, as shown in [Figure 47 "Digitone Receivers Web page"](#) (page 118).

Figure 47
Digitone Receivers Web page

CS 1000 ELEMENT MANAGER Help | Logout

Managing: [192.167.102.3](#)
 System » Core Equipment » [Tone Senders and Detectors](#) » Digitone Receivers

Digitone Receivers

Maintenance Commands

[Refresh](#)

	Terminal Number *	Card Density	Last Modified Date
1	008 0 00 00	8D	19 FEB 2007

This Web page is used to display details of Digitone Receivers. Users can view, add, delete, and move Terminal Numbers.

To add a Digitone Receiver, click **Add**. The **Add Digitone Receiver** Web page opens, as shown in [Figure 48 "Add Digitone Receiver Web page" \(page 118\)](#).

Figure 48
Add Digitone Receiver Web page

Managing: [192.167.102.3](#)
 System » Core Equipment » [Tone Senders and Detectors](#) » [Digitone Receivers](#) » Add

Add Digitone Receiver

Terminal Number: *

Upto 5 comma separated Terminal Numbers

Enter the Terminal Number of the Digitone Receiver to be added and click **Save**.

To move a Digitone Receiver card from one terminal to another, from the **Digitone Receivers** Web page click **Move**. The **Move Digitone Receiver** Web page opens, as shown in Figure 49 "Move Digitone Receiver Web page" (page 119).

Figure 49
Move Digitone Receiver Web page

Managing: [192.167.102.3](#)
System » Core Equipment » [Tone Senders and Detectors](#) » [Digitone Receivers](#) » Move

Move Digitone Receiver

Source Terminal Number: 004 0 03 00
Destination Terminal Number: -

Source and Destination Loop Number should be the same.

Enter the Destination Terminal Number and click **Save**.

Multi Frequency Receivers

To display details of and to configure Multi Frequency Receivers, from the **Tone Senders And Detectors** Web page, click the **Multi Frequency Receivers** link. The **Multi Frequency Receivers** Web page opens, as shown in Figure 50 "Multi Frequency Receivers Web page" (page 119).

Figure 50
Multi Frequency Receivers Web page

CS 1000 ELEMENT MANAGER Help | Logout

Managing: [192.167.102.3](#)
System » Core Equipment » [Tone Senders and Detectors](#) » Multi Frequency Receivers

Multi Frequency Receivers

Maintenance Commands

	Terminal Number ▲	Card Density	Last Modified Date
1	008 0 00 01	8D	19 FEB 2007
2	008 0 00 02	8D	19 FEB 2007

This Web page is used to display details of Multi Frequency Receivers. Users can view, add, delete, and move Terminal Numbers.

To add a Multi Frequency Receiver, click **Add**. The **Add Multi Frequency Receiver** Web page opens, as shown in [Figure 51 "Add Multi Frequency Receiver Web page"](#) (page 120).

Figure 51
Add Multi Frequency Receiver Web page



Managing: [192.167.102.3](#)
System » Core Equipment » [Tone Senders and Detectors](#) » [Multi Frequency Receivers](#) » Add

Add Multi Frequency Receiver

Terminal Number: *

Upto 5 comma separated Terminal Numbers

Enter the Terminal Number of the Multi Frequency Receiver to be added and click **Save**.

To move a Multi Frequency Receiver card from one terminal to another, from the **Multi Frequency Receivers** Web page click **Move**. The **Move Multi Frequency Receiver** Web page opens, as shown in [Figure 52 "Move Multi Frequency Web page"](#) (page 121).

Figure 52
Move Multi Frequency Web page

Managing: [192.167.102.3](#)
 System » Core Equipment » [Tone Senders and Detectors](#) » [Multi Frequency Receivers](#) » Move

Move Multi Frequency Receiver

Source Terminal Number: 004 0 03 00
 Destination Terminal Number: -
 Source and Destination Loop Number should be the same.

Enter the Destination Terminal Number and click **Save**.

Class Modem Units

To display details of and to configure Class Modem Units, from the **Tone Senders And Detectors** Web page, click the **Class Modem Units** link. The **Class Modem Units** Web page opens, as shown in [Figure 53 "Class Modem Units Web page"](#) (page 121).

Figure 53
Class Modem Units Web page

Managing: [192.167.102.3](#)
 System » Core Equipment » [Tone Senders and Detectors](#) » Class Modem Units

Class Modem Units

Maintenance Commands

	Terminal Number *	Card Density	Last Modified Date
1	008 0 10 00	8D	19 FEB 2007

This Web page is used to display details of Class Modem Units. Users can view, add, delete, and move Terminal Numbers.

To add a Class Modem Unit, click **Add**. The **Add Class Modem Unit** Web page opens, as shown in [Figure 54 "Add Class Modem Unit Web page"](#) (page 122).

Figure 54
Add Class Modem Unit Web page

Managing: [192.167.102.3](#)
System > Core Equipment > Tone Senders and Detectors > Class Modem Units > Add

Add Class Modem Unit

Terminal Number: *

Upto 5 comma separated Terminal Numbers

Enter the Terminal Number of the Class Modem Unit to be added and click **Save**.

To move a Class Modem Unit card from one terminal to another, from the **Multi Frequency Receivers** Web page click **Move**. The **Move Class Modem Units** Web page opens, as shown in [Figure 55 "Move Class Modem Units Web page"](#) (page 122).

Figure 55
Move Class Modem Units Web page

Managing: [192.167.102.3](#)
System > Core Equipment > Tone Senders and Detectors > Class Modem Units > Move

Move Class Modem Unit

Source Terminal Number: 004 0 04 00

Destination Terminal Number: *

Source and Destination Loop Number should be the same.

Enter the Destination Terminal Number and click **Save**.

Extended Dial Tone Detectors

To display details of and to configure Extended Dial Tone Detectors, from the **Tone Senders And Detectors** Web page, click the **Extended Dial Tone Detectors** link. The **Extended Dial Tone Detectors** Web page opens, as shown in [Figure 56 "Extended Dial Tone Detectors Web page"](#) (page 123).

Figure 56
Extended Dial Tone Detectors Web page

The screenshot shows the 'Extended Dial Tone Detectors' page in the CS 1000 Element Manager. The page header includes 'CS 1000 ELEMENT MANAGER' and 'Help | Logout'. The breadcrumb trail is 'System » Core Equipment » Tone Senders and Detectors » Extended Dial Tone Detectors'. Below the title, there are 'Maintenance Commands' and buttons for 'Add...', 'Move...', 'Delete', and 'Refresh'. A table displays the following data:

	Terminal Number ▲	Extended Tone Detector Table	Dial Tone Detection	Last Modified Date
1	008 0 04 03	00	Yes	19 FEB 2007

This Web page is used to display details of Extended Dial Tone Detectors. Users can view, add, delete, and move Terminal Numbers.

To add an Extended Dial Tone Detector, click **Add**. The **Add Extended Dial Tone Detector** Web page opens, as shown in [Figure 57 "Add Extended Dial Tone Detector Web page"](#) (page 124).

Figure 57
Add Extended Dial Tone Detector Web page

Managing: [192.167.102.3](#)
 System » Core Equipment » Tone Senders and Detectors » Extended Dial Tone Detectors » Add

Add Extended Dial Tone Detector

Terminal Number: *

Extended Tone Detector Table: ▾

Dial Tone Detection:

Enter the Terminal Number of the Extended Dial Tone Detector to be added and click **Save**.

To move an Extended Dial Tone Detector card from one terminal to another, from the **Extended Dial Tone Detectors** Web page click **Move**. The **Move Extended Dial Tone Detectors** Web page opens, as shown in [Figure 58 "Move Extended Dial Tone Detectors Web page"](#) (page 124).

Figure 58
Move Extended Dial Tone Detectors Web page

Managing: [192.167.102.3](#)
 System » Core Equipment » Tone Senders and Detectors » Extended Dial Tone Detectors » Move

Move Extended Dial Tone Detector

Source Terminal Number: 004 0 02 00

Destination Terminal Number: *

Source and Destination Loop Number should be the same.

Enter the Destination Terminal Number and click **Save**.

IP Network

Contents

This section contains information on the following topics:

- "Introduction" (page 125)
- "IP Network" (page 125)
 - "Node Configuration" (page 125)
 - "Nodes: Servers, Media Cards" (page 133)
 - "Zones" (page 143)
 - "Network Address Translation (NAT)" (page 150)
 - "Quality of Service Thresholds (QoS)" (page 151)
 - "Personal Directories" (page 152)
- "Interfaces" (page 152)
- "Engineered Values" (page 155)
- "Emergency Services" (page 161)
- "Geographic Redundancy" (page 176)
- "Software" (page 178)

Introduction

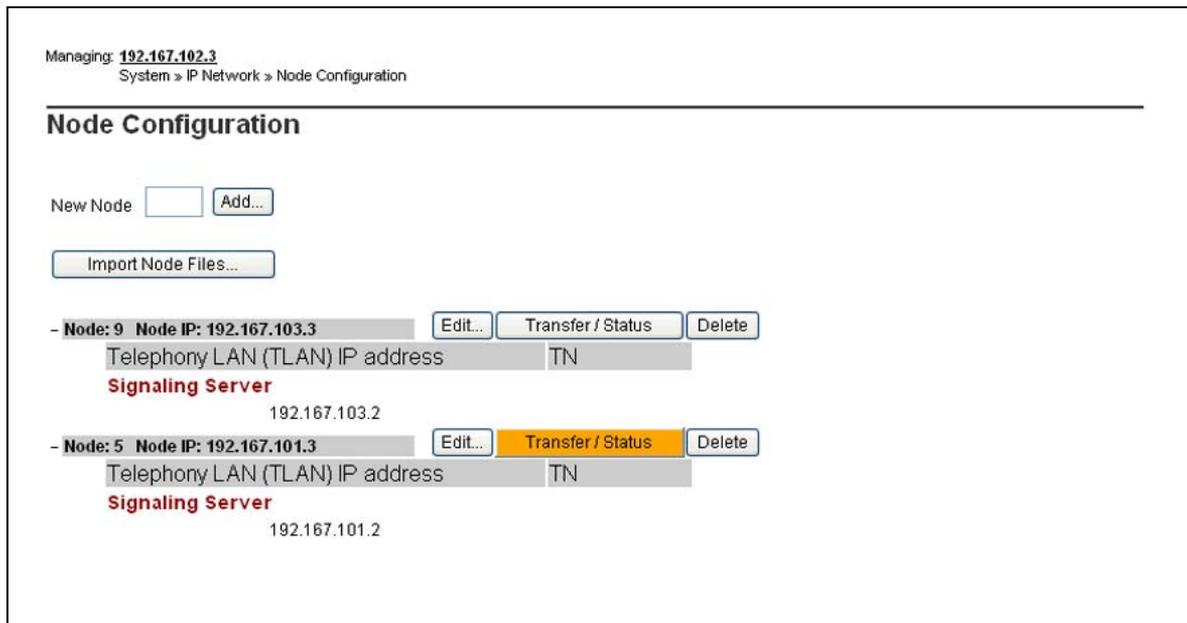
The **IP Network** link of the **System** branch of the Element Manager navigator enables the user to view the version of software that is installed on the elements.

IP Network

Node Configuration

To configure or edit Node Summary information, select the **Nodes: Servers, Media Cards** link in the **IP Network** branch of the Element Manager navigator. The **Node Configuration** Web page opens (see [Figure 59 "Node Configuration web page"](#) (page 126)).

Figure 59
Node Configuration Web page



This Web page also contains buttons that link to additional Web pages. Follow these links to:

- add a new node
- import node files
- edit node configuration
- view the status of a previous transfer operation, or re-transfer to selected or failed elements
- delete a node
- add and edit Voice Gateway Channel (VGWC) configuration data on the media cards

To add a new node, enter a number in the **New Node** text box, and click **to Add**.

ATTENTION

IMPORTANT!

Make sure that the values for the Node ID in Element Manager/IP Telephony and in the Call Server/Route Data Block (for the Virtual Trunk) are the same. If these Node ID values do not match, the IP Peer H.323 virtual trunks do not establish.

To edit the configuration information on an existing node, click **Edit** located to the right of the node's IP address.

To import a node file, follow the steps in [Procedure 78 "Importing node files" \(page 127\)](#):

Procedure 78
Importing node files

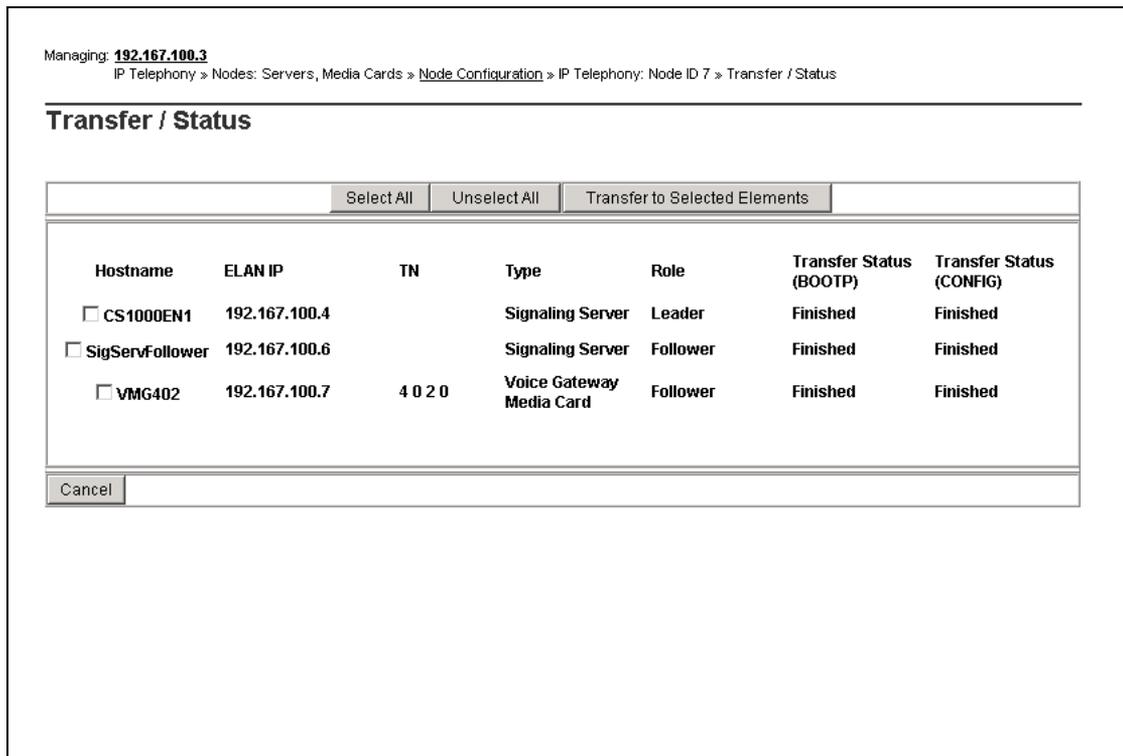
Step Action

- 1** Click **Import Node Files**.
- 2** Enter the ELAN (management LAN) network interface IP Address of the Leader in the text box. This address is used to retrieve the node files.
- 3** Click **Import**.
If the import is successful, information appears in the text area of the Node Import Files screen and a message box appears.
- 4** In the message box, click **OK** to proceed to the **Node Summary** Web page, where edit node information can be viewed.

—End—

If any element within the Node fails to transfer either bootp or config files, the **TRANSFER/STATUS** button is highlighted in red. It is not necessary to manually retransfer the files; the next time the pbxlink is opened to that element, the files are updated. The **TRANSFER/STATUS** button is highlighted in yellow if the transfer status of the node elements is unavailable. Clicking this button opens the **Transfer/Status** Web page as shown in [Figure 60 "Transfer/Status web page" \(page 128\)](#).

Figure 60
Transfer/Status Web page



This Web page displays the previous status of the node, and the failure reason for elements in nodes that failed to retrieve configuration files (*bootp.tab* and *config.ini*) from the Call Server side. Node elements that did not retrieve configuration files continue to display on the transfer progress status Web page when the IP Telephony node configuration file is submitted and transferred.

The **Transfer/Status** Web page displays two buttons:

- **Transfer to Selected Elements** — re-transfers node configuration files only to selected elements, regardless of a "Transfer Failed" state.
- **Transfer to Failed Elements** — transfers node configuration files to elements in a "Transfer Failed" state.

Note: The **Transfer to Failed Elements** button appears only when at least one element on the node failed to transfer either a *bootp.tab* or *config.ini* file in the previous operation. See [Figure 61 "Transfer/Status web page - Failed"](#) (page 129).

Figure 61
Transfer/Status Web page - Failed

Managing: 207.179.153.99
 IP Telephony » Nodes: Servers, Media Cards » Node Configuration » IP Telephony: Node ID 8 » Transfer / Status

Transfer / Status

Hostname	ELAN IP	TN	Type	Role	Transfer Status (BOOTP)	Transfer Status (CONFIG)
<input type="checkbox"/> NODE8	207.179.153.100		Signaling Server	Leader	Finished	Finished
<input type="checkbox"/> 1	207.179.153.109	13 0	ITG Pentium	Follower	Element Unreachable	Element Unreachable
<input type="checkbox"/> 2	207.179.153.111	12 0	Succession Media Card	Leader	Finished	Finished

Note: To ensure the element has correct configurations, when an element is deleted, it should be reconfigured in a mode with relevant necessary configurations, or physically removed from the network.

When clicking either the **to Add** button or any of the **Edit** buttons shown in the **Node Summary** Web page, the **Edit** Web page opens. See [Figure 62 "Edit web page"](#) (page 130).

Figure 62
Edit Web page

System » IP Network » Node Configuration » IP Telephony: Node ID 9 » Edit

Edit

Save and Transfer Cancel

- IP Telephony Node

Node ID 9

Telephony LAN (TLAN) Node IP address

Embedded LAN (ELAN) gateway IP address

Embedded LAN (ELAN) subnet mask

Voice LAN (TLAN) subnet mask

+ VGW and IP phone codec profile

+ QoS

+ LAN configuration

+ SNTP

+ Virtual Trunk Network Health Monitor configuration

+ H323 GW Settings

+ Firmware

+ SIP GW Settings

+ SIP URI Map

+ SIP CD Services

+ SIP CTI Services

+ Cards

From this Web page, the following functions can be performed:

- view and edit basic Node information
- view and configure SNMP parameters and add IP addresses for forwarding SNMP traps
- view and configure VGW Profile data
- configure Quality of Service (QoS) data
- use LAN configuration to configure the ELAN Call Server IP Address, the Media Gateway IP Address, the ELAN and TLAN signaling ports and the ELAN and TLAN broadcast ports
- view and edit Simple Network Transfer Protocol (SNTP) Server and Client information
- view and configure file server access for downloading firmware for the IP Phones
- view and edit H.323 Settings
- view and edit SIP Gateway Settings, and configure the Re-direct Server

- perform SIP URI DN Mapping
- edit Converged Desktop Service information
- view and edit Signaling Server information
- view and edit card properties of Voice Gateway Media Cards
- view and select the Loss and Level Plan for the country. For more information, see Transmission Parameters Reference (NN43001-282).

ATTENTION

IMPORTANT!

Do not assign the same IP address for the Node ID and the TLAN network interface. The correct IP address must be verified manually. The Node IP address must be on the same subnet as the TLAN network interface IP addresses of the Voice Gateway Media Cards. Also, the Voice Gateway Media Card's TLAN and ELAN network interfaces must reside on separate logical subnets.

The IP Telephony Node Edit Web page does not support multiple customers per node. SIP Converged Desktop Service and SIP URI to DN Mapping are configurable on a per-node basis. Only one customer is supported per node.

Enabling SIP

Click the plus sign to the left of the **Signaling Servers** link on the **Edit** Web page (see [Figure 62 "Edit web page" \(page 130\)](#)). Double-click the Signaling Server IP address. The **Signaling Server Properties** Web page opens (see [Figure 63 "Signaling Server Properties web page" \(page 132\)](#)).

Figure 63
Signaling Server Properties Web page

– Signaling Server 192.167.102.4 Properties

Role Leader

Type ISP1100

Embedded LAN (ELAN) IP address

Embedded LAN (ELAN) MAC address

Telephony LAN (TLAN) IP address

Telephony LAN (TLAN) gateway IP address

Hostname

H323 ID

Enable Line TPS

Enable IP Peer Gateway (Virtual Trunk TPS)

If Telephony LAN(TLAN) IP address and Telephony LAN(TLAN) gateway IP address are not in the same subnet as Telephony LAN(TLAN) Node IP address when Line TPS or IP Peer Gateway is enabled, then the TPS and/or VTRK applications will not run.

Enable SIP Proxy / Redirect Server

Local SIP TCP/UDP Port to Listen to

SIP Domain name

SIP Gateway Endpoint Name

SIP Gateway Authentication Password

Enable Gatekeeper

Network Routing Service Role

Choose a **mode** from the following options in the **Enable IP Peer Gateway (Virtual trunk TPS)** drop-down list:

- None
- H.323 only
- SIP only
- H.323 and SIP

Enter the Local SIP Port, SIP Domain name, and SIP Gateway User user name and password.

When the administrator edits the Node and clicks **Save and Transfer**, transfer status information is updated and displayed.

Detailed procedures for performing these tasks are included in *IP Peer Networking Installation and Commissioning (NN43001-313)*.

Note: The configuration of static Loss Plan values is performed using LD 73 instead of Element Manager. A Dynamic Loss Plan has been

implemented to define the loss value per endpoint connection type. The loss plan adjusts the Voice Gateway Media Card gateway channel's loss for each call by sending pad values to the card.

Default values

The default values in the system are for the North American loss plan.

Non-North American countries

Installation of IP Line 5.0 in countries other than North American countries requires setting the pad values to that country's loss plan. If the system is installed in other countries, the Global PRI package (International 1.5/2.0 Mb/s Gateway package 167) must be used, and the NTP-specified values must be entered in LD 73. At the PDCA prompt, enter Table 15.

For more information on configuring Loss Plans, see *Transmission Parameters Reference (NN43001-282)*.

Note: When a system is installed in the UK, the CLI command UKLossPlanSet is entered at the CLI of one card in each node. This adjusts the loss plan of the IP Phones to the higher transmit levels required in the UK. For more information, see *IP Line Fundamentals (NN43100-500)*.

Nodes: Servers, Media Cards

Click the **IP Network > Maintenance and Reports** link in the **System** branch of the Element Manager navigator to open the **Node Maintenance and Reports** Web page, as shown in [Figure 64 "Node Maintenance and Reports web page"](#) (page 134).

Figure 64
Node Maintenance and Reports Web page

Managing: [192.167.102.3](#)
 System » IP Network » Node Maintenance and Reports

Node Maintenance and Reports

- Node ID: 9				Node IP: 192.167.103.3	Total elements: 1				
Index	ELAN IP	Type	TN	ELAN					
CS1000E_PIV	192.167.102.4	Signaling Server-ISP1100	NO TN	<input type="button" value="GEN CMD"/>	<input type="button" value="RPT LOG"/>	<input type="button" value="OM RPT"/>	<input type="button" value="Reset"/>	<input type="button" value="Virtual Terminal"/>	<input type="button" value="Status"/>

- Node ID: 5				Node IP: 192.167.101.3	Total elements: 1				
Index	ELAN IP	Type	TN	ELAN					
CS1000S_CP	192.167.100.4	Signaling Server-ISP1100	NO TN	<input type="button" value="GEN CMD"/>	<input type="button" value="RPT LOG"/>	<input type="button" value="OM RPT"/>	<input type="button" value="Reset"/>	<input type="button" value="Virtual Terminal"/>	<input type="button" value="Status"/>

This Web page contains information on configured Signaling Servers and IP Telephony cards and is arranged by node. Click the **plus sign (+)** beside the Node ID number to view the elements assigned to the node.

For more information on IP Telephony, see *IP Line Fundamentals (NN43100-500)*.

Seven buttons are located to the right of the TN column for each IP Telephony element:

- **GEN CMD** — Launches the **General Commands** Web page.
- **RPT LOG** — Launches the **Report Utility** Web page (for Signaling Servers).
- **SYS LOG** — Launches the **System log file** Web page (for IP Telephony Cards).
- **OM RPT** — Launches the **Operational Management Report** Web page.
- **Reset** — Resets the element.

Note: When resetting the Signaling Server on which the Web server is located, wait approximately five minutes before logging in again.

- **Virtual Terminal**— Opens a Telnet connection to the element over the Telephony Local Area Network (TLAN) subnet using the element's IP Address.
- **Status** — Displays the status of the element.

General Commands

Click the **GEN CMD** button, located beside the information for an IP Telephony element as shown in [Figure 64 "Node Maintenance and Reports web page"](#) (page 134), to open the **General Commands** Web page for that element. See [Figure 65 "General Commands web page"](#) (page 135).

Figure 65
General Commands Web page

From this Web page, users can issue commands to selected groups.

To issue an IP Line application command:

Step	Action
1	Select a group from the left-hand Group drop-down list. The corresponding commands for that group display in the Command drop-down list.
2	Select a Command from the Command drop-down list.
3	Click Run .

The results appear in the box at the bottom of the Web page.

—End—

Detailed procedures for issuing General Commands can be found in *IP Line Fundamentals (NN43100-500)*.

Commands related to the node password include:

- nodePwdDisable - disables the node password
- nodePwdEnable - enables the node password
- nodePwdShow - displays the node password
- nodeTempPwdClear - clears the temporary node password
- nodePwdSet — sets the node password
- nodeTempPwdSet — sets the temporary node password

Passwords must conform to certain compositional rules.

To set the node password:

Step	Action
1	Select nodePwdSet from the Group drop-down list.
2	Enter the password in the Node Password text box. The password must be 6 - 14 characters in length. Valid entries are digits 0 through 9, and special character *.
3	Select nodePwdSet from the Command drop-down list.
4	Click RUN . If a non-zero length password is configured, all IP Phones that attempt to register after the password is set display a prompt requesting the node password before enabling the TN to be modified.

—End—

A temporary node password can be configured to give temporary user access to the TN for configuration. A temporary node password removes the need to distribute the node password and the requirement to change it afterwards. The temporary node password automatically deletes itself after it has been used the defined number of times or when the duration expires, whichever comes first.

To set a temporary node password:

Step	Action
1	Select nodeTempPwdSet from the Command drop-down list.

- 2 Enter the temporary password in the **Node Password** text box.
The password must be 6 - 14 characters in length. Valid entries are digits 0 through 9, and special character *.
- 3 Enter the number of times that you want to enable the temporary password to be used in the **Uses** text box (maximum is 1000 times).
- 4 Enter the duration, in hours, for the temporary password in the **Timeout** text box (maximum is 240 hours).
- 5 Click **RUN**.

—End—

From the **General Commands** Web page, any IP address can be pinged from this element. The default IP address is the address of the Call Server.

To ping an IP address:

Step	Action
------	--------

- | | |
|---|--|
| 1 | Verify that the entry in the IP address text box is correct. |
| 2 | Enter the number of pings that to send in the Number of Pings text box. |
| 3 | Click Ping . |

—End—

Report Log

Click the **RPT LOG** button, located beside the information for the Signaling Server as shown in [Figure 64 "Node Maintenance and Reports web page" \(page 134\)](#), to open the **Node Report Logs** Web page for the Signaling Server (see [Figure 66 "Node Report Logs web page" \(page 138\)](#)).

Figure 66
Node Report Logs Web page

The four buttons at the top of this Web page provide one-click access to the following functions:

- **RDOPEN** — Opens the latest report file.
- **RDSHOW** — Shows a summary of the report file.
- **RDTAIL** — Shows x records up to the newest record in the report file (where x is the configured display size).
- **RDHEAD** — Shows x records starting from the oldest record in the report file (where x is the configured display size).

To view selected detail data on records in the report file, use the text boxes, the drop-down lists, and the following buttons:

- **RDGO** — Displays the record specified in the adjacent text box (where -1 is the oldest record and 1000 is the most recent).
- **RD** — Browses the report records. Enter the number of records to skip and the number of records to display in the adjacent text boxes.

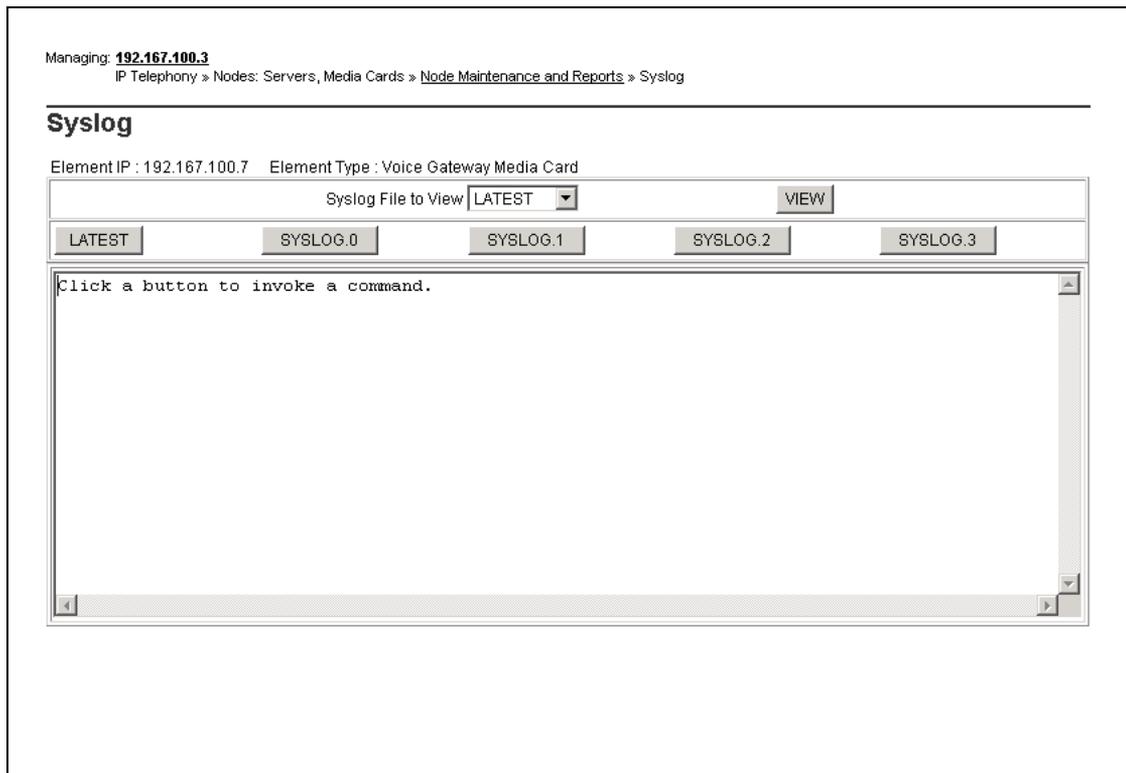
- **RDS** — Browses the report records with (symbolic) memory dump. Enter the number of records to skip, and select the number of records to display using the adjacent text box and drop-down list.
- **VIEW** — Views selected records. Enter a starting record number and select the number of records to view using the adjacent text box and drop-down list. Negative numbers indicate records previous to the starting record.

The results are displayed in the box at the bottom of the Web page.

System log

Click the **SYS LOG** button, located beside the information for an IP Telephony card, to open the **Syslog** Web page for the IP Telephony card, as shown in [Figure 67 "Syslog web page" \(page 139\)](#).

Figure 67
Syslog Web page



To view a System log file:

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select a file using the Syslog File to View drop-down list. |
| 2 | Click VIEW . |

—End—

Alternatively, click one of the five buttons below the Syslog File to view the dialog box:

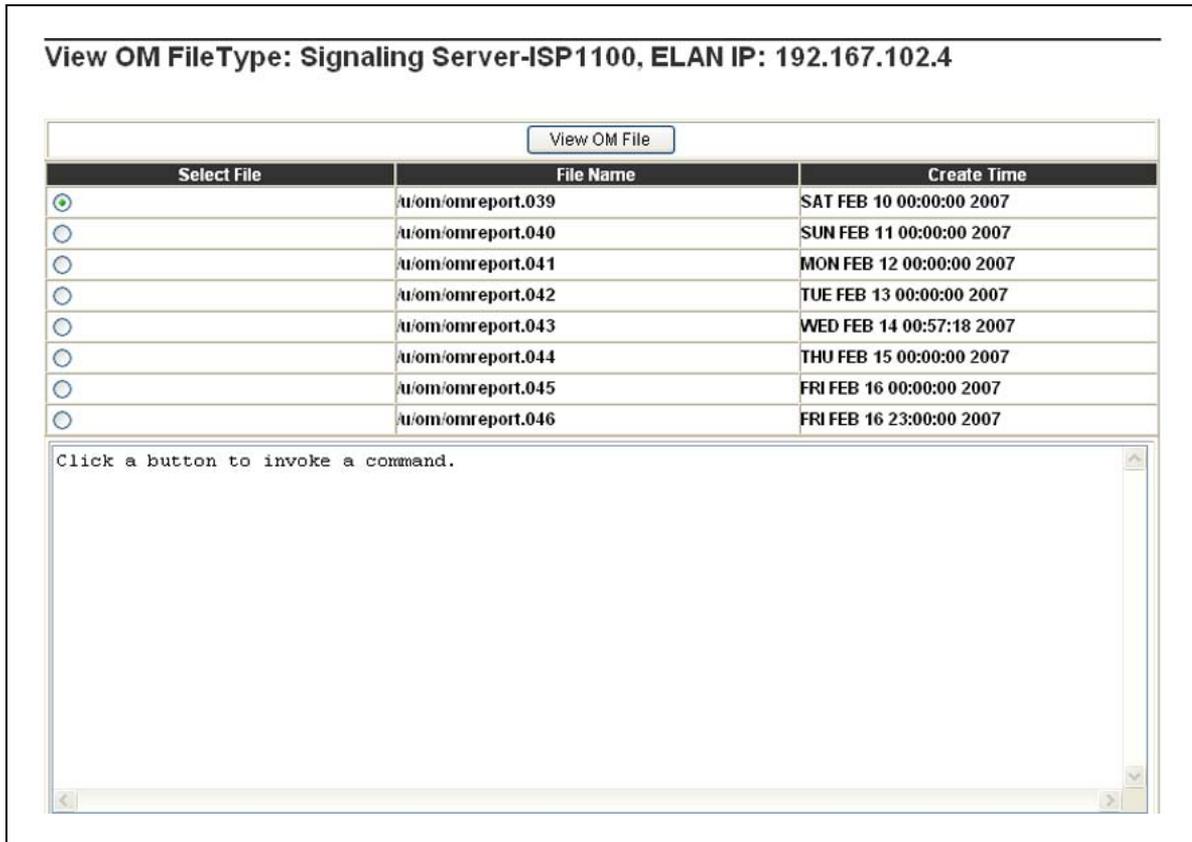
- **LATEST** — Displays the most recent record in the system log file.
- **SYSLOG.0** — Displays the file /C:/log/syslog.0 located on the Media Card.
- **SYSLOG.1** — Displays the file /C:/log/syslog.1 located on the Media Card.
- **SYSLOG.2** — Displays the file /C:/log/syslog.2 located on the Media Card.
- **SYSLOG.3** — Displays the file /C:/log/syslog.3 located on the Media Card.

The contents of the file appears in the box at the bottom of the Web page.

Operational Measurement Reports

The **OM** (Operational Measurement Report) **RPT** button enables users to view OM information. Click the **OM RPT** button, located beside information for an IP Telephony element as shown in [Figure 64 "Node Maintenance and Reports web page" \(page 134\)](#), to open the **OM Reports** Web page for that element, as shown in [Figure 68 "OM Reports web page" \(page 141\)](#).

Figure 68
OM Reports Web page



To view an OM Report file:

Step	Action
------	--------

- | | |
|---|---|
| 1 | In the Select File column, click the option button beside the OM Report to be viewed. |
|---|---|

Note: The limit of OM Report files is eight. Only the eight most recent OM Report files are available on the system.

- | | |
|---|-----------------------------|
| 2 | Click View OM File . |
|---|-----------------------------|

—End—

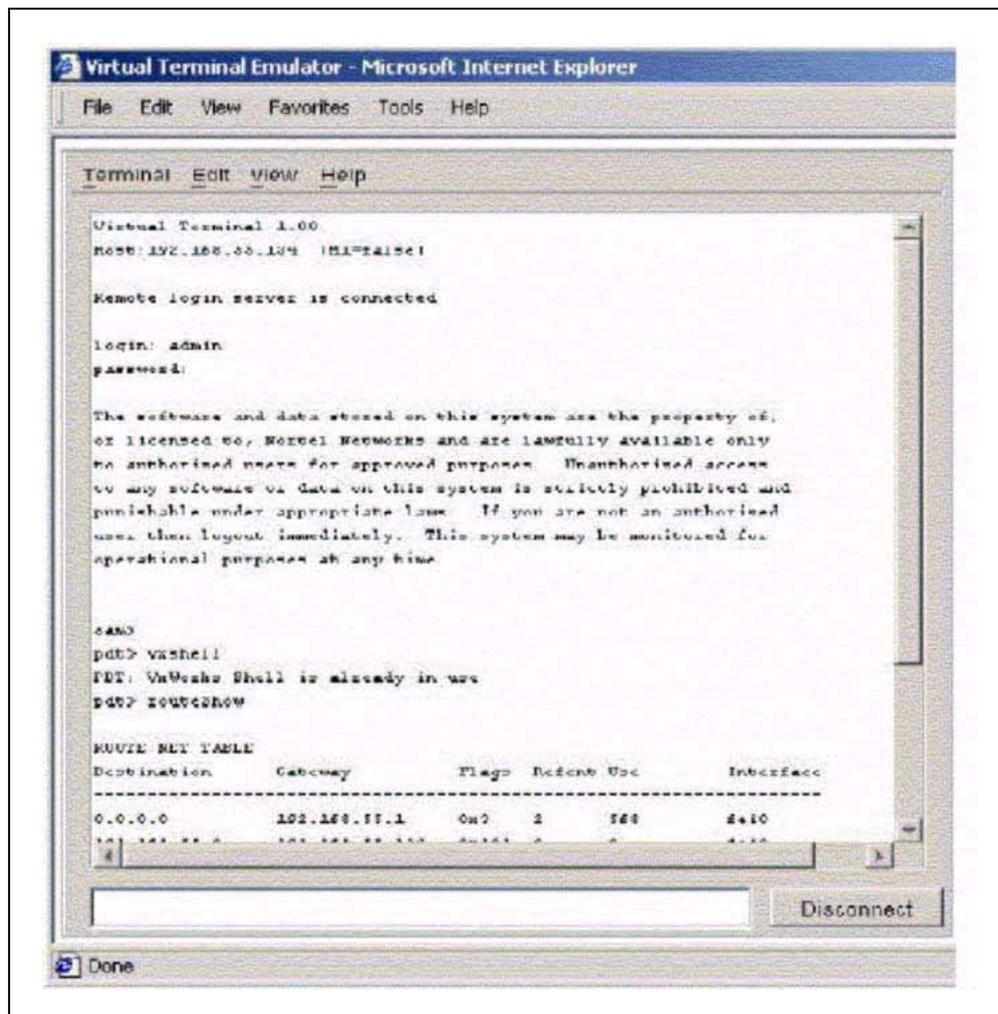
The contents of the file appear in the box at the bottom of the Web page.

Virtual Terminal

The Virtual Terminal is an integral part of the enhanced navigation tools for Element Manager.

Click the **Virtual Terminal** button on the **Node Maintenance and Reports** Web page to open the **Virtual Terminal** window, as shown in [Figure 69](#) "Virtual Terminal window" (page 142).

Figure 69
Virtual Terminal window



The Virtual Terminal is a Web-based window that enables access to the character-based interfaces supported by the components of the CS 1000 system, including all overlays not supported by Element Manager Web pages. The Virtual Terminal can also be used to add new links to the system components or other Element Manager servers using the Bookmarks feature.

ATTENTION

Virtual Terminal requires the Java Runtime Environment (JRE).

To access the Virtual Terminal for a particular IP device:

Step	Action
1	Choose the IP device you want to access on the Node Maintenance and Reports Web page.
2	Click the Virtual Terminal button beside that node. The Virtual Terminal window opens, as shown in Figure 69 "Virtual Terminal window" (page 142).
3	Enter the user name and password.

—End—

For more information about accessing and using the Virtual Terminal, refer to ["Virtual Terminals"](#) (page 27).

Zones

To configure or edit zone information, click the **Zones** link in the **IP Network** branch of the Element Manager navigator. The **Zones** Web page opens (see [Figure 70 "Zones web page"](#) (page 143)).

Figure 70
Zones Web page

Managing: [192.167.100.3](#)
System » IP Network » Zones

Zones

Maintenance

- Maintenance Commands for Zones (LD 117)

Configuration

- Configuration Spreadsheet

Please Choose the

- Zone 0
 - Zone Basic Property and Bandwidth Management
 - Adaptive Network Bandwidth Management and CAC
 - Alternate Routing for Calls between IP Stations
 - Branch Office Dialing Plan and Access Codes
 - Branch Office Emergency Service Information
 - Branch Office Time Difference and Daylight Saving Time Property
- + Zone 1
- + Zone 2

The user can view a spreadsheet populated with the configuration values of the Zone Basic Property and Bandwidth Management pages of all the configured zones in the Call Server. Click the **Configuration Spreadsheet** link. A Microsoft Excel spreadsheet opens, which can be saved to the user's local drive.

From the **Zones** Web page, add Zones by selecting a **Zone number** from the drop-down list and clicking to **Add**.

This Web page also contains links to the six categories of Zone configuration data for each Zone configured. Click the plus sign to the left of next to the Zone number to see the following:

- Basic Property and Bandwidth Management
- Adaptive Network Bandwidth Management and CAC
- Alternate Routing for Calls between IP Stations
- Branch Office Dialing Plan and Access Codes
- Branch Office Emergency Service Information
- Branch Office Time Difference and Daylight Saving Time Property

For information on configuring the MG 1000B, see *Branch Office Installation and Commissioning (NN43001-314)*.

To edit basic properties, click the **Zone Basic Property and Bandwidth Management** link. The **Zone Basic Property and Bandwidth Management** Web page opens. See [Figure 71 "Zone Basic Property and Bandwidth Management web page"](#) (page 145).

Figure 71
Zone Basic Property and Bandwidth Management Web page

Managing: [192.167.102.3](#)
 System » IP Network » [Zones](#) » Zone 0 » Zone Basic Property and Bandwidth Management

Zone Basic Property and Bandwidth Management

Input Description	Input Value
Zone Number (ZONE):	<input type="text" value="0"/>
Intrazone Bandwidth (INTRA_BW):	<input type="text" value="1000000"/>
Intrazone Strategy (INTRA_STGY):	<input type="text" value="Best Quality (BQ)"/>
Interzone Bandwidth (INTER_BW):	<input type="text" value="1000000"/>
Interzone Strategy (INTER_STGY):	<input type="text" value="Best Quality (BQ)"/>
Resource Type (RES_TYPE):	<input type="text" value="Shared (SHARED)"/>
Zone Intent (ZBRN):	<input type="text" value="MO (MO)"/>
Description (ZDES):	<input type="text"/>

The information entered on this Web page corresponds to the ZONE, ZBRN, and ZDES data traditionally configured using LD 117 - Ethernet and Alarm Management.

To save changes made in **Zone Basic Property and Bandwidth Management** parameters, click **Submit** at the bottom of the Web page.

To return to the **Zones** Web page, click the **Zones** link in the navigation path at the top of the Web page.

To configure the Adaptive Network Bandwidth Management feature, click the **Adaptive Network Bandwidth Management and CAC** link. The **Adaptive Network Bandwidth Management and CAC** Web page opens, as shown in [Figure 72 "Adaptive Network Bandwidth Management and CAC web page"](#) (page 146).

Note: Do not configure ANBWM for Zone 0 or Virtual Trunk zones.

Figure 72
Adaptive Network Bandwidth Management and CAC Web page

Managing: [192.167.102.3](#)
 System » IP Network » [Zones](#) » Zone 1 » Adaptive Network Bandwidth Management and CAC

Adaptive Network Bandwidth Management and CAC

Input Description	Input Value
Zone Number (ZONE):	<input type="text" value="1"/>
Enable Call Admission Control Feature (STATE):	<input type="checkbox"/>
QoS Response Time Increase (ZQRT):	<input type="text" value="10"/> (1 - 100 %)
QoS Response Time Interval (ZQRTI):	<input type="text" value="5"/> (1 - 120 min)
Warning Alarm Threshold (ZQWAT):	<input type="text" value="85"/> (1 - 99 %)
Unacceptable Alarm Threshold (ZQUAT):	<input type="text" value="75"/> (1 - 99 %)
R Alarm Coefficient (CR):	<input type="text" value="50"/> (1 - 100)
Packet Loss Alarm Coefficient (CPL):	<input type="text" value="50"/> (1 - 100)
Delay Alarm Coefficient (CD):	<input type="text" value="50"/> (1 - 100)
Jitter Alarm Coefficient (CJ):	<input type="text" value="50"/> (1 - 100)
Coefficient for QoS (CQoS):	<input type="text" value="50"/> (1 - 100)
Record Validity Time Interval (CACVT):	<input type="text" value="48"/> (1 - 255 hours)

If the Adaptive Network Bandwidth Management feature is enabled using the **Enable Call Admission Control Feature (STATE)** check box, then the other parameters can be adjusted as required:

- QoS Response Time Increase (ZQRT) - Bandwidth limit increment, as a percentage of the QoS factor for the zone
- QoS Response Time Interval (ZQRTI) - Time (in minutes) between bandwidth limit increments
- Warning Alarm Threshold (ZQWAT) - A QoS value, which is lower than this value, but higher than the Critical (Unacceptable) Alarm Threshold, triggers a Major Alarm.
- Critical Alarm Threshold (ZQUAT) - A QoS value, which is lower than this value, triggers an Unacceptable (Critical) Alarm.
- R Alarm Coefficient (CR) - Value used to calculate the QoS value for the zone.
- Packet Loss Alarm Coefficient (CPL) - Value used to calculate the QoS value for the zone.

- Delay Alarm Coefficient (CD) - Value used to calculate the QoS value for the zone.
- Jitter Alarm Coefficient (CJ) - Value used to calculate the QoS value for the zone.
- Coefficient of QoS (CQoS) - Value used to calculate the overall QoS value for the zone.
- Recent Validity Time Interval (CACVT) - Amount of time (in hours) for zone-to-zone record validity. Once this interval expires, records for unused zones are purged from the tables.

To configure the Alternate Routing feature, click the **Alternate Routing for Calls between IP Stations** link. The **Alternate Routing for Calls between IP Stations** Web page opens, as shown in [Figure 73 "Alternate Routing for Calls between IP Stations"](#) (page 147).

Figure 73
Alternate Routing for Calls between IP Stations

Managing: [192.167.102.3](#)
System » IP Network » [Zones](#) » Zone 1 » Alternate Routing for Calls between IP Stations

Alternate Routing for Calls between IP Stations

Input Description	Input Value
Zone Number (ZONE):	<input style="width: 50px;" type="text" value="1"/>
Enable Alternate Routing Feature (ENL_ZALT):	<input type="checkbox"/>
Alternate Routing Prefix Digits (ALT_PREFIX):	<input style="width: 80px;" type="text"/> (0 - 9999999)
Re-route for All Calls (ALL_CALLS):	<input type="checkbox"/>
Alarm Suppression Time Period (ZAST):	<input style="width: 50px;" type="text" value="0"/> (0 - 3600 Sec)

Note: Alternate Routing (ALT) in combination with Adaptive Network Bandwidth Management (CAC) allows for maintaining QoS by rerouting interzone calls through alternate paths. Independently, Alternate Routing (ALT) is based on bandwidth exhaustion.

- Select the **Enable Alternate Routing feature (ENL_ZALT)** check box to enable the Alternative Call Routing for NBWM feature.

- Enter a maximum of 7 digits in **Alternate Routing Prefix Digits** (ALTPrefix).
- Select the **Re-route for All Calls (ALL_CALLS)** check box to enable the feature for all calls.
- Click **Submit** to enter the data.

To edit dialing plan and access code parameters for a Zone's MG 1000B offices, click the **Branch Office Dialing Plan and Access Codes** link on the **Zones** Web page. The **Zone Dialing Plan and Access Codes** Web page opens. See [Figure 74 "Zone Dialing Plan and Access Codes web page"](#) (page 148).

Figure 74
Zone Dialing Plan and Access Codes Web page

Managing: [192.167.102.3](#)
System » IP Network » [Zones](#) » Zone 1 » Zone Dialing Plan and Access Codes

Zone Dialing Plan and Access Codes

Input Description	Input Value
Zone Number (ZONE):	<input style="width: 50px;" type="text" value="1"/>
Prefix (ACB_DC1):	<input style="width: 50px;" type="text"/>
Country Code/Trunk Code (ACB_DC2):	<input style="width: 50px;" type="text"/>
Destination Network Code (ACB_DC3):	<input style="width: 50px;" type="text"/>
Dialed Access Code (ACB_LOC_AC):	No Access Code (NONE) ▼
New Access Code (ACB_LD_AC):	No Access Code (NONE) ▼

The information entered on this Web page corresponds to the Zone Dialing Plan and Access Codes (ZACB) command available in LD 117 - Ethernet and Alarm Management.

To save changes made in **Zone Dialing Plan and Access Code** parameters, click **Submit** at the bottom of the Web page.

To return to the **Zones** Web page, click the **Zones** link in the navigation path at the top of the page.

To access the time difference and daylight saving time properties for a Zone's MG 1000B Offices, click the **Branch Office Time Difference and Daylight Saving Time Property** link on the **Zone List** Web page. The **Time Difference and Daylight Saving Time Property** Web page opens (see [Figure 75 "Time Difference and Daylight Saving Time Property web page"](#) (page 149)).

Figure 75
Time Difference and Daylight Saving Time Property Web page

Managing: 192.167.102.3
System » IP Network » [Zones](#) » Zone 1 » Time Difference and Daylight Saving Time

Time Difference and Daylight Saving Time

Time Difference Property

Input Description	Input Value
Time Difference (TIME_DIFF):	0

Daylight Saving Time Property

Input Description	Input Value
Zone Number (ZONE):	1
Use Daylight Saving Time (USE_DST):	<input type="checkbox"/>
Active Status of Daylight Saving Time (DST_ACT):	No
Start Month (START_MON):	January
Start Week (START_WEEK):	1
Start Day (START_DAY):	Sunday
Start Hour (START_HOUR):	1
End Month (END_MON):	January
End Week (END_WEEK):	1
End Day (END_DAY):	Sunday
End Hour (END_HOUR):	1

The information entered on this Web page corresponds to the ZTDF and ZDST command data traditionally configured using LD 117 - Ethernet and Alarm Management.

To save changes made in Time Difference and Daylight Saving Time properties, click **Submit** at the bottom of the Web page.

To return to the **Zones** Web page, click the **Zones** link in the navigation path at the top of the page.

Network Address Translation (NAT)

To configure or edit Network Address Translation (NAT) information, click the **Network Address Translation** link in the **IP Network** branch of the Element Manager navigator. The **Network Address Translation (NAT)** Web page opens, as shown in [Figure 76 "Network Address Translation \(NAT\) web page" \(page 150\)](#).

Figure 76
Network Address Translation (NAT) Web page

Managing: [192.167.102.3](#)
System » IP Network » Network Address Translation (NAT)

Network Address Translation (NAT)

Input Description	Input Value	
Echo Server 1 IP Address	<input type="text" value="0.0.0.0"/>	
Echo Server 1 Port	<input type="text" value="10000"/>	Range: 1000 to 65535
Echo Server 2 IP Address	<input type="text" value="0.0.0.0"/>	
Echo Server 2 Port	<input type="text" value="10000"/>	Range: 1000 to 65535
NAT Session Timeout Value (seconds)	<input type="text" value="30"/>	Range: 20 to 600

Note: IP address 0.0.0.0 means that the default local Echo Server will be enabled

The information entered on this Web page corresponds to data traditionally configured using LD 117 - Ethernet and Alarm Management.

To configure the Echo Server 1 and 2 IP addresses and port numbers, enter the values in corresponding input fields.

Note: Echo Server 1 and 2 default IP addresses use the TLAN network interface IP address of the LTPS card.

Enter the NAT session timeout value. Click the **Submit** button to save the changes. For more information, see *IP Line Fundamentals (NN43100-500)*.

Quality of Service Thresholds (QoS)

To configure or edit Quality of Service Threshold information, click the **Quality of Service Thresholds (QoS)** link in the **IP Network** branch of the Element Manager navigator. The **Quality of Service (QoS) Thresholds** Web page opens (see [Figure 77 "Quality of Service \(QoS\) Thresholds web page"](#) (page 151)).

Figure 77
Quality of Service (QoS) Thresholds Web page

Managing: [192.167.102.3](#)
System » IP Network » Quality Of Service (QoS) Thresholds

Quality Of Service (QoS) Thresholds

QoS Zone Basis Threshold Parameters

Input Description	Input Value	Range
Zone Latency Warning Threshold (ZLWT):	<input type="text" value="20"/>	Range: 1 to 100 %
Zone Jitter Warning Threshold (ZJWT):	<input type="text" value="20"/>	Range: 1 to 100 %
Zone Packet Loss Warning Threshold (ZWPKL):	<input type="text" value="20"/>	Range: 1 to 100 %
Zone R Factor Warning Threshold (ZWR):	<input type="text" value="20"/>	Range: 1 to 100 %
Zone Latency Unacceptable Threshold (ZULAT):	<input type="text" value="2"/>	Range: 1 to 100 %
Zone Jitter Unacceptable Threshold (ZUJIT):	<input type="text" value="2"/>	Range: 1 to 100 %
Zone Packet Loss Unacceptable Threshold (ZUPKL):	<input type="text" value="2"/>	Range: 1 to 100 %
Zone R Factor Unacceptable Threshold (ZUR):	<input type="text" value="2"/>	Range: 1 to 100 %
Sample Rate Window (ZARW):	<input type="text" value="300"/>	Range: 60 to 3600 s
Minimum Sample Count (MSZW):	<input type="text" value="100"/>	Range: 50 to 1000

QoS Call Basis Threshold Parameters

Input Description	Input Value	Range
Call Latency Warning Threshold (WLAT):	<input type="text" value="40"/>	Range: 5 to 100 ms
Call Jitter Warning Threshold (WJIT):	<input type="text" value="20"/>	Range: 5 to 200 ms
Call Packet Loss Warning Threshold (WPKL):	<input type="text" value="20"/>	Range: 5 to 100 %

From this Web page, Quality of Service (QoS) Thresholds can be viewed and edited. Every node in the system has the same threshold values.

The threshold parameters are grouped as follows:

- QoS Zone Basis Threshold Parameters
- QoS Call Basis Threshold Parameters

To save changes made to the threshold parameters, click **Submit** at the bottom of the Web page.

ATTENTION**IMPORTANT!**

Changes to Quality of Service parameters do not take effect until a Call Server data dump is performed.

Personal Directories

The Personal Directories, Redial List, and Callers List feature runs on either a leader or follower Signaling Server. It can run on the same Signaling Server as Element Manager if the number of users is less than 1000. If the Signaling Server supports more than 1000 users, use a separate Signaling Server.

For more information on Personal Directories, Redial List, and Callers List, see *IP Line Fundamentals (NN43100-500)*.

Interfaces

Element Manager supports the Value Added Server and Property Management System data blocks traditionally configured in LD 17.

Value Added Server

Click the **Interfaces > Value Added Server** link in the **System** branch of the Element Manager navigator. The **Value Added Server** Web page opens as shown in [Figure 78 "Value Added Server web page" \(page 152\)](#).

Figure 78
Value Added Server Web page

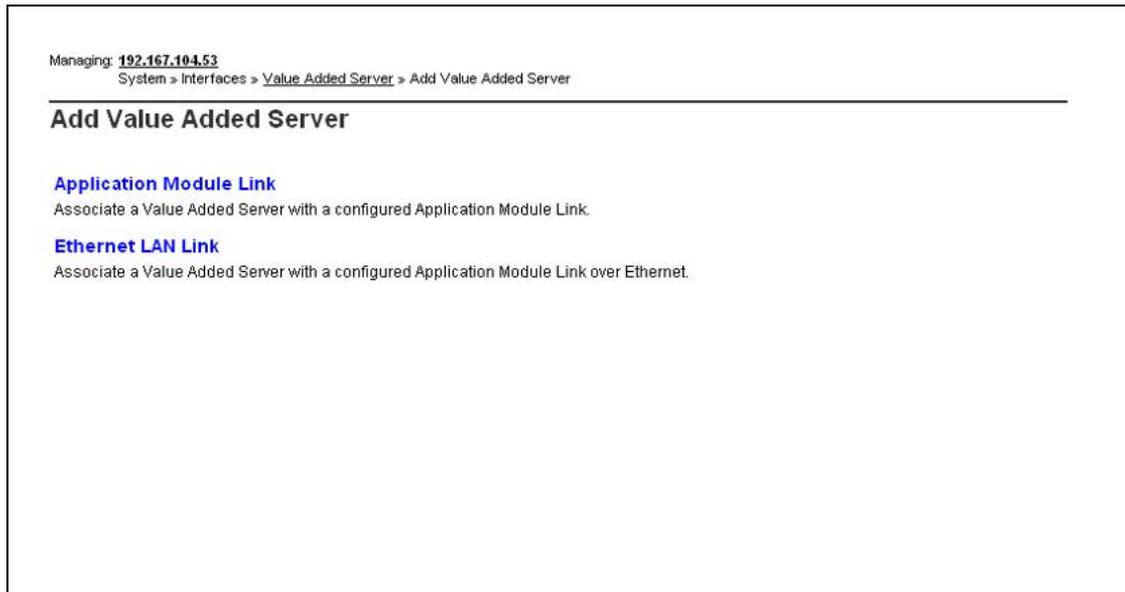
Managing: [192.167.104.53](#)
System > Interfaces > Value Added Server

Value Added Server

Identifier *	Port number	Port Type
1 <input type="radio"/> 016	016	Ethernet Link
2 <input type="radio"/> 017	017	Ethernet Link
3 <input type="radio"/> 032	032	Ethernet Link

To add a Value Added Server, click **Add**. The **Add Value Added Server** Web page opens, as shown in Figure 79 "Add Value Added Server web page" (page 153).

Figure 79
Add Value Added Server Web page



To associate a Value Added Server with a configured Application Module Link, click **Application Module Link**. The **Application Module Link** Web page opens, as shown in Figure 80 "Application Module Link web page" (page 154).

Figure 80
Application Module Link Web page

Managing: [192.167.104.53](#)
 System > Interfaces > Value Added Server > Add Value Added Server > Application Module Link

Application Module Link

Value Added Server ID: ▾

Application Module Link: ▾
AML port configured in ADAN

Application Security:

Interval: ▾
Time interval for checking the link for overload in five second increments

Message Count Threshold: ▾ (10 - 9999)

Link Configuration: Direct

Enter the parameters for the new Value Added Server and click **Save**.

To associate a Value Added Server with a configured Application Module Link over Ethernet, from the **Add Value Added Server** Web page click **Ethernet LAN Link**. The **Ethernet Link** Web page opens, as shown in [Figure 81 "Ethernet Link web page"](#) (page 154).

Figure 81
Ethernet Link Web page

Managing: [192.167.104.53](#)
 System > Interfaces > Value Added Server > Add Value Added Server > Ethernet Link

Ethernet Link

Value Added Server ID: ▾ (10 - 127)

Ethernet LAN Link: ▾
ELAN port configured in ADAN

Application Security:

Interval: ▾
Time interval for checking the link for overload in five second increments

Message Count Threshold: ▾ (10 - 9999)

Enter the parameters for the new Value Added Server and click **Save**.

Property Management System

Click the **Interfaces > Property Management System** link in the **System** branch of the Element Manager navigator. The **Property Management System** Web page opens, as shown in [Figure 82 "Property Management System web page"](#) (page 155).

Figure 82
Property Management System Web page

Managing: [192.167.104.53](#)
System > Interfaces > Property Management System

Property Management System

Interface: PMS1

Number of Call Registers used: 20 * (5 - 1023)

Port Number:

PMSI port configured in ADAN

Acknowledgement Time: 0 (seconds)

Minor alarm when link is not responding:

Number of Retransmissions per message: 1

Polling Timer: 0 * (0 - 31 minutes)

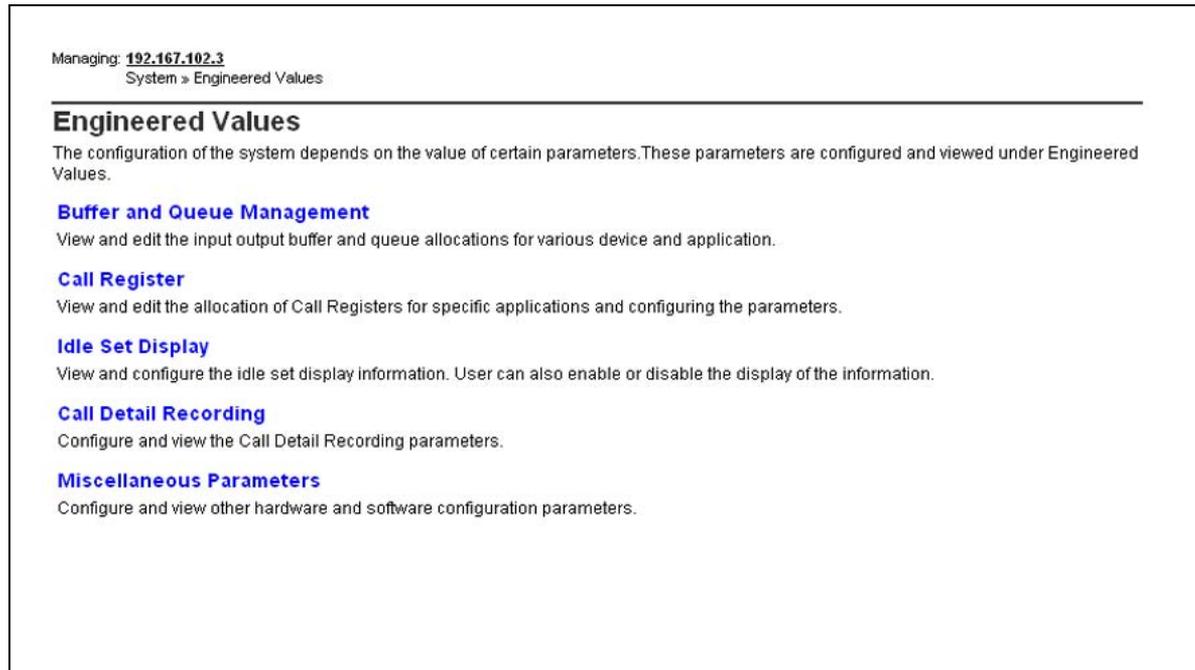
Save Cancel

Enter the parameters for the new Property Management System and click **Save**.

Engineered Values

The configuration of the system depends on the value of certain parameters. To configure and edit system parameters, click the **Engineered Values** link in the **System** branch of the Element Manager navigator. The **Engineered Values** Web page appears as shown in [Figure 83 "Engineered Values Web page"](#) (page 156).

Figure 83
Engineered Values Web page



To configure the input/output buffer and queue allocations for various devices and applications, click **Buffer and Queue Management**. The **Buffer and Queue Management** Web page appears as shown in [Figure 84 "Buffer and Queue Management Web page"](#) (page 157).

Figure 84
Buffer and Queue Management Web page

Managing: [192.167.102.3](#)
System » [Engineered Values](#) » Buffer And Queue Management

Buffer And Queue Management

Buffer Management

Low Priority Input Buffers: * (96 - 5000)
High Priority Input Buffers: * (16 - 5000)
Output Buffers: * (16 - 2048)
SL1 Buffers: * (16 - 2048)
Digital Trunk Input Buffers: * (35 - 1000)
Digital Trunk Output Buffers: * (4 - 100)

Queue Management

Auxiliary Input Queue Size: * (20 - 255)
Auxiliary Output Queue Size: * (20 - 255)

Enter the desired parameters within the ranges indicated and click **Save**.

To configure the allocation of Call Registers for specific applications, from the **Engineered Values** Web page click **Call Registers**. The **Call Registers** Web page appears as shown in [Figure 85 "Call Register Web page"](#) (page 158).

Figure 85
Call Register Web page

Managing: [192.167.102.3](#)
System » [Engineered Values](#) » Call Register

Call Register

Number of Call Registers: * (80 - 50000)

Maximum number of call registers for :

Auxiliary Messaging: * (0 - 20000)

Command Status Link input queues: * (20 - 5000)

Command Status Link/AML output queues: * (20 - 5000)

Double message processing speed on AML:

Enter the desired parameters within the ranges indicated and click **Save**.

To configure idle set display information, from the **Engineered Values** Web page click **Idle Set Display**. The **Idle Set Display** Web Page appears as shown in [Figure 86 "Idle Set Display Web page"](#) (page 159).

Figure 86
Idle Set Display Web page

Managing: [192.167.102.3](#)
System > [Engineered Values](#) > Idle Set Display

Idle Set Display

Idle Set Display:

The configurations will be saved only if the Electronic Brandlining ISM parameter is set to Terminal Text Broadcast (EBLN ISM value of 2)

Enter the desired display information and click **Save**.

To configure Call Detail Recording parameters, from the **Engineered Values** Web page click **Call Detail Recording**. The **Call Detail Recording** Web page appears as shown in [Figure 87 "Call Detail Recording Web page"](#) (page 160).

Figure 87
Call Detail Recording Web page

Managing: [192.167.102.3](#)
System > [Engineered Values](#) > Call Detail Recording

Call Detail Recording

Format:

Priority over Call Processing:

Calling Line ID:

Duration 0.5:

Call record output on TTY with 0.5 second duration accuracy for Japan

Message Registration or Periodic Pulse Metering:

Enter the desired parameters and click **Save**.

To configure other hardware and software parameters, from the **Engineered Values** Web page click **Miscellaneous Parameters**. The **Miscellaneous Parameters** Web page appears as shown in [Figure 88 "Miscellaneous Parameters Web page"](#) (page 161).

Figure 88
Miscellaneous Parameters Web page

Managing: [192.167.102.3](#)
 System » [Engineered Values](#) » Miscellaneous Parameters

Miscellaneous Parameters

Number of CPU:

Pulse Code Modulation Companding Law:

Minor Alarm on Attendant consoles:

Error Messages

Monitor Hardware:

Monitor Software:

Software Audit:

Digitone Burst Time: (milliseconds)

Call Forward Saved on Sysload:

16 button Dual Tone Multi-Frequency Operation:

Cadence increments: (milliseconds)

Multiple Loop Directory Number:

Incoming Calls by Fully Restricted Station:

Automatic Call Distribution - Auxiliary Data System Customers:

Speed Call Lists: * (0 - 8191)

Display Messages for Background Terminal: * (20 - 255)

Original Carrier Access Code Format Support:

Enter the desired parameters and click **Save**.

Emergency Services

Element Manager supports the Emergency Services Client Mobility feature, which allows users to manage the location of phones, and to process emergency calls according to the caller's current data.

Service Parameters

The **Service Parameters** Web page allows users to modify system-wide configuration settings.

Click the **Emergency Services > Service Parameters** link in the **System** branch of the Element Manager navigator to open the **Service Parameters** Web page, as shown in [Figure 89 "Service Parameters web page" \(page 162\)](#).

Figure 89
Service Parameters Web page

Input Description	Input Value
Location Information Service (LIS):	None (None)

Dynamic ELIN Timeout value (DYNAMIC_ELIN_TIMEOUT): 180 (5 - 1440 Minutes)

Reuse oldest ELIN during overflow (DYNAMIC_ELIN_REUSE):

Submit Refresh

- Choose a **Location Information Service** from the first drop-down list.
 - If Internal Subnet Location Information Service is selected, the **Lookup Private Address for Subnet** check box is displayed.
 - If External Discovery Manager is selected, the **External Location Update Timeout** text box is displayed.
- Enter a **Dynamic ELIN Timeout value**.
- Click **Submit**.

Access Numbers and Routing

The **Access Numbers and Routing** Web page allows users to process Emergency Service information which are specific to each Customer.

Click the **Emergency Services > Access Numbers and Routing** link in the **System** branch of the Element Manager navigator to open the **Access Numbers and Routing** Web page, as shown in [Figure 90 "Access Numbers and Routing web page"](#) (page 163).

Figure 90
Access Numbers and Routing Web page

Managing: **192.167.100.3**
 System » Emergency Services » Access Numbers and Routing

Access Numbers and Routing

Emergency Services Directory Number (ESDN) is used to handle emergency calls and hence treated with high priority.

Emergency Services Access Data for

Default Calling Number : 9674444
 On-Site Notification Station DN :

Emergency Services Directory Numbers

	Entry#	Directory Number	Routing Method	Route Value	Directing Digits	Misdial Prevention	Misdial Delay	Last ESDN Digit Repetition
<input type="radio"/>	1	911	ESRT	1	4444	NO		
<input type="radio"/>	2	811	ESRT	1	234	NO		

Number of ESDN blocks printed = 2

To add an Emergency Services Directory Number, click **Add**. The **Add Emergency Services Directory Number** Web page opens, as shown in Figure 91 "Add Emergency Services Directory Number web page" (page 164).

Figure 91
Add Emergency Services Directory Number Web page

Managing: [192.167.104.53](#)
System » Emergency Services » [Access Numbers and Routing](#) » Add Customer 0 Emergency Services Directory Number

Add Customer 0 Emergency Services Directory Number

ESDN Entry:

Directory Number: *

Directing Digits: *

Routing Method:

Route Number:

Route List Index:

Misdial Prevention:

Misdial Delay: (seconds)

Last ESDN Digit Repetition:

To edit an existing Emergency Services Directory Number, from the **Access Numbers and Routing** Web page click the **Entry#**. The **Edit Emergency Services Directory Number** Web page opens, as shown in [Figure 92 "Edit Emergency Services Directory Number Web page"](#) (page 165).

Figure 92
Edit Emergency Services Directory Number Web page

Edit Emergency Services Directory Number Entry 1

Directory Number :

Directing Digits :

Routing Method :

Route Number :

Route List Index :

Misdial Prevention :

Misdial Delay : (seconds)

Last ESDN Digit Repetition :

To edit the CLID configuration for a Customer, select a Customer from the **Choose a customer** drop-down list and click **CLID**. The **Edit Access Numbers and Routing** Web page opens, as shown in [Figure 93 "Edit Access Numbers and Routing web page"](#) (page 166).

Figure 93
Edit Access Numbers and Routing Web page

Managing: [10.11.128.18](#)
System » Emergency Services » [Access Numbers and Routing](#) » Edit Access Numbers and Routing

Edit Access Numbers and Routing

Input Description	Input Value
Customer Number (CUST):	0
Emergency Services Directory Number (ESDN):	911
Emergency Services Access Routing Method (ROUTING):	Route Number (ESRT) 15
Directing Digits (DDGT):	4444
Default ESA Calling Number (DFCL):	967444
On-Site Notification station DN (OSDN):	

To add a new CLID configuration for a Customer, from the **Access Numbers and Routing** Web page click **Add**. The **Add Access Numbers and Routing** Web page opens, as shown in [Figure 94 "Add Access Numbers and Routing web page"](#) (page 167).

Figure 94
Add Access Numbers and Routing Web page

Input Description	Input Value
Customer Number (CUST):	2
Emergency Services Directory Number (ESDN):	
Emergency Services Access Routing Method (ROUTING):	Route Number (ESRT)
Directing Digits (DDGT):	
Default ESA Calling Number (DFCL):	
On-Site Notification station DN (OSDN):	

Submit Cancel

Choose a Customer from the **Customer Number** drop-down list. Complete the information in the remaining fields and click **Submit**.

To delete the CLID configuration for a customer, from the **Access Numbers and Routing** Web page click **Delete**.

Response Locations

Click the **Emergency Services > Response Locations** link in the **System** branch of the Element Manager navigator to open the **Emergency Response Location** Web page, as shown in [Figure 95 "Emergency Response Location web page"](#) (page 168).

Figure 95
Emergency Response Location Web page

Managing: [192.167.100.3](#)
 System » Emergency Services » Emergency Response Location

Emergency Response Location

Goto ERL

ERL	State	Site Name	Location Description	Route Number	Route List Index	Access Code	Prepend Digits	Locator	Onsite Notification DN
<input type="radio"/> 256	DIS								
<input type="radio"/> 257	DIS		ZONE1						
<input type="radio"/> 258	DIS		ZONE2						

Number of ERLs printed = 3, Total number of ERLs = 3

Items per page

This Web page allows users to enable, disable, or delete Emergency Response Locations (ERLs).

To enable an ERL, click the radio button for the ERL and click **Enable**.

To disable an ERL, click the radio button for the ERL and click **Disable**.

To delete an ERL, click the radio button for the ERL and click **Delete**.

To edit an ERL, click the ERL number. The **Edit Emergency Response Location** Web page opens, as shown in [Figure 96 "Edit Emergency Response Location web page"](#) (page 169).

Figure 96
Edit Emergency Response Location Web page

Managing: [192.167.100.3](#)
 System » Emergency Services » [Emergency Response Location](#) » Edit Emergency Response Location

Edit Emergency Response Location

Input Description	Input Value
Emergency Response Locator (ERL):	<input type="text" value="256"/>
Site Name (SITENAME):	<input type="text"/>
Location Description (LOCDESC):	<input type="text"/>
Routing Method (ROUTING):	Route Number (RT) <input type="text"/>
Access Code (AC):	Null (NULL) <input type="text"/>
Prepend Digits (PREPEND):	<input type="text"/>
Locator (LOCATOR):	<input type="text"/>
On-Site Notification DN (OSDN):	<input type="text"/>

To add an ERL, from the **Emergency Response Location** Web page click **Add**. The **Add Emergency Response Location** Web page opens, as shown in [Figure 97 "Add Emergency Response Location web page"](#) (page 170).

Figure 97
Add Emergency Response Location Web page

Managing: [192.167.100.3](#)
System » Emergency Services » [Emergency Response Location](#) » Add Emergency Response Location

Add Emergency Response Location

Input Description	Input Value
Emergency Response Locator (ERL):	<input type="text"/>
Site Name (SITENAME):	<input type="text"/>
Location Description (LOCDESC):	<input type="text"/>
Routing Method (ROUTING):	Route Number (RT) <input type="text"/>
Access Code (AC):	Null (NULL) <input type="text"/>
Prepend Digits (PREPEND):	<input type="text"/>
Locator (LOCATOR):	<input type="text"/>
On-Site Notification DN (OSDN):	<input type="text"/>

Enter the information for the new ERL and click **Submit**.

Subnet Information

The Subnet Location Information Web pages allow users to modify subnet information.

Click the **Emergency Services > Subnet Information** link in the **System** branch of the Element Manager navigator to open the **Subnet Location Information Service** Web page, as shown in [Figure 98 "Subnet Location Information Service Web page"](#) (page 171).

Figure 98
Subnet Location Information Service Web page

Managing: [192.167.102.3](#)
 System » Emergency Services » Subnet Location Information Service

Subnet Location Information Service

Maintenance
[Emergency Services Diagnostics](#) (LD 117)

Configuration

Goto Subnet Index

[Refresh](#)

	IP Address	Mask bits	Emergency Response Location	Emergency Caller Location	Location Description
<input type="radio"/>	192.167.102.3	32	256	4444	

Number of entries in range [1, 30] = 1, Total number of entries in Subnet Lookup Table = 1

Items per page

The Maintenance section contains a link to the **Emergency Services Diagnostics** Web page. See "[Emergency Services Diagnostics](#)" (page 74).

The Configuration section lists the configured subnet entries. To edit a configured Subnet Location, click the Subnet Location **IP Address**. The **Edit Subnet Location Information** Web page opens, as shown in [Figure 99 "Edit Subnet Location Information Web page"](#) (page 172).

Figure 99
Edit Subnet Location Information Web page

Managing: [192.167.102.3](#)
System » Emergency Services » [Subnet Location Information Service](#) » Edit Subnet Location Information

Edit Subnet Location Information

Input Description	Input Value
IP Address (IP):	<input type="text" value="192.167.102.3"/> *
Mask bits (MASKBITS):	<input type="text" value="32"/> * (1 - 32)
Emergency Response Location (ERL):	<input type="text" value="256"/> * (1 - 65535)
Emergency Caller Location (ECL):	<input type="text" value="4444"/> * (0 - 65535)
Location Description (LOCATIONDESCRIPTION):	<input type="text"/>

To add a Subnet Location, from the **Subnet Location Information Service** Web page click **Add**. The **Add Subnet Location Information** Web page opens, as shown in [Figure 100 "Add Subnet Location Information web page"](#) (page 173).

Figure 100
Add Subnet Location Information Web page

Managing: [192.167.100.3](#)
 System > Emergency Services > [Subnet Location Information Service](#) > Add Subnet Location Information

Add Subnet Location Information

Input Description	Input Value
IP Address (IP):	<input type="text" value="0.0.0.0"/>
Mask bits (MASKBITS):	<input type="text"/> (1 - 32)
Emergency Response Locator (ERL):	<input type="text"/> (1 - 65535)
Emergency Caller Locator (ECL):	<input type="text"/> (0 - 65535)
Location Description (LOCATIONDESCRIPTION):	<input type="text"/>

Enter the information for the new Subnet Location and click **Submit**.

Dynamic Identification

The Dynamic Identification Web pages allow users to modify Dynamic Emergency Location information.

Click the **Emergency Services > Dynamic Identification** link in the **System** branch of the Element Manager navigator to open the **Dynamic Location Identification Number** Web page, as shown in [Figure 101 "Dynamic ELIN Web page"](#) (page 174).

Figure 101
Dynamic ELIN Web page

Managing: [192.167.102.3](#)
System > Emergency Services > Dynamic ELIN

Dynamic ELIN

Emergency Response Location	Terminal Number	Dynamic ELIN	State	Mapped DN	Expiry Time (MM/DD HH:MM)
-----------------------------	-----------------	--------------	-------	-----------	---------------------------

No Dynamic ELINs configured

This Web page lists the configured Dynamic ELINs.

To delete an ELIN, click the radio button for the ELIN and click **Delete**.

To add an ELIN, click **Add**. The **Add Dynamic Location Identification Number** Web page opens, as shown in [Figure 102 "Add Dynamic Location Identification Number web page"](#) (page 175).

Figure 102
Add Dynamic Location Identification Number Web page

Managing: [192.167.100.3](#)
System > Emergency Services > Dynamic Location Identification Number > Add Dynamic Location Identification Number

Add Dynamic Location Identification Number

Input Description	Input Value
Emergency Response Location (ERL):	<input type="text"/> (1 - 65535)
Terminal Number (TN):	<input type="text"/>

Enter the information for the new ELIN and click **Submit**.

Virtual Office Phone

The Virtual Office Phone Web pages allow users to maintain lists of mapped and unused Virtual Office TNs.

Click the **Emergency Services > Virtual Office Phone** link in the **System** branch of the Element Manager navigator to open the **Virtual Office Phone** Web page, as shown in [Figure 103 "Virtual Office Phone Web page"](#) (page 176).

Figure 103
Virtual Office Phone Web page

Managing: **192.167.102.3**
 System > Emergency Services > Virtual Office Phone

Virtual Office Phone

Incoming and outgoing calls to emergency services are provided to virtual office phones

Mapped Virtual Office TNs

Add... Delete Refresh

Customer ▲	Emergency DN	Number of TNs in pool	Starting TN	TN Reservation
1 <input type="radio"/> <u>0</u>	911	1	096 0 00 00	20

Virtual Office TNs In Use

Trace Refresh

Virtual Office TN ▲	Virtual Office DN	TN	Timer	Signalling IP

This Web page includes two sections listing Mapped Virtual Office TN Pools and Virtual Office TNs in Use.

Geographic Redundancy

Geographic Redundancy is available only on CPP II, CPP IV and CP-PM systems.

Database Replication Control

To configure or edit Database Replication information, click the **Geographic Redundancy > Database Replication Control** link in the **System** branch of the Element Manager navigator. The **Database Replication Control** Web page opens as shown in [Figure 104 "Database Replication Control web page"](#) (page 177).

Figure 104
Database Replication Control Web page

Managing: [192.167.102.3](#)
System » Geographic Redundancy » Database Replication Control

Database Replication Control

Input Description	Input Value
Rule Number for backup and Restore:	1
Automatic Replication backup:	As defined in backup schedule
Automatic Replication restore:	<input checked="" type="checkbox"/>
Automatic Sysload:	<input checked="" type="checkbox"/>

Save Delete Cancel

On the **Database Replication Control** Web page, users can configure:

- Rule Number for backup and Restore
- Automatic Replication Backup (ABKUP)
- Automatic Replication restore
- Automatic Sysload

State Control

To configure State Control information, click the **Geographic Redundancy > State Control** link in the **System** branch of the Element Manager navigator. The **State Control** Web page opens as shown in [Figure 105 "State Control web page"](#) (page 178).

Figure 105
State Control Web page

Managing: **Buffv_1 (47.11.139.4)**
 System » Geographic Redundancy » State Control

State Control

Input Description	Input Value
Geographic Redundancy Threshold (GRTHR):	<input type="text" value="1"/>
Short Term Failure Timeout in minutes (STFTO):	<input type="text" value="5"/>
Fault Clearance Timeout in minutes (FCTO):	<input type="text" value="5"/>
Secondary CS Deactivation Mode (SDAM):	<input type="text" value="Automatic (AUTO)"/>

On the **State Control** Web page, users can configure:

- Associated Secondary Call Server
- Threshold1 (Number Of IP phones registered)
- Threshold2 (Number of Media Gateways registered)
- Short Term Failure Timeout in minutes
- Fault Clearance Timeout in minutes
- Secondary CS Deactivation Mode

The information entered on this Web page corresponds to the commands available in LD 117.

For more information about Geographic Redundancy, see *System Redundancy Fundamentals (NN43001-507)*.

Software

The **Software** link of the **System** branch of the Element Manager navigator can be used to perform patching of the Call Server or the Media Gateway.

Call Server PEPs

Perform Call Server patching by clicking the **Software > Call Server PEPs** link in the **System** branch of the Element Manager navigator. The **Call Server Web** page opens, as shown in [Figure 106 "Call Server web page"](#) (page 179).

Figure 106
Call Server Web page

From the **Call Server** Web page, the user can:

- load and activate a new Product Enhancement Package (PEP)
- get the status of a single PEP or all PEPs (PSTAT)
- activate a single PEP or all PEPs (PINS)
- deactivate a single PEP or all PEPs (POOS)
- remove a single PEP or all PEPs (POUT)
- view the details on a PEP (PLIS)

The **PEP Setting** section at the top left of the Web page enables the user to select files and choose settings. Clicking the right arrow (->>) button moves PEP files into the **PEP Bin** section. Clicking the left arrow (<<-) button

moves PEP files out of the **PEP Bin** section. Click **Load and Activate** to submit the selected PEP to the call server. Results are displayed at the bottom of the screen.

Note: The user can download only 15 PEP files at a time. To install more than 15 PEPs on a single entity, the user must run the utility again.

All PEP commands require the PEP ID. After selecting the PEP command from the drop-down list, enter the **PEP ID** in the text box.

The **Apply to All** check box is enabled for all commands with the exception of the PLIS command. Clicking the **Submit** button executes the command. Results are displayed at the bottom of the screen.

PEP Management can be applied to Call Servers. Element Manager enables users to load Matrix DepLists (MDP) to the Call Server and manage the MDPs by using the Management DepList commands. Click the **Dependency lists** radio button. See [Figure 107 "Call Server web page - Dependency Lists"](#) (page 180).

Figure 107
Call Server Web page - Dependency Lists

The screenshot displays the 'Call Server' web page interface. At the top, it shows the IP address '192.167.102.3' and the navigation path 'System > Software > Call Server'. The main heading is 'Call Server'. Below this, there are two radio buttons: 'User PEPs' (unselected) and 'Dependency lists' (selected). A section titled 'Dependency list Setting' contains a text input for 'Dependency list File Name', a 'Browse...' button, and a 'Load and Activate' button. Below this is a table with three columns: 'Select Command', 'DepList Name', and an empty column. The 'Select Command' column has a dropdown menu set to 'DEPLIST Load (DLOAD)'. Underneath, there are three input fields: 'Days PEP vulnerable to sysload' (value 3), 'In service initialize threshold' (value 5), and 'In service days to monitor inits' (value 7). The 'DepList Name' column has a dropdown menu set to 'All'. A 'Submit' button is located in the empty column. At the bottom, there is a text area labeled 'Call Server:' containing the message 'System has no loaded Dependency Lists.'

PEP lists are populated with individual PEPs contained in an update when a Matrix DepList is opened. The **Refresh** command refreshes the contents of an MDP on a target system and enables the user to load MDPs properly.

PEP Management supports the following commands:

- load and activate a new PEP (DLOAD)
- get the status of a single PEP or all PEPs (DSTAT)
- activate a single PEP or all PEPs (DINS)
- deactivate a single PEP or all PEPs (DOOS)
- remove a single PEP or all PEPs (DOUT)
- view the details on a PEP (DLIS)

Each PEP in the Matrix DepList has its own PEP handle and can be uninstalled, similar to current multipatch functionality.



WARNING

Service updates that contain many PEPs can take time to install.

Media Gateway PEPs

Element Manager allows users to perform patching of the Media Gateway or MG 1000S. Follow the steps in [Procedure 79 "Patching of the MG 1000S" \(page 181\)](#) to patch files on the MG 1000S.

Procedure 79

Patching of the MG 1000S

Step	Action
------	--------

- | | |
|---|--|
| 1 | Click the Software > Media Gateway PEPs link in the System branch of the Element Manager navigator.

The Media Gateway Web page appears as shown in Figure 108 "Media Gateway web page" (page 182) . |
| 2 | Select one of the check boxes at the top of the Web page to select the required Media Gateway for patching. |

Note: If no Media Gateway is selected, the PEP command is applied to all the Media Gateways.

—End—

Figure 108
Media Gateway Web page

Media Gateway

Media Gateway	<input type="text"/>	Apply to All <input checked="" type="checkbox"/>
PEP Setting		PEP Bin (Total: 0; Limit: 15)
PEP File Name	<input type="text"/> <input type="button" value="Browse..."/>	<div style="border: 1px solid gray; height: 100px; width: 100%;"></div> <div style="text-align: center; margin-top: 5px;"> <input type="button" value="-->>"/> <input type="button" value="<<--"/> </div> <div style="text-align: center; margin-top: 5px;"> <input type="button" value="Load and Activate"/> </div>
Days PEP vulnerable to sysload	<input type="text" value="3"/>	
In service initialize threshold	<input type="text" value="5"/>	
In service days to monitor inits	<input type="text" value="7"/>	
Select Command		
Automatic Centralized PEP Distribution (ACPD) Show <input type="button" value="Submit"/>		
Select Command	PEP File Name	Apply to All
PEP In-Service (CPINS) <input type="button" value="Submit"/>	<input type="text"/>	<input type="checkbox"/>

```

ACPD Status: Idle
+-----+
| Automatic Centralized PEP Distribution (ACPD) |
+-----+
| CAB | STATE | STATUS | LAST RUN TIME |
+-----+
| 3 | Enabled | Not Run | 0000/00/00 00:00:00 |
+-----+

```

From the **Media Gateway** page, the user can:

- load and activate a new PEP
- get the status of a single PEP or all PEPs (CPSTAT)
- activate a single PEP or all PEPs (CPINS)
- deactivate a single PEP or all PEPs (CPOOS)
- remove a single PEP or all PEPs (CPOUT)
- view the details on a PEP (CPLIS)

The **PEP Setting** section at the top left of the screen enables the user to select files and choose settings. Clicking the ->> (right arrow) button moves PEP files into the **PEP Bin** section. Clicking the <<- (left arrow) button moves PEP files out of the **PEP Bin** section. Click **Load and Activate** to submit the selected PEP(s) to the Media Gateway. Results are displayed at the bottom of the screen.

Note: The user can download only 15 PEP files at a time. To install more than 15 PEPs on a single entity, the user must run the utility again.

All PEP commands require the PEP File Name. After selecting the **PEP** command from the drop-down list, enter the PEP File Name in the text box.

The **Apply to All** check box is enabled for all commands with the exception of the CPLIS command. Clicking the **Submit** button executes the command. Results are displayed at the bottom of the screen.

Software

The **Software** link of the **System** branch of the Element Manager navigator can also be used to upload and store files, upgrade firmware, and perform patching activities.

File Upload

The file upload function enables users to upload and store loadware and firmware files on the Signaling Server. These files can then be downloaded to IP Phones and other network elements, using the functions available under the **Software > IP Phone Firmware** and **Software > Voice Media Gateway Card** links in the **System** branch of the navigator.

For more information on the file upload function, see *IP Line Fundamentals (NN43100-500)*.

IP Phone Firmware

The **Software > IP Phone Firmware** link in the **System** branch of the Element Manager navigator allows users to upgrade IP Phone firmware. For more information, see *IP Line Fundamentals (NN43100-500)*.

Servers and Media Cards

Click the **Software > Servers, Media Cards PEPs** link in the **System** branch of the Element Manager navigator to open the **Servers and Media Cards** Web page as shown in [Figure 109 "Servers and Media Cards web page" \(page 184\)](#).

Figure 109
Servers and Media Cards Web page

Managing: **Navigation System Name (192.167.102.3)**
 System » Software » Servers and Media Cards

Servers and Media Cards

User PEPs
 Dependency lists

Element type: Signaling Server
Platform type: Signaling Server - ISP1100

PEP Setting	PEP Bin (Total: 0; Limit: 15)
PEP File Name <input type="text"/> <input type="button" value="Browse..."/>	<div style="border: 1px solid gray; width: 100%; height: 100%;"></div> <div style="display: flex; justify-content: center; gap: 10px; margin-top: 5px;"> -->> <<-- </div> <div style="text-align: center; margin-top: 10px;"> <input type="button" value="Load and Activate"/> </div>
Days PEP vulnerable to sysload <input type="text" value="3"/>	
In service initialize threshold <input type="text" value="5"/>	
In service days to monitor ints <input type="text" value="7"/>	

Select Elements					
<input type="button" value="Open all nodes"/>		<input type="button" value="Close All nodes"/>		<input type="button" value="Clear all"/>	
- Node ID: 9			Node IP: 192.167.103.3		Total elements: 1
Index	ELAN IP	TN	Type	Role	
<input checked="" type="checkbox"/> CS1000E_PIV	192.167.102.4	NO TN	Signaling Server-ISP1100	Leader	<input type="button" value="PSTAT"/>
- Node ID: 5			Node IP: 192.167.101.3		Total elements: 1
Index	ELAN IP	TN	Type	Role	

From this Web page the following functions can be performed:

- load and activate a new PEP
- view the status of a single PEP or all PEPs (PSTAT)
- activate a single PEP or all PEPs (PINS)
- deactivate a single PEP or all PEPs (POOS)
- remove a single PEP or all PEPs (POUT)
- view the details on a PEP (PLIS)

The **PEP Setting** section at the top left of the Web page enables users to select files and choose settings.

Procedure 80

Loading and Activating PEP Settings to the Call Server

Step	Action
1	Click Browse .
	The Choose file window opens.

- 2 Choose a file to be downloaded and click **Open**.
- 3 Enter the number of **Days PEP vulnerable to sysload**.
- 4 Enter the **In service initialize threshold**.
- 5 Enter the **In service days to monitor inits**.
- 6 Click the -->> (right arrow) button to move the PEP files into the PEP Bin section.
- 7 Click **Load and Activate** to submit the selected PEPs to the call server.
Results are displayed at the bottom of the screen.

—End—

Clicking the -->> (right arrow) button moves PEP files into the **PEP Bin** section. Likewise, clicking the <<-- (left arrow) button moves PEP files out of the **PEP Bin** section. Click **Load and Activate** to submit the selected PEPs to the call server. Results are displayed at the bottom of the screen.

Note: A maximum of 15 PEP files can be downloaded at a time. If more than 15 PEPs must be installed on a single entity, the utility must be run again.

Click the **PSTAT** button to open the **Type** Web page for the selected element. See [Figure 110 "Type web page" \(page 186\)](#).

Figure 110
Type Web page

Managing: **192.167.100.3**
 Type: Signaling Server, ELAN IP: 192.167.100.4

Type: Signaling Server, ELAN IP: 192.167.100.4

PEP Setting	PEP Bin (Total: 0; Limit: 15)
PEP File Name <input type="text"/> <input type="button" value="Browse..."/> Days PEP vulnerable to sysload <input type="text" value="3"/> In service initialize threshold <input type="text" value="5"/> In service days to monitor inits <input type="text" value="7"/>	<input type="button" value="-->"/> <input type="button" value="<<--"/> <input type="button" value="Load and Activate"/>

Select Command	PEP ID	Apply to All	
PEP Status (PSTAT) <input type="button" value="v"/>	<input type="text"/>	<input type="checkbox"/>	<input type="button" value="Submit"/>

System has no loaded patches.

All PEP commands require the PEP ID. After selecting the PEP **Command** from the drop-down list, enter the **PEP ID** in the text box.

The **Apply to All** check box is enabled for all commands with the exception of the PLIS command. Clicking the **Submit** button executes the command. Results are displayed at the bottom of the screen.

Customers, Routes and Trunks

Contents

This section contains information on the following topics:

"Introduction" (page 187)

"Customers" (page 187)

"Route and Trunk Configuration" (page 210)

"Routes and Trunks" (page 210)

"D-channels" (page 222)

"Digital Trunk Interface" (page 225)

Introduction

The **Customers** and **Routes and Trunks** branches of the Element Manager navigator are used to launch Web pages that enable the user to configure and edit data relating to customers and their equipment.

Customers

When the user clicks the **Customers** branch of the Element Manager navigator, the **Customers** Web page opens, as shown in [Figure 111 "Customers web page" \(page 188\)](#). To configure customer data, click the **Customer Number**.

Figure 111
Customers Web page

Managing: [192.167.100.3](#)
Customers

Customers

	Customer Number *	Total Routes	Total Trunks
1	<input type="radio"/> 00	2	20
2	<input type="radio"/> 01	0	0

To add a new customer, click **Add**.

The **Basic Configuration** Web page opens, as shown in [Figure 112 "Basic Configuration web page"](#) (page 188).

Figure 112
Basic Configuration Web page

Managing: [192.167.100.3](#)
[Customers](#) > [Add Customer](#) > Basic Configuration

Basic Configuration

Customer number: * (0-99)

ANI Attendant Billing number: *

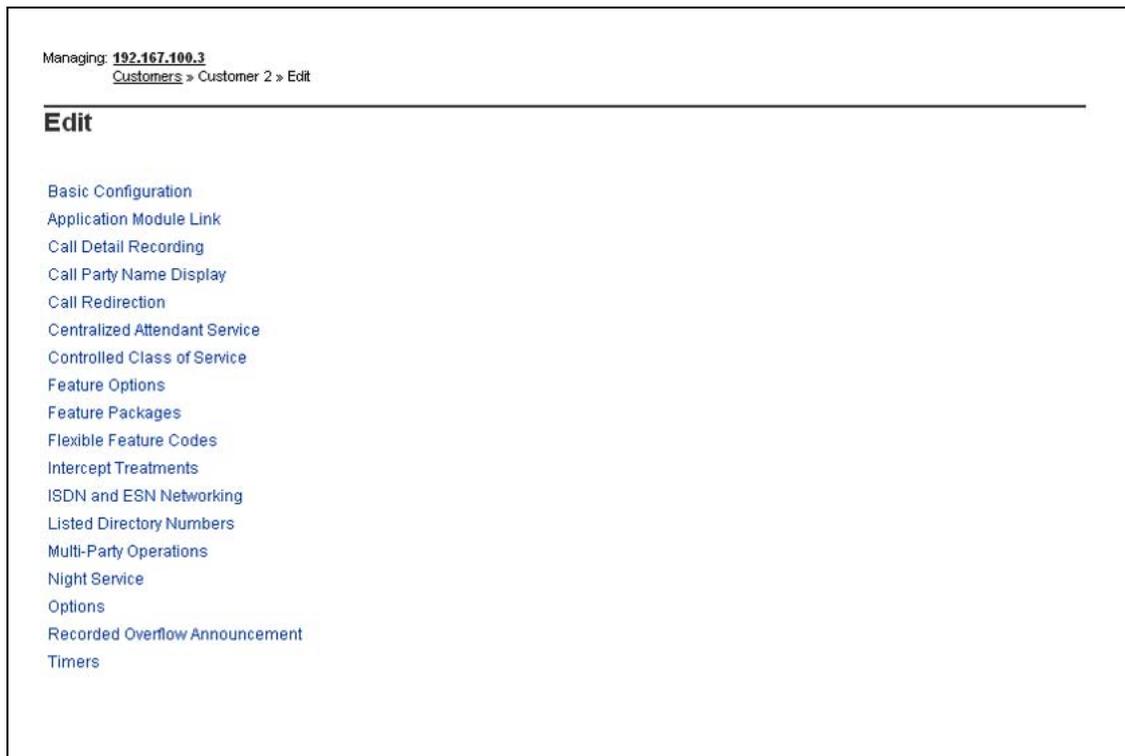
ANI Listed Directory Number: *

The information entered in this Web page corresponds to Default Customer Data Block information traditionally configured using LD 15 - Customer Data Block.

Enter the required information in the three fields and click **Save**.

The **Edit** Web page opens, as shown in [Figure 113 "Edit Customer web page"](#) (page 189).

Figure 113
Edit Customer Web page



This Web page contains links to Web pages where users can configure additional parameters for each data route block.

Application Module Link

The **Application Module Link** Web page allows users to configure the Application Module Link data block for a customer. Click **Application Module Link** to open this Web page, as shown in [Figure 114 "Application Module Link web page"](#) (page 190).

Figure 114
Application Module Link Web page

Managing: [192.167.100.3](#)
[Customers](#) > [Customer 00](#) > [Edit](#) > Application Module Link

Application Module Link

Value Added Server Identifier:
Select the empty option to remove the configured Value Added Server Identifier if any

Group 2 status events :

Group 3 status events :

Group 4 status events :

Group 5 status events :

Group 6 status events :

Group 7 status events :

Group 8 status events :

Group 9 status events :

Group 10 status events :

Group 11 status events :

Group 12 status events :

Group 13 status events :

Group 14 status events :

Group 15 status events :

Enter the **Value Added Service Identifier** and Group status events information and click **Save**.

Call Detail Recording

The **Call Detail Recording** Web page allows users to configure the Call Detail Recording data block for a customer. Click **Call Detail Recording** to open this Web page, as shown in [Figure 115 "Call Detail Recording web page"](#) (page 191).

Figure 115
Call Detail Recording Web page

Customers » Customer 00 » Edit » Call Detail Recording

Call Detail Recording

Call Detail Recording :

Incoming Packet data call :

Outgoing Packet data call :

Auxiliary Identification Output :

Display each record in new line :

Coordinated Dialing Plan Record :

End to End Signaling digits in CDR record :

Buffer Data Interface :

CDR on Originally Dialed Trunk Route :

Bearer Capability :

Port :

Calling Number Identification :

Charge Account Number length :

Forced Charge Account :

Minimum number of digits for FCA code :

FCA network class of service : (0 - 99)

Enter the appropriate information and click **Save**.

Call Party Name Display

The **Call Party Name Display** Web page allows users to configure the Call Party Name Display data block for a customer. Call Party Name Display names for Incoming Digit Conversion (IDC) are supported on this Web page. Click **Call Party Name Display** to open this Web page, as shown in [Figure 116 "Call Party Name Display web page"](#) (page 192).

Figure 116
Call Party Name Display Web page

Managing: 192.167.104.53
 Customers > Customer 00 > Edit > Call Party Name Display

Call Party Name Display

Configuration: Standalone

Maximum length: 17

Static allocation of name storage:

Default length: 13

Designator for multiple appearance DNS:

Display reasons for call redirection:

Set mnemonics for different types of call redirection

Call forward all calls: F

Call forward no answer: N

Hunt or call forward busy: B

Call pickup: P

Call transfer: T

Attendant alternative answering: A

Emergency Consultation:

Call forward Non Intercom call: NI

Save Delete Cancel

Enter the appropriate information and click **Save**.

Note: The **Static Allocation of name storage** check box will be checked and not editable if the BGD package is enabled.

Call Redirection

The **Call Redirection** Web page allows users to configure the Call Redirection data block for a customer. Click **Call Redirection** to open this Web page, as shown in [Figure 117 "Call Redirection web page" \(page 193\)](#).

Figure 117
Call Redirection Web page

Call Redirection

CFNA treatment for DID calls :

DID forward no answer ring cycles :

CFNA treatment for external trunk DID calls :

CFNA treatment for other calls :

Call forward to trunk access code :

Customer call forwarded DN : * (0 - 23 digits)

Change call redirection by time of day :

Alternate time option 0, from : to *

Alternate time option 1, from : to *

Alternate time option 2, from : to *

Alternate time option 3, from : to *

Call redirection by day :

Days for day option 0 :

Days for day option 1 :

Days for day option 2 :

Days for day option 3 :

[Redirection Holidays](#)

Do not disturb hunting :

Enter the appropriate information and click **Save**.

Click **Redirection Holidays** to open the **Redirection Holidays** Web page, as shown in [Figure 118 "Redirection Holidays web page"](#) (page 194).

This Web page displays holiday redirections for existing dates and allows users to add, edit, or delete holidays.

Figure 118
Redirection Holidays Web page

Managing: [192.167.100.3](#)
[Customers](#) » [Customer 00](#) » [Edit](#) » [Call Redirection](#) » Redirection Holidays

Redirection Holidays

<input type="checkbox"/> Date *	Holiday Redirection 0	Holiday Redirection 1	Holiday Redirection 2	Holiday Redirection 3
1 <input type="checkbox"/> Jan 01 2006	YES	NO	NO	NO
2 <input type="checkbox"/> Dec 25 2006	NO	YES	YES	NO

To add a holiday, click **Add**. The **Add Date of Holiday** Web page opens, as shown in [Figure 119 "Add Date of Holiday web page"](#) (page 194).

Figure 119
Add Date of Holiday Web page

Managing: [192.167.100.3](#)
[Customers](#) » [Customer 00](#) » [Edit](#) » [Call Redirection](#) » [Redirection Holidays](#) » Add Date of Holiday

Add Date of Holiday

Date:

Holiday Redirection 0:

Holiday Redirection 1:

Holiday Redirection 2:

Holiday Redirection 3:

Use this Web page to configure holiday redirections for a customer. Enter the holiday information and click **Save**.

Centralized Attendant Service

The **Centralized Attendant Service** Web page allows users to centralize their attendant services at a single location. From the **Edit** Web page, click **Centralized Attendant Service** to open this Web page, as shown in [Figure 120 "Centralized Attendant Service web page"](#) (page 195).

Figure 120
Centralized Attendant Service Web page

Managing: [192.167.104.53](#)
[Customers](#) > [Customer 00](#) > [Edit](#) > Centralized Attendant Service

Centralized Attendant Service

Allows customers with multiple locations to centralize their attendant services at a single location.

Status: Enable Centralized Attendant Service

Main attendant
Incoming Call Indicators

Remote attendant

Active mode after sysload:

Special tone for LDN calls:

Local attendant DN:

Route number: (0 - 511)

Silent hold DN:

Silent hold recall timer: (0 - 511 seconds)

Enter the appropriate information and click **Save**.

To edit the Attendant Incoming Call Indicators, click the **Main attendant** radio button, and click **Incoming Call Indicators**. The **Edit Attendant ICI** Web page opens, as shown in [Figure 121 "Edit Attendant ICI web page" \(page 196\)](#).

Figure 121
Edit Attendant ICI Web page

Managing: [192.167.100.3](#)
[Customers](#) > [Customer 00](#) > [Edit](#) > [Centralized Attendant Service](#) > [Edit Attendant ICI](#)

Edit Attendant ICI

Station Category Indication priority level 1 :
Station Category Indication priority level 2 :
Station Category Indication priority level 3 :
Station Category Indication priority level 4 :
Station Category Indication priority level 5 :
Station Category Indication priority level 6 :
Station Category Indication priority level 7 :
Call Forward Busy :
Call Forward No Answer :
Dial zero, fully restricted :
Dial zero :
Inter-Attendant DN :
Inter-Attendant Call :
Intercept :
Idle Extension Notification :
Lockout Intercept :
Listed DN0 :
Listed DN1 :
Listed DN2 :

1

Enter the appropriate information and click **Save**.

Controlled Class of Service

The **Controlled Class of Service** Web page allows users to configure the Controlled Class of Service data block for a customer. Click **Controlled Class of Service** to open this Web page, as shown in [Figure 122 "Controlled Class of Service web page"](#) (page 197).

Figure 122
Controlled Class of Service Web page

Managing: [192.167.100.3](#)
[Customers](#) » Customer 00 » [Edit](#) » Controlled Class of Service

Controlled Class of Service

Restricted service:

Enhanced Level 1:
Customer defined first level of restriction

Enhanced Level 2:
Customer defined second level of restriction

Networkwide electronic lock: (0 - 99)
Controlled Network Class of Service. Please refer help file to map values to Class of Service.

Electronic lock on private lines:

Enter the appropriate information and click **Save**.

Flexible Feature Codes

The **Flexible Feature Codes** Web page allows users to configure the Flexible Feature Codes data block for a customer. Click **Flexible Feature Codes** to open this Web page, as shown in [Figure 123 "Flexible Feature Codes web page"](#) (page 198).

Figure 123
Flexible Feature Codes Web page

Managing: [192.167.104.53](#)
[Customers](#) > [Customer 00](#) > [Edit](#) > Flexible Feature Codes

Flexible Feature Codes

Controlled class of service restricted service:

Station control password length:

The active password length is changed only if new configuration data is dumped, and a complete data load and program load takes place

Enable use of station control passwords for set based administration user level access:

Default SCPW:

Change flexible feature code end-of-dialing indicator:

String length of end-of-dial indicator:

String to indicate end-of-dialing:

Auto dial delay in seconds:

To configure Change Flexible Feature Code end-of-dialing indicator, select the **Change Flexible Feature Code end-of-dialing indicator** checkbox.

Enter the appropriate information and click **Save**.

Feature Options

The **Feature Options** Web page allows users to configure the Feature Options data block for a customer. Click **Feature Options** to open this Web page, as shown in [Figure 124 "Feature Options web page"](#) (page 199).

Figure 124
Feature Options Web page

Feature Options

Special prefix number :

Network authorization code :

Internal/external definition :

Analog semi-permanent connection re-connection timer : (10 - 180)

Network station camp-on to sets on this node :

List entry number delimiter :

Mandatory speed call delimiter :

Serial data interface port monitor :

Personal call assistant :

Target personal call assistant DN :

Boss secretary filtering enhancement :

Lamp status when boss's set has BSFE active and is idle :

Lamp status when boss's set has BSFE active and is busy :

Lamp status when boss's set does not have BSFE active and is idle :

Lamp status when boss's set doesn't have BSFE active and is busy :

Enable virtual office automatic logout :

Virtual office automatic logout time using 24 hour clock :

Change conference display configurations :

To configure Boss Secretary Filtering Enhancement, select the **Boss Secretary Filtering Enhancement** checkbox.

To configure Virtual Office Automatic Logout, select the **Enable Virtual Office Automatic Logout** checkbox

To configure Conference Display, select the **Change conference display configurations** checkbox.

Enter the appropriate information and click **Save**.

Listed Directory Numbers

The **Listed Directory Numbers** Web page allows users to configure the Listed Directory Numbers data block for a customer. Click **Listed Directory Numbers** to open this Web page, as shown in [Figure 125 "Listed Directory Numbers web page" \(page 200\)](#).

Figure 125
Listed Directory Numbers Web page

Managing: [192.167.100.3](#)
[Customers](#) > Customer 00 > [Edit](#) > Listed Directory Numbers

Listed Directory Numbers

Departmental listed directory number :

Attendant consoles associated with LDN 0 :

Attendant consoles associated with LDN 1 :

Attendant consoles associated with LDN 2 :

Attendant consoles associated with LDN 3 :

Attendant consoles associated with LDN 4 :

Attendant console associated with LDN 5 :

Listed Directory Number 0 :

Listed DN 1 :

Listed DN 2 :

Listed DN 3 :

Listed DN 4 :

Listed DN 5 :

Attendant incoming indicators :

To configure attendant consoles associated with Listed Directory Numbers, select the **Departmental listed directory number** checkbox.

Enter the appropriate information and click **Save**.

ISDN and ESN Networking

The **ISDN and ESN Networking** Web page allows users to configure the ISDN and ESN Networking data block for a customer. Click **ISDN and ESN Networking** to open this Web page, as shown in [Figure 126 "ISDN and ESN Networking web page"](#) (page 201).

Figure 126
ISDN and ESDN Networking Web page

The screenshot displays the 'ISDN and ESN Networking' configuration page. It is divided into two main sections: 'General Properties' and 'Calling Line Identification'.
General Properties:
- Flexible trunk to trunk connection option: A dropdown menu set to 'Connections restricted'.
- Flexible orbiting prevention timer: A dropdown menu set to '14'.
- Home DN: An empty text input field.
- Country code: An empty text input field with '(0 - 9999)' below it.
- National access code: An empty text input field with 'Code for processing the called number' below it.
- International access code: An empty text input field.
- Options: Two checkboxes, both unchecked. The first is 'Transfer on ringing of supervised external trunks' and the second is 'Connection of supervised external trunks'.
Calling Line Identification:
- Information for incoming/outgoing calls: A dropdown menu set to 'No manipulation is done'.
- Size: A text input field containing '256' with '(0 - 4000)' below it.
- Country code: An empty text input field with '(0 - 9999)' below it.
- Code displayed as part of calling number: A label below the country code field.
- Calling Line Identification Entries: A link below the country code field.
At the bottom right of the form are 'Save' and 'Cancel' buttons.

Enter the appropriate information and click **Save**.

To configure Calling Line Identification (CLID) parameters, click **Calling Line Identification Entries**. The **Calling Line Identification Entries** Web page opens, as shown in [Figure 127 "Calling Line Identification Entries web page"](#) (page 202).

Figure 127
Calling Line Identification Entries Web page

Managing: [192.167.104.53](#)
[Customers](#) > [Customer 00](#) > [Edit](#) > [ISDN and ESN Networking](#) > [Calling Line Identification Entries](#)

Calling Line Identification Entries

<input type="checkbox"/>	Entry Id	National Code	Local Code	Home location code	Local steering code	Use DN as DID	Emergency Local Code
1	0					YES	
2	1	506		6666666	777777	YES	

To add a CLID, click **Add**. The **New Calling Line Identification** Web page opens, as shown in [Figure 128 "New Calling Line Identification web page"](#) (page 203).

Figure 128
New Calling Line Identification Web page

Managing: [192.167.104.53](#)
[Customers](#) » [Customer 00](#) » [Edit](#) » [ISDN and ESN Networking](#) » [Calling Line Identification Entries](#) » [New Calling Line Identification](#)

New Calling Line Identification

General Properties

Entry Id: *

National Code: (0 - 999999)
Code for national home number

Local Code: (1-12 digits)
Code for home local number or listed DN

Home Location Code: (1-7 digits)

Local Steering Code: (1-7 digits)

Use DN as DID: YES

Emergency Services Access

Emergency Local Code: (1-12 digits)
Code for home local number during Emergency calls

Emergency Options: Home national number for emergency services access calls
 Append the originating directory number for emergency services access calls

Calling Party Name Display

Roman characters:

Enter the parameters for the new CLID and click **Save**.

Night Service

The **Night Service** Web page allows users to configure the Night Service data block for a customer. Click **Night Service** to open this Web page, as shown in [Figure 128 "Night Service web page" \(page 204\)](#).

The screenshot shows a web interface for configuring Night Service. At the top, it indicates the user is managing IP address 192.167.100.3 and is in the path Customers » Customer 00 » Edit » Night Service. The main heading is "Night Service". Below this, there are eight input fields arranged in four pairs. Each pair consists of a label followed by a text input box. The labels are: "First night service DN by time of day:", "Hour and minute for first night service DN:", "Second night service DN by time of day:", "Hour and minute for second night service DN:", "Third night service DN by time of day:", "Hour and minute for third night service DN:", "Fourth night service DN by time of day:", and "Hour and minute for fourth night service DN:". At the bottom right of the form area, there are two buttons: "Save" and "Cancel".

Enter the appropriate information and click **Save**.

Feature Packages

The **Feature Packages** Web page allows users to view and edit the parameters associated with feature packages. Click **Feature Packages** to open this Web page.

Click the plus sign located to the left of the Feature Packages heading to expand the feature packages, as shown in [Figure 129 "Feature Packages web page"](#) (page 205).

Figure 129
Feature Packages Web page

- Feature Packages	
+ Do Not Disturb Individual	Package: 9
+ End-to-End Signaling	Package: 10
+ Message Waiting Center	Package: 46
+ New Flexible Code Restriction	Package: 49
+ Set Relocation	Package: 53
+ Network Alternate Route Selection	Package: 58
+ Distinctive Ringing	Package: 74
+ Departmental Listed Directory Number	Package: 76
+ Command Status Link	Package: 77
+ Pretranslation	Package: 92
+ Dialed Number Identification System	Package: 98
+ Malicious Call Trace	Package: 107
+ Incoming Digit Conversion	Package: 113
+ Directed Call Pickup	Package: 115
+ Enhanced Music	Package: 119
+ Station Camp-On	Package: 121
+ Integrated Digital Access	Package: 122
+ Digital Private Network Signaling System 1	Package: 123
+ Flexible Tones and Cadences	Package: 125
+ Multifrequency Compelled Signaling	Package: 128
+ International Supplementary Features	Package: 131
+ Enhanced Night Service	Package: 133
+ Integrated Services Digital Network	Package: 145

Note: The only feature packages whose parameters can be viewed and edited are those that have been enabled on the CS 1000S or CS 1000M system. Feature packages cannot be removed or added from Element Manager.

Click the plus sign located to the left of the feature package name to view and edit the parameters associated with the feature package. For feature packages that are not equipped for the customer, Element Manager includes a button labeled **To Order**. This button provides a link to information on how to order the feature package.

Enter the appropriate information and click **Save**.

ATTENTION**IMPORTANT!**

If configuring M3900 System Initiated Language (Package 386) and Japanese is selected as the default language, the user must explicitly configure the set-to-set-messages (MSG 1 to MSG10). Otherwise, the customer information does not load when clicking **Submit** and does not display.

Intercept Treatments

The **Intercept Treatments** Web page allows users to configure the Intercept Treatments data block for a customer. Click **Intercept Treatments** to open this Web page, as shown in [Figure 130 "Intercept Treatments web page" \(page 206\)](#).

Figure 130
Intercept Treatments Web page

Managing: [192.167.100.3](#)
[Customers](#) > Customer 00 > [Edit](#) > Intercept Treatments

Intercept Treatments

Congestion tone for all trunks :

Direct inward system access lockout :

Flexible line lockout :

Do not disturb :

Intercept RAN Route Number : * (0-511)

Emergency services access misdialled call :

Intercept RAN Route Number : * (0-511)

[Additional Treatment Options](#)

Enter the appropriate information and click **Save**.

To configure additional prompts for Intercept Treatments, click **Additional Treatment Options** . The **Intercept Treatments Options** Web page opens, as shown in [Figure 131 "Intercept Treatments Options web page" \(page 207\)](#).

Figure 131
Intercept Treatments Options Web page

Managing: [192.167.100.3](#)
Customers » Customer 00 » [Edit](#) » [Intercept Treatments](#) » Intercept Treatments Options

Intercept Treatments Options

Condition	Station	Attendant	Tie Trunk	Non Tie	Ran Route	Refresh
Access denied	Overflow tone	Overflow tone	Overflow tone	Attendant		
Call to vacant number	Overflow tone	Overflow tone	Overflow tone	Attendant		
Calls to listed directory number	Not applicable	Overflow tone	Not applicable	Not applicable		
Call to a lockout set	Busy tone	Busy tone	Busy tone	Busy tone		
Maintenance busy numbers	Overflow tone	Overflow tone	Overflow tone	Attendant		
Restricted call	Overflow tone	Not applicable	Overflow tone	Not applicable		
Redirection count limit exceeded	Attendant	Overflow tone	Attendant	Attendant		
MFC call to vacant office	Overflow tone	Overflow tone	Overflow tone	Attendant		
MFC call to vacant number	Overflow tone	Overflow tone	Overflow tone	Attendant		
MFC congestion	Overflow tone	Overflow tone	Overflow tone	Attendant		

To edit an Intercept Treatment for a customer, click the **Condition**. The **Edit** Web page for that Condition is displayed, as shown in [Figure 132 "Edit Condition web page"](#) (page 207).

Figure 132
Edit Condition Web page

Managing: [192.167.100.3](#)
Customers » Customer 00 » [Edit](#) » [Intercept Treatments](#) » [Intercept Treatments Options](#) » [Edit Access denied](#)

Edit Access denied

Station:

Attendant:

Tie Trunk:

Non Tie:

Intercept RAN Route Number: * (0 - 611)

Enter the appropriate information and click **Save**.

Multi Party Operations

The **Multi Party Operations** Web page allows users to configure the Multi Party Operations data block for a customer. Click **Multi Party Operations** to open this Web page, as shown in [Figure 133 "Multi Party Operations web page"](#) (page 208).

Figure 133
Multi Party Operations Web page

The screenshot shows the 'Multi-Party Operations' configuration page. It is divided into two main sections: 'Flexible Misoperation Options' and 'Programming of Control Digits'.

Flexible Misoperation Options

- Ringing No Answer treatment: Standard Operation (dropdown) | Standard Operation (dropdown)
- All Other Cases: Disconnect (dropdown) | Forward (dropdown)
- Rings before forwarding/disconnecting: 6 (dropdown)
- Rings before forwarding to transferring station: 4 (dropdown)
- Mandatory Recall required prior to dialing control digits:
- Control digit Timeout: 14 (dropdown)
- Ignore Switchhook Flash signal from 500/2500 sets:
- Manual Hold after enquiry:

Programming of Control Digits

- Conference: 1 (dropdown)
- Toggle: 2 (dropdown)
- Disconnect: 3 (dropdown)
- Consultation Connection Disconnect Option alternative:
- Manual forced camp on:
- Attendant Clearing during Night Service: No Automatic Treatment (dropdown)

Enter the appropriate information and click **Save**.

Recorded Overflow Announcement

The **Recorded Overflow Announcement** Web page allows users to configure the Recorded Overflow Announcement data block for a customer. Click **Recorded Overflow Announcement** to open this Web page, as shown in [Figure 134 "Recorded Overflow Announcement web page"](#) (page 209).

Figure 134
Recorded Overflow Announcement Web page

Managing: [192.167.100.3](#)
[Customers](#) > Customer 00 > [Edit](#) > Recorded Overflow Announcement

Recorded Overflow Announcement

First RAN Route: (0 - 511)

Time Delay: (0 - 2044 seconds)

Second RAN Route: (0 - 511)

Time Delay: (2 - 2044 seconds)

Treatment during waiting time: (v)

Music Route: (0 - 511)

ICI key numbers that may receive ROA:
ICI key numbers separated by space

Enter the appropriate information and click **Save**.

Timers

The **Timers** Web page allows users to configure the Timers data block for a customer. Click **Timers** to open this Web page, as shown in [Figure 135 "Timers web page"](#) (page 210).

Figure 135
Timers Web page

Managing: [192.167.100.3](#)
[Customers](#) » [Customer 00](#) » [Edit](#) » Timers

Timers

Switch hook flash timing :

Permanent hold timer : (1 - 63)

Dial tone and interdigit timeout for non-DTMF sets :

Dial tone and interdigit timeout for DTMF sets :

Line disconnect tone timer for 500/2500 telephones : (seconds)

Delayed answer timer : (0 - 120 seconds)

Busy tone/overflow tone timeout : (2 - 80 seconds)

Duration between reminder cadences : (2 - 120 seconds)

Attendant queue timing threshold : (0 - 255 seconds)

Auto dial delay : (seconds)

Attendant forward no answer timer : (0 - 126 seconds)

Attendant forward buzz tone : (seconds)

Night forward no answer or ring cycles : (0 - 63)

Attendant delay on hold timer : (seconds)

Length of Howler tone : (0 - 600 seconds)

Network alternate route selection interdigit timer :

Enter the appropriate information and click **Save**.

Note: The **Attendant forward no answer timer** and **Attendant forward buzz tone** must be even numbers.

Route and Trunk Configuration

There are three options in the **Routes and Trunks** branch of the Element Manager navigator.

Routes and Trunks

Click the **Routes and Trunks** link on the **Routes and Trunks** branch of the Element Manager navigator to open the **Routes and Trunks** Web page, as shown in [Figure 136 "Routes and Trunks web page" \(page 211\)](#). From this Web page, users can view information on existing customers, routes, and trunks.

Figure 136
Routes and Trunks Web page

Managing: [192.167.102.3](#)
Routes and Trunks » Routes and Trunks

Routes and Trunks

+ Customer: 0	Total routes: 2	Total trunks: 20	<input type="button" value="Add route"/>
- Customer: 1	Total routes: 0	Total trunks: 0	<input type="button" value="Add route"/>

This Web page also contains buttons that link to additional Web pages. Follow these links to

- add a new route
- edit route data
- add a new trunk
- edit trunk data
- delete multiple trunks

Route Properties

Click the **Edit** button beside a Route row to open the **Route Property Configuration** Web page for the selected customer and route. See [Figure 137 "Route Property Configuration web page"](#) (page 212).

Note: If there are a large number of routes or trunks, this Web page can be slow to load.

The information entered in the **Basic Configuration** section of this Web page corresponds to Route Data Block information traditionally configured using LD 16 - Route Data Block.

Note: H.323 and SIP must not use the same route.

For information on configuring routes, see *IP Peer Networking Installation and Commissioning (NN43001-313)*.

Figure 137
Route Property Configuration Web page

Managing: 192.167.104.53
Routes and Trunks > Routes and Trunks > Customer 0, Route 1 Property Configuration

Customer 0, Route 1 Property Configuration

- Basic Configuration

Input Description	Input Value
Route Data Block (RDB) (TYPE)	RDB
Customer number (CUST)	00
Route Number (ROUT)	1
Designator field for trunk (DES)	CP
Trunk Type (TKTP)	TIE
Incoming and Outgoing trunk (ICOG)	Incoming and Outgoing (IAO) <input type="button" value="v"/>
Access Code for the trunk route (ACOD)	1000 *
Trunk type M911P (M911P)	<input type="checkbox"/>
The route is for a virtual trunk route (VTRK)	<input checked="" type="checkbox"/>
- Zone for codec selection and bandwidth management (ZONE)	002 Range: 0 - 255
- Node ID of signaling server of this route (NODE)	5 Range: 0 - 9999
- Protocol ID for the route (PCID)	SIP (SIP) <input type="button" value="v"/>
- Print Correlation ID in CDR for the route (CRID)	<input type="checkbox"/>
Integrated Services Digital Network option (ISDN)	<input checked="" type="checkbox"/>
- Mode of operation (MODE)	Route uses ISDN Signaling Link (ISLD) <input type="button" value="v"/>

Basic Configuration

In the **Basic Configuration** section of this Web page (see [Figure 138 "Basic Configuration for routes"](#) (page 213)), the following functions can be performed:

- Assign a **Route Number** (ROUT) using the drop-down list.
- Enter a **Designation** (DES) for the route.
- Select a **Trunk Type** (TKTP) from the drop-down list.
- Use the drop-down list to indicate that the trunk is **Incoming and/or Outgoing** (ICOG).
- Assign an **Access Code** (ACOD) to the trunk route.

Element Manager may request that users enter data for additional parameters, depending on what is entered in the Basic Configuration fields. Choices in the drop-down lists for every parameter in the Basic Configuration fields are determined by the data entered above that field.

Figure 138
Basic Configuration for routes

Managing: [192.167.102.3](#)
Routes and Trunks » [Routes and Trunks](#) » Customer 0, New Route Configuration

Customer 0, New Route Configuration

- Basic Configuration

Input Description	Input Value
Route Data Block (RDB) (TYPE)	<input type="text" value="RDB"/>
Customer number (CUST)	<input type="text" value="0"/>
Route Number (ROUT)	25 <input type="button" value="v"/>
Designator field for trunk (DES)	<input type="text"/>
Trunk Type (TKTP)	<input type="button" value="v"/>
Incoming and Outgoing trunk (ICOG)	<input type="button" value="v"/>
Access Code for the trunk route (ACOD)	<input type="text"/>

+ Basic Route Options
+ Network Options
+ General Options
+ Advanced Configurations

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration** Web page.

Basic Route Options

In the Basic Route Options section (see [Figure 139 "Basic Route Options configuration" \(page 214\)](#)), use the check boxes to activate the following options for this route:

- Billing Number Required (BILN)
- Call Detail Recording (CDR)
- Controls or timers (CNTL)
- Conventional (TIE trunk only) (CNVT)
- Incoming DID Digit Conversion (IDC)

- Process Notification Networked Calls (PNNC)

In addition, use the drop-down list to select a Multi-frequency Compelled or MFC Signaling (MFC) type.

Note: The route used in this example is a TIE trunk route. The inputs requested by Element Manager vary depending on the responses to earlier input requests, including Trunk Type (TKTP).

Depending on which boxes are selected in the preceding list, Element Manager requests that users enter data for additional parameters, as shown in [Figure 139 "Basic Route Options configuration"](#) (page 214).

Figure 139
Basic Route Options configuration

- Basic Route Options	
Input Description	Input Value
Billing Number Required (BILN)	<input checked="" type="checkbox"/>
- Billing Number Length (BLEN)	10 <input type="button" value="v"/>
- Billing number (BNUM)	<input type="text"/>
- Billing Number Displayed (BDSP)	<input checked="" type="checkbox"/>
Call Detail Recording (CDR)	<input checked="" type="checkbox"/>
- CDR records generated on incoming calls (INC)	<input type="checkbox"/>
- CDR record printing content option for redirected calls (LAST)	<input type="checkbox"/>
- Time To Answer output in CDR (TTA)	<input checked="" type="checkbox"/>
- Abandoned call records output for this route (ABAN)	<input type="checkbox"/>
- Abandoned call on busy tone records (CDRB)	<input type="checkbox"/>
- CDR ACD Q initial connection records to be generated (OREC)	<input type="checkbox"/>
- CDR on outgoing calls (OAL)	<input type="checkbox"/>
- North American Toll scheme (NATL)	<input checked="" type="checkbox"/>
Controls or timers (CNTL)	<input checked="" type="checkbox"/>
- Trunk Timers (TIMR)	<input type="button" value="Edit"/>
- Seizure Supervision Timer in seconds (SST)	<input type="text"/>
Near End Disconnect Control (NEDC)	Originating end control (ORG) <input type="button" value="v"/>
Far End Disconnect Control (FEDC)	Originating end control (ORG) <input type="button" value="v"/>
Multifrequency Compelled or MFC Signaling (MFC)	No MFC (NO) <input type="button" value="v"/>

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration** Web page.

Network Options

Figure 140 "Network Options for routes" (page 215) provides an example of the input requested in the **Network Options** section for the route shown in Figure 137 "Route Property Configuration web page" (page 212). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 140
Network Options for routes

- Network Options	
Input Description	Input Value
Electronic Switched Network pad control (ESN)	<input type="checkbox"/>
Signaling arrangement (SIGO)	Standard (STD)
Route Class (RCLS)	Route Class marked as external (EXT)
Off-Hook Queuing (OHO)	<input type="checkbox"/>
Off-Hook Queue Threshold (OHOT)	0
Number of Digits (NDIG)	2
Authcode (AUTH)	<input type="checkbox"/>

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration Web page**.

General Options

Figure 141 "General Options for routes" (page 216) provides an example of the input requested in the **General Options** section for the route shown in Figure 137 "Route Property Configuration web page" (page 212). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 141
General Options for routes

- General Options	
Input Description	Input Value
M1 is the only Controlling Party on incoming calls (CPDC)	<input type="checkbox"/>
Dial Tone on originating calls (DLTN)	<input checked="" type="checkbox"/>
Hold failure threshold (HOLD)	<input type="text"/>
Seize failure threshold (SEIZ)	<input type="text"/>
Supervision Failure (SVFL)	<input type="text"/>
Trunk Access Restriction Group (TARG)	<input type="text"/>
Alternate trunk route for outgoing trunks (STEP)	<input type="text"/> Range: 0 - 511
Actual outgoing toll digits to be ignored for Code Restriction (OABS)	<input type="text"/>
Display IDC Name (DNAM)	<input type="checkbox"/>
Enable Equal Access Restrictions (EOAR)	<input checked="" type="checkbox"/>
North American Toll calls (i.e., 1+calls) (NTOL)	Deny North American Toll calls (i.e., 1+ calls) (DENY) ▼
International Toll calls (i.e., 011+calls) (ITOL)	Deny International toll calls (i.e., 011+calls) (DENY) ▼
ACD DNIS route (DNIS)	<input type="checkbox"/>

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration Web page**.

Advanced Configurations

Figure 142 "Advanced Configurations for routes" (page 217) provides an example of the input requested in the **Advanced Configurations** section for the route shown in Figure 137 "Route Property Configuration web page" (page 212). The actual input that Element Manager requests varies depending on the type of route and the responses to earlier input requests.

Figure 142
Advanced Configurations for routes

- Advanced Configurations	
Input Description	Input Value
Malicious Call Trace Alarm is allowed for external calls (ALRM)	<input type="checkbox"/>
Allow last Re-directing Number (ARDN)	ARDN (NO) <input type="button" value="v"/>
ANI identifier number (ANTK)	<input type="text"/>
AC15 Timed Reminder Recall (ATRR)	<input type="checkbox"/>
Auto terminate (AUTO)	<input type="checkbox"/>
Collect Call Blocking Allowed (CCBA)	<input type="checkbox"/>
Call Forward Restriction (CFWR)	<input type="checkbox"/>
Maximum number of CNL digits (CLEN)	10 <input type="button" value="v"/>
Time (in seconds) that an extension is allowed to ring or be On-hold or Call Park before the trunk is disconnected (DCTI)	<input type="text" value="0"/> Range: 0 - 511
North American Distinctive Ringing for incoming calls (DRNG)	<input type="checkbox"/>
Home Local Number (HLCL)	<input type="text"/>
Home National Number (HNTN)	<input type="text"/>
In-Band Automatic Number Identification route (IANI)	<input type="checkbox"/>
Internal/external definition (IDEF)	Use network info (NET) <input type="button" value="v"/>
Identify Originating Party (IDOP)	<input type="checkbox"/>
Insert (INST)	<input type="text"/>
Manual Outgoing trunk route (MANO)	<input type="checkbox"/>
Malicious Call Trace Delay Time in seconds (MCDT)	0 <input type="button" value="v"/>

To save changes made in this section, click **Submit** at the bottom of the **Route Property Configuration** Web page.

New Trunk Configuration

Click the **Add Trunk** button beside a Customer Row or a Trunk Row to open the **New Trunk Configuration** Web page for the selected customer, route, and trunk, as shown in [Figure 143 "New Trunk Configuration web page"](#) (page 218).

Figure 143
New Trunk Configuration Web page

Managing: [192.167.102.3](#)
 Routes and Trunks » [Routes and Trunks](#) » Customer 0, Route 1, New Trunk Configuration

Customer 0, Route 1, New Trunk Configuration

- Basic Configuration

Input Description	Input Value
Multiple trunk input number (MTINPUT)	<input type="text"/>
Trunk data block (TYPE)	TIE trunk data block (TIE) <input type="text"/>
Terminal Number (TN)	<input type="text"/>
Designator field for trunk (DES)	<input type="text"/>
Extended Trunk (XTRK)	<input type="text"/>
Route number, Member number (RTMB)	<input type="text"/>
Level 3 Signaling (SIGL)	<input type="text"/>
Card Density (CDEN)	<input type="text"/>
Start arrangement Incoming (STRI)	<input type="text"/>
Start arrangement Outgoing (STRO)	<input type="text"/>
Trunk Group Access Restriction (TGAR)	<input type="text"/>
Channel ID for this trunk. (CHID)	<input type="text"/>
Network Music (NMUS)	<input type="checkbox"/>
Increase or decrease the member numbers (INC)	Increase channel and member number (YES) <input type="text"/>
Class of Service (CLS)	<input type="button" value="Edit"/>

+ Advanced Trunk Configurations

The **New Trunk Configuration** Web pages are divided into two categories:

1. Basic Configuration
2. Advanced Trunk Configurations

Basic Configuration

In the **Basic Configuration** section of these Web pages (see [Figure 143 "New Trunk Configuration web page" \(page 218\)](#)), users can perform the following tasks:

- Enter a **Designator field (DES)** for the trunk.
- Select an **Extended Trunk (XTRK)** card type from the drop-down list.
- Edit the route or member number in the **Route number, Member number (RTMB)** text box. The range is 0-4000.
- Use the **Level 3 Signaling (SIGL)** drop-down list to select a Level 3 signaling method.
- Use the **Start arrangement Incoming (STRI)** drop-down list to select a start arrangement for incoming calls.

- Use the **Start arrangement Outgoing (STRO)** drop-down list to select a start arrangement for outgoing calls.
- Use the **Increase or decrease the member numbers (INC)** drop-down list to select either increasing channel numbers and member numbers or increasing channel numbers and decreasing member numbers.
- Click the **Class of Service (CLS) Edit** button to view Class of Service information for the trunk. See [Figure 144 "Class of Service Configuration web page"](#) (page 219).

Figure 144
Class of Service Configuration Web page

Class of Service Configuration

- Class of Service

Input Description	Input Value
- ACD Priority (CLS)	<input type="text" value=""/>
- Analog Semi-Permanent Connections (CLS)	<input type="text" value=""/>
- ARF Supervised COT (CLS)	<input type="text" value=""/>
- Barring (CLS)	<input type="text" value=""/>
- Battery Supervised COT (CLS)	<input type="text" value=""/>
- Busy Tone Supervised COT (CLS)	<input type="text" value=""/>
- Calling Line Identification (CLS)	<input type="text" value=""/>
- Calling party (CLS)	<input type="text" value=""/>
- Central Office Ringback (CLS)	<input type="text" value=""/>
- Centrex Switchhook Flash (CLS)	<input type="text" value=""/>
- Dial Pulse (CLS)	<input type="text" value=""/>
- DTR PAD value (CLS)	<input type="text" value=""/>
- Echo Canceling (CLS)	<input type="text" value=""/>
- Hong Kong DTI (CLS)	<input type="text" value=""/>
- Loop Break Supervised COT (CLS)	<input type="text" value=""/>
- Make-break ratio for dial pulse (CLS)	<input type="text" value=""/>
- Manual Incoming (CLS)	<input type="text" value=""/>
- Media Security (CLS)	<input type="text" value=""/>
- Network Hook Flash Over M911P (CLS)	<input type="text" value=""/>

Note: The member used in this example is a TIE trunk. The inputs requested by Element Manager may vary depending on the responses to earlier input requests.

To save changes made in this section, click **Submit** at the bottom of the New **Member Configuration** Web page.

Advanced Trunk Configurations

Figure 145 "Advanced Configurations for trunks" (page 220) provides an example of the input requested in the **Advanced Trunk Configurations** section for the TIE Trunk shown in Figure 143 "New Trunk Configuration web page" (page 218).

Figure 145
Advanced Configurations for trunks

- Advanced Trunk Configurations	
Input Description	Input Value
CTI trunk Monitoring and Control (AST)	<input type="checkbox"/>
Auto Terminate DN (ATDN)	<input type="text"/>
Music Conference Loop (CFLP)	<input type="text"/> Range: 0 - 159
Call Modification Features restriction (CMF)	<input type="checkbox"/>
Digit Collection Ready (DTCR)	<input type="checkbox"/>
Forced Charge Account (FCAR)	<input type="checkbox"/>
Multifrequency digit level (MFL)	0 <input type="button" value="v"/>
Multifrequency PAD (MFPD)	<input type="checkbox"/>
Manual Directory Number (MNDN)	<input type="text"/>
Network Class of Service group (NCOS)	0 <input type="button" value="v"/>
Night Service Group number (NGRP)	0 <input type="button" value="v"/>
Night Service directory number (NITE)	<input type="text"/>
Pulse Code Modulation Law (PCML)	<input type="button" value="v"/>
Pad Category table number for digital trunks (PDCA)	1 <input type="button" value="v"/>
Private Line Directory Number (PRDN)	<input type="text"/>
Is the ISPC link used by a D-channel (SDCH)	<input type="checkbox"/>
Signaling Category table number (SICA)	1 <input type="button" value="v"/>
Connection Reference Number (SREF)	<input type="text"/> Range: 1 - 9999999
Answer and disconnect Supervision required (SUPN)	<input type="checkbox"/>
Step-by-step CO trunk (SXS)	<input type="checkbox"/>

Note: The member used in this example is a TIE trunk. The inputs requested by Element Manager may vary depending on the responses to earlier input requests.

To save changes made in this section, click **Submit** at the bottom of the Web page.

Delete multiple trunk members

Click **Multi-Del** located beside a member row to open the **Delete multiple trunk members** Web page for the selected member, as shown in Figure 146 "Delete multiple trunk members page" (page 221). On this Web page, the information for the Parent Route is read-only.

Figure 146
Delete multiple trunk members page

Managing: [192.167.102.3](#)
Routes and Trunks » [Routes and Trunks](#) » Customer 0, Route 1, Delete multiple trunk members

Customer 0, Route 1, Delete multiple trunk members

Parent Route Information

Input Description	Input Value
Customer number (CUST_NUM)	0
Route number (ROUT_NUM)	1
Route description (ROUT_DES)	PIV_H323
Trunk type (TKTP)	IPTI
Total trunk members (TOTL_TN)	10

Select TN and deleting number

Selection Description	Selection Value
Set starting TN number to be deleted (OUT)	Trunk: 1; TN: 096 0 02 00
Set total trunk number to be deleted (up to 32)	1

To delete multiple trunk members using this Web page:

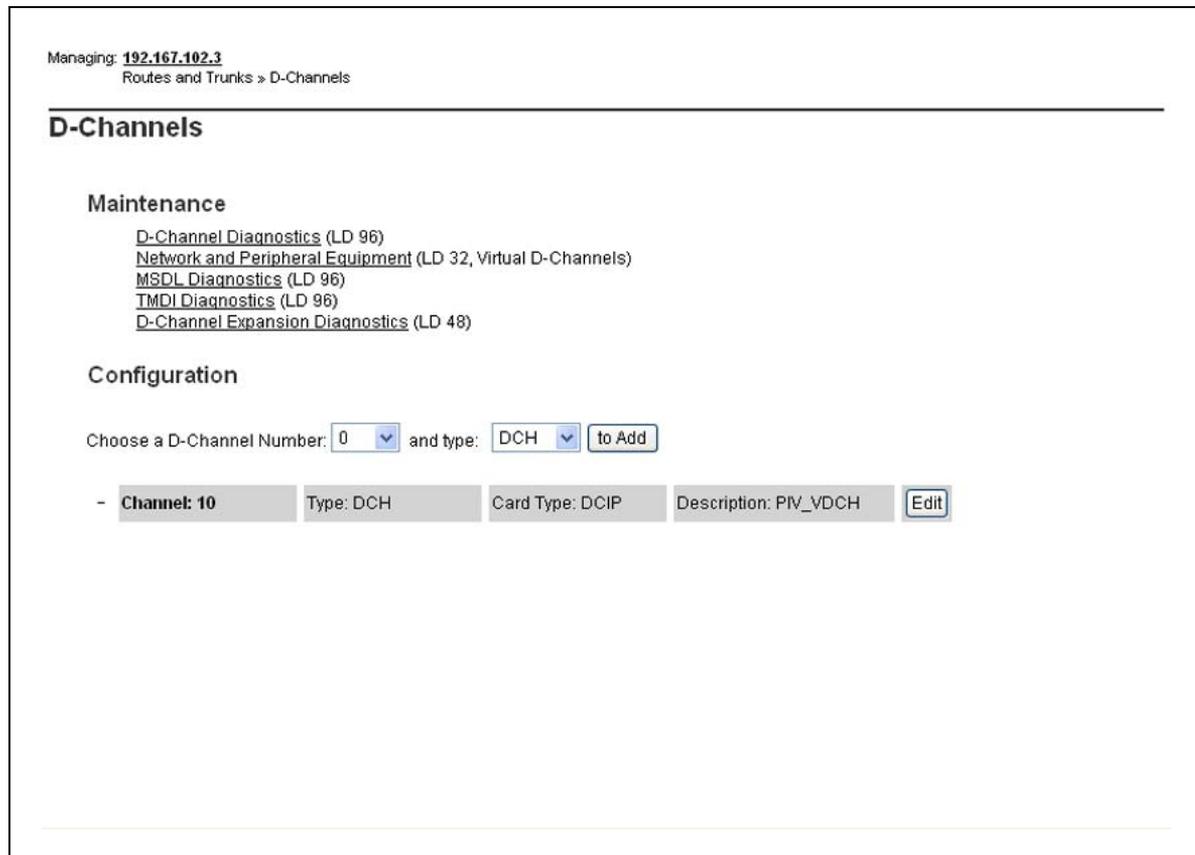
- | Step | Action |
|------|---|
| 1 | Use the Set starting TN to be deleted drop-down list to determine the start of the deletion list. |
| 2 | Use the Set total trunk number to be deleted drop-down list to indicate the total number of trunks to be deleted (up to 32). |
| 3 | Click Delete . |

—End—

D-channels

Click the **D-Channels** link on the **Routes and Trunks** branch of the Element Manager navigator to open the **D-Channels** Web page. This Web page allows users to configure or edit D-channel information, as shown in [Figure 147 "D-Channels web page" \(page 222\)](#).

Figure 147
D-Channels Web page



Maintenance

This sections contains links to the following commands:

- [D-Channel Diagnostics \(LD 96\)](#)
- [Network and Peripheral Equipment \(LD 32, Virtual D-Channels\)](#)
- [MSDL Diagnostics \(LD 96\)](#)
- [TMDI Diagnostics \(LD 96\)](#)
- [D-Channel Expansion Diagnostics \(LD 48\)](#)

For more information on these commands, see ["System" \(page 35\)](#).

Configuration

From the **D-Channels** Web page users can view basic information on existing D-channels.

This Web page also contains buttons that link to additional Web pages. Follow these links to do the following:

- add a new D-channel
- edit D-channel data

To add a new D-channel, select a number from the **Choose a D-channel Number** drop-down list, select a D-channel **type** from the type drop-down list, and click **to Add**. To edit the configuration information on an existing D-channel, click the **Edit** button located to the right of the Description field.

Click the **to Add** button, or any of the **Edit** buttons, to open the **D-Channels Property Configuration** Web page for that channel, as shown in [Figure 148 "D-Channels Property Configuration web page" \(page 223\)](#).

Note: H.323 and SIP can use the same D-channel.

Figure 148
D-Channels Property Configuration Web page

Managing: [192.167.102.3](#)
Routes and Trunks > [D-Channels](#) > D-Channels 1 Property Configuration

D-Channels 1 Property Configuration

- Basic Configuration

Input Description	Input Value
Action Device And Number (ADAN) (TYPE)	DCH
D channel Card Type (CTYP)	<input type="button" value="v"/>
Group number (GRP)	<input type="button" value="v"/>
Device number (DNUM)	<input type="button" value="v"/>
Port number (PORT)	<input type="button" value="v"/>
Designator (DES)	<input type="text"/>
Recovery to Primary (RCVP)	<input type="checkbox"/>
User (USR)	<input type="button" value="v"/>
Interface type for D-channel (IFC)	Meridian DMS-100 (D100) <input type="button" value="v"/>
Country (CNTY)	ETS 300 =102 basic protocol (ETSI) <input type="button" value="v"/>
D-Channel PRI loop number (DCHL)	<input type="text"/>
Primary Rate Interface (PRI)	<input type="text"/> <input type="button" value="more PRI"/>
Secondary PRI2 loops (PRI2)	<input type="text"/>
Release ID of the switch at the far end (RLS)	25 <input type="button" value="v"/>
Central Office switch type (CO_TYPE)	100% compatible with Bellcore standard (STD) <input type="button" value="v"/>
Integrated Services Signaling Link Maximum (ISLM)	200 Range: 1 - 4000

In the **D-Channels Property Configuration** Web page, users can:

- Enter information on the **Basic Configuration** Web page.
 - The information entered in this section corresponds to ADAN and ADAN DCH (Action Device and Number, D-channel and back-up D-channels) data traditionally configured using LD 17 - Configuration Record 1. In addition to basic D-channel configuration, additional information can be entered for optional settings in the following two categories:
 - Basic D-channel options (BSCOPT)
 - Advanced D-channel options (ADVOPT)

These options are shown in [Figure 149 "Basic and Advanced D-Channel options"](#) (page 224).

Figure 149
Basic and Advanced D-Channel options

The screenshot displays the configuration interface for D-channels, organized into several sections:

- Basic options (BSCOPT)**
 - Primary D-channel for a backup DCH (PDCH): [Dropdown]
 - PINX customer number (PINX_CUST): [Dropdown]
 - Progress signal (PROG): [Dropdown]
 - Calling Line Identification (CLID): [Dropdown]
 - Output request Buffers (OTBF): 32 [Dropdown]
 - D-channel transmission Rate (DRAT): 56 kb/s when LCMT is AMI (56K) [Dropdown]
 - Channel Negotiation option (CNEG): No alternative acceptable, exclusive. (1) [Dropdown]
 - Remote Capabilities (RCAP): [Edit]
- + - Change protocol timer value (TIMR)**
 - B channel Service messaging. (BSRV):
- Advanced options (ADVOPT)**
 - Layer 3 call control message count per 5 second time interval (ISDN_MCNT): 300 [Text] Range: 60 - 350
 - Number of Status Enquiry Messages sent within 128 ms (SEMT): 1 [Dropdown]
 - Map channel number to timeslots on a PRI2 loop (QCHID):
- + H323 Overlap Signaling Settings (H323)**
 - Overlap Timer (OVLTI): [Dropdown]
 - Multilocation Business Group Allowed (MBGA):
 - Network Attendant Service Allowed (NASA):
- + - Link Access Protocol for D-channel (LAPD)**
- + Feature Packages**

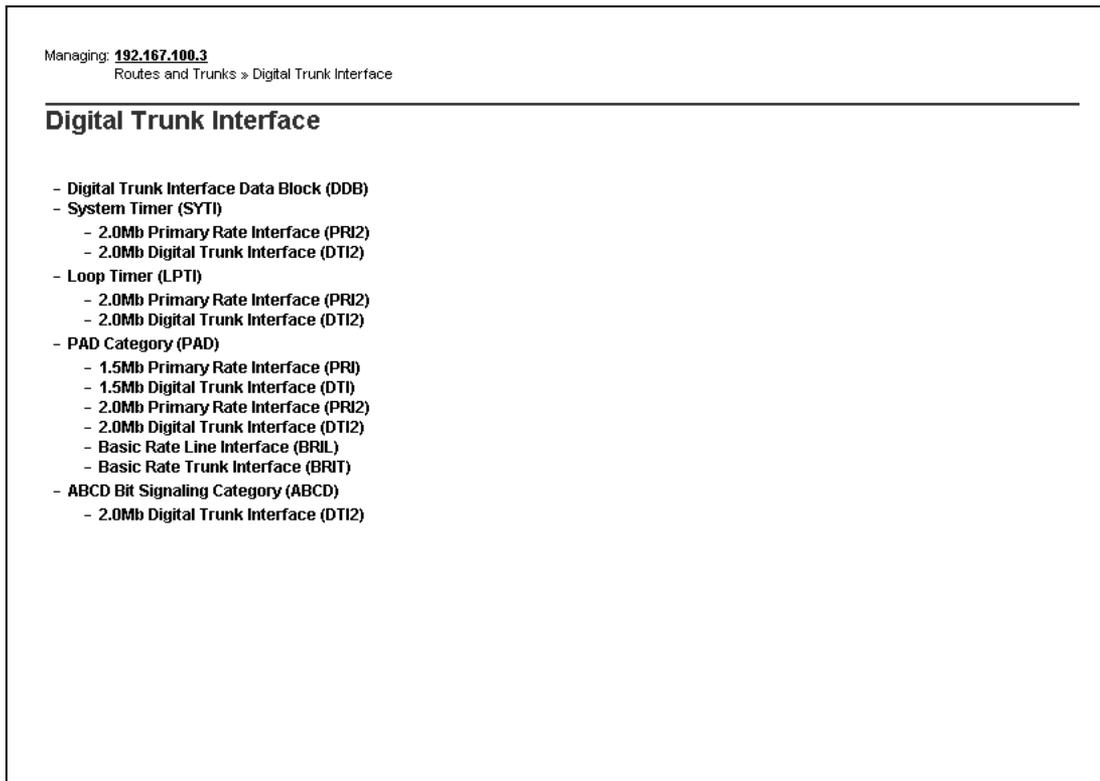
- Configure information on the **Feature Packages** Web page.
 - Digital Private Networking Signaling System 1 (Package 123)
 - Virtual Network Services (Package 183)

To save changes made in this section, click **Submit** at the bottom of the **D-channels Property Configuration** Web page.

Digital Trunk Interface

When the user clicks the **Digital Trunk Interface** link on the **Routes and Trunks** branch of the Element Manager navigator, the **Digital Trunk Interface** Web page opens, as shown in [Figure 150 "Digital Trunk Interface web page" \(page 225\)](#). This Web page allows the user to configure or edit Digital Trunk Interface information.

Figure 150
Digital Trunk Interface Web page



From this Web page, users can access additional Web pages to perform the following functions:

- configure Digital Trunk Interface Data Block (DDB) information
- configure System Timer (SYSTI) parameters for:
 - 2.0 Mb Primary Rate Interface (PRI2)
 - 2.0 Mb Digital Trunk Interface (DTI2)
- configure Loop Timer (LPTI) parameters for:
 - 2.0 Mb Primary Rate Interface (PRI2)

- 2.0 Mb Digital Trunk Interface (DTI2)
- configure PAD Category (PAD) parameters for:
 - 1.5 Mb Primary Rate Interface (PRI)
 - 1.5 Mb Digital Trunk Interface (DTI)
 - 2.0 Mb Primary Rate Interface (PRI2)
 - 2.0 Mb Digital Trunk Interface (DTI2)
 - Basic Rate Line Interface (BRIL)
 - Basic Rate Trunk Interface (BRIT)
- configure ABCD Bit Signaling Category (ABCD) parameters for the 2.0 Mb Digital Trunk Interface (DTI2)

To configure or edit Digital Trunk Interface Data Block (DDB) information, click **Digital Trunk Interface Data Block (DDB)**. The **Threshold Set List** Web page opens. See [Figure 151 "Threshold Set List web page"](#) (page 226).

Figure 151
Threshold Set List Web page

Managing: [192.167.102.3](#)
Routes and Trunks » [Digital Trunk Interface](#) » Threshold Set List

Threshold Set List

+ **Clock Controller Basic Properties**

Please Choose the

- **Threshold Set Index -- 00**

Remote (yellow) Alarm clear threshold: 3

Bipolar violation Count threshold: 2

Loss of Frame Alignment Counter: 3

Bipolar Violation maintenance and out-of-service threshold: 3 2

Slip Rate Non-Tracking: 5 3

From this Web page, users can access additional Web pages to perform the following functions:

- edit Clock Controller Basic Properties
- add a Threshold Set Index
- edit an existing Threshold Set Block

Users can edit Clock Controller properties by clicking the **Edit** button next to the **Clock Controller Basic Properties** button. The **Clock Controller Basic Properties** Web page opens, as shown in [Figure 152 "Clock Controller Basic Properties web page"](#) (page 227).

Figure 152
Clock Controller Basic Properties Web page

Managing: [192.167.102.3](#)
Routes and Trunks > Digital Trunk Interface > Threshold Set List > Clock Controller Basic Properties

Clock Controller Basic Properties

Input Description	Input Value
Card number for Clock Controller (Option 11C) (CC0):	<input type="text"/>
Clock Controller Card Number (CLKN):	<input type="text"/> (supl# sh# card#)
- Primary Reference (PREF_CC0):	<input type="text"/>
- Secondary Reference (SREF_CC0):	<input type="text"/>
Multi Purpose Serial Data Link Idle Code Selection (ICS):	<input type="text"/>

Users can then enter the required information in the text boxes.

To add or edit a Threshold Set Index, follow the steps in [Procedure 81 "Adding or editing a Threshold Set Index"](#) (page 227).

Procedure 81 **Adding or editing a Threshold Set Index**

Step Action

To add a Threshold Set Index

- 1 Select a **Threshold Set Index** from the drop-down list.
- 2 Click to **Add**.

To edit the configuration information in an existing Threshold Set Block, click **Edit** located to the right of the index number.

—End—

When the **to Add** button or a Threshold Set Index Edit button is clicked on Figure 151 "Threshold Set List web page" (page 226), the **Threshold Set Block** Web page for that index opens, as shown in Figure 153 "Threshold Set Block web page" (page 228).

Figure 153
Threshold Set Block Web page

Managing: [192.167.102.3](#)
Routes and Trunks » [Digital Trunk Interface](#) » [Threshold Set List](#) » Threshold Set Block

Threshold Set Block

Input Description	Input Value
Threshold set (TRSH):	<input type="text" value="1"/>
Remote (yellow) Alarm clear threshold (RALM):	<input type="text" value="3"/>
Bipolar violation Count threshold (BIPC):	<input type="text" value="2"/>
Loss of Frame Alignment Counter (LFAC):	<input type="text" value="3"/>
Bipolar Violation maintenance and out-of-service threshold (BIPV):	<input type="text" value="3 2"/>
Slip Rate Tracking mode maintenance (SRTK):	<input type="text" value="5 30"/>
Slip Rate Non-Tracking (SRNT):	<input type="text" value="5 3"/>
Loss of Frame Alignment maintenance and out-of-service thresholds (LFAL):	<input type="text" value="17 511"/>
Slip Rate Improvement Monitoring time in minutes (SRIM):	<input type="text" value="2"/>
Slip Rate Maintenance Maximum (SRMM):	<input type="text" value="2"/>

The information entered in this section corresponds to DDB (Digital Trunk Interface Data Block) information traditionally configured using LD 73 - Digital Trunk Interface.

To save changes made in this section, click **Submit** at the bottom of the **Threshold Set Block** Web page.

Dialing and Numbering Plans

Contents

This section contains information on the following topics:

"Introduction" (page 229)

"Electronic Switched Network" (page 229)

"Network Routing Service and NRS Manager" (page 232)

"Flexible Code Restriction" (page 237)

"Incoming Digit Conversion" (page 240)

Introduction

Element Manager enables users to configure the Dialing and Numbering Plans for the Call Server and the Network Routing Service (NRS) Manager. The information configured in the Dialing and Numbering Plans corresponds to the Command Line Interface (CLI) prompts and responses for Electronic Switched Network (ESN) data traditionally configured in LD 86, LD 87, and LD 90.

For more information on the overlays referred to in this chapter, see *Software Input Output Administration (NN43001-611)* and *Software Input Output Reference - Maintenance (NN43001-711)*.

Electronic Switched Network

To configure or edit the Dialing and Numbering Plan for the Electronic Switched Network, click the **Electronic Switched Network** link in the **Dialing and Numbering Plans** branch of the Element Manager navigator. The **Electronic Switched Network (ESN)** Web page appears as shown in [Figure 154 "Electronic Switched Network \(ESN\) web page" \(page 230\)](#). From this Web page users can configure the Dialing and Numbering Plan for each customer on the Electronic Switched Network.

Element Manager provides access to the following Dialing and Numbering Plan parameters:

- Network Control & Services

- Coordinated Dialing Plan (CDP)
- Numbering Plan (NET)

Figure 154
Electronic Switched Network (ESN) Web page

Managing: [192.167.100.3](#)
Dialing and Numbering Plans » Electronic Switched Network (ESN)

Electronic Switched Network (ESN)

- Customer 00
 - Network Control & Services
 - Network Control Parameters (NCTL)
 - ESN Access Codes and Parameters (ESN)
 - Digit Manipulation Block (DGT)
 - Route List Block (RLB)
 - Incoming Trunk Group Exclusion (ITGE)
 - Network Attendant Services (NAS)
 - Coordinated Dialing Plan (CDP)
 - Local Steering Code (LSC)
 - Distant Steering Code (DSC)
 - Trunk Steering Code (TSC)
 - Numbering Plan (NET)
 - Access Code 1
 - Home Area Code (HNPA)
 - Home Location Code (HLOC)
 - Location Code (LOC)
 - Numbering Plan Area Code (NPA)
 - Exchange (Central Office) Code (NXX)
 - Special Number (SPN)
 - Network Speed Call Access Code (NSCL)
 - Free Calling Area Screening (FCAS)
 - Free Special Number Screening (FSNS)
 - Access Code 2
 - Home Area Code (HNPA)
 - Home Location Code (HLOC)
 - Location Code (LOC)
 - Numbering Plan Area Code (NPA)
 - Exchange (Central Office) Code (NXX)

Network Control and Services

Under Network Control and Services, users can click the links to configure or modify the parameters associated with the following items:

- Network Control Parameters (NCTL)
- ESN Access Codes and Parameters (ESN)
- Digit Manipulation Block (DGT)
- Route List Block (RLB)
- Incoming Trunk Group Exclusion (ITGE)
- Network Attendant Services (NAS)

The Network Control Parameters (NCTL) that are configurable using Element Manager correspond to data traditionally configured in LD 87. The settings for the remaining five items under Network Control & Services correspond to CLI prompts and responses in LD 86.

To view the total free and used Location Codes (LOCs), click **Customer xx > Network Control & Services > ESN Access Codes and Basic Parameters**. The **ESN Access Codes and Basic Parameters** Web page appears as shown in [Figure 155 "ESN Access Codes and Basic Parameters Web page"](#) (page 231).

Figure 155
ESN Access Codes and Basic Parameters Web page

Managing: [192.167.102.3](#)
Dialing and Numbering Plans » [Electronic Switched Network \(ESN\)](#) » Customer 0 » Network Control & Services » ESN Access Codes and Basic Parameters

ESN Access Codes and Basic Parameters

Input Description	Input Value
Maximum number of Digit Manipulation tables (MXDM):	<input type="text" value="100"/> (0 - 1000)
Maximum number of Route Lists (MXRL):	<input type="text" value="100"/> (0 - 1000)
Time of Day Schedules (TODS): (Items separated by a space)	<input type="text" value="0 00 00 23 59"/>
Routing Controls (RTCL):	<input type="checkbox"/>
Check for Trunk Group Access Restrictions (TGAR):	<input type="checkbox"/>
NCOS Map (NMAP): (Items separated by a space)	<input type="text" value="00-0 01-0 02-0 03-0 04-0 05-0 06-0 07-0 08-0 09-0 10-0 11-0 12-0 13-0 14-0 15-0 16-0 17-0 18-0 19-0 20-0 21-0 22-0 23-0 24-0 25-0 26-0 27-0 28-0 29-0 30-0 31-0 32-0 33-0 34-0 35-0 36-0 37-0 38-0 39-0 40-0 41-0"/>
Maximum number of Supplemental Digit restriction blocks (MXSD):	<input type="text" value="100"/> (0 - 1500)
Maximum number of Incoming Trunk Group exclusion tables (MXIX):	<input type="text" value="100"/> (0 - 255)
Maximum number of Free Calling area screening tables (MXFC):	<input type="text" value="100"/> (0 - 255)

This feature has its own packaging (LOCX). The package must be added under **Customers > Customer xx Property Configuration > Feature Packages**. This package can be activated only when the FNP package is enabled.

Coordinated Dialing Plan

Under Coordinated Dialing Plan (CDP), users can click links to configure or modify parameters associated with the following codes:

- Local Steering Code (LSC)
- Distant Steering Code (DSC)
- Trunk Steering Code (TSC)

The Coordinated Dialing Plan parameters that are configurable using Element Manager correspond to data traditionally configured in LD 87.

Numbering Plan

Under Numbering Plan (NET), users can click links to configure or modify parameters associated with the following codes:

- Home Area Code (HNPA)
- Home Location Code (HLOC)
- Location Code (LOC). Maximum number of LOCs is 16 000.
- Numbering Plan Area Code (NPA)
- Exchange (Central Office) Code (NXX)
- Special Number (SPN)
- Network Speed Call Access Code (NSCL)

These codes can also be configured using the prompts and responses in LD 90.

Numbering Plan (NET) is also used to configure the following two LD 87 features:

- Free Calling Area Screening (FCAS)
- Free Special Number Screening (FSNS)

Network Routing Service and NRS Manager

On VxWorks, Network Routing Service (NRS) Manager can be launched from Element Manager. On Linux, NRS Manager is launched from the Enterprise Common Manager framework.

The NRS Manager is a Web-based application that runs on the Signaling Server. The purpose of the NRS Manager is as follows:

- It populates the location and registration database.
- It adds the appearance of the proxy in the customer network.
- It facilitates a translation database, for phone numbers contained within the SIP Uniform Request Identifier (URI) in order to present a well formed, syntactically correct, phone number to the location service within the proxy.

For more information on NRS and NRS Manager, see *Network Routing Services Installation and Commissioning (NN43001-564)*.

All CS 1000S or CS 1000M systems in the network are registered with the NRS. The NRS runs on an Enterprise Translations Server and provides routing services to several service provider networks. The hierarchy consists of:

- Service Domain — represents a service provider network
- Level 1 Domain (User Data Protocol) — represents a sub-domain in a service domain, and is referred to as the L1-domain
- Level 0 Domain (Coordinated Dialing Plan) — represents a sub-domain in an L-1 domain, and is referred to as the L0-domain.
- Gateway Endpoint — represents a gateway, and exists within an L0-domain.
- User Endpoint — represents a SIP Phone. It exists with the L0 domain. A site can have many SIP Phones.
- Routing Entry — represents a range of addresses that a gateway can terminate calls to, and exists within a gateway.
- Collaborative Server — a server in another network zone that can be used to resolve requests when the NRS cannot find a match in its numbering plan database.

For redundancy purposes, the NRS translation servers can be organized into hierarchical clusters.

The NRS handles a centralized numbering plan for the network. This enables simplified management of the network. The NRS supports H.323, SIP, and Network Connection Server (NCS) protocols. The NRS can provide NRS features to other H.323- and SIP-compliant endpoints (for example, CS 1000S and IP Trunk 4.0 endpoints).

NRS Manager must be running Microsoft Internet Explorer 6.00 or later. Netscape Navigator is not supported. Click the **Network Routing Service** link in the **Dialing and Numbering Plans** branch of the Element Manager navigator to access the NRS Manager as shown in [Figure 156 "Network Routing Service \(NRS\) configuration web page" \(page 234\)](#). The format of the NRS URL is `http://<NRSM_server_IP_address>/nrs`.

Figure 156
Network Routing Service (NRS) configuration Web page

Managing: [192.167.102.3](#)
Dialing and Numbering Plans > Network Routing Service (NRS)

Network Routing Service (NRS)

Please enter the NRS IP Address then press button "Next >"

Input description	Input value
NRS IP Address:	192.167.103.2

An alternate way to connect to the NRS is to enter the NRS IP address followed by /nrs as a URL from any Web browser on the network. For example, enter `http://47.11.249.84/nrs`.

Specifying the complete URL and including nrs is important. The NRS can be co-resident with other applications running on the Signaling Server platform. If other Signaling Server applications (for example, Terminal Proxy Server) also use a Web-based management tool, then those management tools can use the URL `http://47.11.249.84/tps`.

The **Network Routing Service Manager login** Web page opens (see [Figure 157 "NRS Manager login web page" \(page 235\)](#)). Enter the user name and password and click **Login**.

Figure 157
NRS Manager login Web page

>NETWORK ROUTING SERVICE
MANAGER

>THIS IS NORTTEL

User ID

Password

[Bookmark NRS Manager](#)

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The **NRS Home** Web page opens (see Figure 158 "NRS Home web page" (page 236)).

Figure 158
NRS Home Web page

=> NRS Overview System Wide Settings NRS Server Settings	Location: Home > NRS Overview >	
	Network Routing Service	
	Software version	sse-4.30.20
	Connected NRS role	PrimaryNRS
	Primary NRS IP (TLAN)	192.168.253.6
	Primary NRS state	ACTIVE
	Alternate NRS IP (TLAN)	Unknown
	Alternate NRS state	Unknown
	Alternate permanent in service	OFF
	Configured Components	
	# of Service Domains	0
	# of L1 Domains (UDP)	0
	# of L0 Domains (CDP)	0
	# of Gateway Endpoints	0
	# of User Endpoints	0
	# of Routing Entries	0
	# of Default Routes	0
	# of Collaborative Servers	0
	Users Logged Into This NRS Manager	
	admin	207.179.154.209

Access levels

NRS Manager provides two levels of access:

1. **Monitor access.** Enables the user to view configuration data and view the output from performance monitoring functions. The user cannot modify any NRS configurations or settings, including monitor login user name and password.
2. **Administrator access.** Enables full administrative access to the NRS Manager. All configuration entries can be updated and full write access is given to the database, including the ability to change all system passwords.

When logging in using Administrator access, NRS opens with the Web page shown in [Figure 158 "NRS Home web page" \(page 236\)](#).

Monitor access

When accessing the NRS Manager as a monitor, users can view configuration data and reports from the performance monitoring functions.

Administrator access

To make changes to the NRS configuration, log into the NRS Manager using administrator access. In addition to the monitoring functionality available with Guest access, administrators can access configuration and administration functions.

Use the NRS Manager to:

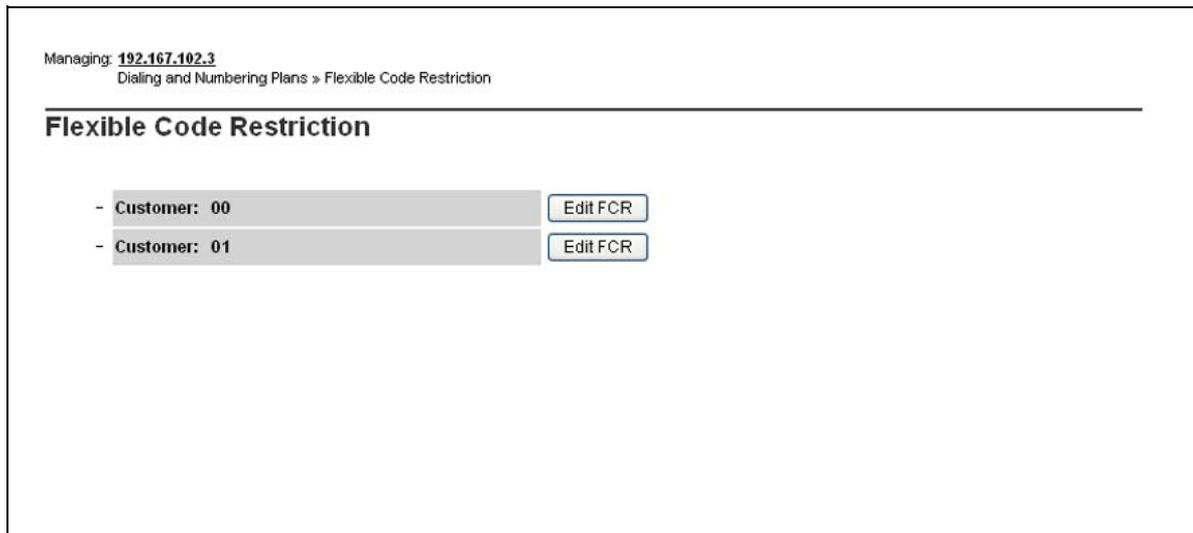
- configure system-wide settings
- configure NRS server settings
- provision Network Numbering Plans (Service Domains, L1 Domains, L0 Domains, Gateway Endpoints, routing entries, default routes, and collaborative servers)
- test Numbering Plans
- perform NRS server actions
- perform database actions
- perform Gatekeeper/NRS data conversion
- perform SIP phone context mapping
- view database sync and database status reports
- configure users

For detailed information on performing these procedures and managing the NRS using Element Manager, see *IP Peer Networking Installation and Commissioning (NN43001-313)*.

Flexible Code Restriction

To configure or edit Flexible Code Restriction information, click the **Flexible Code Restriction** link in the **Dialing and Numbering Plans** branch of the Element Manager navigator. The **Flexible Code Restriction** Web page opens, as shown in [Figure 159 "Flexible Code Restriction web page" \(page 238\)](#).

Figure 159
Flexible Code Restriction Web page



This Web page contains **Edit FCR** buttons that link to **Flexible Code Restriction Property** Web pages for each of the customers configured on the Call Server.

To view the list of Flexible Code Restriction Trees for a customer, click the **Edit FCR** button located beside the customer number. The **Flexible Code Restriction** Property Web page for the selected customer opens (see [Figure 160 "Flexible Code Restriction Property web page" \(page 239\)](#)).

Figure 160
Flexible Code Restriction Property Web page

Managing: [192.167.100.3](#)
 Dialing and Numbering Plans » [Flexible Code Restriction](#) » Customer 00 Flexible Code Restriction Property

Customer 00 Flexible Code Restriction Property

- Code Restriction Tree Number: 0	Edit CRNO
- Code Restriction Tree Number: 1	New CRNO
- Code Restriction Tree Number: 2	New CRNO
- Code Restriction Tree Number: 3	New CRNO
- Code Restriction Tree Number: 4	New CRNO
- Code Restriction Tree Number: 5	New CRNO
- Code Restriction Tree Number: 6	New CRNO
- Code Restriction Tree Number: 7	New CRNO
- Code Restriction Tree Number: 8	New CRNO
- Code Restriction Tree Number: 9	New CRNO
- Code Restriction Tree Number: 10	New CRNO
Code Restriction Tree Number: 11	New CRNO
Code Restriction Tree Number: 12	New CRNO
Code Restriction Tree Number: 13	New CRNO
Code Restriction Tree Number: 14	New CRNO
- Code Restriction Tree Number: 15	New CRNO

The **Flexible Code Restriction Property** Web page contains buttons that link to Code Restriction Tree Configuration Web pages for each Code Restriction Tree Number (CRNO). If there is an existing configuration for the CRNO, the button is labeled **Edit CRNO**. If a configuration has not been defined for the CRNO, the button is labeled **New CRNO**. Click the **Edit CRNO/New CRNO** button to open the **Code Restriction Tree Configuration** Web page for the corresponding CRNO, as shown in [Figure 161 "Code Restriction Tree Configuration web page"](#) (page 240).

Figure 161
Code Restriction Tree Configuration Web page

Managing: **192.167.100.3**
 Dialing and Numbering Plans » Flexible Code Restriction » Customer 00 Flexible Code Restriction Property » Code Restriction Tree 0 Configuration

Code Restriction Tree 0 Configuration

- Code Restriction Tree Number Configuration

Input Description	Input Value
Code Restriction Tree Number (CRNO)	<input type="text" value="0"/>
Initial - Allow or deny all codes. (INIT)	<input type="text" value="ALLOW"/>
Digit sequence to be denied. (DENY)	
	<input type="text" value="1"/>
Create new DENY <input type="text" value="1"/> Starting from <input type="text"/>	<input type="button" value="Add New"/>
Digit sequence to be allowed. (ALLOW)	
Create new ALLOW <input type="text" value="1"/> Starting from <input type="text"/>	<input type="button" value="Add New"/>
Digit sequence to be bypassed. (BYPS)	
Create new BYPS <input type="text" value="1"/> Starting from <input type="text"/>	<input type="button" value="Add New"/>

By entering values in the appropriate text boxes, users can:

- add or edit digit sequences to be enabled
- add or edit digit sequences to be denied

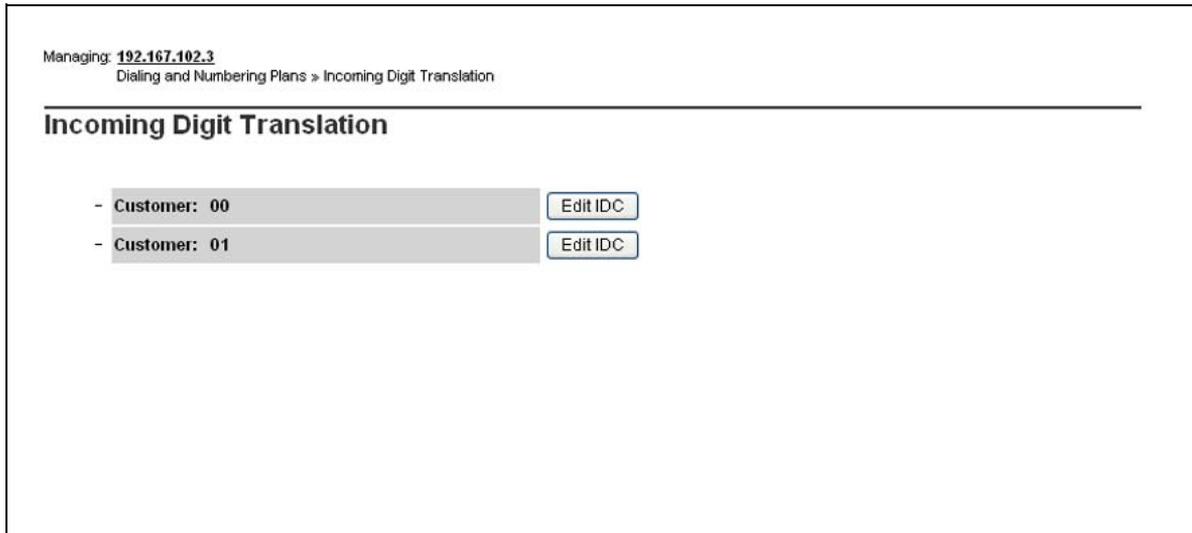
The information entered in this section corresponds to data traditionally configured using LD 49 - Flexible Code Restriction and Incoming Digit Conversion.

To save changes made in the configuration for this Code Restriction Tree, click **Submit** at the bottom of the Web page.

Incoming Digit Translation

To configure or edit Incoming Digit Translation information, click the **Incoming Digit Translation** link in the **Dialing and Numbering Plans** branch of the Element Manager navigator. The **Incoming Digit Translation** Web page opens, as shown in [Figure 162 "Incoming Digit Translation web page"](#) (page 241).

Figure 162
Incoming Digit Translation Web page



This Web page contains **Edit IDC** buttons that link to **Incoming Digit Conversion Property** Web pages for each of the customers configured on the Call Server.

To view the list of Incoming Digit Conversion Trees for a customer, click the **Edit IDC** button located beside the customer number. The **Incoming Digit Conversion Property** Web page for the selected customer opens. See [Figure 163 "Incoming Digit Conversion Property web page"](#) (page 242).

Figure 163
Incoming Digit Conversion Property Web page

Managing: **192.167.100.3**
 Dialing and Numbering Plans » [Incoming Digit Conversion](#) » Customer 00 Incoming Digit Conversion Property

Customer 00 Incoming Digit Conversion Property

- Digit Conversion Tree Number: 0	Edit DCNO
- Digit Conversion Tree Number: 1	New DCNO
- Digit Conversion Tree Number: 2	New DCNO
- Digit Conversion Tree Number: 3	New DCNO
- Digit Conversion Tree Number: 4	New DCNO
- Digit Conversion Tree Number: 5	New DCNO
- Digit Conversion Tree Number: 6	New DCNO
- Digit Conversion Tree Number: 7	New DCNO
- Digit Conversion Tree Number: 8	New DCNO
- Digit Conversion Tree Number: 9	New DCNO
- Digit Conversion Tree Number: 10	New DCNO
- Digit Conversion Tree Number: 11	New DCNO
- Digit Conversion Tree Number: 12	New DCNO
- Digit Conversion Tree Number: 13	New DCNO
- Digit Conversion Tree Number: 14	New DCNO
- Digit Conversion Tree Number: 15	New DCNO
- Digit Conversion Tree Number: 16	New DCNO

The **Incoming Digit Conversion Property** Web page contains buttons that link to **Digit Conversion Tree Configuration** Web pages for each Digit Conversion Tree Number (DCNO). If there is an existing configuration for the DCNO, the button is labeled **Edit DCNO**. If a configuration has not been defined for the DCNO, the button is labeled **New DCNO**. Click the **Edit DCNO/New DCNO** button to open the **Digit Conversion Tree Configuration** Web page for the corresponding DCNO. From this Web page, users can configure Incoming Digit Conversion data.

Figure 164
Digit Conversion Tree Configuration Web page

Managing: **192.167.100.3**
 Dialing and Numbering Plans » Incoming Digit Conversion » Customer 00 Incoming Digit Conversion Property » Digit Conversion Tree 0 Configuration

Digit Conversion Tree 0 Configuration

- Digit Conversion Tree Number Configuration

Input Description	Input Value
Digit Conversion Tree Number (DCNO)	<input type="text" value="0"/>
Send calling party DID (SDID)	<input type="text" value="NO"/>

- Incoming Digits (IDGT)

Incoming Digits	Converted Digits
Create new IDGT <input type="text" value="1"/> Starting from <input type="text"/> <input type="button" value="Add New"/>	

The information entered in this section corresponds to data traditionally configured using LD 49 - Flexible Code Restriction and Incoming Digit Conversion.

To save changes made in the configuration for this Digit Conversion Tree, click **Submit** at the bottom of the Web page.

Phones

Contents

This section contains information on the following topics:

- "Introduction" (page 245)
- "Database Update" (page 246)
 - "Search Phones" (page 247)
 - "Add Phones" (page 248)
 - "Move Phones" (page 253)
 - "Retrieve Phones" (page 254)
 - "Delete Phones" (page 255)
 - "Swap Phones" (page 256)
 - "Designation Strips" (page 257)
 - "Reports" (page 259)

Introduction

Element Manager enables users to configure Phones for the Call Server. The information configured in this chapter corresponds to the Command Line Interface (CLI) prompts and responses for Telephone Administration traditionally configured in LD 10 and LD 11.

Additional information is retrieved from the Call Server for validation purposes and they correspond to Print Routines traditionally performed in LD 20, LD 21, LD 22 and LD 95.

For more information on the overlays referred to in this chapter, see Software Input Output Administration (NN43001-611) and Software Input Output Reference - Maintenance (NN43001-711).

Database Update

When launching Phones for the very first time, the application will automatically perform a Database Update in the background. A message is displayed to the user: "Please wait for requested page to load while system properties are being updated..". The user can proceed to Phones configuration after the update has been completed.

The Database Update can be manually activated by clicking on the **Properties** link of the **Phones** branch of the Element Manager navigator.

The **Database Update** Web page opens, as shown in [Figure 165 "Database Update web page"](#) (page 246)

Figure 165
Database Update Web page



The **Last Updated** field displays the timestamp of the last update performed.

Note: It is recommended to perform an update before managing phones to retrieve configuration changes in packages, customer data blocks and CPND customer blocks.

Station Fast Sync feature

The Station Fast Sync feature keeps the Phones database synchronized with the PBX. This feature monitors and logs station data changes on the CS 1000 PBX. Complete station data blocks are created, deleted, and replaced by these operations.

An SNMP trap is sent from the Call Server to Element Manager identifying the change that has been made on the Call Server. The change notification message includes the information listed in [Table 2 "Change notification messages"](#) (page 247).

Table 2
Change notification messages

Description	Value
Timestamp when data block change occurred	yyyy mm dd hh mm ss
Data type	TNB or DNB
Type of Update	CHG or OUT
Data ID	<TN> or <DN>

When Element Manager receives the notification, it updates the database. If the change request type is CHG, a retrieval of the specified TN or DN is performed. If the change request type is OUT, the specified TN or DN is deleted from the database.

A log entry is created for each Fast Sync notification received.

Search Phones

The Phones functions performed using Element Manager are accessed from the **Search for Phones** Web page. Click the **Phones** branch of the Element Manager navigator to open this Web page, as shown in [Figure 166 "Search for Phones web page"](#) (page 247).

Figure 166
Search for Phones Web page

Managing: Place holder for Breadcrumbs once finalized
Zone > Components

Search for Phones

[Advanced](#) | [Hide](#)

Criteria: Prime DN Value:

Search Results

<more actions> Results per page 20

<input type="checkbox"/>	Customer	TN	Prime DN *	Designation	Phone Type
No records to display!					

To perform a search using additional criteria, click the **Advanced** link in the top right hand corner. The **Advanced Search for Phones** Web page opens, as shown in [Figure 167 "Advanced Search for Phones web page" \(page 248\)](#).

Figure 167
Advanced Search for Phones Web page

Managing: Place holder for Breadcrumbs once finalized
Zone > Components

Advanced Search for Phones

Basic | Hide

Logic	(Field	Comparison	Value)
1	<input type="button" value="v"/>	<input type="text"/>	? <input type="button" value="v"/>	<input type="text"/>	<input type="button" value="v"/>
2	AND <input type="button" value="v"/>	<input type="text"/>	? <input type="button" value="v"/>	<input type="text"/>	<input type="button" value="v"/>
3	AND <input type="button" value="v"/>	<input type="text"/>	? <input type="button" value="v"/>	<input type="text"/>	<input type="button" value="v"/>
4	AND <input type="button" value="v"/>	<input type="text"/>	? <input type="button" value="v"/>	<input type="text"/>	<input type="button" value="v"/>
5	AND <input type="button" value="v"/>	<input type="text"/>	? <input type="button" value="v"/>	<input type="text"/>	<input type="button" value="v"/>

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Enter the search criteria and click **Search**.

Add Phones

To add a single phone, follow the steps in [Procedure 82 "Add Single Phone" \(page 248\)](#)

Procedure 82

Add Single Phone

Step	Action
------	--------

- | | |
|---|--|
| 1 | From the Search for Phones Web page, click Add . |
|---|--|

The **Add Phones: Step 1 of 2** Web page opens, as shown in [Figure 168 "Add Phones: Step 1 of 2 web page" \(page 249\)](#).

Figure 168
Add Phones: Step 1 of 2 Web page

Managing: Place holder for Breadcrumbs once finalized
 Zone » Components

Add phones: Step 1 of 2

Number of phones: * (1-100)

Customer:

Type: Phone type

Copy from TN: *

Options: Default value for DES

Automatically assign DN starting DN *

Automatically assign TN starting TN *

- 2 Select the customer with which this telephone will be associated from the **Customer** drop-down list.
- 3 Select **Default value for DES** and type the value in the text box.
- 4 Select **Automatically assign DN** to automatically assign the next DN from the given starting DN value.
- 5 Select **Automatically assign TN** to automatically assign the next available TN from the given starting TN value.

Note: When using this option, the maximum number of phones that can be added is 32 as only the TN Unit value is incremented.

- 6 Click **Next**

The **Add Phones: Step 2 of 2** Web page opens, as shown in [Figure 169 "Add Phones: Step 2 of 2 web page"](#) (page 250).

Figure 169
Add Phones: Step 2 of 2 Web page

Add phones: Step 2 of 2



System: - CS1000E_PIV
 Phone type: Digitone Standard
 Sync Status: New

[General Properties](#) | [Features](#) | [Single Line Features](#)

General Properties

Customer Number: ▾

Terminal Number: 🔍

Designation: ▾

Directory Number : 🔍

CLID Entry :

ANIE Entry :

Multiple Appearance Redirection Prime(MARP) :

- 7 Select another customer from the **Customer Number** drop-down list.
 The default **Customer Number** will be that chosen on the **Add Telephones: Step 1 of 2** Web page, but can be changed if desired.
- 8 If the **Terminal Number** field is empty, click on the magnifying glass icon and select an available TN.
- 9 Enter or update the DES value in the **Designation** field.
- 10 Choose the desired features in the **Features** section.
- 11 Choose the desired keys in the **Keys** section.
- 12 Click **Validate** to save and validate the new telephone.
 The status of the Validation process appears, listing any validation errors that occur. If there are validation errors, repeat the relevant sections of this procedure to correct the errors.
- 13 Click **Save** to add the new telephone to the database.

—End—

If the user selects the **Copy from TN** radio button on the **Add Phones: Step 1 of 2** Web page, the new Phone will assume the properties of the specified TN, with the following exceptions:

- The **Default value for DES** if specified takes precedence
- The **Automatically assign DN** if enabled takes precedence.
- The **Automatically assign TN** if enabled takes precedence.

To add multiple phones, follow the steps in [Procedure 83 "Add Multiple Phones"](#) (page 251).

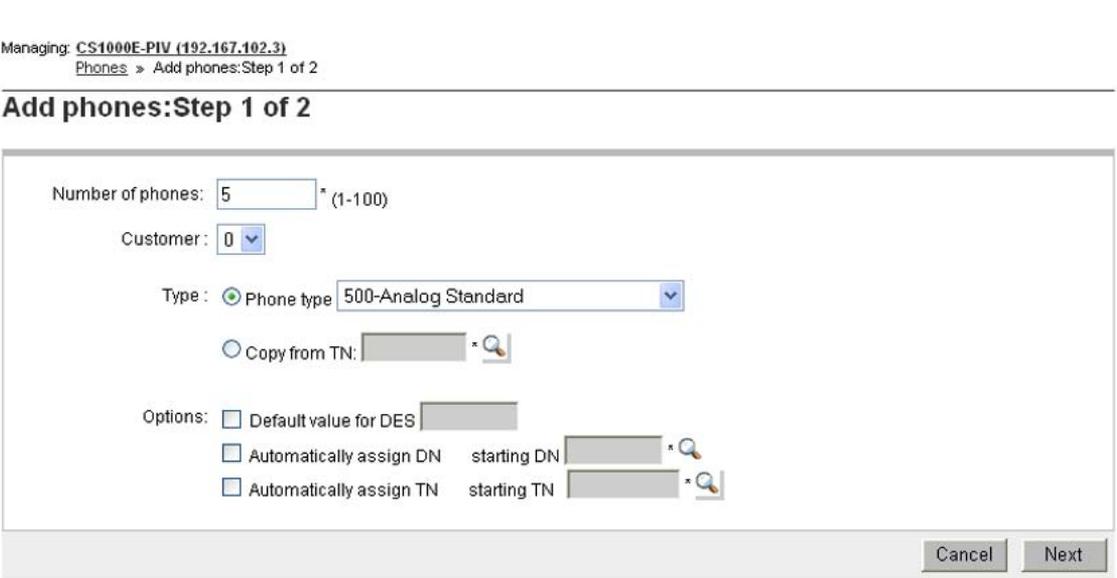
Procedure 83 Add Multiple Phones

Step	Action
------	--------

- | | |
|---|--|
| 1 | From the Search for Phones Web page, click Add . |
|---|--|

The **Add Phones: Step 1 of 2** Web page opens, as shown in [Figure 170 "Add Phones: Step 1 of 2 web page"](#) (page 252).

Figure 170
Add Phones: Step 1 of 2 Web page



Managing: CS1000E-PIV (192.167.102.3)
 Phones > Add phones: Step 1 of 2

Add phones: Step 1 of 2

Number of phones: 5 * (1-100)

Customer: 0

Type: Phone type 500-Analog Standard

Copy from TN: [text box]

Options:

- Default value for DES [text box]
- Automatically assign DN starting DN [text box]
- Automatically assign TN starting TN [text box]

Cancel Next

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- 2 Enter the number of phones to be added in the **Number of phones** field.
 The user can add up to 100 phones at a time.
- 3 Select the customer with which these telephones are associated from the **Customer** drop-down list.
- 4 Select **Default value for DES** and type the value in the text box.
- 5 Select **Automatically assign DN** to automatically assign the next available Direct Inward Dialing (DID) DN in the Customer Numbering Plan for the specific system.
- 6 Select **Automatically assign TN** to automatically assign the next available TN (Loop, Shelf, Card, Port or Unit) to the specified telephones as defined in the Hardware database for the specific system.
- 7 Click **Next**.

The **Add Phones: Step 2 of 2** Web page opens, as shown in [Figure 171 "Add Phones: Step 2 of 2 Web page"](#) (page 253).

Figure 171
Add Phones: Step 2 of 2 Web page

Managing: Place holder for Breadcrumbs once finalized
Zone » Components

Add phones: Step 2 of 2

Number of phones being added: 5

Customer	DES	DN	TN
0- Customer 0			

Back Finish

This Web page lists the attributes of each new phone based on the selections entered in the **Add Phones: Step 1 of 2** Web page in previous steps.

- 8 If the **Customer** number is incorrect, select the correct value from the drop-down list.
- 9 If the **DES** field is empty or incorrect, type in the correct value.
- 10 If the **DN** field is missing or incorrect, type in the correct value.
- 11 If the **TN** field is missing or incorrect, type in the correct value.
- 12 Click **Finish** to add the phones to the database.

—End—

Move Phones

The user can move a Phone to another TN with the same property values. To do this, follow the steps in [Procedure 84 "Move Phones"](#) (page 254).

Procedure 84 Move Phones

Step	Action
------	--------

- | | |
|---|--|
| 1 | From the Search Results section of the Search for Phones Web page, select Move from the <more actions> drop-down list.

The Move TN Web page opens, as shown in Figure 172 "Move TN web page" (page 254). |
|---|--|

Figure 172
Move TN Web page

The screenshot shows a web page titled "Move TN". Below the title is a "Help" link. The main content area is a form with two input fields: "From:" containing the text "098 0 01 00" and "To:" which is empty and has a search icon to its right. At the bottom right of the form are two buttons: "Submit" and "Cancel".

- | | |
|---|--|
| 2 | Enter the TN to move the Phone and click Submit . |
|---|--|

—End—

Retrieve Phones

The Retrieve Phones function will synchronize data from the Call Server to the Phones database. To do this, follow the steps in [Procedure 85 "Retrieve Phones"](#) (page 254).

Procedure 85 Retrieve Phones

Step	Action
------	--------

- | | |
|---|---|
| 1 | From the Search for Phones Web page, click Retrieve . |
|---|---|

- 2 The **Retrieve Options** Web page opens, as shown in [Figure 173 "Retrieve Options web page"](#) (page 255).

Figure 173
Retrieve Options Web page

- 3 Select one of the Retrieve Options, as follows:
- Select **Retrieve selected** to retrieve the phones selected in the phone **Search Results** section.
 - Select **Retrieve and Reconcile All** to retrieve the phones.
 - Select **Retrieve specify** and enter any combination of search criteria as required to retrieve phones meeting those criteria.
- 4 Click **Submit**.

—End—

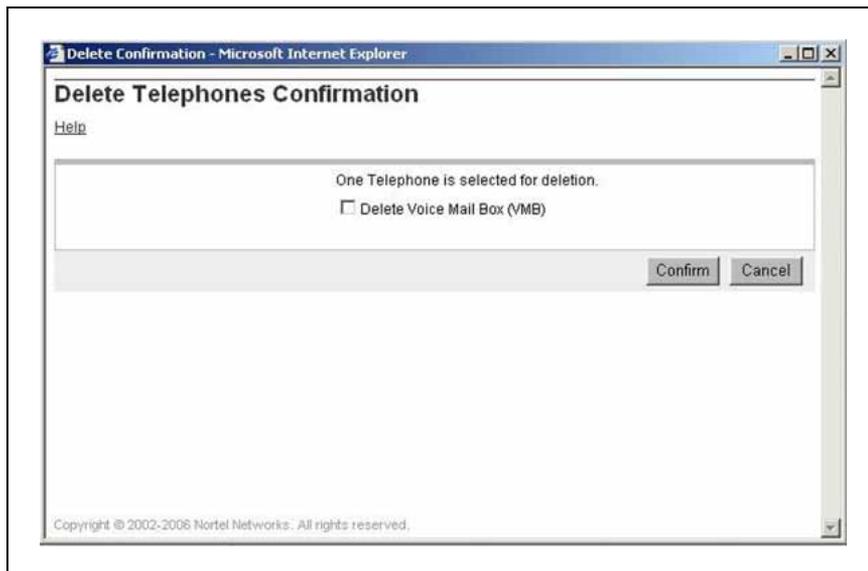
Delete Phones

To delete Phones, follow the steps in [Procedure 86 "Delete Phones"](#) (page 256).

Procedure 86
Delete Phones**Step Action**

- 1 From the **Search for Phones** Web page, click **Delete**
The **Delete Telephones Confirmation** Web page appears, as shown in Figure 174 "Delete Telephones Confirmation Web page" (page 256).

Figure 174
Delete Telephones Confirmation Web page



- 2 Click **Confirm**.

—End—

Swap Phones

When the user performs a swap, two telephones exchange their TNs. The following limitations apply to the swap operation:

- The user can swap only two telephones at a time.
- The telephones to be swapped must belong to the same customer.
- The telephones to be swapped must have compatible TN types. For example, the user cannot swap an analog (500/2500-type) telephone with a digital telephone.
- Swapping is not supported for DCS telephones. Element Manager does not control the allocation of virtual TNs for DCS telephones.

- If the sync status of one of the telephones to be swapped is New, it must be swapped with another telephone with a synchronization status of New.
- The telephones to be swapped must have the same VCE or DTA Class of Service.
- Swapping is not supported for IP Phones.
- Swapping is not supported with the BFS feature.
- Swapping is not supported if one of the telephones is an ACD set in the acquired state.
- Swapping is not supported for telephones with a branch office link.

Procedure 87

Swap Phones

Step	Action
1	From the Search for Phones Web page, select the two phones to be swapped.
2	Select Swap from the <more actions> drop-down list. The changes are submitted to the database.

—End—

Designation Strips

A telephone can have many features and services available by function buttons (keys) and indicators. A Designation Strip is a printout of labels that can be attached to the telephone to indicate the function of the various buttons and indicators on the set (and also the DN of the station using the set).

A Designation Strip typically contains the DN for a single line set. In addition, sets with key caps that designate a DN (for multi-line sets) or reference other DNs also appear in the Strip.

To view and print Designation Strips, follow the steps in [Procedure 88 "Creating Designation Strips" \(page 257\)](#).

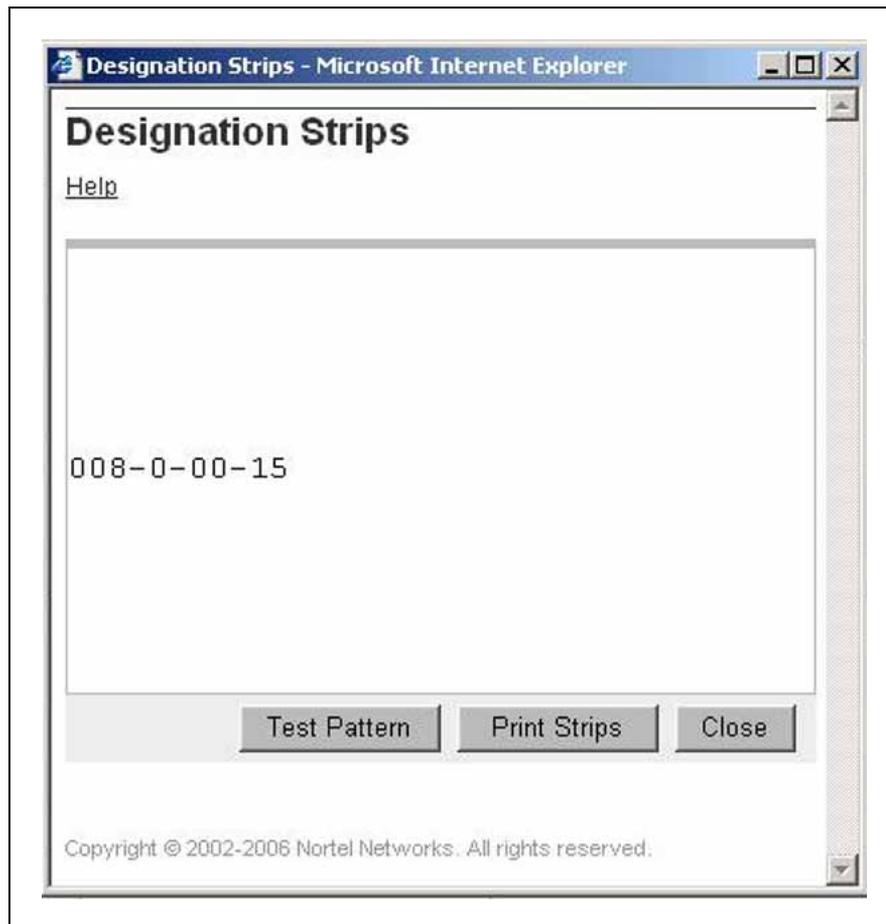
Procedure 88

Creating Designation Strips

Step	Action
1	From the Search for Phones Web page, select the phones for which Designation Strips are be created.

- 2 Select **Designation Strips** from the **<more actions>** drop-down list.
The **Designation Strips** Web page opens, as shown in Figure 175 "Designation Strips Web page" (page 258).

Figure 175
Designation Strips Web page



- 3 Click **Test Pattern** to preview the Designation Strip.
- 4 Click **Print Strips** to send the Designation Strips for the selected phones to the Viewer.
The **Print** window opens.
- 5 Select and configure the appropriate printer, and click **Print**.

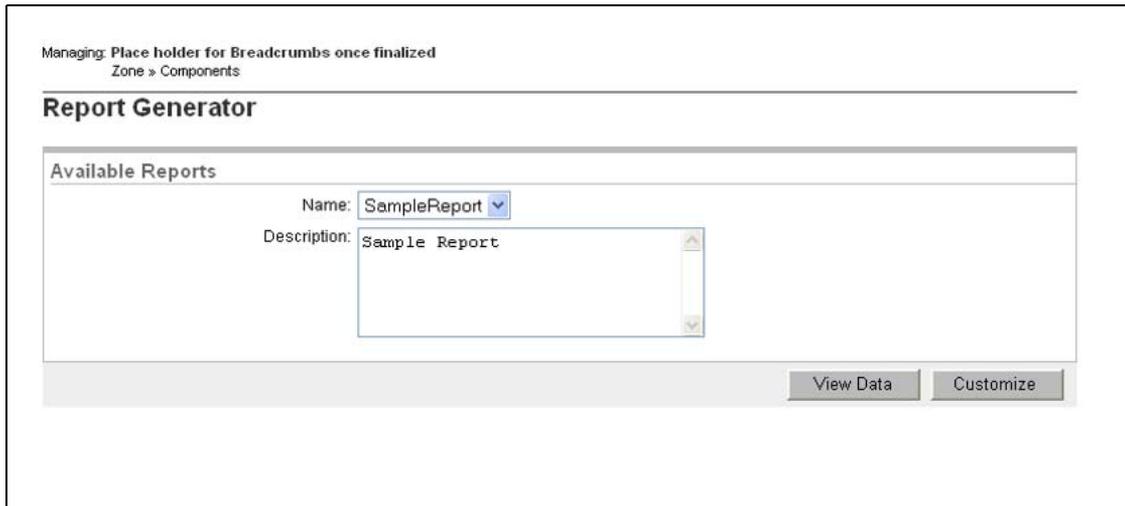
—End—

Reports

Element Manager provides users with the ability to construct complex SQL queries against the Phones database. The results can be in either HTML or CSV format. If HTML format is selected, only a maximum of 1000 records will be displayed.

Click the **Reports** link of the **Phones** branch of the Element Manager navigator. The **Report Generator** Web page opens, as shown in [Figure 176 "Report Generator web page" \(page 259\)](#).

Figure 176
Report Generator Web page



Managing: Place holder for Breadcrumbs once finalized
Zone » Components

Report Generator

Available Reports

Name: SampleReport

Description: Sample Report

View Data Customize

Click **Customize**. The **Customize a Report** Web page opens, as shown in [Figure 177 "Customize a Report web page" \(page 260\)](#).

Figure 177
Customize a Report Web page

Customize a Report

Available Reports

Field Selection

Available Fields(?)

- AAA (Automatic Answer Back)
- AACD (Meridian Link Associated ACD Agent)
- ABDA (CDR on Abandoned Calls)
- ACDS (Keys assigned to Automatic Call Distribution)
- ADAY (Alternate Redirection by Day Option)
- ADV (Data Port Verification)
- AEFD (Alternate External Flexible Call Forward)
- AEHT (Alternate External Hunt DN)
- AFD (Alternate Flexible Call Forward DN)
- AGRA (Agent Greeting)
- AGTA (ACD Agent Analog Telephone)
- AHA (Automatic Hold)
- AHNT (Alternate Hunt DN)
- AHOL (Alternate Redirection by Holiday Option)
- AOM (Number of key based modules)
- AOS (Observation of Supervisor)
- ARHA (Audible Reminder of Held Call)
- ARTO (Alternate Redirection Time Option)
- ASCA (Off-Hook Alarm Security)
- AUT (Auto Answer)

▶

▶

◀

◀

Selected Fields(5)

- TN (Terminal Number)
- INSTRUMENT (Instrument)
- DES (1-6 Character Designator)
- CUSTOMER (Customer Number)
- KEY0 (KEY Number 0)

▲

▲

▼

▼

Custom Criteria

Logic	(Field	Comparison	Value)
1	▼ SYNCSTATUS	? =	▼ Transmitted	▼

Enter the desired search criteria and report format. Click **View Data** to generate the report.

Tools

Contents

This section contains information on the following topics:

"Introduction" (page 261)

"Backup and Restore" (page 261)

"Date and Time" (page 270)

"Logs and Reports" (page 273)

Introduction

The following Call Server Tools can be accessed through Element Manager:

- Backup and Restore
- Call Server Initialization
- Date and Time
- Logs and Reports

Backup and Restore

The **Backup and Restore** link of the **Tools** branch of the Element Manager navigator provides access to Call Server Backup and Restore functions, as well as Personal Directories Backup and Restore functions.

Call Server

In the Services branch of the Element Manager navigator, click **Backup and Restore > Call Server**. The **Call Server Backup and Restore Web** page opens (see [Figure 178 "Call Server Backup and Restore web page" \(page 262\)](#)).

Figure 178
Call Server Backup and Restore Web page

Managing: [192.167.102.3](#)
 Tools » Backup and Restore » Call Server Backup and Restore

Call Server Backup and Restore

- Backup
- Restore
- Backup Rules
- Backup Schedules

Note: Backup Rules and Backup Schedules are available only on CPP II, CPP IV, and CP-PM systems.

Backup

To back up the Call Server, click the **Backup** link on the **Call Server Backup and Restore** Web page. The **Call Server Backup** Web page opens, as shown in [Figure 179 "Call Server Backup web page"](#) (page 262).

Figure 179
Call Server Backup Web page

Managing: [192.167.102.3](#)
 Tools » Backup and Restore » [Call Server Backup and Restore](#) » Call Server Backup

Call Server Backup

Action

Select **Backup** from the **Action** drop-down list and click **Submit**. The **Call Server Backup Waiting** Web page opens to indicate that the backup is in progress.

The Backup function invokes a data dump and writes the Call Server data to the primary and internal backup drives.

The Backup function performs the same task as the EDD CLI command traditionally configured in LD 43.

A summary of the results of the EDD appears at the bottom of the **Call Server Backup** Web page.

Performing manual database replication

To manually invoke the database replication process on a Small System, on the **Call Server Backup** Web page select **Backup Clear** from the **Action** drop-down list, and click **Submit**.

To manually invoke the database replication process on a Large System, select **Backup According to Rule** from the **Action** drop-down list, and click **Submit**. The **Backup Rule Number** drop-down list appears. In the **Backup Rule Number** drop-down list, enter the Backup Rule number to use for the restore operation. Click **Submit**.

For more information on backing up and restoring databases for Geographic Redundancy, see *System Redundancy Fundamentals (NN43001-507)*.

Restore

The Call Server Restore function restores the backed-up files from the internal backup device to the primary device. The Restore function performs the same task as the CLI RIB command traditionally configured in LD 43.



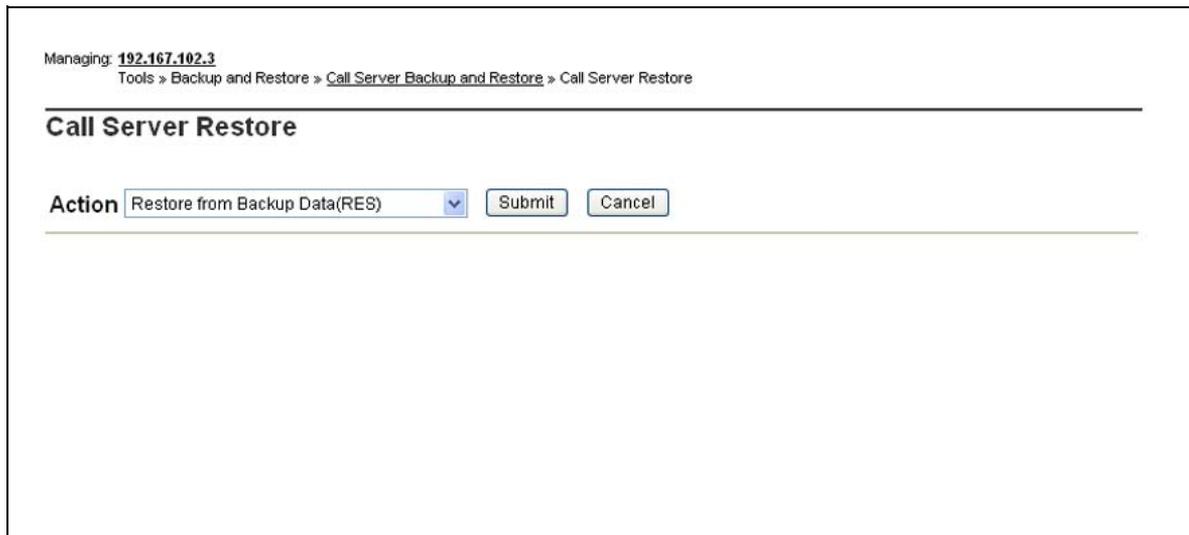
WARNING

The process to restore data using the Element Manager interface is immediate. There is no warning or detailed information provided on the specifics of the data to be restored.

Also, note that a "cold start" of the system is required before the restored data is in effect.

Click the **Restore** link on the **Call Server Backup and Restore** Web page. The **Call Server Restore** Web page opens (see [Figure 180 "Call Server Restore web page"](#) (page 264)).

Figure 180
Call Server Restore Web page



Managing: [192.167.102.3](#)
Tools > Backup and Restore > [Call Server Backup and Restore](#) > Call Server Restore

Call Server Restore

Action

Select **Restore from Backup Data (RES)** in the **Action** drop-down list, and click **Submit**.

Note: The database for Element Manager IP Telephony is updated immediately after the restore. Other call server databases require a cold start after the restore.

For information about the server databases and when they were created, select **Database issue and creation date** in the **Action** drop-down list, and click **Submit**. The information is displayed in the text area below the command.

To manually invoke a database restore process, select **Restore According to Rule (RSR X Y)** from the **Action** drop-down list. The **Backup Rule Number** and **Restore Version** drop-down lists appear, as well as the **Apply Filtering** checkbox

In the **Backup Rule Number** drop-down list, enter the Backup Rule number to use for the restore operation.

For more information on backing up and restoring databases for Geographic Redundancy, see *System Redundancy Fundamentals (NN43001-507)*.

Backup Rules

To add or edit a Backup Rule, click the **Backup Rules** link on the **Call Server Backup and Restore** Web page. The **Backup Rules** Web page opens as shown in [Figure 181 "Backup Rules web page" \(page 265\)](#).

Figure 181
Backup Rules Web page

Managing: [192.167.100.3](#)
 Tools » Backup and Restore » Call Server Backup and Restore » Backup Rules

Backup Rules

	Rule Number	Rule Type	Rule Name	SCS IP Address	Versions
<input type="radio"/>	1	SCS	BACKUP1	0.0.0.0	2

To view a log of backup attempts, select a **Backup Rule** and click **History**. The **Backup History** Web page opens. This Web page displays information for each backup attempt based on the given Backup Rule.

To add a Backup Rule, click **Add** on the **Backup Rules** Web page. The **Add Backup Rule** Web page opens. To edit a Backup Rule, click the Backup **Rule Number**. The **Edit Backup Rule** Web page opens, as shown in [Figure 182 "Edit Backup Rule web page"](#) (page 266).

Figure 182
Edit Backup Rule Web page

Managing: [192.167.100.3](#)
Tools > Backup and Restore > Call Server Backup and Restore > Backup Rules > Edit Backup Rule 1

Edit Backup Rule 1

Rule Type: Secondary Call Server
Only one backup rule of type Fixed Media Device or Removable Media Device can be configured

Rule Name:

ELAN IP Address of Secondary CS for Geographic Redundancy:

Number of versions kept: 2

The following Backup Rule Types are available:

- Fixed Media Device
- Removable Media Device
- FTP
- Secondary Call Server

For more information on configuring backup rules for Geographic Redundancy, see *System Redundancy Fundamentals (NN43001-507)*.

Backup Schedules

Backup schedules provide the user with the ability to schedule backup operations associated with a specified backup rule. To add or edit a Backup Schedule, click the **Backup Schedules** link on the **Call Server Backup and Restore** Web page. The **Backup Schedules** Web page opens as shown in [Figure 183 "Backup Schedules web page" \(page 267\)](#)

Figure 183
Backup Schedules Web page

Managing: [192.167.100.3](#)
Tools » Backup and Restore » Call Server Backup and Restore » Backup Schedules

Backup Schedules

[Refresh](#)

	Schedule Number	Rule Number	Rule Name	Rule Type	Frequency	Day	Hour	Minutes
<input type="radio"/>	1	1			M	1	2	5

To add a Backup Schedule, click **Add**. The **Add Backup Schedule** Web page opens. To edit a Backup Schedule, click the **Schedule Number**. The **Edit Backup Schedule** Web page opens, as shown in [Figure 184 "Backup Schedule Configuration"](#) (page 268).

Figure 184
Edit Backup Schedule Web page

Managing: [192.167.100.3](#)
 Tools > Backup and Restore > Call Server Backup and Restore > Backup Rules > Backup Schedules > Edit Backup Schedule 1

Edit Backup Schedule 1

Backup Rule:: 1-BACKUP1 ▼
 Frequency:: Monthly ▼
 Day:: 1 ▼
 Hour:: 2 ▼
 Minute:: 5 ▼

Save Cancel

Each backup schedule defines a total of six associated parameters, as follows:

- **Backup Schedule Number** — up to ten backup schedules can be defined, numbered from one to ten.
- **Backup Rule** — specifies the backup rule number associated with this backup schedule. The backup rule number must be previously configured.
- **Frequency** — defines how often the scheduled backup operation occurs. The default is D. Not more than one backup schedule can be defined with Frequency set to the value A. Options are:
 - M (monthly)
 - W (weekly)
 - D (daily)
 - A (automatic — immediately after every EDD)
- **Day** — specifies the day on which the backup occurs with a default value of SU. When Frequency is M, the range is 1 to 31 with a default value of 1. This parameter does not apply when Frequency is set to either of the values D or A. When Frequency is W, the range is the days of the week as follows:
 - SU
 - MO

- TU
 - WE
 - TH
 - FR
 - SA
- **Hour** — specifies the hour in the day on which the backup occurs. The range is 0 to 23, with a default of 3. This parameter does not apply when **FREQ** is set to the value **A**.
 - **Minute** — specifies the minute in the hour in the day on which the backup occurs. The range is 0 to 59.

To update Backup Schedules, click **Automatic Schedules**. The **Update Backup Schedules** Web page opens, as shown in [Figure 185 "Update Backup Schedules web page"](#) (page 269).

Figure 185
Update Backup Schedules Web page

Managing: [192.167.102.3](#)
Tools » Backup and Restore » [Call Server Backup and Restore](#) » [Backup Schedules](#) » Update Backup Schedules

Update Backup Schedules

All the Backup Schedules of type Secondary Call Server are scanned and associated Backup Schedules are updated.

Frequency: Monthly ▾
Day: 1 ▾
Hour: 0 ▾
Minute: 0 ▾
Delay: 3 ▾

Save Delete Cancel

Backup schedules are supported only on CP PII, CP PIV and CP-PM systems. A backup schedule can be created, modified, deleted, and printed by the respective command options **NEW**, **CHG**, **OUT**, and **PRT**.

Personal Directories Backup and Restore

For information on Backup and Restore functions of Personal Directories, "[Personal Directories](#)" (page 152).

Date and Time

The Date and Time function enables users to use Element Manager to modify the system's current time and date. The Date and Time function performs the same task as the CLI STAD command traditionally configured in LD 02.

Note 1: The date and time configured in either Element Manager or LD 02 is synchronized to all primary Signaling Servers and IP Telephony Leaders within the system. Users can specify, on a node basis, whether the Simple Network Transfer Protocol (SNTP) server (running on the primary Signaling Server) or the IP Telephony Leader cards actively push the date and time to the SNTP clients (IP Line 4.0/Voice Gateway cards and other Signaling Servers) or if the SNTP clients pull the date and time from the SNTP server.

Note 2: Synchronization can be set to occur on a regular interval, when modifications are made, or during a data dump, including a midnight routine data dump. As part of the Node configuration, users can specify how the date and time are propagated within the Node by configuring the primary Signal Servers or IP Telephony Leaders to run in broadcast mode or listen mode.

Note 3: Users must have SEC_ADMIN privileges to change date and time.

Click the **Date and Time** link in the **Tools** branch of the Element Manager navigator. The **System Date and Time** Web page opens, as shown in [Figure 186 "System Date and Time web page"](#) (page 271).

Figure 186
System Date and Time Web page

Managing: [192.167.100.3](#)
Tools » System Date and Time

System Date and Time

The system clock may be set manually, or synchronized with a network time server

Current System Date and Time

Date: Monday August 14, 2006
Time: 16:24:02 PM
Time Zone: 00:00

Network Time Protocol

Service Status: DISABLED
Last Updated: 00:00
Automatic Background Synchronization:
Time Delta: 00
Threshold: NORMAL
Last Synchronization Error: 16:24:05 on 14-8-2006
Packets Sent: 0
Packet Received: 0

Network Time Synchronization

Status: Inactive

To modify the date and time, click **Set**. The **Edit Date and Time** Web page opens, as shown in [Figure 187 "Edit Date and Time web page"](#) (page 272).

Figure 187
Edit Date and Time Web page

Managing: 192.167.104.53
 Tools » System Date and Time » Edit Date and Time

Edit Date and Time

Date

Day: 18 Month: December Year: 2006 *

Time

Hours: 21 * Minutes: 17 * Seconds: 05 *

Adjust for Daylight Savings

Move the clock ahead
 On the First Sunday in January at 1

Move the clock back
 On the First Sunday in January at 1

Daily Time Adjustment
 Adjust time of day during the midnight routines to compensate for a fast or slow system clock

Increment + Adjustment 000 * (0 - 250 milliseconds)

Save Cancel

Enter the current **Date** and **Time**.

To account for an adjustment due to Daylight Savings Time, select the **Adjust for Daylight Savings** checkbox and enter the appropriate information.

To adjust the time of day due to a fast or slow system clock, enter the appropriate information in the **Daily time adjustment** section.

To save changes, click **Save**.

Network Time Synchronization

The Network Time Synchronization feature ensures that all time stamps in a network are synchronized from one source.

To configure Network Time Synchronization parameters, in the **Network Time Synchronization** section click **Configure**. The **Network Time Synchronization** Web page opens, as shown in [Figure 188 "Network Time Synchronization web page"](#) (page 273).

Figure 188
Network Time Synchronization Web page

Managing: 192.167.104.53
 Tools > System Date and Time > Network Time Synchronization

Network Time Synchronization

Node Status:

Customer:

Local Virtual DN:

Master / Backup Time Synchronization Number:

Mode: Background
 Daily Services Routine

Time Delta
 Time Adjustment factor with clock on Master

Sign: Hour: Minute:

Enter the appropriate information and click **Save**.

Logs and Reports

For information on IP Telephony Node Maintenance and Reports, see ["Nodes: Servers, Media Cards" \(page 133\)](#).

In addition, information about the database status and synchronization are available under the Reports tab in NRS Manager. For more information on these reports, refer to *IP Peer Networking Installation and Commissioning (NN43001-313)*.

To display information on all IP Phones configured in the system, click the **Logs and Reports > IP Phone Location** link in the **Tools** branch of the Element Manager navigator. The **IP Phone Location** Web page opens, as shown in [Figure 189 "IP Phone Location web page" \(page 274\)](#).

Figure 189
IP Phone Location Web page

Managing: [192.167.102.3](#)
 Tools » Logs and reports » IP Phone Location

Search for IP Phone Location [Hide](#)

Criteria:

Results per page

IP Phones Found (3) [Refresh](#)

Entry #	Terminal Number	Prime DN	Type	State	Hardware ID	Public IP	ERL	ECL	Location Description	Manual Update	Need Update	Private IP
1	96 0 1 0	8000	1110	REG	180016ca00760f6623	192.167.103.26:5000						
2	96 0 1 1	8001	1110	REG	180016ca0076736623	192.167.103.27:5000						
3	96 0 1 3	8004	1140	REG	18001365f682a6625	192.168.249.68:5000						

[First](#) | [Prev](#) | [Next](#) | [Last](#)

Enter the search criteria in the **Search for IP Phone Location** section and click **Search**. The results matching the criteria entered are displayed in the **IP Phones Found** section.

To view a list of software feature packages, click the **Logs and Reports > Equipped Feature Packages** link in the **Tools** branch of the Element Manager navigator. The **Equipped Feature Packages List** Web page opens as shown in [Figure 190 "Equipped Feature Packages List web page" \(page 275\)](#).

Figure 190
Equipped Feature Packages List Web page

Managing: [192.167.102.3](#)
 Tools » Logs and reports » Equipped Feature Packages List

Equipped Feature Packages List

Package Description	Package Number
Optional Features (OPTF)	1
Multi-Customer Operation (CUST)	2
Call Detail Recording, Teletype Terminal (CDR)	4
Call Detail Recording, Teletype Terminal (CTY)	5
Recorded Announcement (RAN)	7
Time and Date (TAD)	8
Do Not Disturb Individual (DNDI)	9
End-to-End Signaling (EES)	10
Intercept Treatment (INTR)	11
Automatic Number Identification (ANI)	12
Automatic Number Identification, Route Selection (ANIR)	13
Basic Routing (BRTE)	14
Do Not Disturb Group (DNDG)	16
Make Set Busy (MSB)	17
Special Service for 2500 Sets (SS25)	18
Digit Display (DDSP)	19
Office Data Administration System (ODAS)	20
Dial Intercom (DI)	21
Direct Inward System Access (DISA)	22
Charge Account for CDR (CHG)	23
Charge Account/Authorization code (CAB)	24
Basic Authorization code (BAUT)	25
Centralized Attendant Service (Main) (CASM)	26
Centralized Attendant Service (Remote) (CASR)	27

To view a list of Call Server reports, click the **Logs and Reports > Call Server Report** link in the **Tools** branch of the Element Manager navigator. The **Call Server Report** Web page opens as shown in [Figure 191 "Call Server Report Web page"](#) (page 276).

Figure 191
Call Server Report Web page

Managing: **192.167.102.3**
 Tools » Logs and reports » Call Server Report

Call Server Report

Report Log File Name with Path

Display Latest Records

Display Oldest Records

Display Record Number

Skip Records
 Display Records

Skip Records
 Display Records

Start Record Number
 Display Records

Backup Time (Hours)

Click a button to invoke a command.

The buttons at the top of these Web pages provide access to the following functions:

- **RDOPEN** - Opens the latest report file
- **RDSHOW** - Shows a summary of the report file
- **RDTAIL** - Shows x records up to the newest record in the report file (where x is the configured display size).
- **RDHEAD** - Shows x records starting from the oldest record in the report file (where x is the configured display size).

To view selected detail data on records in the report file, use the text boxes, drop-down lists, and the following buttons:

- **RDGO** - Displays the record specified in the adjacent text box (where -1 is the oldest record, 1000 is the most recent).
- **RD** - Browses the report records. Enter the number of records to skip and the number of records to display in the adjacent text boxes.

- **RDS** - Browses the report records with (symbolic) memory dump. Enter the number of records to skip, and select the number of records to display using the adjacent text box and drop-down list.
- **VIEW** - Views selected records. Enter a starting record number and select the number of records to view using the adjacent text box and drop-down list. Negative numbers indicate records previous to the starting record.

The results are displayed in the text box at the bottom of the Web page.

To view a list of Peripheral Software Version Data, including the loadware version of the Media gateway Controller (MGC) card, click the **Logs and Reports > Peripheral Software Version Data** link in the **Tools** branch of the Element Manager navigator. The **Peripheral Software Version Data** Web page opens as shown in [Figure 192 "Peripheral Software Version Data web page"](#) (page 277).

Figure 192
Peripheral Software Version Data Web page

Peripheral Software Version Data	
	PSWV Version: 123 MDCS Version:
Peripheral Software Application	Version Number
Extended Network Card (XNET)	23
Carrier Remote IPE Card (LCRI)	02
Extended Peripheral Equipment Controller Card (XPEC)	41
Multipurpose ISDN Signalling Link Basecode Loadware (MISP)	71
MISP BRI Line Application Loadware (BRIL)	83
MISP BRI Trunk Application Loadware (BRIT)	82
MISP Meridian Packet Handler Application Loadware (MPH)	51
Multipurpose Serial Data Link Basecode Loadware (MSDL)	73
MSDL ASYN Application (SDI)	51
MSDL DCH Application (DCH)	72
MSDL Application Module Link Application (AML)	81
BRSC Basecode (BRSC)	71
BRSC BRI Application (BBRI)	54
UIPE PRI Loadware Application (PRIE)	85
UIPE BRIT Loadware Application (BRIE)	87
NI2 TR1268 Datafile (NI02)	26
ISO QSIG PRI2 Interface Datafile (ISIG)	33
NEW ZEALAND Interface Datafile (TCNZ)	13
ETSI Interface Datafile (ETSI)	48
AUSTRIA Interface Datafile (AUS1)	48
DENMARK Interface Datafile (DEN1)	48
FINLAND Interface Datafile (FIN1)	48
GERMANY Interface Datafile (GER1)	53
ITALY Interface Datafile (ITA1)	53

To view a list of System Licence Parameters, click the **Logs and Reports > System Licence Parameters** link in the **Tools** branch of the Element Manager navigator. The **System Licence Parameters** Web page opens as shown in [Figure 193 "System Licence Parameters web page"](#) (page 278).

Figure 193
System Licence Parameters Web page

Managing: [192.167.102.3](#)
Tools » Logs and reports » System License Parameters

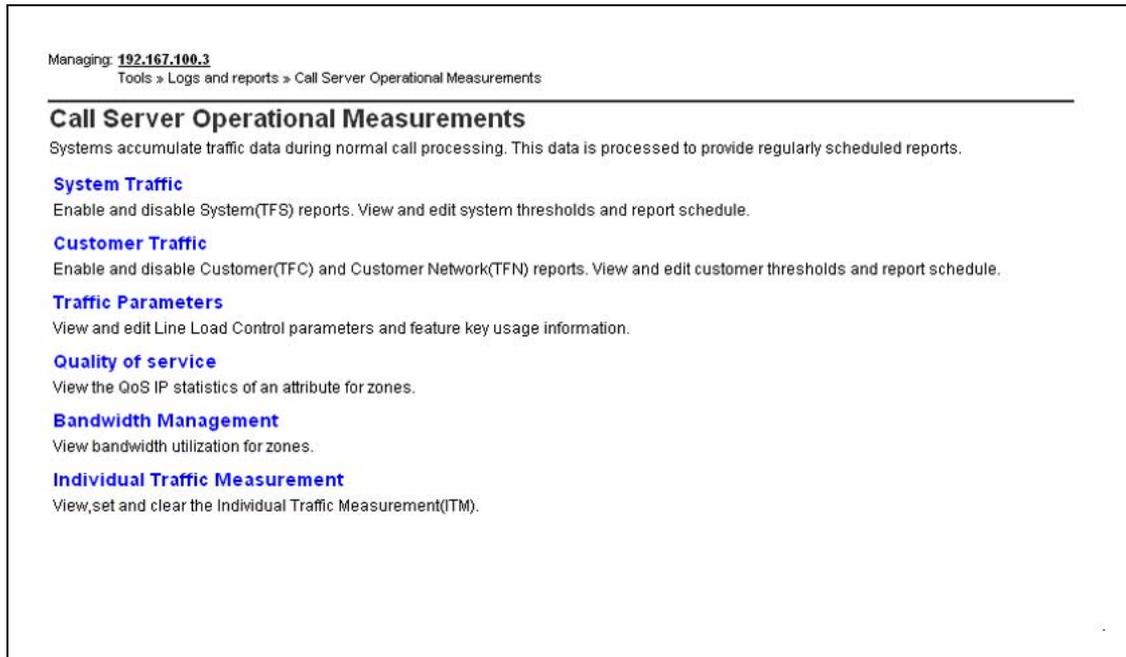
System License Parameters

NAME	LIMIT	LEFT	USED
ANALOGUE TELEPHONES	32767	32767	0
CLASS TELEPHONES	32767	32767	0
DIGITAL TELEPHONES	32767	32767	0
DECT USERS	32767	32767	0
IP USERS	32767	32760	7
BASIC IP USERS	32767	32765	2
TEMPORARY IP USERS	32767	32767	0
DECT VISITOR USER	10000	10000	0
ACD AGENTS	32767	32762	5
PCA	32767	32762	5
ITG ISDN TRUNKS	32767	32767	0
H.323 ACCESS PORTS	32767	32757	10
AST	32767	32767	0
SIP CONVERGED DESKTOPS	32767	32765	2
SIP CTI TR87	32767	32767	0
SIP ACCESS PORTS	32767	32757	10
RAN CON	32767	32767	0
MUS CON	32767	32767	0
TNS	32767	32713	54
ACDN	24000	23998	2
AML	16	14	2
IDLE_SET_DISPLAY	CS1000E PIV Node 9		

Operational Measurements

Element Manager provides users with regularly scheduled reports on system traffic. To access these reports, click the **Logs and Reports > Operational Measurements** link in the **Tools** branch of the Element Manager navigator. The **Call Server Operational Measurements** Web page opens, as shown in [Figure 194 "Operational Measurements web page"](#) (page 279).

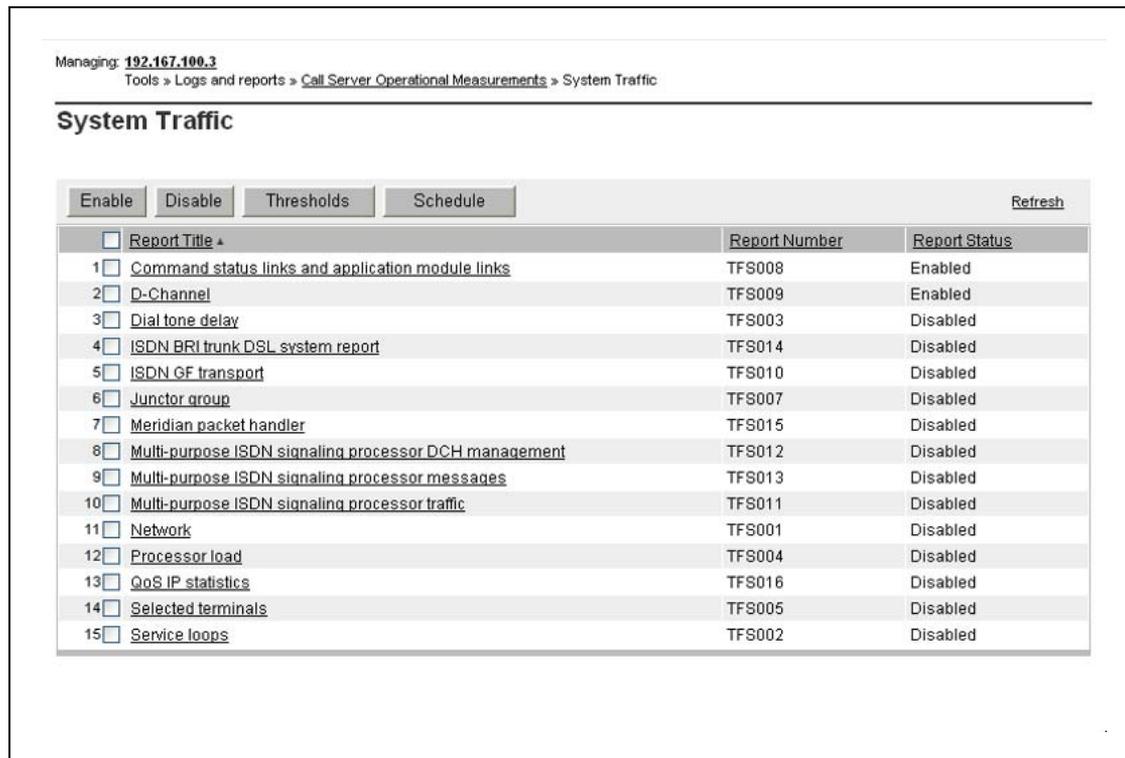
Figure 194
Operational Measurements Web page



System Traffic

To display details of the system's Traffic reports, click **System Traffic**. The **System Traffic** Web page opens, as shown in [Figure 195 "System Traffic web page"](#) (page 280).

Figure 195
System Traffic Web page



Managing: [192.167.100.3](#)
 Tools > Logs and reports > [Call Server Operational Measurements](#) > System Traffic

System Traffic

<input type="checkbox"/> Report Title ▲	Report Number	Report Status
1 <input type="checkbox"/> Command status links and application module links	TFS008	Enabled
2 <input type="checkbox"/> D-Channel	TFS009	Enabled
3 <input type="checkbox"/> Dial tone delay	TFS003	Disabled
4 <input type="checkbox"/> ISDN BRI trunk DSL system report	TFS014	Disabled
5 <input type="checkbox"/> ISDN GF transport	TFS010	Disabled
6 <input type="checkbox"/> Junctor group	TFS007	Disabled
7 <input type="checkbox"/> Meridian packet handler	TFS015	Disabled
8 <input type="checkbox"/> Multi-purpose ISDN signaling processor DCH management	TFS012	Disabled
9 <input type="checkbox"/> Multi-purpose ISDN signaling processor messages	TFS013	Disabled
10 <input type="checkbox"/> Multi-purpose ISDN signaling processor traffic	TFS011	Disabled
11 <input type="checkbox"/> Network	TFS001	Disabled
12 <input type="checkbox"/> Processor load	TFS004	Disabled
13 <input type="checkbox"/> QoS IP statistics	TFS016	Disabled
14 <input type="checkbox"/> Selected terminals	TFS005	Disabled
15 <input type="checkbox"/> Service loops	TFS002	Disabled

To display a report, click the **Report Title**. The report will be displayed in a new window.

To enable a report, select the report and click **Enable**.

To disable a report, select the report and click **Disable**.

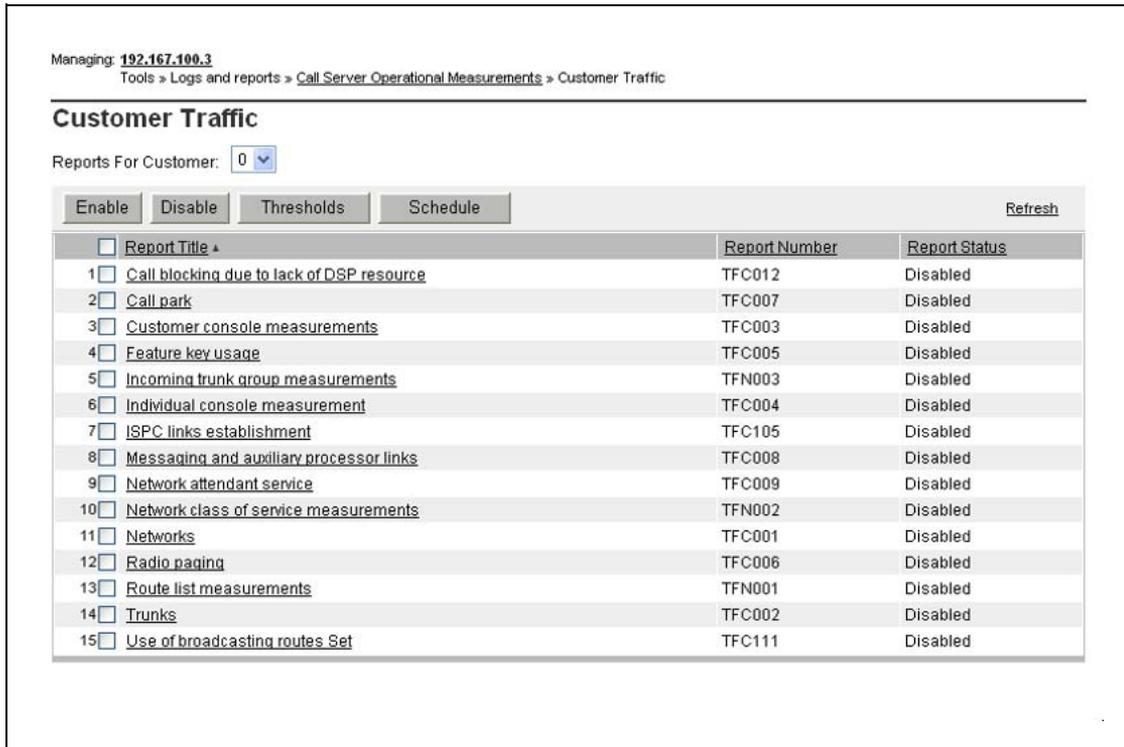
To configure Threshold information, click **Thresholds**. The **Thresholds** Web page is displayed.

To configure report schedules, click **Schedules**. The **Report Schedule** Web page is displayed.

Customer Traffic

To display details of the Traffic reports for each Customer configured in the system, click **Customer Traffic**. The **Customer Traffic** Web page opens, as shown in [Figure 196 "Customer Traffic web page"](#) (page 281).

Figure 196
Customer Traffic Web page



To display Traffic reports for a Customer, select the Customer from the drop-down list.

To enable a report for the selected Customer, select the report and click **Enable**.

To disable a report for the selected Customer, select the report and click **Disable**.

To configure Threshold information for the selected Customer, click **Thresholds**. The **Thresholds** Web page is displayed.

To configure report schedules for the selected Customer, click **Schedules**. The **Report Schedule** Web page is displayed.

Traffic Parameters

To configure Traffic Parameters for the system, click **Traffic Parameters**. The **Edit Traffic Parameters** Web page opens, as shown in [Figure 197 "Edit Traffic Parameters web page" \(page 282\)](#).

Figure 197
Edit Traffic Parameters Web page

Managing: [192.167.100.3](#)
 Tools » Logs and reports » Call Server Operational Measurements » Edit Traffic Parameters

Edit Traffic Parameters

Line Load Control Level: ▼
 Blocked group members cannot originate internal or trunk calls.

Blocking Probabilities

First: * (0 - 100 %)
 Second: * (0 - 100 %)
 Third: * (0 - 100 %)

Feature Key Customer: ▼
 Customer which will run the feature key measurements report. Only 1 customer can run this report at a time.

Select a **Line Load Control Level** from the drop-down list.

Enter the **Blocking Probabilities**.

Choose a Customer from the **Feature Key Customer** drop-down list and click **Save**.

Note: If the **Line Load Control Level** is set to Off, the **Blocking Probabilities** are disabled.

Quality of Service

Click **Quality of service** to open the **Ethernet Quality of Service Diagnostics** Web page. For more information, see "[Ethernet Quality of Service Diagnostics](#)" (page 82)

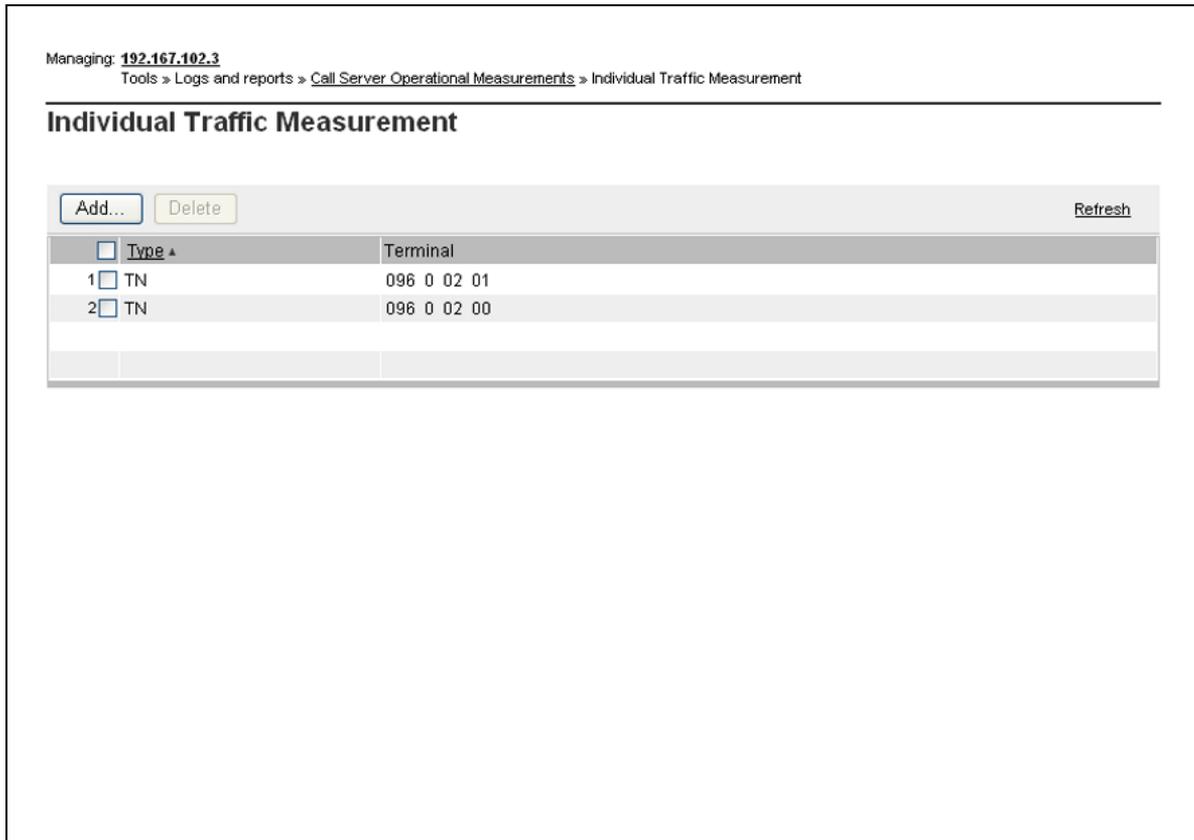
Bandwidth Management

Click **Bandwidth Management** to open the **Maintenance Commands for Zones** Web page. For more information, see "[Zone Diagnostics](#)" (page 112)

Individual Traffic Measurement

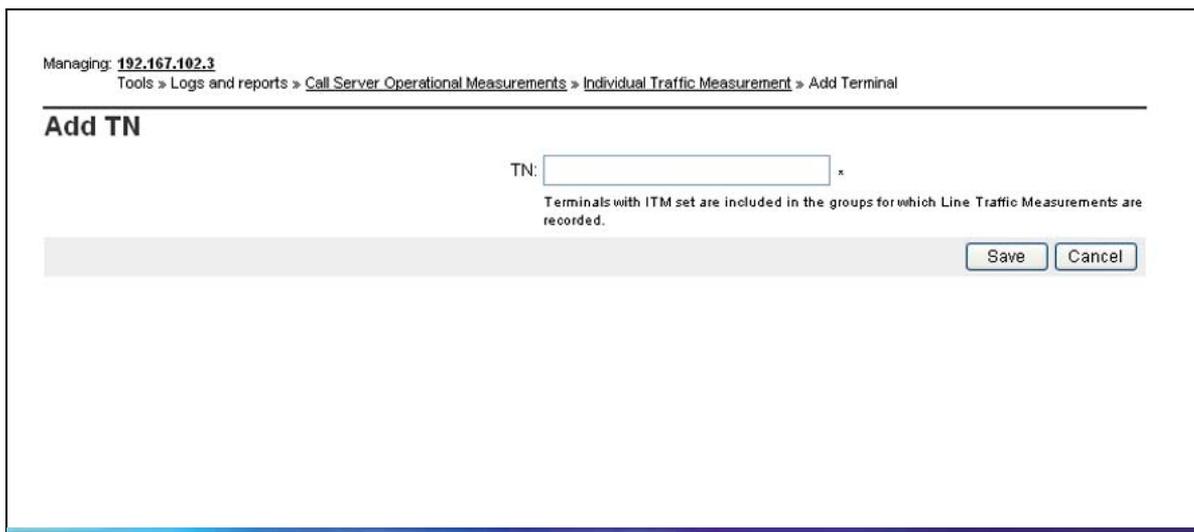
To configure lines and trunks for Individual Traffic Measurement, click **Individual Traffic Measurement**. The **Individual Traffic Measurement** Web page opens, as shown in [Figure 198 "Individual Traffic Measurement Web page"](#) (page 283).

Figure 198
Individual Traffic Measurement Web page



To add a terminal for Individual Traffic Measurement, click **Add**. The **Add TN** Web page opens, as shown in [Figure 199 "Add TN Web page"](#) (page 283).

Figure 199
Add TN Web page



Enter the TNs to be added in the **TN** text box. Enter up to five TNs and click **Save**.

Note: The TNs must be separated by a comma.

Security

For information on Security features available in Element Manager, see *Security Management Fundamentals (NN43001-604)*.

Certificate Management

Contents

- "Overview" (page 287)
- "Creating a new certificate request" (page 288)
- "Processing a pending certificate response" (page 289)
- "Deleting a pending certificate request" (page 290)
- "Creating a self-signed certificate" (page 290)
- "Assigning an existing certificate" (page 291)
- "Importing a certificate and its private key" (page 292)
- "Creating a certificate renew request for the current certificate" (page 292)
- "Removing the current certificate" (page 293)
- "Replacing the current certificate" (page 293)
- "Exporting the current self-signed certificate" (page 294)
- "Exporting the current certificate and its private key" (page 295)
- "SSL/TSL security configuration" (page 295)

Overview

When accessing Element Manager through Enterprise Common Manager, Certificate Management is provided by the framework. For more information, see Enterprise Common Manager Fundamentals (NN43001-116).

This chapter describes Certificate Management in Element Manager when accessed on VxWorks.

This section contains information on the Element Manager SSL/TLS Service Management Wizard, which guides users through the certificate management and Transportation Layer Security (TLS) configuration process.

Creating a new certificate request

When Element Manager is first deployed, no certificate is installed. The TLS service for the Element Manager is disabled.

Follow the steps in [Procedure 89 "Creating a new certificate request" \(page 288\)](#) to create a new certificate request.

Procedure 89 Creating a new certificate request

Step	Action
1	Log in using the non-secure mode.
2	Click Configure . The Server Certificate Web page appears.
3	Select the Create a new certificate request to be signed by Certificate Authority radio button and click Next . The Name and Security Settings Web page appears.
4	Enter a Friendly Name for the certificate.
5	Select a bit length from the Bit length drop-down list.
6	Click Next . The Organization Information Web page appears.
7	Enter an Organization and Organization Unit and click Next . The Your Server's Common Name Web page appears
8	Enter a Common Name and click Next . The Geographical Information Web page appears.
9	Enter a Country/Region .
10	Enter a State/Province .
11	Enter a City/Locality .
12	Click Next . The Certificate Request Summary Web page appears.

- 13 Click **Commit** to download the certificate request to a local file.
The **X.509 Certificate Request** Web page appears.
- 14 Click **Close** to close the wizard.

—End—

Processing a pending certificate response

The certificate request file is submitted to a Certificate Authority. The Certificate Authority sends a response in a text file.

Follow the steps in [Procedure 90 "Processing a pending certificate response" \(page 289\)](#) to process the pending certificate response file.

Procedure 90

Processing a pending certificate response

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure . The Server Certificate Web page appears.
2	Select the Process the pending request and install the certificate option button and click Next . The Process a Pending Request Web page appears.
3	Copy the contents of the text file received from the certificate authority.
4	Click Commit . The Certificate Summary Web page appears.
5	Click Finish .

—End—

To verify that the Certificate Authority is trusted by Internet Explorer, choose **Tools > Internet Options > Content > Certificates**. The **Trusted Certificate Authority List** Web page appears.

If the Certificate Authority is not in the trusted Certificate Authority list of Internet Explorer, a **Security Alert** Web page appears when accessing Element Manager using SSL or TLS.

The user must then log in using the secure mode.

Deleting a pending certificate request

Follow the steps in [Procedure 91 "Deleting a pending certificate request" \(page 290\)](#) to delete a pending certificate request.

Procedure 91

Deleting a pending certificate request

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure . The Server Certificate Web page appears.
2	Select the Delete the pending request option button and click Next . The Delete a Pending Request Web page appears.
3	Click Finish .

—End—

Creating a self-signed certificate

Follow the steps in [Procedure 92 "Creating a self-signed certificate" \(page 290\)](#) to create a self-signed certificate.

Procedure 92

Creating a self-signed certificate

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure . The Server Certificate Web page appears.
2	Select the Create a new self-signed certificate option button and click Next . The New Self-Signed Certificate Web page appears.
3	Click Next . The Name and Security Settings Web page appears.
4	Enter a Friendly Name for the certificate.
5	Select a bit length from the Bit length drop-down list.
6	Click Next . The Organization Information Web page appears.
7	Enter an Organization and Organization Unit and click Next .

- The **Your Server's Common Name** Web page appears.
- 8 Enter a **Common Name** and click **Next**.
The **Geographical Information** Web page appears.
 - 9 Enter a **Country/Region**.
 - 10 Enter a **State/Province**.
 - 11 Enter a **City/Locality**.
 - 12 Click **Next**.
The **Certificate Request Summary** Web page appears.
 - 13 Click **Commit**.
The **X.509 Certificate Request** Web page appears.
 - 14 Click **Close** to close the wizard.
If the **Security Alert** Web page appears, click **Yes**.

Note: The user can also export the self-signed certificate and distribute it into the trusted Certificate Authority list of Internet Explorer.

—End—

Assigning an existing certificate

To assign an existing certificate to the Element Manager's Web site, follow the steps in [Procedure 93 "Assigning an existing certificate" \(page 291\)](#).

Procedure 93

Assigning an existing certificate

- | Step | Action |
|------|--|
| 1 | On the SSL/TLS Service Configuration Web page, click Configure .
The Server Certificate Web page appears. |
| 2 | Select the Assign an existing certificate option button and click Next .
The Available Certificate Web page appears. |
| 3 | Select a certificate from the list of available certificates and click Next .
The Certificate Summary Web page appears. |

-
- 4 Click **Finish**.

—End—

Importing a certificate and its private key

Follow the steps in [Procedure 94 "Importing a certificate and its private key" \(page 292\)](#) to import a certificate and its private key.

Procedure 94

Importing a certificate and its private key

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure . The Server Certificate Web page appears.
2	Select the Import a certificate and its private key from a PEM encoded file option button and click Next . The Import Certificate Password Web page appears.
3	Enter the password of the certificate file and click Commit . The Import Certificate Web page appears.
4	Copy the contents of the text file received from the certificate authority.
5	Click Commit . The Certificate Summary Web page appears.
6	Click Finish .

—End—

Creating a certificate renew request for the current certificate

The X.509 certificate has an expiration date. A warning message is shown if the expiration date is less than one month away. To create a certificate renewal request, follow the steps in [Procedure 95 "Creating a certificate renew request" \(page 292\)](#).

Procedure 95

Creating a certificate renew request

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure .

- The **Server Certificate** Web page appears.
- 2 Select the **Create a certificate renew request** option button and click **Next**.
The **Certificate Request Summary** Web page appears.
 - 3 Click **Commit** to download the certificate request to a local file.
The **X.509 Certificate Request** Web page appears.
 - 4 Click **Close** to close the wizard.

—End—

Removing the current certificate

To remove a current certificate, follow the steps in [Procedure 96 "Removing the current certificate"](#) (page 293).

Procedure 96

Removing the current certificate

- | Step | Action |
|------|---|
| 1 | On the SSL/TLS Service Configuration Web page, click Configure .
The Server Certificate Web page appears. |
| 2 | Select the Remove the current certificate option button and click Next .
The Remove a Certificate Web page appears. |
| 3 | Click Finish .

Note: All client sessions must be terminated before the removing operation can take effect. |

—End—

Replacing the current certificate

To replace the current certificate, follow the steps in [Procedure 97 "Replacing the current certificate"](#) (page 294).

Note: The security context of the Web SSL service will change to the new certificate when there is no active HTTPS connection.

Procedure 97**Replacing the current certificate**

Step Action

- 1 On the **SSL/TLS Service Configuration** Web page, click **Configure**.
The **Server Certificate Configuration Wizard** Web page appears.
- 2 Select the **Replace the current certificate** option button and click **Next**.
The **Available Certificate** Web page appears.
- 3 Select a certificate from the list and click **Next**.
The **Certificate Summary** Web page appears.
- 4 Click **Close** to close the wizard.

—End—

Exporting the current self-signed certificate

When the current certificate is self-signed, it can be exported. Using SSL and TLS protocol, the certificate file can be used to set up a trust relationship between different parties.

To export the current self-signed certificate, follow the steps in [Procedure 98 "Exporting the current self-signed certificate"](#) (page 294).

Procedure 98**Exporting the current self-signed certificate**

Step Action

- 1 On the **SSL/TLS Service Configuration** Web page, click **Configure**.
The **Server Certificate Configuration Wizard** Web page appears.
- 2 Select the **Export the current self-signed certificate** option button and click **Next**.
The **Export Self-signed Certificate Summary** Web page appears.
- 3 Click **Download**.
The **Certificate Content** Web page appears. Copy the contents of the text box and save it as a plain text file. When exporting the self-signed certificate, name the file with extension .cer. The file can then be installed in the trusted certificate list of the client.
- 4 Click **Close** to close the wizard.

—End—

Exporting the current certificate and its private key

The current certificate and its private key can be exported. A password is required to encrypt the file. Use the same password that was used to import the file.

Follow the steps in [Procedure 99 "Exporting the current certificate"](#) (page 295) to export the current certificate and its private key.

Procedure 99

Exporting the current certificate

Step	Action
1	On the SSL/TLS Service Configuration Web page, click Configure . The Server Certificate Configuration Wizard Web page appears.
2	Select the Export the current certificate and its private key option button and click Next . The Export Certificate Password Web page appears.
3	Enter the password and click Next . The Export Current Certificate and Private Key Summary Web page appears.
4	Click Download . The Certificate Content Web page appears. When exporting the certificate and private key, import the file to another server.
5	Click Close to close the wizard.

—End—

SSL/TSL security configuration

When a certificate is installed on Element Manager, the SSL/TLS usage rule is set to "Always" by default.

If "Always" is selected, all user traffic must use SSL/TLS. If "UserChoice" is selected, users can choose between secure and non-secure sessions when they log in.

The user can configure the TCP port used by the SSL and TLS service by entering a value in the **SSL/TLS** field. The default value is 443.

Support

Contents

This section contains information on the following topics:

["Introduction" \(page 297\)](#)

["Help" \(page 297\)](#)

["Release Notes" \(page 298\)](#)

Introduction

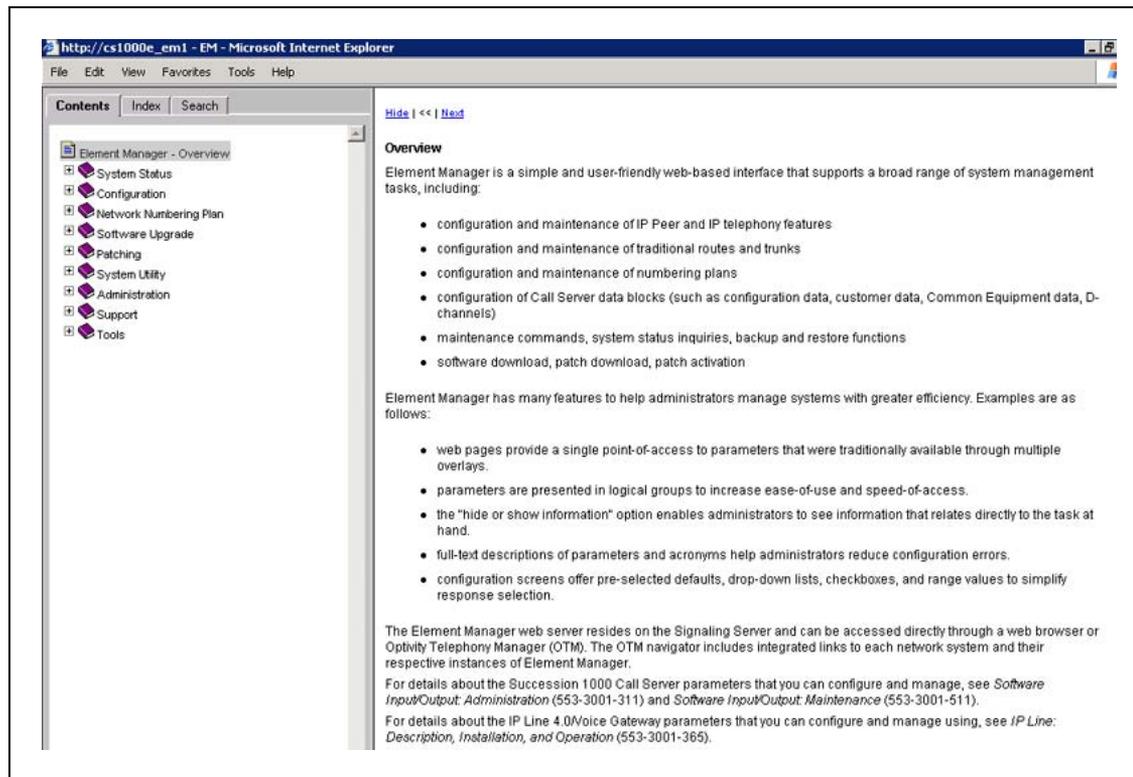
The following Support features can be accessed through Element Manager:

- [Help](#)
- [Release Notes](#)

Help

Element Manager provides context-sensitive online Help. To access Help, click the **Help** link located in the top right corner of the Element Manager Web pages. The **Help** Web page shown in [Figure 200 "Help web page" \(page 298\)](#) opens.

Figure 200
Help Web page



Release Notes

A Release Note can describe a design change or a product feature that was discovered after market release. Often, a Release Note describes how to work around a product limitation. Click the **Release Notes** link to access the Web-based Helmsman Express application.

Appendix A

**WARNING**

Do **not** contact Red Hat for technical support on your Nortel version of the Linux base operating system. If technical support is required for the Nortel version of the Linux base operating system, contact Nortel technical support through your regular channels

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Index

A

ABCD Bit Signaling Category 226
 ABKUP 177
 access levels 236
 ACOD 212
 ADAN 224
 add Bookmark 31
 Advanced Configurations 216
 Advanced Trunk Configuration 220
 ADVOPT 224
 AML Diagnostics 44
 ATLP 70
 ATST 96

B

Background Signaling and Switching
 diagnostics 47
 Backup 261
 Basic Rate Line Interface 226
 Basic Rate Trunk Interface 226
 Basic Route Options 213
 BILN 213
 Bookmarks
 delete 33
 edit 32
 Bookmarks, add 31
 Branch Office
 Basic Property and Bandwidth
 Management 145
 Branch Office (553-3001-214) 144
 BRSC 100
 BSCOPT 224

C

Call Server 17, 26, 36, 41, 113, 229, 238
 backup 263
 restore 263
 Call Server Select by Functionality 41
 Call Server Select by Overlay 42
 Call Server Virtual Terminal Session 29
 Call Trace Diagnostics 48, 48
 cancel 26, 36
 CDR 213
 CDSP 58, 74, 86, 97, 104, 108, 111
 Centralized Software Upgrade 51
 CHG ZQNL 83
 clock controller 55, 227
 Clock Controller Diagnostic 54
 CLR GR 59
 CLS 219
 CMAJ 58, 97, 104, 108
 CMIN 58, 74, 86, 104, 111
 CMIN ALL 58, 74, 86, 97, 105, 108, 111
 CNTL 213
 CNVT 213
 Code Restriction Tree Number 239
 Collaborative Server 233
 common equipment 114
 common equipment. 115
 community strings 40
 Conference loop numbers 114
 configuration 26, 36, 212
 Configuration Record 224
 Coordinated Dialing Plan 230, 231
 Core Common Equipment Diagnostics 55
 Large System 55
 CPED 104

customer 238, 241
Customers menu 16, 24
CUTOVR 58

D

D-channel 62
D-channel Diagnostics 61
D-Channel Expansion Diagnostics 65
D-channel Property Configuration 224
Database issue and creation date 264
delete 26
delete Bookmarks 33
DES 212, 218
Diagnostic Commands 102
Dialing and Numbering Plans menu 16, 25
Digit Conversion Tree Number 242
Digit Manipulation Block 230
digit sequences 240
Digital Trunk Card 68
Digital Trunk Card Diagnostic 67
Digital Trunk Interface 226, 226, 228
Digital Trunk Interface and Primary Rate
Interface
 Clock Controller Diagnostics 54
Digital Trunk Interface and Primary Rate
Interface Diagnostic 55
Digital Trunk Interface and Primary Rate
Interface Diagnostics 68
Digital Trunk Interface Data Block 225, 226,
228
Digital Trunk Interface Loop numbers 114
Digital Trunk Maintenance Diagnostics 71
Digital Trunk Route 70, 70
DIS 91, 106
DIS AML 46
DIS AUTO 63, 101
DIS BRIE 102
DIS BRIL 102
DIS BRIT 102
DIS CC 55
DIS CNI 57
DIS DCH 63
DIS DDSC 72
DIS DDSL 72
DIS DTCS 72
DIS DTRC 72
DIS DTSL 72
DIS DTVC 72
DIS ELAN 46
DIS LLB 63
DIS LSSL 72
DIS MSDL 66, 85
DIS MSDL ALL 66
DIS MSDL AUDM 66, 66
DIS MSDL DBG 66, 66
DIS PRT 85
DIS RLB 63
DIS TEST 63
DIS TTY 84
DIS ZBR 113
DIS ZONE 113
DISC 96, 99, 100, 101, 110, 110
DISC BRI 100
DISI 69
DISI DDCS 73
DISI DTCS 73
DISL 69, 98, 104, 104, 108
DISL BRIE 99
DISL BRIT 99
DISN 100
DISR 108
DISS 99
Distant Steering Code 231
DISU 96, 100, 101, 110, 110
DISX 108
DSCH 69
DSPL 57
DSPL ALL 57
DSPS 100
DSRB 101
DSXP 100
DSYL 69
DTR 108

E

Echo Servers for NAT 150
EDD 263
edit Bookmarks 32
Electronic Switched Network 229
 Access Codes and Parameters 230
Embedded LAN 130
ENCH 69, 69

- ENCK 55
 ENL 91, 106
 ENL AML 46
 ENL AUTO 63, 101
 ENL BRIL 102
 ENL BRIT 102
 ENL CC 55
 ENL CNI 57
 ENL DCH 63
 ENL DDSC 73
 ENL DDSL 73
 ENL DTCS 73
 ENL DTRC 73
 ENL DTSL 73
 ENL DTVC 73
 ENL ELAN 47
 ENL EXT 57
 ENL LLB 63
 ENL LSSL 73
 ENL MSDL 67, 85
 ENL MSDL all 67
 ENL MSDL AUDM 67
 ENL MSDL FDL 67
 ENL PRT 85
 ENL RLB 63
 ENL TEST 64
 ENL TTY 84
 ENL ZBR 113
 ENL ZONE 113
 ENLC 96, 110, 110
 ENLC BRI 100
 ENLL 69, 98, 99, 99, 104, 104, 108
 ENLL BRIL 99, 102
 ENLL BRIT 99
 ENLN 100
 ENLR 108
 ENLS 99
 ENLU 110, 110
 ENLX 108
 ENPS 100
 ENRB 101
 Enterprise Translations Server 233
 ENXP 100
 ENYL 69
 Equipment Data Dump 263
 EST AML 45
 EST DCH 64
 Ethernet and Alarm Management 40, 145,
 148, 150
 Ethernet Diagnostics 77
 Ethernet Quality of Service Diagnostic 82
 Event Default Table 40
 Event Preference Table 40
 Exchange (Central Office) Code 232
- ## F
- FDIS NCAL 101
 FDLC 101
 FDLU 101
 feature packages 114
 file upload 183
 firmware 130, 183
 Flexible Code Restriction 237, 238, 243
 Force Download 92
 Free Calling Area Screening 232
 Free Special Number Screening 232
 FSUM 101
 FWVU 101
- ## G
- General Commands 134, 135
 General Options 215
 Geographic Redundancy 176, 176
- ## H
- H.323 132, 233
 H.323 Settings 130
 Help 297
 Home Area Code 232
 Home Location Code 232
 Home menu 24
- ## I
- ICOG 212
 IDC 99, 99, 99, 100, 100, 101, 213
 IDC CNI 57
 IDC CPU 57
 IDCS 100
 importing Node files 127
 INC 219
 Incoming Digit Conversion 240, 243
 Incoming Trunk Group Exclusion 230

Input/Output Diagnostics 83
IP Line 17, 135
IP Line 3.0 270
IP Line 5.0 17, 17
IP Line application commands 135
IP Network 125
IP Network menu 16
IP Phones 130, 183
IP telephony 133, 140
IP Telephony 134
IP Telephony card 125
IP Telephony Information 133
IP Trunk 3.0 233

J

JOIN 58

L

LAN 130
LATEST 140
LBSY 99
LCNT 69
LD 02 270
LD 117 40, 77, 82, 112, 145, 148, 149, 150
LD 15 - Customer Data Block 189
LD 16 212
LD 17 224
LD 30 103
LD 32 98
LD 36 59, 62, 109, 112
LD 37 62, 84
LD 43 263, 263
LD 48 62, 62, 65, 65
LD 49 243
LD 54 95
LD 73 228
LD 86 229, 230
LD 87 229, 230, 232, 232
LD 90 229, 232
LD 96 62, 62, 106, 107, 109
LD 97 115, 178
LDIC 110, 111
LDID 111
LDIS 99, 104
LENL 104
LIDL 99

Link Diagnostic 65
Links menu 15, 24
LMAX 111, 111
LMNT 99
LNDS 111, 111
Local Steering Code 231
Location Code 232
log in 21
Logging into Element Manager 21
LOOP 104
Loop Timer 225
Loss and Level Plan 17
Loss and Level plans 132
LOVF 70, 111, 111

M

maintenance 82, 83
Maintenance Commands for Zones 112
MAP AML 45
MAP DCH 64
Media Gateway 1000B 17
Media Gateway 1000S 17
Member Property Configuration
 advanced 220
 basic 218
MFR 108, 108, 108
Microsoft Internet Explorer 233
MIDN 96
MISP 99
MSDL 65
MSDL Diagnostics 90
MTST 96
Multi-Del 220
Multifrequency Signaling Diagnostics 95

N

NAT 150
NAT Echo Servers 150
NAT session time-out value 150
navigation tree 23
Netscape Navigator 233
Network Address Translation (NAT) 150
Network and Peripheral Equipment
 Diagnostic 98
Network and Peripheral Equipment
 Diagnostics 97

Network and Signaling Diagnostics 103
 Network Attendant Services 230
 Network Control and Services 229, 230
 Network Control Parameters 230
 Network Loop 98
 Network Numbering Plan 229, 233
 Network Options 215
 Network Routing Service home page 236
 Network Speed Call Access Code 232
 Node ID 134
 Node Summary 125
 nodes 130

- add new 126
- delete 126
- edit configuration 126
- import files 126

NRS

- Guest access 236

NRS Manager 229

- Administrator access 236, 237
- Monitor access 236

Numbering Plan 230, 232, 232
 Numbering Plan Area Code 232

O

online Help 297
 Operational Measurement Report 134
 Operational Measurements Report 140

P

PAD Category 226
 Patch Bin 185
 PCON 101
 PERR 101
 PERR BRIE 102
 PERR BRIL 102, 102
 PERR BRIT 102, 102
 Personal Directory, Redial List, Callers
 List 152
 ping an IP address 137
 PINS 184
 PLIS 184
 PLOG 101
 PMES 101
 PNNC 214
 POOS 184

POUT 184
 Primary Rate Interface 225, 226
 PRT AQOS 83
 PRT DNIP 79, 80, 81
 PRT IPDN 79, 80, 80
 PRT IPMG 79
 PRT IPR 79
 PRT ZBW 113
 PRT ZDES 113
 PRT ZDP 113
 PRT ZONE 113
 PRT ZQNL 83
 PRT ZQOS 83
 PRT ZTP 113
 PSTAT 184
 PTAB 101

Q

QoS 17, 130, 151
 QoS Call Basis Threshold Parameters 151
 QoS Zone Basis Threshold Parameters 151
 Quality of Service 151
 Quality of Service (QOS) 17
 Quality of Service (QoS) 130
 Quality of Service Thresholds 151

R

RAN 111
 RCNT 69
 RD 138
 RDGO 138
 RDHEAD 138
 RDOPEN 138
 RDS 139
 RDSHOW 138
 RDTAIL 138
 Report Utility 134, 137
 RES 106
 reset element 134
 Restore from Backup Data 264
 RLS AML 45
 RLS DCH 64
 ROUT 212
 route 211, 212
 Route Data Block 212
 Route List Block 230

- Route Properties 211
- Routes and Trunks menu 24
- Routing Entry 233
- RPED 104
- RSET 110, 110
- RST 91
- RST DCH 64
- RST MSDL 66, 85
- RTMB 218

- S**
- Save node files 126
- SCPU 58
- SDCH DCH 64
- SDTR 108
- Security menu 25
- SHLF 104
- SIGL 218
- Signaling Server 16, 16, 125, 131, 134, 137
- Simple Network Management Protocol 17, 39
- Simple Network Transfer Protocol (SNTP) 17
- SIP 131, 132
- SIP Converged Desktop Service 131
- SIP Gateway 130
- SIP Re-direct Server 130
- SIP URI DN Mapping 131
- SLFT 69, 70, 91, 104, 106
- SLFT AML 45
- SLFT MSDL 66, 85
- SNMP 17, 39, 130
- SNMP alarm browser 40
- SNMP traps 40
- SNTP 17, 130, 270
- software upgrade 125
- Special Number 232
- SPLIT 58
- SSCK 55
- STAT 68, 69, 86, 91, 96, 96, 97, 98, 99, 99, 100, 100, 104, 106, 108, 110, 110
- STAT AML 45
- STAT CNI 56
- STAT CPU 56
- STAT DCH 62
- STAT DDSC 72, 72
- STAT DDSL 72
- STAT DTCS 72
- STAT DTRC 72
- STAT DTSL 72
- STAT DTVC 72
- STAT ELAN 45
- STAT GR 59
- STAT HEALTH 59
- STAT HEALTH AML 59
- STAT HEALTH ELAN 59
- STAT HEALTH HELP 59
- STAT HEALTH HW 59
- STAT HEALTH IPL 59
- STAT LINK 86
- STAT LINK IP 78
- STAT LINK NAME 78
- STAT LINK NODE 78
- STAT LINK SRV 78
- STAT LSRC 72
- STAT LSSL 72
- STAT LSVC 72
- STAT MEM 56
- STAT MSDL 66, 85
- STAT MSDL full 66
- STAT NCAL 101
- STAT NEXT 56
- STAT NWK 100
- STAT PER 100
- STAT PRT 85
- STAT SERV 63, 78
- STAT SERV APP 78
- STAT SERV IP 78
- STAT SERV NAME 78
- STAT SERV NODE 78
- STAT SERV TYPE 78
- STAT TTY 84
- STAT VTRM 100
- STAT XSM 86
- STAT ZBR 113
- STAT ZONE 113
- State Control 178
- STIP HOSTID 79
- STIP NODE 79
- STIP TERMIP 79
- STIP TN 79
- STIP TYPE 79
- STIP ZONE 79

STRI 218
 STRO 219
 STRT 74
 submit 26, 36
 Superloop 115, 115
 SUPL 98
 Syslog 134, 139
 SYSLOG.0 140
 System Date and Time 270, 271
 System Information Web page 23
 System menu 24
 System Status 36
 System Timer 225
 System Utility 261

T

TDS 108
 TEIT 104
 Telnet 28
 Terminal Proxy Server 234
 Terminal Session
 add 28
 TEST 48, 104
 TEST 100 64
 TEST 101 64
 TEST 200 64
 TEST 201 64
 TEST CNI 57
 TEST CPU 57
 TEST GR 59
 TEST IPB 57
 TEST LCD 57
 TEST LED 58
 TEST SUTL 58
 Threshold Set Block 227
 Threshold Set Index 227, 227
 Threshold Set Index, adding 227
 Threshold Set Index, editing 227
 time-out 23
 TKTP 212
 TMDI Diagnostics 105
 Tone and Digit Switch Diagnostics 107
 Tone and Digit Switch numbers 114
 Tools menu 16, 25
 TRAC 50

Transfer/Status 127, 128
 TRAT 50
 TRCK 55
 TRIP 51
 trunk 211, 212, 217, 220, 221
 Trunk Diagnostic 109
 Trunk Diagnostics 109
 Trunk Steering Code 231
 TTPM 110
 TTSM 104
 TTWI 104

U

UNTT 104
 update 26, 36
 UPLD AML 46
 User Endpoint 233

V

VGW Profile data 130
 VGWChannel 126
 VIEW 139
 Virtual Terminal 134
 Virtual Terminal Session
 Call Server 29
 Virtual Terminal Sessions 27
 Voice Gateway 270
 Voice Gateway Media Card 17, 17, 131

X

XNTT 99
 XPCT 100
 XPEC 100
 XRST 99
 XTRK 218

Z

Zone 143
 Basic Property and Bandwidth
 Management 144, 144
 Branch Office Dialing Plan and
 Access Codes 144
 Branch Office Emergency Service
 Information 144

Branch Office Time Difference and
Daylight Saving Time Property 144,
149
Dialing Plan and Access Codes 148

Time Difference and Daylight Saving
Time Property 149
Zone Diagnostic 55
Zone Diagnostics 112

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